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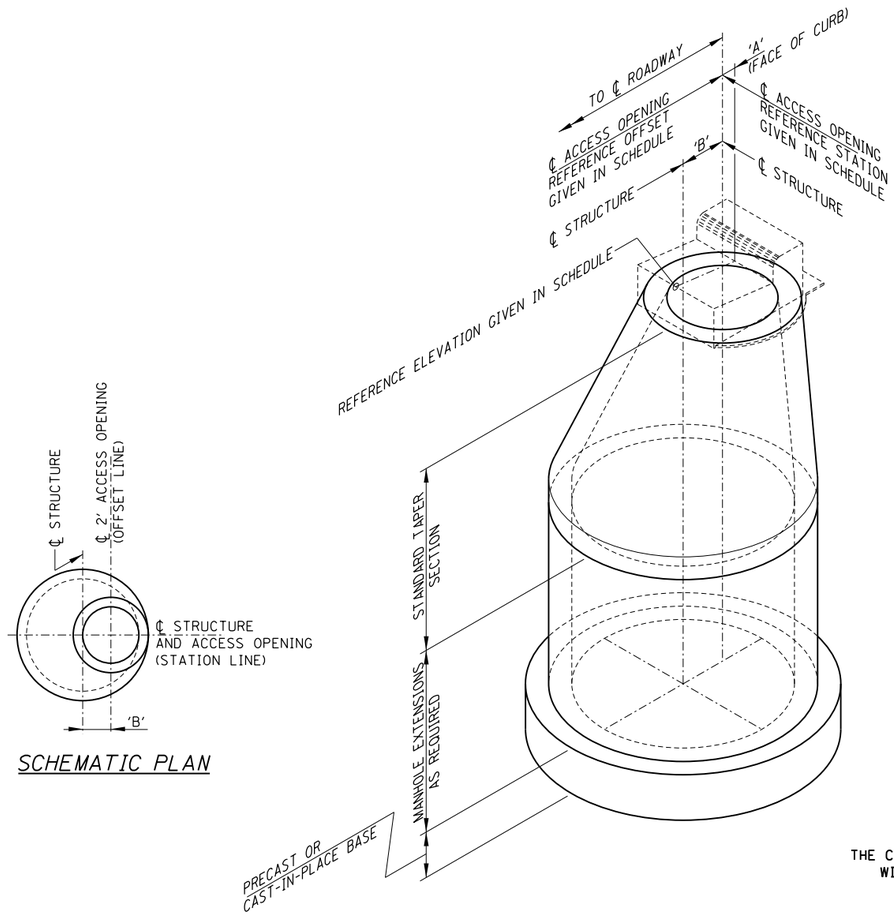
STRUCTURE TYPE	FRAME & GRATE OR LID TYPE	'A'	'B'
INLET TYPE 'A'	TYPE 3 FRAME & GRATE	0.30'	0.00'
INLET TYPE 'B'	TYPE 3 FRAME & GRATE	0.30'	0.50'
MANHOLE TYPE 'A', 5' DIA.	TYPE 1 FRAME, CLOSED LID	0.00'	1.00'
MANHOLE TYPE 'A', 4' DIA	TYPE 8 GRATE	0.00'	1.00'
MANHOLE TYPE 'A', 4' DIA.	TYPE 11 FRAME & GRATE	0.20'	1.00'
MANHOLE TYPE 'A', 8' DIA.	TYPE 1 FRAME, CLOSED LID	0.00	3.00'

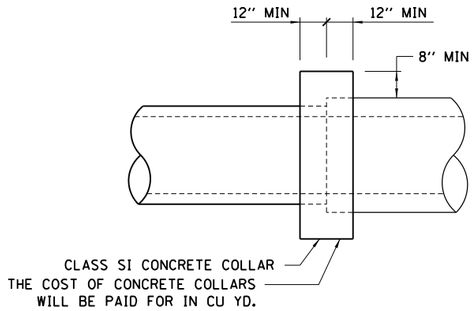


SCHEMATIC PLAN

ISOMETRIC DETAIL MANHOLE OR INLET RISER

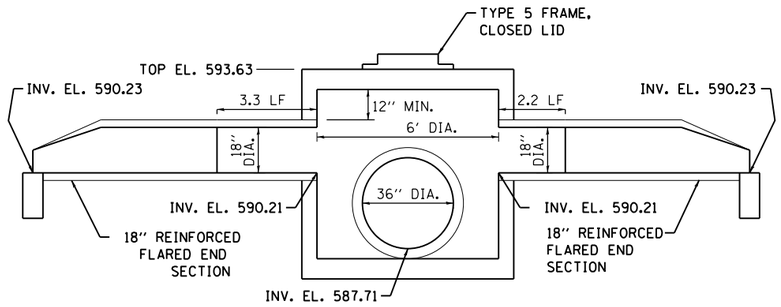
NOTES:

1. SCHEMATIC DETAILS ONLY, NOT INTENDED TO REPRESENT ALL CONDITIONS.
2. SEE DRAINAGE STRUCTURE SCHEDULE FOR STRUCTURES ROTATED 180° FROM DETAILS SHOWN.
3. STATIONS AND OFFSETS GIVEN IN SCHEDULE ARE TO THE ℄ OF ACCESS OPENING.

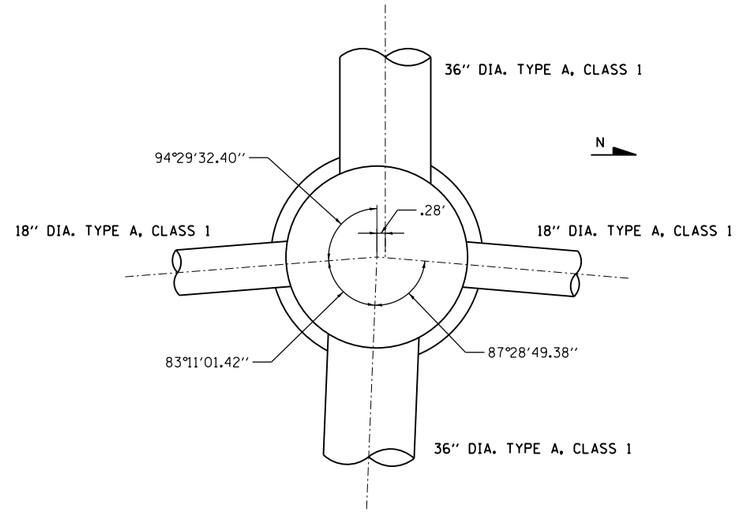


CONCRETE COLLARS SHALL BE USED TO CONNECT RCCP EXTENSIONS TO EXISTING DRAINAGE STRUCTURES

TYPICAL CONCRETE COLLAR DETAIL
NOT TO SCALE
UPRR STANDARD DETAIL SK-5 APPLIES AT RR CULVERT



ELEVATION VIEW
NOT TO SCALE



PLAN VIEW
NOT TO SCALE

MANHOLE, TYPE A, 6' DIA.
SHOOFLY STA. 396+12.33

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		DRAWN -	REVISED -
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	PLOT DATE = 10/26/2022	DATE -	REVISED -

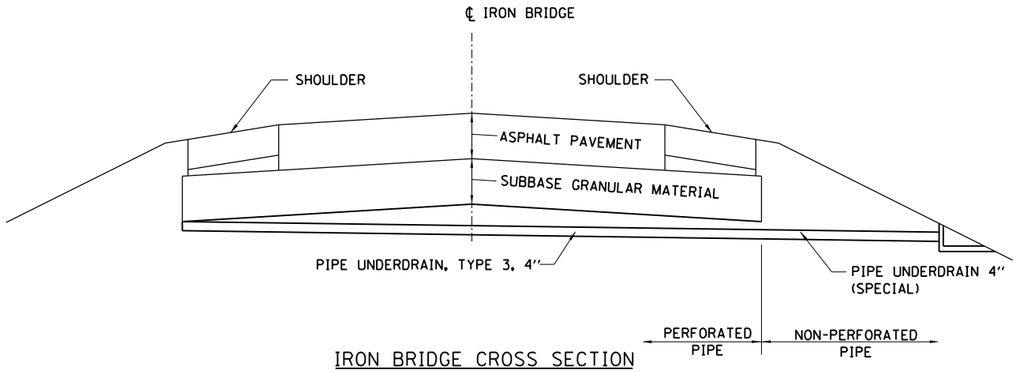
STATE OF ILLINOIS
SANGAMON COUNTY HIGHWAY DEPARTMENT

DRAINAGE STRUCTURE DETAILS

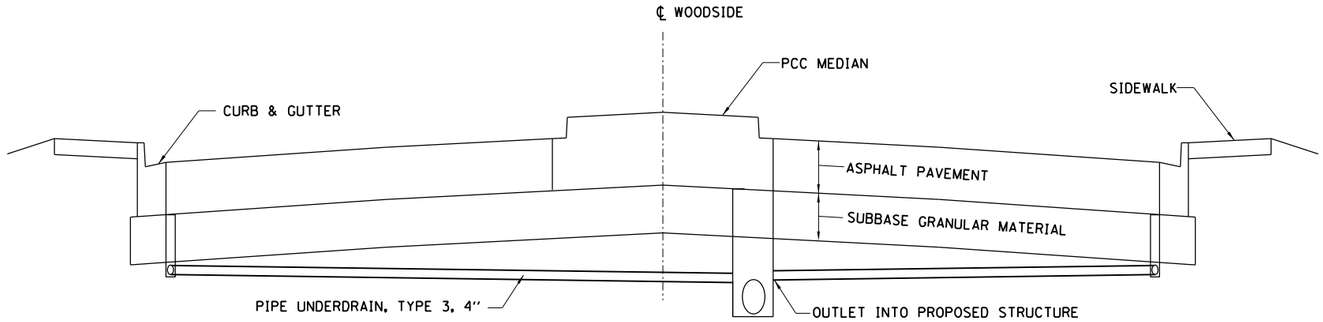
SCALE: | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	SANGAMON	368	101
	96S2002F	CONTRACT NO.	93671	
FED. ROAD DIST. NO. 6	ILLINOIS	FED. AID PROJECT 6		

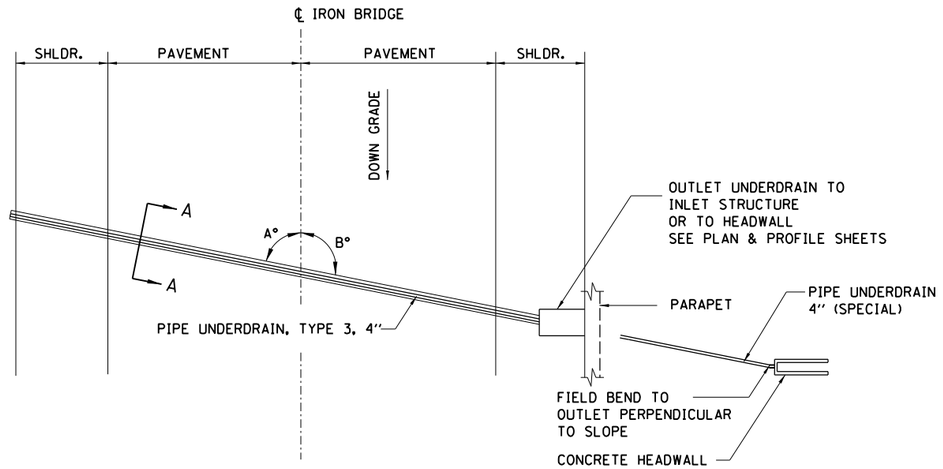
• 07-00164-04-FP, 07-00090-08-FP



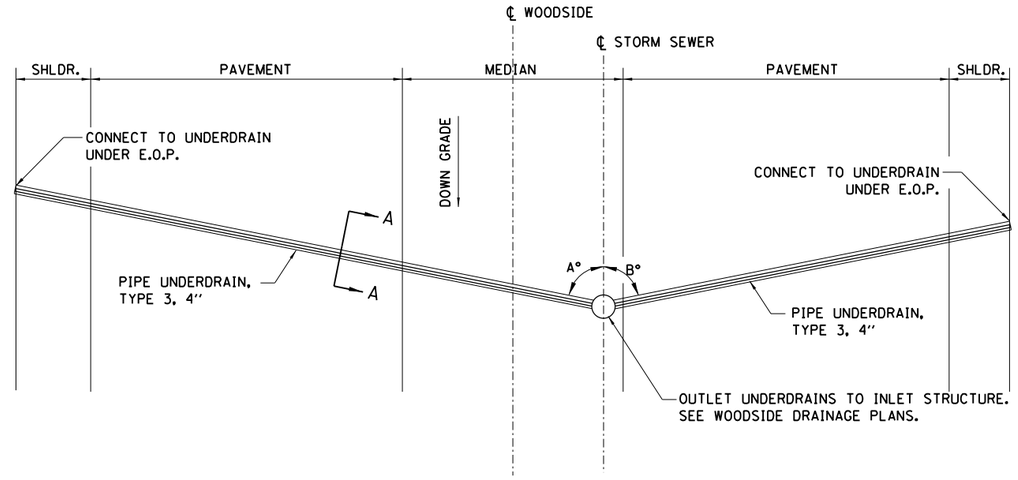
IRON BRIDGE CROSS SECTION



WOODSIDE CROSS SECTION



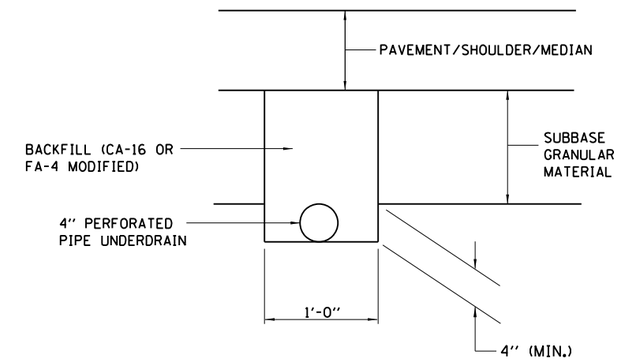
IRON BRIDGE PLAN



WOODSIDE PLAN

PHASE 1 - TRANSVERSE DRAIN SCHEDULE								
						X0326911 - TRANSVERSE DRAINS COMPLETE		60100060 - CONCRETE HEADWALL FOR PIPE DRAINS (EA)
IRON BRIDGE ROAD STATION	LT/RT	STATION	LT/RT	ANGLE A	ANGLE B	UNDERDRAIN 4" (FEET)	UNDERDRAIN 4", SP (FEET)	
691+29.00	LT	691+17.00	RT	70	110	40		
693+98.65	LT	693+85.00	RT	70	110	41		
701+39.60	LT	707+42.00	RT	50	130	53		
704+80.00	LT	705+21.00	RT	50	130	64		
705+21.00	LT	705+36.90	RT	50	130		24	1
					TOTALS	198	24	1

PHASE 2 - TRANSVERSE DRAIN SCHEDULE						
						X0326911 - TRANSVERSE DRAINS COMPLETE
WOODSIDE ROAD STATION	LT/RT	STATION	LT/RT	ANGLE A	ANGLE B	UNDERDRAIN 4" (FEET)
102+10.00	RT	102+45.00	RT	41.62	49.5	45
102+10.00	LT	102+45.00	LT			52
104+10.00	RT	104+45.00	RT	42.37	50.17	45
104+10.00	LT	104+45.00	LT			52
108+02.00	RT	108+40.00	RT	47.35	39.25	47
108+02.00	LT	108+40.00	LT			54
					TOTALS	295



SECTION A-A

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	PLOT DATE = 10/27/2022	DATE - 8/24/2020	REVISED -	

STATE OF ILLINOIS
SANGAMON COUNTY HIGHWAY DEPARTMENT

TRANSVERSE DRAIN DETAILS – PHASE 1 & 2

SCALE: | SHEET NO. OF SHEETS | STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	SANGAMON	368	102
	96S2002F	CONTRACT NO.	93671	
FED. ROAD DIST. NO. 6	ILLINOIS	FED. AID PROJECT 6		

• 07-00164-04-FP, 07-00090-08-FP

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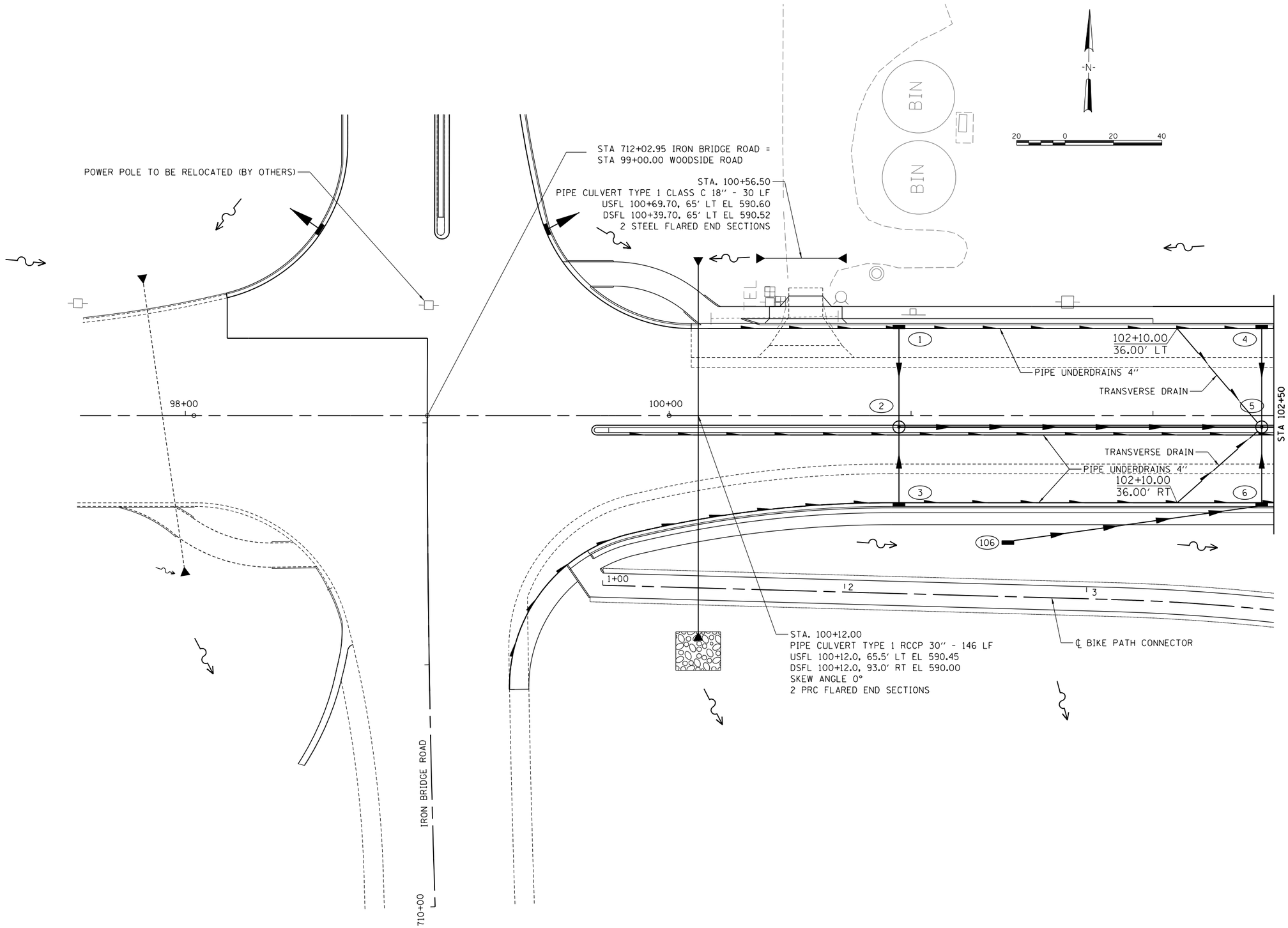

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	PLOT DATE = 10/26/2022	DATE -	REVISED -

STATE OF ILLINOIS
SANGAMON COUNTY HIGHWAY DEPARTMENT

DRAINAGE PLAN WOODSIDE ROAD 1 – PHASE 2

SCALE: | SHEET NO. OF SHEETS | STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	SANGAMON	368	103
	96S2002F	CONTRACT NO.	93671	

FED. ROAD DIST. NO. 6 | ILLINOIS | FED. AID PROJECT 6

• 07-00164-04-FP, 07-00090-08-FP

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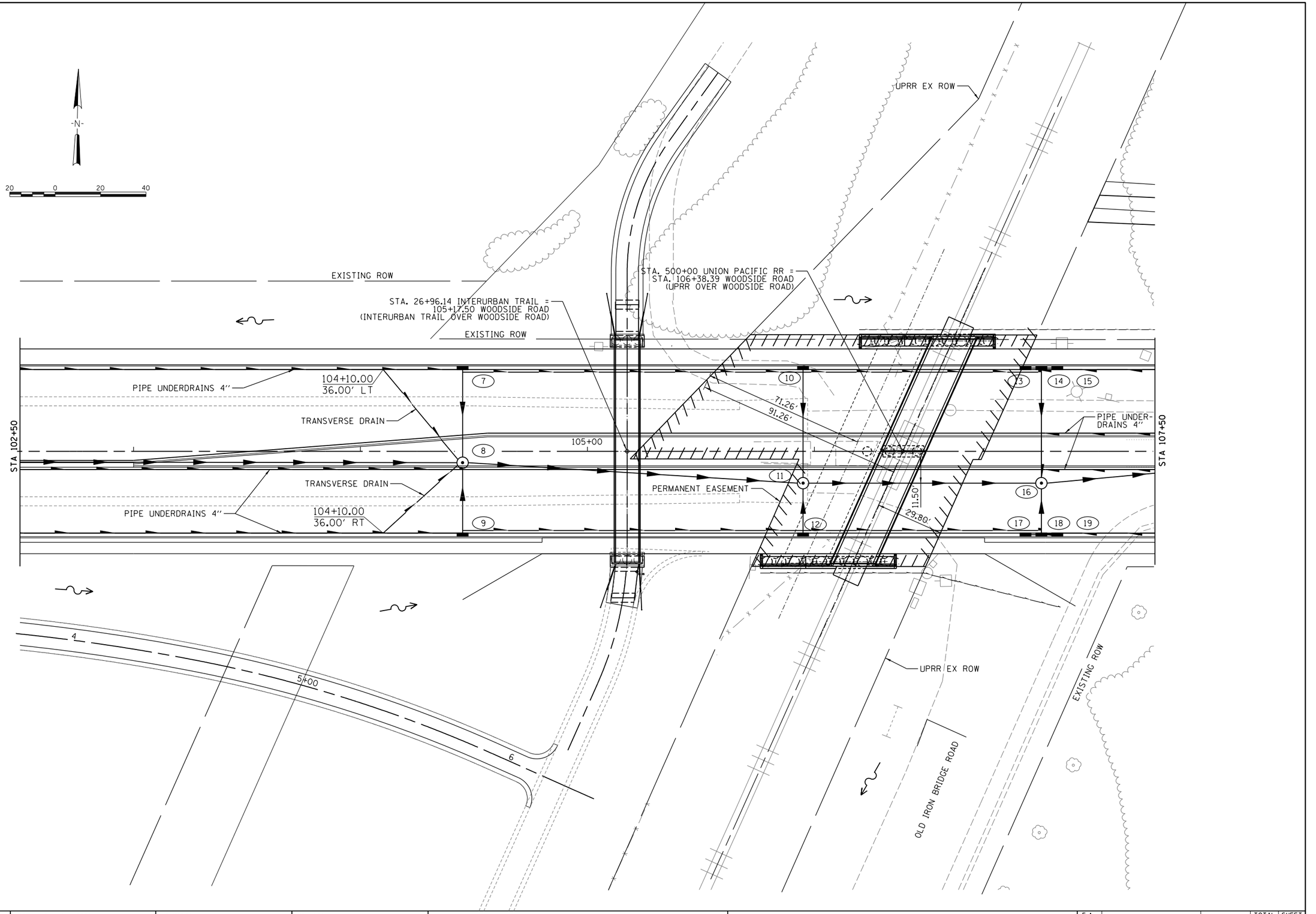

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	PLOT DATE = 10/26/2022	DATE -	REVISED -

STATE OF ILLINOIS
SANGAMON COUNTY HIGHWAY DEPARTMENT

DRAINAGE PLAN WOODSIDE ROAD 2 – PHASE 2

SCALE: | SHEET NO. OF SHEETS | STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	SANGAMON	368	104
	96S2002F	CONTRACT NO. 93671		
FED. ROAD DIST. NO. 6	ILLINOIS	FED. AID PROJECT 6		

• 07-00164-04-FP, 07-00090-08-FP

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10+00
11
MILLER ACCESS ROAD
12

STA 107+50
STA 112+10

20
108+40.00
36.00' LT
TRANSVERSE DRAIN
21
108
109
23
24
110+00
26
27
111
112
PIPE UNDERDRAINS 4"
TRANSVERSE DRAIN
108+40.00
36.00' RT
22
25
PIPE UNDERDRAINS 4"
28

10+00
11
9
IRONSIDE DRIVE (NORTH)
8
7
6

STA. 7+29.00
PIPE CULVERT TYPE 1 CLASS C 15" - 25 LF
USFL STA 7+16, 18.5' RT EL 590.90
DSFL STA 7+41, 19.3' RT EL 590.82
2 STEEL FLARED END SECTIONS

STA. 8+40.50
PIPE CULVERT TYPE 1 CLASS C 15" - 25 LF
USFL STA 8+27, 18.7' RT EL 590.57
DSFL STA 8+52, 19.2' RT EL 590.49
2 STEEL FLARED END SECTIONS

STA. 9+50.00
PIPE CULVERT TYPE 1 CLASS C 15" - 25 LF
USFL STA 9+37.5, 19.3' RT EL 590.24
DSFL STA 9+62.5, 18.8' RT EL 590.16
2 STEEL FLARED END SECTIONS

STA. 11+45.70
PIPE CULVERT TYPE 1 CLASS C 15" - 30 LF
USFL STA 11+28, 19.7' RT EL 589.67
DSFL STA 11+60, 19.6' RT EL 589.57
2 STEEL FLARED END SECTIONS

STA. 5+50.00
PIPE CULVERT TYPE 1 CLASS C 15" - 5 LF
USFL STA 5+50, 22' RT EL 590.51
DSFL STA 5+41, 25.4' RT (INLET TYPE B) EL 590.50
1 STEEL FLARED END SECTION

-N-

20 0 20 40

FILE NAME = Gc-1-wd20DP_3.dgn	USER NAME = Johns00944	DESIGNED -	REVISED -
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	PLOT DATE = 10/27/2022	DATE -	REVISED -

STATE OF ILLINOIS
SANGAMON COUNTY HIGHWAY DEPARTMENT

DRAINAGE PLAN WOODSIDE ROAD 3 – PHASE 2

SCALE: | SHEET NO. OF SHEETS | STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	SANGAMON	368	105
	96S2002F	CONTRACT NO. 93671		
FED. ROAD DIST. NO. 6	ILLINOIS	FED. AID PROJECT 6		

• 07-00164-04-FP, 07-00090-08-FP

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STA 115+00.00 WOODSIDE ROAD =
STA 15+76.79 IRONSIDE DRIVE (NORTH) =
STA 15+76.79 MILLER ACCESS ROAD

STA 117+30± EXISTING 96"Ø RCCP.
EXTEND CULVERT LT & RT W/ 96"Ø RCCP
AND CAST-IN-PLACE RCC END SECTIONS. REMOVE
EXISTING HEADWALL TO ATTACH EXTENSIONS.
FIELD VERIFY ALL DIMENSIONS AND OFFSETS
PRIOR TO CONSTRUCTING EXTENSIONS.
SEE CULVERT EXTENSION DETAILS (STA 117+30)

MILLER ACCESS ROAD

9'-4" FIELD VERIFY

PIPE ELBOW, 96"

5' FIELD VERIFY

CONCRETE HEADWALL REMOVAL

STA 116+86.00
57.0' LT

PIPE UNDERDRAINS 4"

PIPE UNDERDRAINS 4"

PIPE UNDERDRAINS 4"

CONCRETE
HEADWALL
REMOVAL

34'-2"
FIELD VERIFY

STA 117+86.73
74.0' RT

STONE RIPRAP

STA 112+10

STA 118+10

IRONSIDE DRIVE (NORTH)

STA. 12+50.00
PIPE CULVERT TYPE 1 CLASS C 15" - 25 LF
USFL STA 12+31.3, 19.7' RT EL 589.00
DSFL STA 12+68.8, 19.0' RT EL 588.45
2 STEEL FLARED END SECTIONS

-N-

20 0 20 40

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	PLOT DATE = 10/26/2022	DATE -	REVISED -

STATE OF ILLINOIS
SANGAMON COUNTY HIGHWAY DEPARTMENT

DRAINAGE PLAN WOODSIDE ROAD 4 – PHASE 2

SCALE: | SHEET NO. OF SHEETS | STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	SANGAMON	368	106
	96S2002F	CONTRACT NO.	93671	
FED. ROAD DIST. NO. 6	ILLINOIS	FED. AID PROJECT 6		

• 07-00164-04-FP, 07-00090-08-FP

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STA. 119+14.50
PIPE CULVERT TYPE 1 CLASS C 15" - 38 LF
USFL STA 119+16 72' LT. EL 573.65
DSFL STA 118+78 72' LT. EL 573.50
2 STEEL FLARED END SECTIONS

TRENCH DRAIN - 1 EACH
SEE ENTRANCE DETAILS, CROSS SECTIONS,
AND DITCH PROFILE IN P&P SHEET
FOR ELEVATIONS

STA 119+93.50 WOODSIDE RD =
℄ CAROLE DRIVE STA 2+25.00

122+00.00, ℄ 575.75
47.00' LT

123+00.00, ℄ 575.75
47.00' LT

DITCH

DITCH

PIPE UNDERDRAINS 4"

STA 118+00

120+00

PI STA 119+54.36

STA 123+50

PIPE UNDERDRAINS 4"

PIPE UNDERDRAINS 4"

42 46 45 49 52 55

43 48 47 50 53 56

51 54 57

44

CAROLE DRIVE

-N-

20 0 20 40

FILE NAME = Gc-1-wd20DP_5.dgn	USER NAME = Johns00944	DESIGNED -	REVISED -
		DRAWN -	REVISED -
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	PLOT DATE = 10/26/2022	DATE -	REVISED -

STATE OF ILLINOIS
SANGAMON COUNTY HIGHWAY DEPARTMENT

DRAINAGE PLAN WOODSIDE ROAD 5 – PHASE 2

SCALE: | SHEET NO. OF SHEETS | STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	SANGAMON	368	107
	96S2002F	CONTRACT NO. 93671		
FED. ROAD DIST. NO. 6	ILLINOIS	FED. AID PROJECT 6		

• 07-00164-04-FP, 07-00090-08-FP

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STA 124+55± EXISTING 66" Ø RCCP.
EXTEND CULVERT LT & RT W/ 66" Ø RCCP
AND PRC FLARED END SECTIONS.
REMOVE EXISTING HEADWALL TO ATTACH EXTENSIONS.
FIELD VERIFY ALL DIMENSIONS AND OFFSETS PRIOR
TO CONSTRUCTING EXTENSIONS.
SEE CULVERT EXTENSION DETAILS (STA 124+55)

STA 125+62.40 WOODSIDE RD =
℄ GRISSOM DRIVE STA 10+00.00

STA 127+05± SKEW 37.23° LT AHD EXISTING 48" Ø RCCP.
EXTEND CULVERT LT & RT W/ 48" Ø RCCP
AND PRC FLARED END SECTIONS.
REMOVE EXISTING HEADWALLS & DROP BOX
INLET STRUCTURE TO ATTACH EXTENSIONS.
FIELD VERIFY ALL DIMENSIONS AND OFFSETS PRIOR
TO CONSTRUCTING EXTENSIONS.
SEE CULVERT EXTENSION DETAILS (STA 127+05)

REMOVE EXISTING HEADWALL
124+30.00
60.00' LT
PIPE UNDERDRAINS, 4"
124+00.00
50.00' LT
16'
STA 123+50
PIPE UNDERDRAINS 4"
125+00
PC STA 124+68.79
PI STA 125+93.75
REMOVE EXISTING
HEADWALL
23'
19.5'
34.1'
12.3'
GRISSOM DRIVE
CONCRETE HEADWALL REMOVAL
& DROP BOX STRUCTURE REMOVAL
PRC STA 127+18.69
PI STA 128+22.92
STA 128+75
PIPE UNDERDRAINS 4"
CONCRETE HEADWALL REMOVAL
10'
54.0'
58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 103 104

-N-

20 0 20 40

FILE NAME = Gc-1-wd20DP_6.dgn	USER NAME = Johns00944	DESIGNED -	REVISED -	STATE OF ILLINOIS SANGAMON COUNTY HIGHWAY DEPARTMENT	DRAINAGE PLAN WOODSIDE ROAD 6 – PHASE 2	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED -				•	SANGAMON	368	108
	PLOT SCALE = 40.0021 ' / in.	CHECKED -	REVISED -				96S2002F	CONTRACT NO. 93671		
	PLOT DATE = 10/26/2022	DATE -	REVISED -		SCALE: SHEET NO. OF SHEETS STA. TO STA.	FED. ROAD DIST. NO. 6	ILLINOIS	FED. AID PROJECT 6		

• 07-00164-04-FP, 07-00090-08-FP

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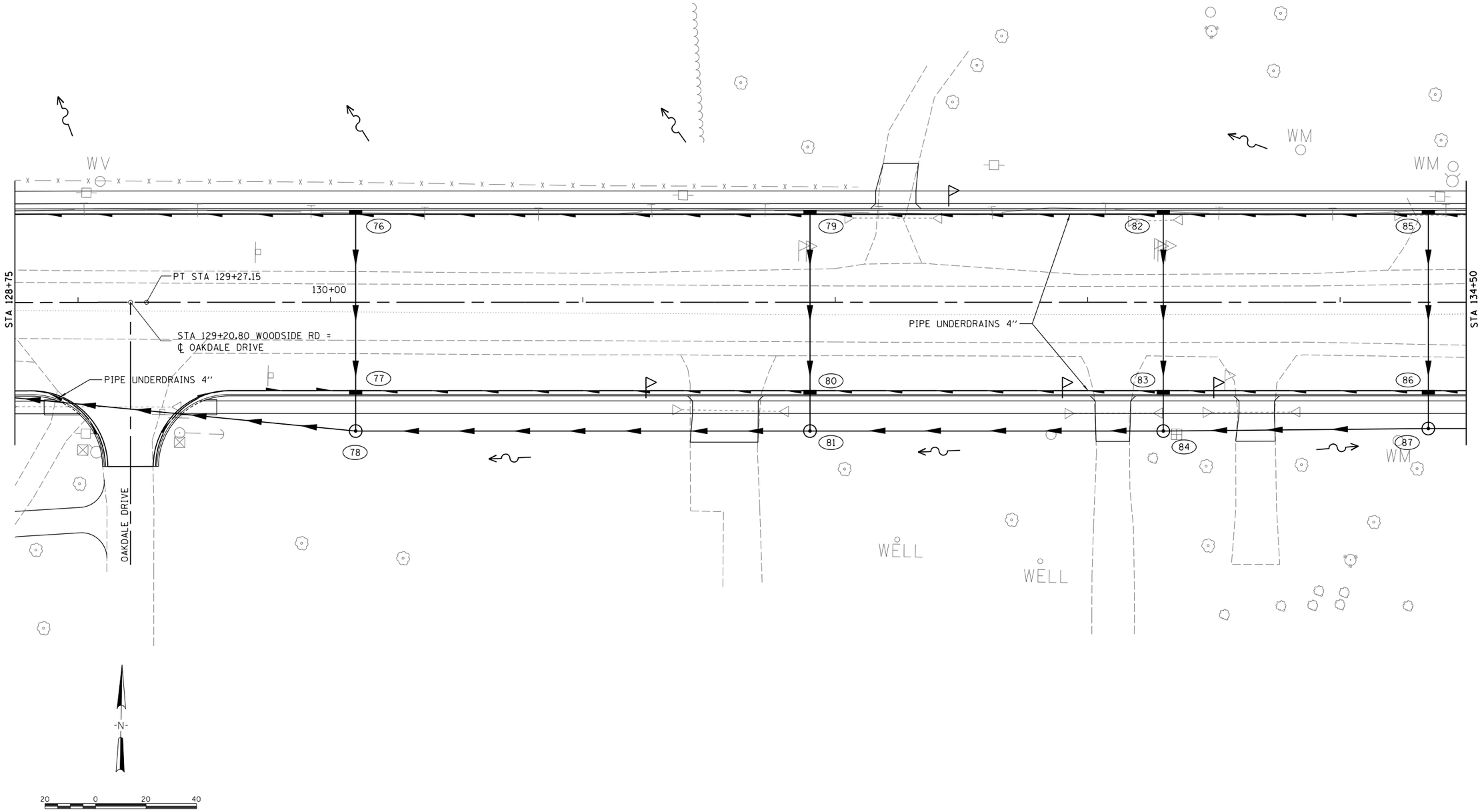

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STATE OF ILLINOIS
SANGAMON COUNTY HIGHWAY DEPARTMENT

DRAINAGE PLAN WOODSIDE ROAD 7 – PHASE 2

SCALE: | SHEET NO. OF SHEETS | STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	SANGAMON	368	109
	96S2002F	CONTRACT NO.	93671	
FED. ROAD DIST. NO. 6	ILLINOIS	FED. AID PROJECT 6		

• 07-00164-04-FP, 07-00090-08-FP

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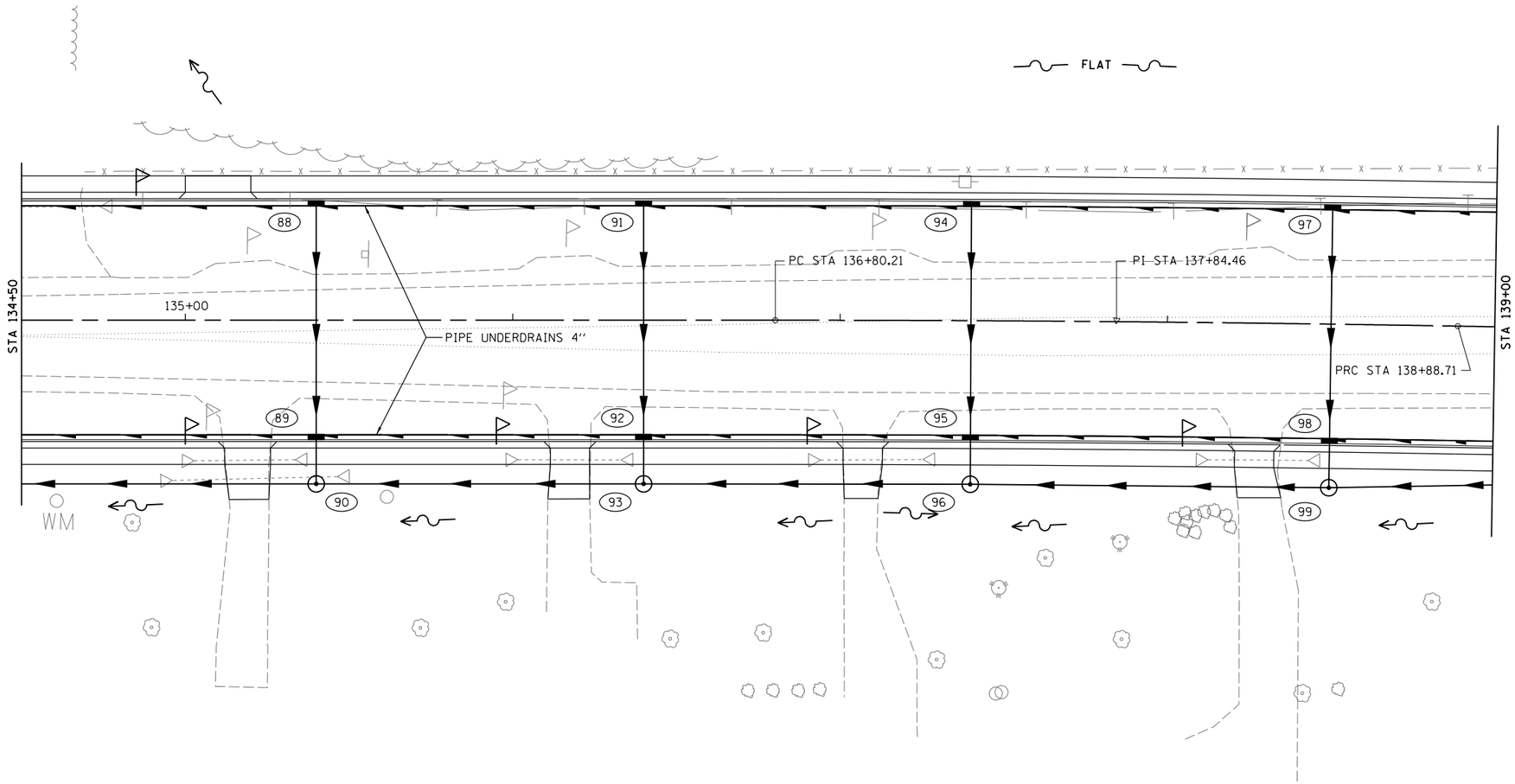

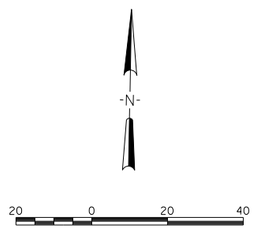

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		DRAWN -	REVISED -				•	SANGAMON	368	110
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -				96S2002F	CONTRACT NO. 93671		
	PLOT DATE = 10/26/2022	DATE -	REVISED -		SCALE: SHEET NO. OF SHEETS STA. TO STA.	FED. ROAD DIST. NO. 6	ILLINOIS	FED. AID PROJECT 6		

• 07-00164-04-FP, 07-00090-08-FP

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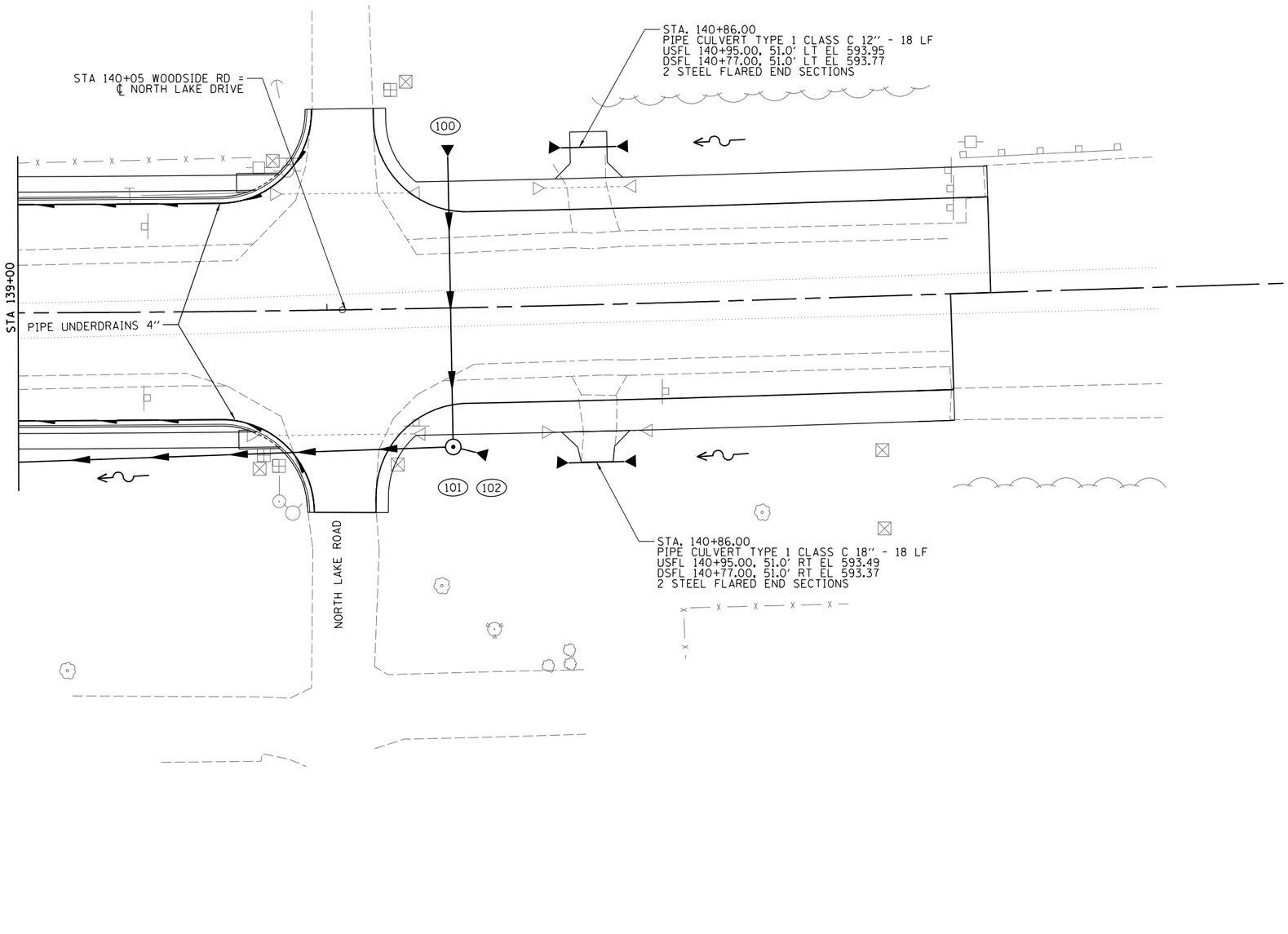

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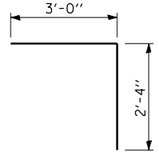
		DRAWN -	REVISED -				•	SANGAMON	368	111
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -				96S2002F	CONTRACT NO. 93671		
	PLOT DATE = 10/26/2022	DATE -	REVISED -		SCALE: SHEET NO. OF SHEETS STA. TO STA.	FED. ROAD DIST. NO. 6	ILLINOIS	FED. AID PROJECT 6		

• 07-00164-04-FP, 07-00090-08-FP



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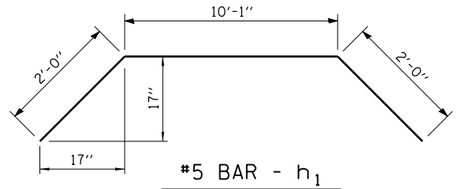

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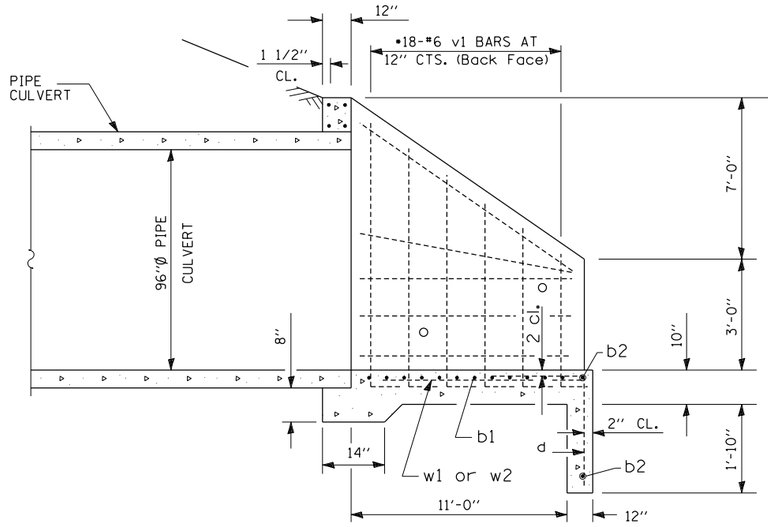
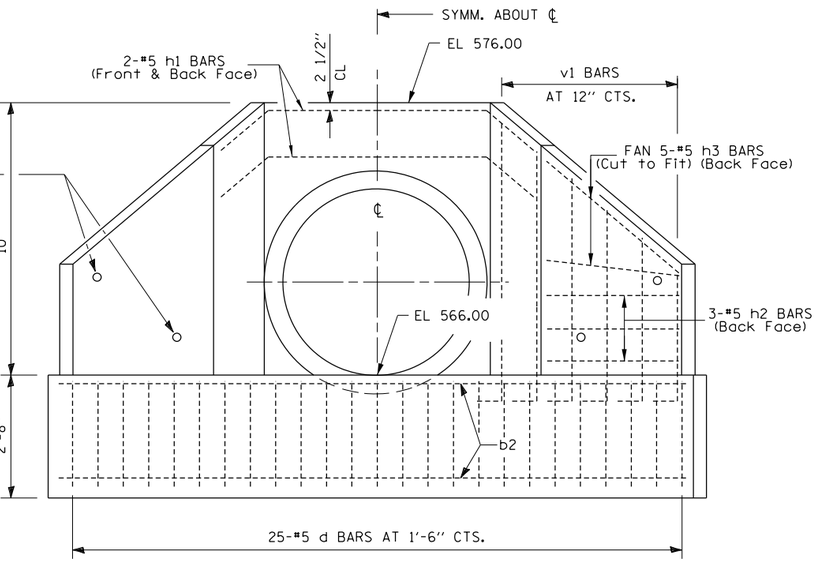
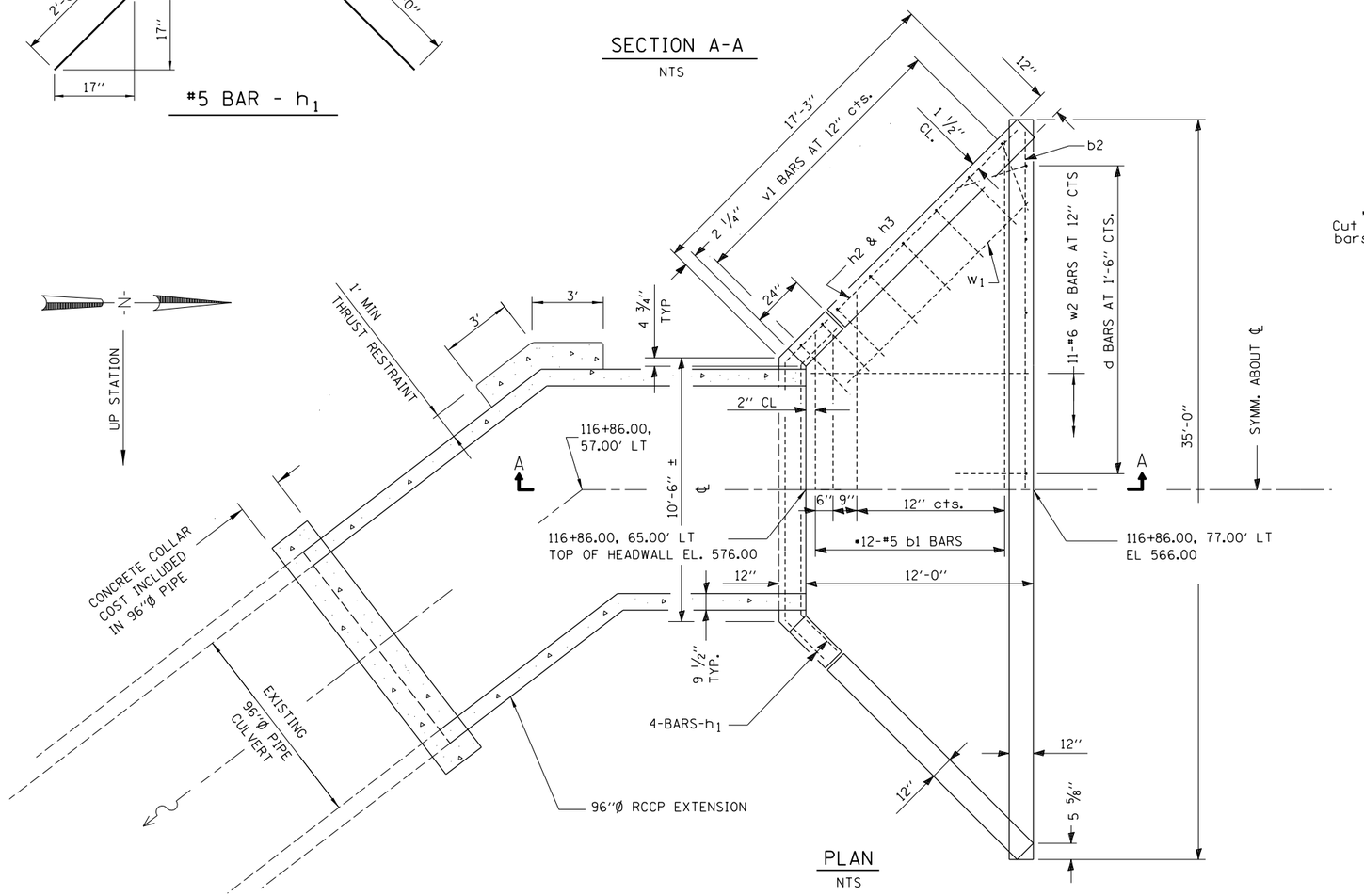


SECTION A-A
NTS



END ELEVATION
NTS

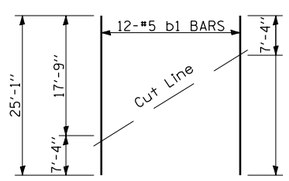


PLAN
NTS

MINIMUM BAR LAP

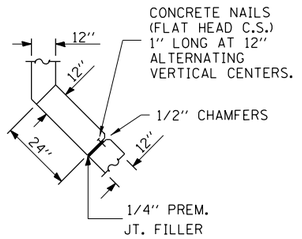
#5 = 2'-2"

•Order b1 & v1 bars full length.
Cut to fit skew and use remainder of bars in opposite side of slab or wing.

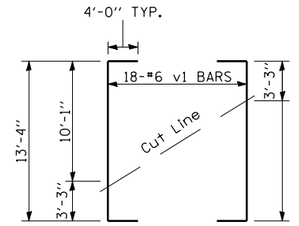


FIELD CUTTING DIAGRAM

Order b1 bars full length.
Cut as shown and use remainder of bars in opposite end of slab.



CORNER DETAIL



FIELD CUTTING DIAGRAM

Order v1 bars full length.
Cut as shown and use remainder of bars in opposite end of wing.

BILL OF MATERIAL					
BAR	NO. REQ'D	SIZE	LENGTH (FT)	LENGTH (IN)	WEIGHT (LB)
d	25	5	5	4	139.07
b1	12	5	25	1	313.94
b2	2	5	34	8	72.31
h1	4	5	14	1	58.76
h2	6	5	14	8	11.00
h3	10	5	15	11	166.01
v1	18	6	21	4	576.77
w1	2	6	15	6	46.56
w2	11	6	11	8	192.76
REINFORCEMENT BARS				LBS	1577
CONCRETE BOX CULVERT				CY	21.6

NOTE:
THE THRUST RESTRAINT AND CONCRETE COLLAR SHALL BE INLCUDED IN THE COST OF THE 96" CONCRETE PIPE. CONCRETE QUANTITIES FOR THESE ITEMS ARE NOT INLCUDED IN THE CU YD TOTAL FOR CONCRETE BOX CULVERT.

FILE NAME = Gc-5.RCC.END96-LT.dgn	USER NAME = Johns00944	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 80.000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 10/26/2022	DATE -	REVISED -

STATE OF ILLINOIS
SANGAMON COUNTY HIGHWAY DEPARTMENT

CULVERT EXTENSION DETAILS – 1 (STA 117+30)
WOODSIDE ROAD – PHASE 2

SCALE: | SHEET NO. OF SHEETS | STA. TO STA.

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	SANGAMON	368	112
	96S2002F	CONTRACT NO.	93671	
FED. ROAD DIST. NO. 6	ILLINOIS	FED. AID PROJECT 6		

• 07-00164-04-FP, 07-00090-08-FP

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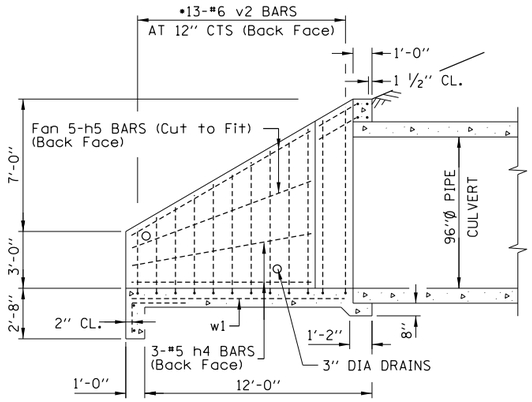
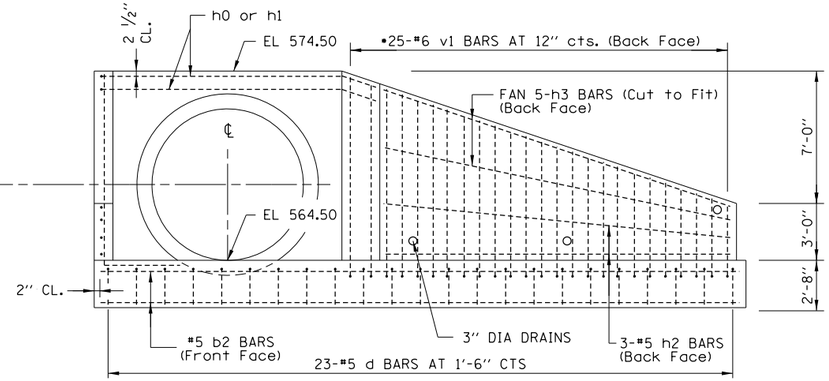
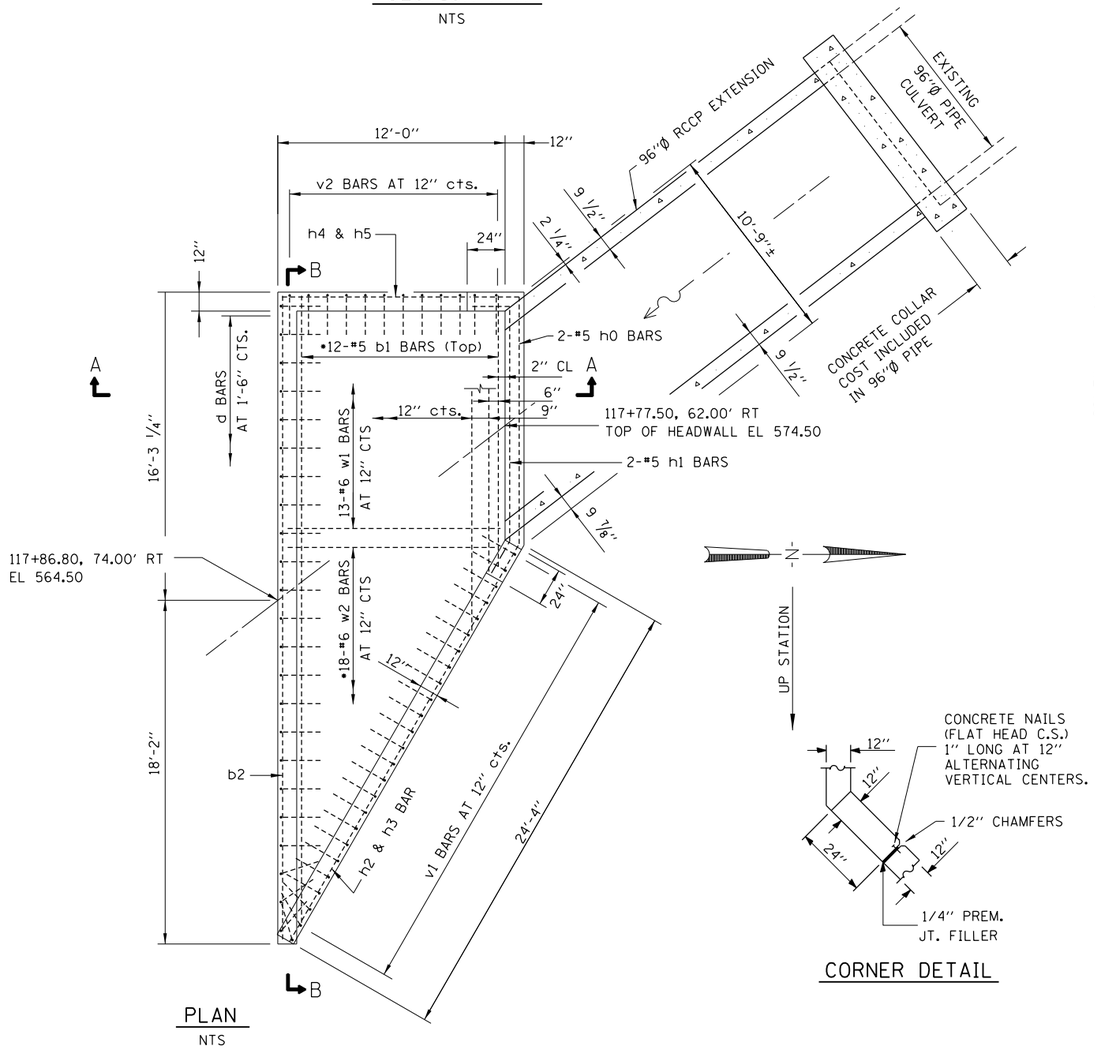


SECTION A-A
NTS

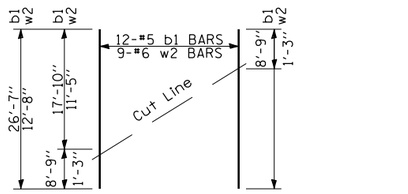


SECTION B-B
(END ELEVATION)
NTS

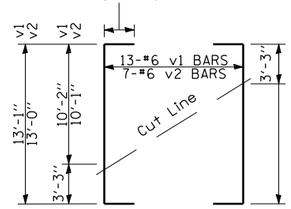


PLAN
NTS

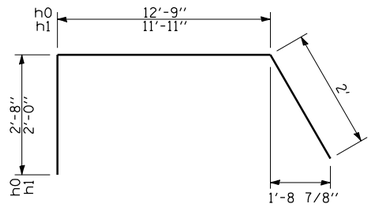
CORNER DETAIL



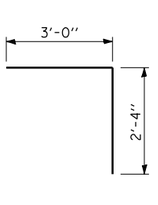
FIELD CUTTING DIAGRAM
Order b1 & w2 bars full length.
Cut as shown and use remainder of
bars in opposite end of slab.



FIELD CUTTING DIAGRAM
Order v1 & v2 bars full length.
Cut as shown and use remainder of
bars in opposite end of wing.



#5 BAR - h0 & h1



#5 BAR-d

MINIMUM BAR LAP
#5 = 2'-2"

•Order v1, v2, b1 & w2 bars full length. Cut to fit skew and use remainder of bars in opposite side of slab or wing.

BILL OF MATERIAL					
BAR	NO. REQ'D	SIZE	LENGTH (FT)	LENGTH (IN)	WEIGHT (LB)
d	23	5	5	4	128
b1	12	5	26	7	333
b2	2	5	34	1	71
h0	2	5	17	5	36
h1	2	5	15	11	33
h2	3	5	22	0	11
h3	5	5	22	10	119
h4	3	5	9	8	30
h5	5	5	11	2	58
v1	13	6	21	5	418
v2	7	6	21	4	224
w1	13	6	11	8	228
w2	9	6	12	8	171
REINFORCEMENT BARS				LBS	1861
CONCRETE BOX CULVERT				CY	22.0

FILE NAME = Gc-5.RCC_END96-RT.dgn	USER NAME = Johns00944	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 80.000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 10/26/2022	DATE -	REVISED -

STATE OF ILLINOIS
SANGAMON COUNTY HIGHWAY DEPARTMENT

CULVERT EXTENSION DETAILS – 2 (STA 117+30)
WOODSIDE ROAD – PHASE 2

SCALE: | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	SANGAMON	368	113
	96S2002F	CONTRACT NO.	93671	
FED. ROAD DIST. NO. 6	ILLINOIS	FED. AID PROJECT 6		

• 07-00164-04-FP, 07-00090-08-FP

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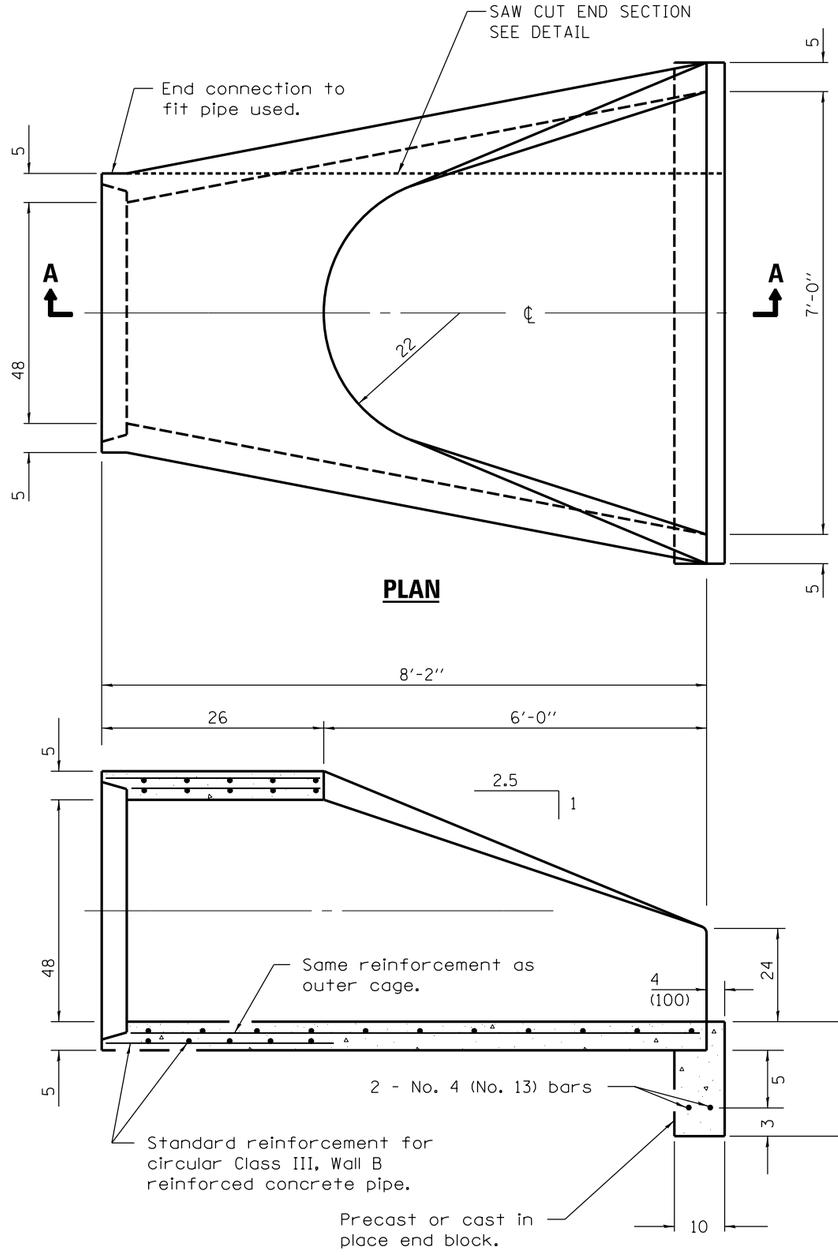
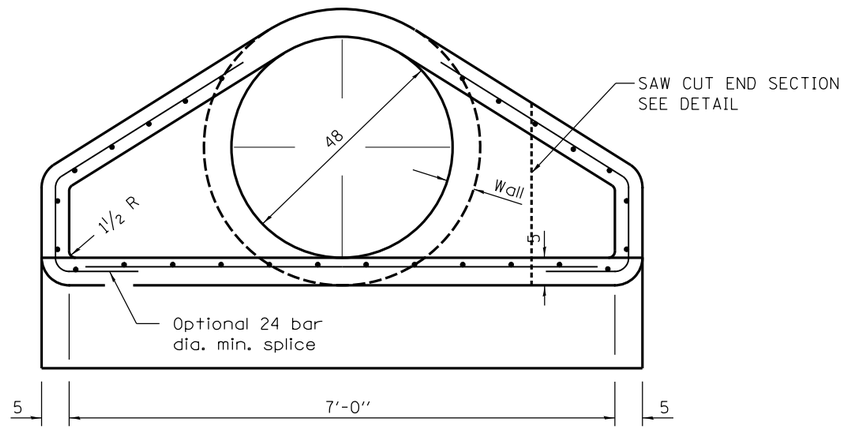


PLAN

SECTION A–A



END VIEW

GENERAL NOTES

All slope ratios are expressed as units of vertical displacement to units of horizontal displacement (V:H).

All dimensions are in inches (millimeters) unless otherwise shown.

FILE NAME = Gc-5.RCC_END48-RT.dgn	USER NAME = Johns00944	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 80.000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 10/26/2022	DATE -	REVISED -

STATE OF ILLINOIS
SANGAMON COUNTY HIGHWAY DEPARTMENT

CULVERT EXTENSION DETAILS – 2 (STA 127+50)
WOODSIDE ROAD – PHASE 2

SCALE: | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	SANGAMON	368	114
	96S2002F	CONTRACT NO.	93671	
FED. ROAD DIST. NO. 6	ILLINOIS	FED. AID PROJECT 6		

• 07-00164-04-FP, 07-00090-08-FP

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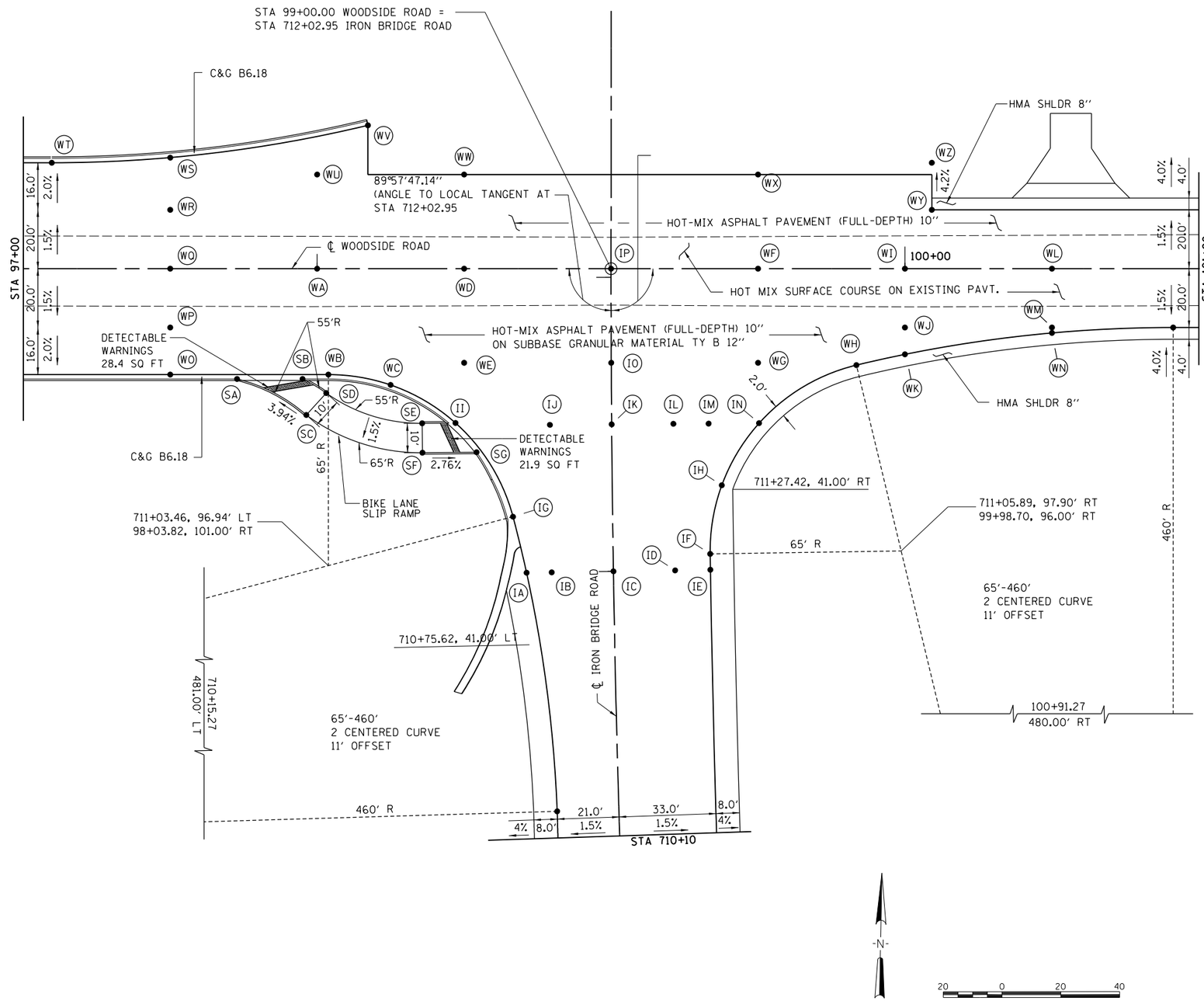
WOODSIDE ROAD AT IRON BRIDGE ROAD						
	STATION	OFFSET	℄ OR ℬ	NORTHING	EASTING	ELEVATION
WA	98+00	0.00	WOODSIDE	1112378.322	2432821.047	597.27
WB	98+03.82	36.00	WOODSIDE	1112342.401	2432825.549	596.64
WC	98+25	39.55	WOODSIDE	1112339.256	2432846.796	596.53
WD	98+50	0.00	WOODSIDE	1112379.273	2432871.038	597.21
WE	98+50	32.00	WOODSIDE	1112347.279	2432871.647	596.73
WF	99+50	0.00	WOODSIDE	1112381.176	2432971.020	597.09
WG	99+50	32.00	WOODSIDE	1112349.182	2432971.629	596.61
WH	99+83.47	32.81	WOODSIDE	1112349.009	2433005.110	596.47
WI	100+00	0.00	WOODSIDE	1112382.128	2433021.011	597.06
WJ	100+00	20.00	WOODSIDE	1112362.132	2433021.391	596.76
WK	100+00	29.15	WOODSIDE	1112352.987	2433021.566	596.64
WL	100+50	0.00	WOODSIDE	1112383.080	2433071.002	597.08
WM	100+50	20.00	WOODSIDE	1112363.083	2433071.382	596.78
WN	100+50	21.85	WOODSIDE	1112361.228	2433071.418	596.75
WO	97+50	36.00	WOODSIDE	1112341.376	2432771.742	596.70
WP	97+50	20.00	WOODSIDE	1112357.374	2432771.438	597.02
WQ	97+50	0.00	WOODSIDE	1112377.370	2432771.057	597.32
WR	97+50	-20.00	WOODSIDE	1112397.366	2432770.677	597.02
WS	97+50	-37.77	WOODSIDE	1112415.131	2432770.338	596.63
WT	97+09.71	-36.00	WOODSIDE	1112412.597	2432730.094	596.75
WU	98+00	-32.00	WOODSIDE	1112410.316	2432820.439	596.96
WV	98+17.27	-48.75	WOODSIDE	1112427.392	2432837.386	596.43
WW	98+50	-32.00	WOODSIDE	1112411.267	2432870.430	596.61
WX	99+50	-32.00	WOODSIDE	1112413.171	2432970.411	596.49
WY	100+09.13	-20.00	WOODSIDE	1112402.298	2433029.762	596.03
WZ	100+09.13	-48.75	WOODSIDE	1112418.295	2433029.457	595.89
IA	711+00	-29.54	IRON BR	1112276.300	2432895.008	596.31
IB	711+00	-21.00	IRON BR	1112276.575	2432902.803	596.44
IC	711+00	0.00	IRON BR	1112277.335	2432923.790	596.76
ID	711+00	21.00	IRON BR	1112278.056	2432944.777	596.44
IE	711+00	33.00	IRON BR	1112278.479	2432956.770	596.20
IF	711+05.44	33.00	IRON BR	1112283.887	2432956.582	596.19
IG	711+19.03	-33.88	IRON BR	1112299.245	2432889.095	596.40
IH	711+28.84	37.76	IRON BR	1112307.281	2432960.084	596.16
II	711+50.88	-53.11	IRON BR	1112326.740	2432869.116	596.46
IJ	711+50	-21.00	IRON BR	1112326.722	2432901.240	596.61
IK	711+50	0.00	IRON BR	1112327.291	2432922.232	596.93
IL	711+50	21.00	IRON BR	1112327.859	2432943.225	596.61
IM	711+50	33.00	IRON BR	1112328.184	2432955.220	596.37
IN	711+50	50.17	IRON BR	1112328.649	2432972.387	596.14
IO	711+70.95	0.00	IRON BR	1112348.232	2432921.701	597.00
IP	712+02..95	0.00	IRON BR	1112380.225	2432921.029	597.15
SA	97+72.71	37.50	WOODSIDE	1112340.309	2432794.481	596.57
SB	97+95.02	37.50	WOODSIDE	1112340.734	2432816.782	596.54
SC	97+96.32	49.74	WOODSIDE	1112328.521	2432818.319	596.76
SD	98+03.10	42.30	WOODSIDE	1112336.085	2432824.948	596.91
SE	711+50.85	-64.49	IRON BR	1112326.408	2432857.747	596.82
SF	711+40.96	-64.47	IRON BR	1112316.412	2432858.038	596.67
SG	711+40.97	-46.03	IRON BR	1112316.950	2432876.475	596.33

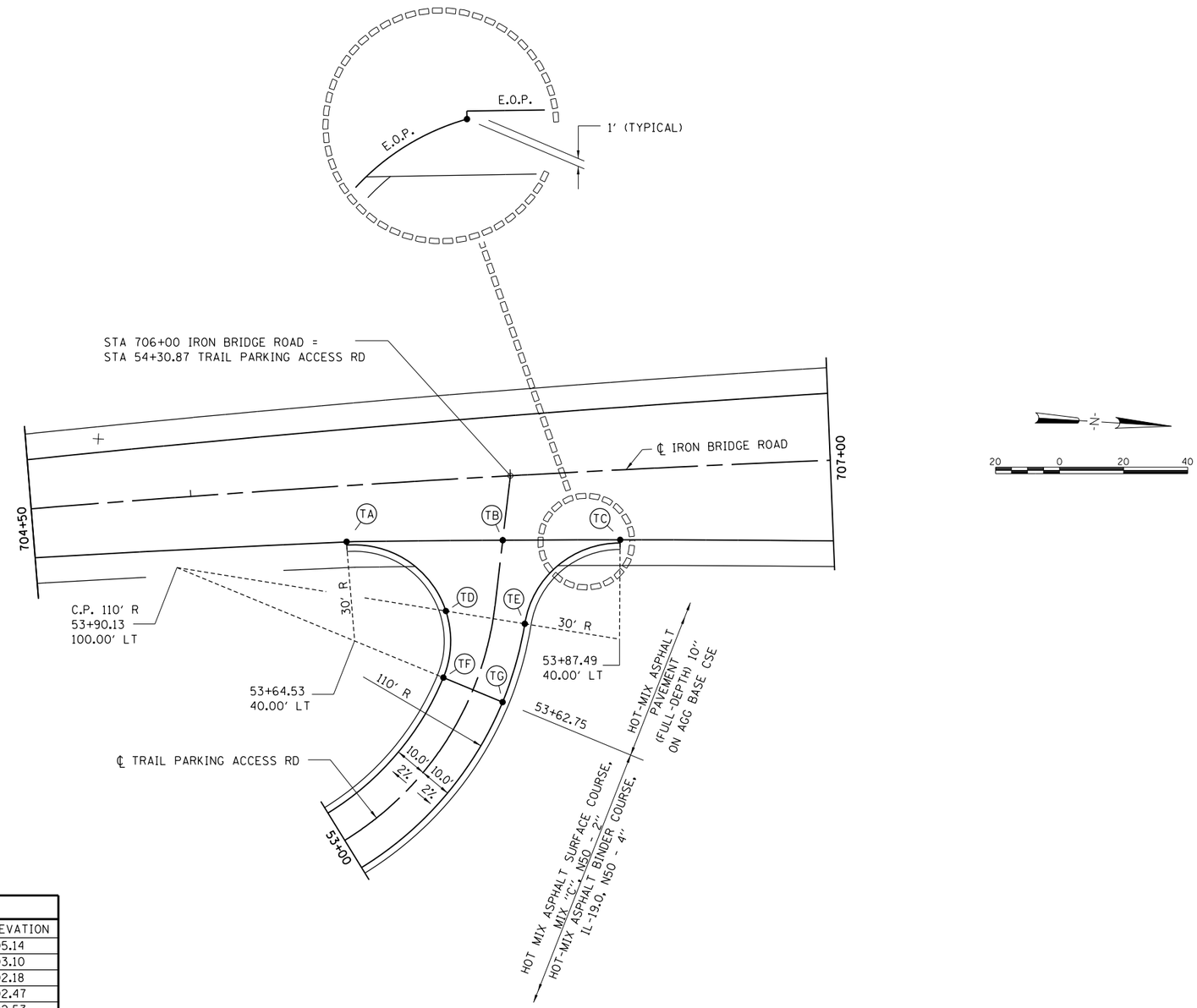


FILE NAME = Fc-1-INTERSECT_2001.dgn	USER NAME = Johns20944	DESIGNED - JDS	REVISED -	**STATE OF ILLINOIS** **SANGAMON COUNTY HIGHWAY DEPARTMENT**	**INTERSECTION DETAIL – WOODSIDE ROAD AT IRON BRIDGE ROAD** **PHASE 1**
		DRAWN - JDS	REVISED -		
	PLOT SCALE = 40.0000 ' / in.	CHECKED - JWM	REVISED -		
	PLOT DATE = 10/26/2022	DATE - 8/24/2020	REVISED -		SCALE: SHEET NO. OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	SANGAMON	368	115
	96S2002F	CONTRACT NO.	93671	
FED. ROAD DIST. NO. 6	ILLINOIS	FED. AID PROJECT 6		

• 07-00164-04-FP, 07-00090-08-FP

HANSON
Hanson Professional Services Inc.



IRON BRIDGE ROAD AT TRAIL PARKING ACCESS ROAD						
	STATION	OFFSET	℄ OR ℬ	NORTHING	EASTING	ELEVATION
TA	705+47.62	-17.46	IRON BR	1111729.102	2432985.536	605.14
TB	54+10.60	0.00	TRAIL PARKING	1111777.747	2432982.105	603.10
TC	706+33.21	21.83	IRON BR	1111814.336	2432979.764	602.18
TD	53+85.91	-14.95	TRAIL PARKING	1111761.365	2433005.259	602.47
TE	53+85.91	10.00	TRAIL PARKING	1111786.195	2433007.737	602.53
TF	53+62.75	-10.00	TRAIL PARKING	1111761.848	2433026.074	602.16
TG	53+62.75	10.00	TRAIL PARKING	1111780.762	2433032.577	602.16

FILE NAME = Fe-1-INTERSECT_2002.dgn	USER NAME = Johns00944	DESIGNED - JDS	REVISED -
		DRAWN - JDS	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED - JWM	REVISED -
	PLOT DATE = 10/26/2022	DATE - 8/24/2020	REVISED -

STATE OF ILLINOIS
SANGAMON COUNTY HIGHWAY DEPARTMENT

INTERSECTION DETAIL – IRON BRIDGE ROAD AT TRAIL PARKING ACCESS ROAD – PHASE 1

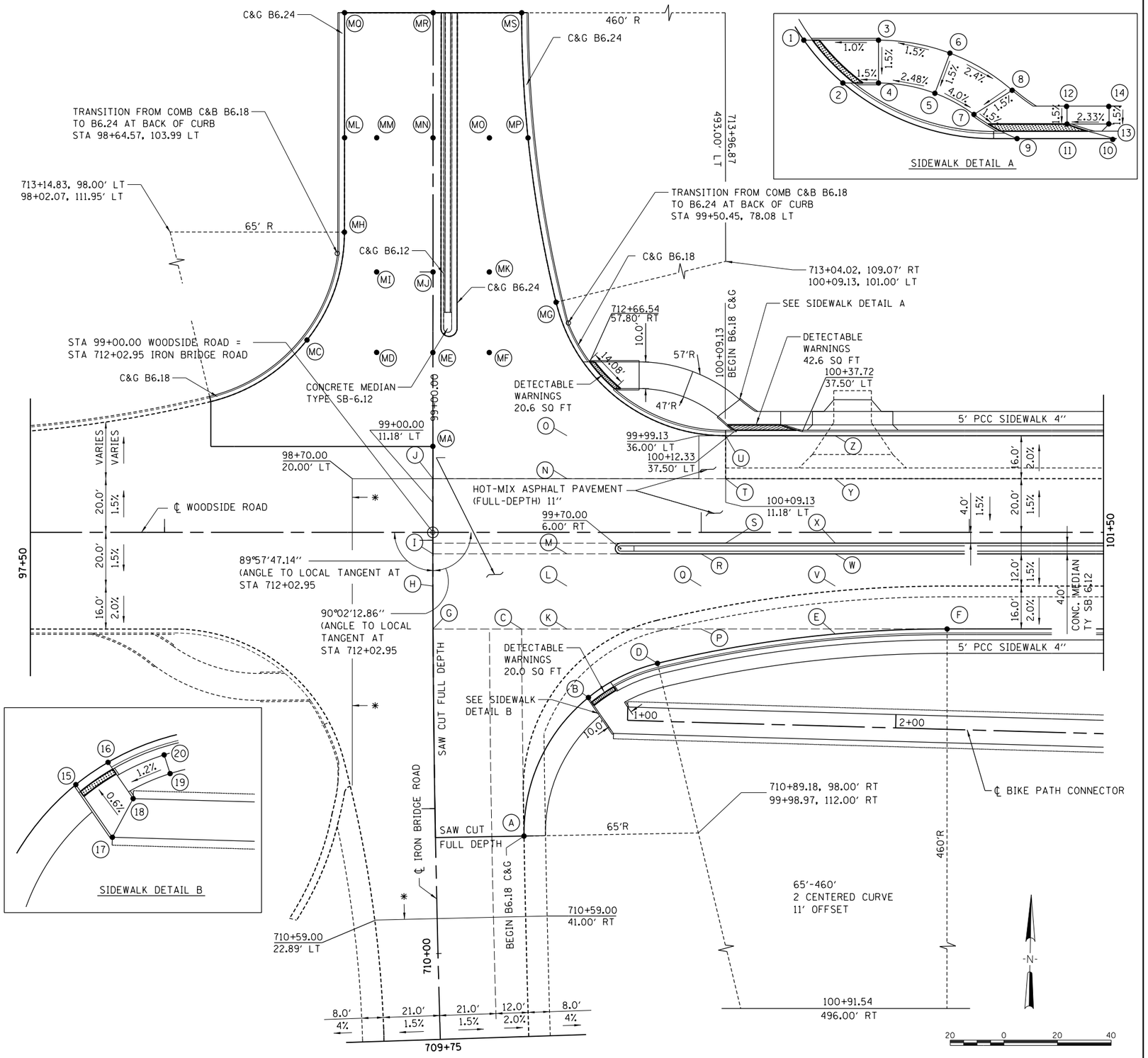
SCALE: | SHEET NO. OF SHEETS | STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	SANGAMON	368	116
	96S2002F	CONTRACT NO.	93671	
FED. ROAD DIST. NO. 6	ILLINOIS	FED. AID PROJECT 6		

• 07-00164-04-FP, 07-00090-08-FP

WOODSIDE ROAD AT IRON BRIDGE ROAD						
	STATION	OFFSET	℄ OR ℄	NORTHING	EASTING	ELEVATION
A	710+89.18	33.00	IRON BRIDGE	1112267.7216	2432957.1589	596.18
B	711+40.87	57.74	IRON BRIDGE	1112319.8095	2432980.2001	595.82
C	711+66.77	33.00	IRON BRIDGE	1112344.8608	2432954.7916	596.42
D	99+83.74	48.81	WOODSIDE	1112333.0171	2433005.6816	595.62
E	100+50.00	37.88	WOODSIDE	1112345.2069	2433071.7238	594.51
F	100+91.70	36.00	WOODSIDE	1112347.8796	2433113.3804	593.34
G	99+00.02	36.00	WOODSIDE	1112344.2316	2432921.7340	596.53
H	99+00.02	20.00	WOODSIDE	1112360.2287	2432921.4295	596.85
I	99+00.00	8.00	WOODSIDE	1112372.2261	2432921.1813	597.03
J	99+00.00	-20.00	WOODSIDE	1112400.2211	2432920.6483	596.85
K	99+50.00	36.00	WOODSIDE	1112345.1828	2432971.7061	596.27
L	99+50.00	20.00	WOODSIDE	1112361.1799	2432971.4016	596.59
M	99+50.00	8.00	WOODSIDE	1112373.1778	2432971.1732	596.77
N	99+50.00	-20.00	WOODSIDE	1112401.1727	2432970.6403	596.59
O	99+50.00	-36.00	WOODSIDE	1112417.1698	2432970.3358	596.27
P	100+00.00	36.00	WOODSIDE	1112346.1344	2433021.6970	595.60
Q	100+00.00	20.00	WOODSIDE	1112362.1315	2433021.3925	595.92
R	100+00.00	8.00	WOODSIDE	1112374.1294	2433021.1641	596.10
S	100+09.13	4.00	WOODSIDE	1112378.3024	2433030.2185	596.16
T	100+09.13	-20.00	WOODSIDE	1112402.2981	2433029.7617	595.92
U	100+09.13	-36.00	WOODSIDE	1112418.2952	2433029.4572	595.60
V	100+50.00	20.00	WOODSIDE	1112363.0831	2433071.3835	594.90
W	100+50.00	8.00	WOODSIDE	1112375.0810	2433071.1551	595.02
X	100+50.00	4.00	WOODSIDE	1112379.0802	2433071.0790	595.08
Y	100+50.00	-20.00	WOODSIDE	1112403.0759	2433070.6222	594.90
Z	100+50.00	-36.00	WOODSIDE	1112419.0730	2433070.3177	594.52
MA	712+35	0.00	MACARTHUR	1112412.271	2432920.440	597.05
MB	712+52.93	68.89	MACARTHUR	1112431.461	2432988.984	596.02
MC	712+74.62	-46.93	MACARTHUR	1112451.020	2432872.785	596.30
MD	712+70	-21.00	MACARTHUR	1112446.879	2432898.800	597.00
ME	712+70	0.00	MACARTHUR	1112447.266	2432919.796	596.95
MF	712+70	21.00	MACARTHUR	1112447.652	2432940.792	596.43
MG	712+88.71	45.89	MACARTHUR	1112466.845	2432965.333	595.81
MH	713+14.83	-33.00	MACARTHUR	1112491.485	2432885.977	596.26
MI	713+00	-21.00	MACARTHUR	1112476.874	2432898.248	596.55
MJ	713+00	0.00	MACARTHUR	1112477.261	2432919.244	596.86
MK	713+00	21.00	MACARTHUR	1112477.647	2432940.241	596.57
ML	713+50	-33.00	MACARTHUR	1112526.645	2432885.331	596.15
MM	713+50	-21.00	MACARTHUR	1112526.866	2432897.329	596.40
MN	713+50	0.00	MACARTHUR	1112527.252	2432918.325	596.71
MO	713+50	21.00	MACARTHUR	1112527.638	2432939.321	596.48
MP	713+50	35.39	MACARTHUR	1112527.903	2432953.713	596.26
MQ	713+96.62	-33.00	MACARTHUR	1112573.257	2432884.473	596.01
MR	713+96.62	0.00	MACARTHUR	1112573.834	2432917.468	596.57
MS	713+96.62	33.00	MACARTHUR	1112574.470	2432950.462	596.19
1	99+58.48	-63.54	WOODSIDE	1112444.8633	2432978.2913	595.75
2	99+67.68	-53.56	WOODSIDE	1112435.0617	2432987.6780	595.71
3	99+76.90	-63.56	WOODSIDE	1112445.2353	2432996.7060	595.94
4	99+76.90	-53.56	WOODSIDE	1112435.2371	2432996.8963	595.85
5	99+93.39	-50.57	WOODSIDE	1112432.5654	2433013.4356	596.26
6	99+96.89	-59.94	WOODSIDE	1112441.9951	2433016.7643	596.34
7	100+06.30	-43.23	WOODSIDE	1112425.4701	2433026.4847	595.60
8	100+14.35	-49.53	WOODSIDE	1112431.9252	2433034.4118	595.68
9	100+15.72	-36.00	WOODSIDE	1112418.4205	2433036.0390	595.43
10	100+39.75	-36.00	WOODSIDE	1112418.8780	2433060.0728	594.80
11	100+29.68	-40.08	WOODSIDE	1112422.7685	2433049.9250	594.70
12	100+29.68	-45.08	WOODSIDE	1112427.7676	2433049.8299	594.78
13	100+41.47	-40.08	WOODSIDE	1112422.9930	2433061.7160	594.98
14	100+41.47	-45.08	WOODSIDE	1112427.9921	2433061.6209	595.06
15	99+58.01	61.53	WOODSIDE	1112427.992	2433061.620	595.82
16	99+66.24	55.84	WOODSIDE	1112325.650	2432988.316	595.75
17	99+67.32	74.93	WOODSIDE	1112306.519	2432989.764	595.70
18	99+72.69	65.07	WOODSIDE	1112316.544	2432994.870	595.85
19	99+80.63	59.03	WOODSIDE	1112324.229	2433007.977	596.05
20	99+79.52	54.10	WOODSIDE	1112329.066	2433006.714	595.98

* = MATCH EXISTING (BUTT JT, SAW CUT 1 1/2" DEEP)



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		DRAWN -	REVISED -	
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -	
	PLOT DATE = 10/26/2022	DATE -	REVISED -	

INTERSECTION DETAIL – WOODSIDE ROAD AT IRON BRIDGE ROAD PHASE 2

SCALE: | SHEET NO. OF SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	SANGAMON	368	117
	96S2002F	CONTRACT NO. 93671		
FED. ROAD DIST. NO. 6	ILLINOIS	FED. AID PROJECT 6		

• 07-00164-04-FP, 07-00090-08-FP

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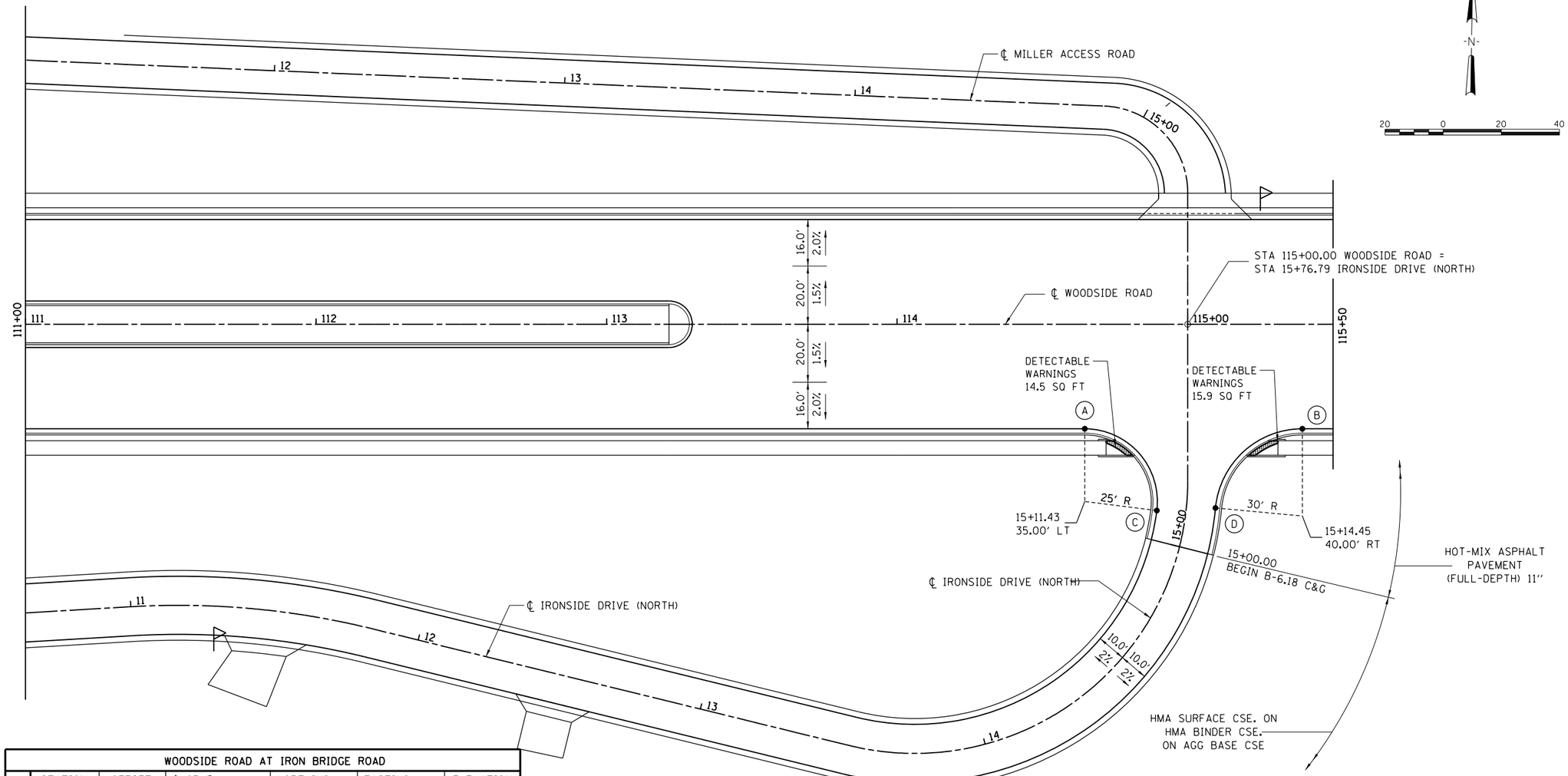
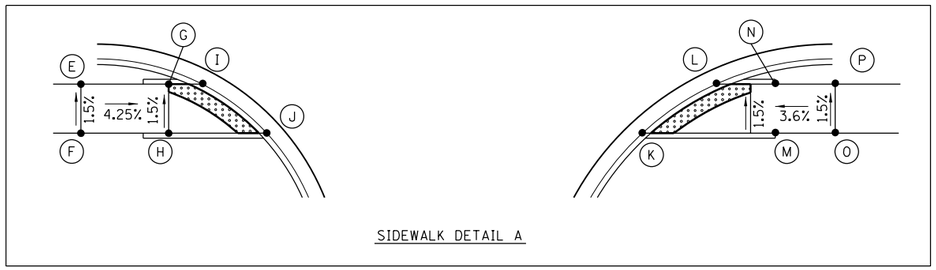


WOODSIDE ROAD AT IRON BRIDGE ROAD						
	STATION	OFFSET	℄ OR ℬ	NORTHING	EASTING	ELEVATION
A	114+64.55	36.00	WOODSIDE	1112374.0077	2434485.9768	585.51
B	115+39.43	36.00	WOODSIDE	1112375.4329	2434560.8510	584.53
C	15+11.43	10.00	ACCESS	1112346.3898	2434511.3147	585.94
D	15+14.45	10.00	ACCESS	1112347.6241	2434531.5017	584.86
E	114+64.55	40.08	WOODSIDE	1112369.9254	2434486.0545	586.04
F	114+64.55	45.08	WOODSIDE	1112364.9263	2434486.1496	586.12
G	114+71.91	40.08	WOODSIDE	1112370.0655	2434493.4163	585.67
H	114+71.91	45.08	WOODSIDE	1112365.0665	2434493.5114	585.75
I	114+73.91	40.08	WOODSIDE	1112370.1036	2434495.4159	585.64
J	114+81.03	45.08	WOODSIDE	1112365.2401	2434502.6342	584.74
K	115+20.94	45.08	WOODSIDE	1112365.9997	2434542.5384	584.70
L	115+29.06	40.08	WOODSIDE	1112371.1532	2434550.5543	584.73
M	115+31.96	45.08	WOODSIDE	1112366.1922	2434552.6491	584.84
N	115+31.96	40.08	WOODSIDE	1112371.1913	2434552.5539	584.76
O	115+39.43	45.08	WOODSIDE	1112366.3516	2434561.0239	585.14
P	115+39.43	40.08	WOODSIDE	1112371.3507	2434560.9287	585.06



SIDEWALK DETAIL A

FILE NAME = Gc-1-INTERSECT_2002.dgn	USER NAME = Johns00944	DESIGNED -	REVISED -	STATE OF ILLINOIS SANGAMON COUNTY HIGHWAY DEPARTMENT	INTERSECTION DETAIL – WOODSIDE ROAD AT IRONSIDE DRIVE (NORTH) – PHASE 2
		DRAWN -	REVISED -		
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -		SCALE: SHEET NO. OF SHEETS STA. TO STA.
	PLOT DATE = 10/26/2022	DATE -	REVISED -		

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	SANGAMON	368	118
	96S2002F	CONTRACT NO.	93671	
FED. ROAD DIST. NO. 6	ILLINOIS	FED. AID PROJECT 6		

• 07-00164-04-FP, 07-00090-08-FP

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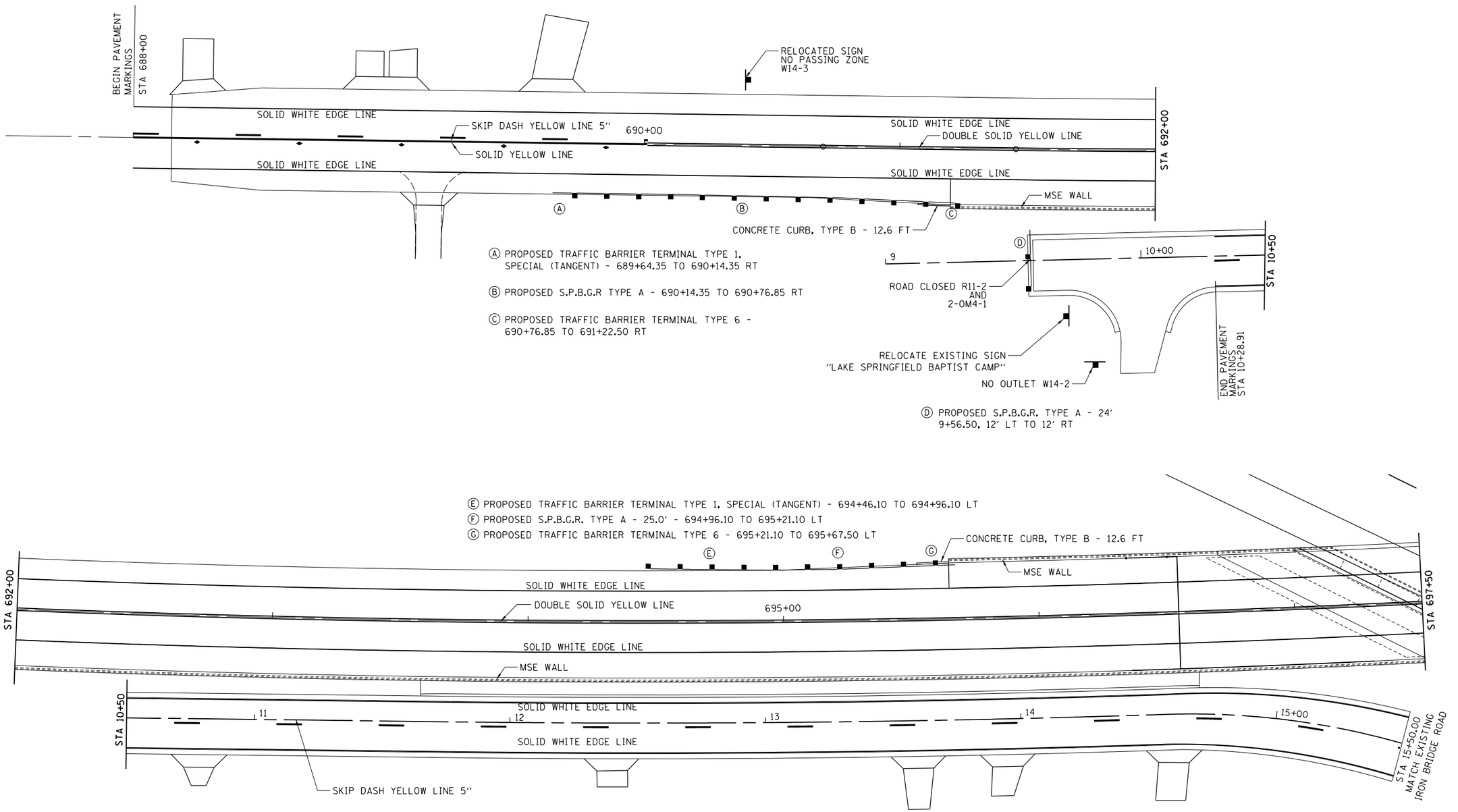

(A) PROPOSED TRAFFIC BARRIER TERMINAL TYPE 1, SPECIAL (TANGENT) - 689+64.35 TO 690+14.35 RT

(B) PROPOSED S.P.B.G.R TYPE A - 690+14.35 TO 690+76.85 RT

(C) PROPOSED TRAFFIC BARRIER TERMINAL TYPE 6 - 690+76.85 TO 691+22.50 RT

(D) PROPOSED S.P.B.G.R. TYPE A - 24' 9+56.50, 12' LT TO 12' RT

(E) PROPOSED TRAFFIC BARRIER TERMINAL TYPE 1, SPECIAL (TANGENT) - 694+46.10 TO 694+96.10 LT

(F) PROPOSED S.P.B.G.R. TYPE A - 25.0' - 694+96.10 TO 695+21.10 LT

(G) PROPOSED TRAFFIC BARRIER TERMINAL TYPE 6 - 695+21.10 TO 695+67.50 LT

1200' NORTH - NO OUTLET W14-2 FOR SOUTHBOUND TRAFFIC

AT WOODSIDE INTERSECTION:
2-NO OUTLET W14-2A UNDER STREET NAME SIGNS

FILE NAME = Fc-1-IB20PLAN_1.dgn	USER NAME = Johns00944	DESIGNED - JDS	REVISED -
		DRAWN - RSJ	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED - JWM	REVISED -
	PLOT DATE = 10/26/2022	DATE - 8/24/2020	REVISED -

STATE OF ILLINOIS
SANGAMON COUNTY HIGHWAY DEPARTMENT

SIGNING, STRIPING, AND GUARDRAIL PLAN
PHASE 1 – IRON BRIDGE DETAIL SHEET

SCALE: | SHEET NO. OF SHEETS | STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	SANGAMON	368	119
	96S2002F	CONTRACT NO.		93671
FED. ROAD DIST. NO. 6	ILLINOIS	FED. AID PROJECT 6		

• 07-00164-04-FP, 07-00090-08-FP

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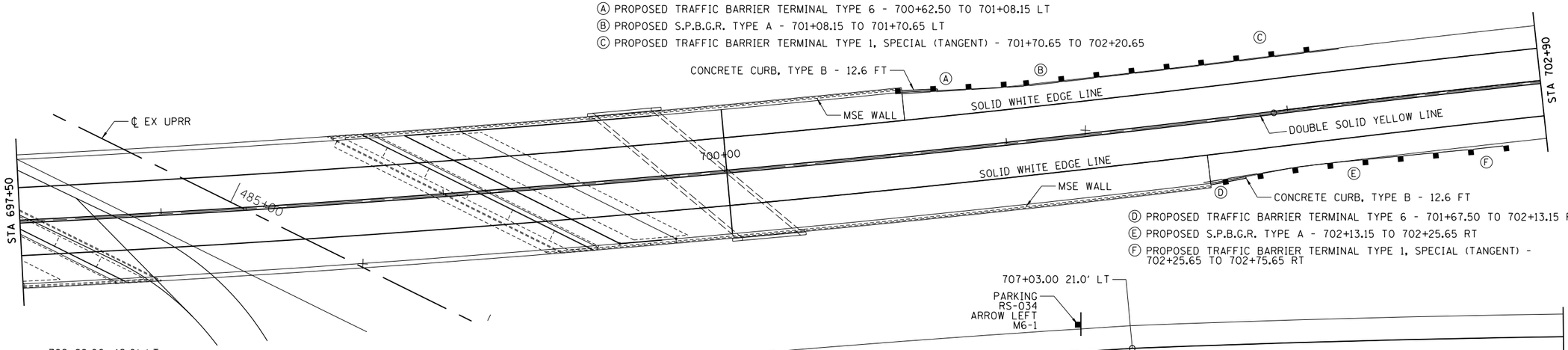
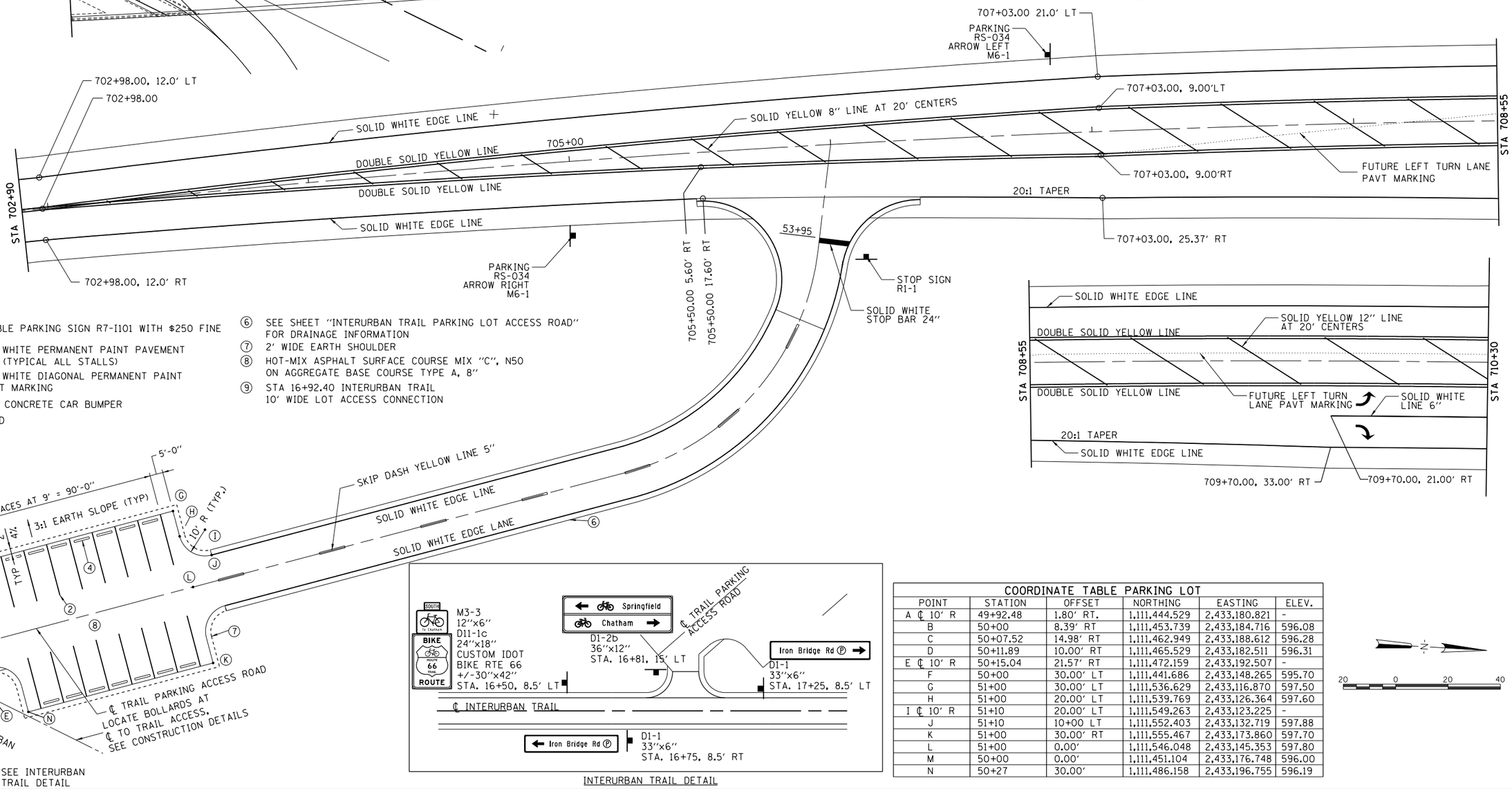
Ⓐ PROPOSED TRAFFIC BARRIER TERMINAL TYPE 6 - 700+62.50 TO 701+08.15 LT
Ⓑ PROPOSED S.P.B.G.R. TYPE A - 701+08.15 TO 701+70.65 LT
Ⓒ PROPOSED TRAFFIC BARRIER TERMINAL TYPE 1, SPECIAL (TANGENT) - 701+70.65 TO 702+20.65

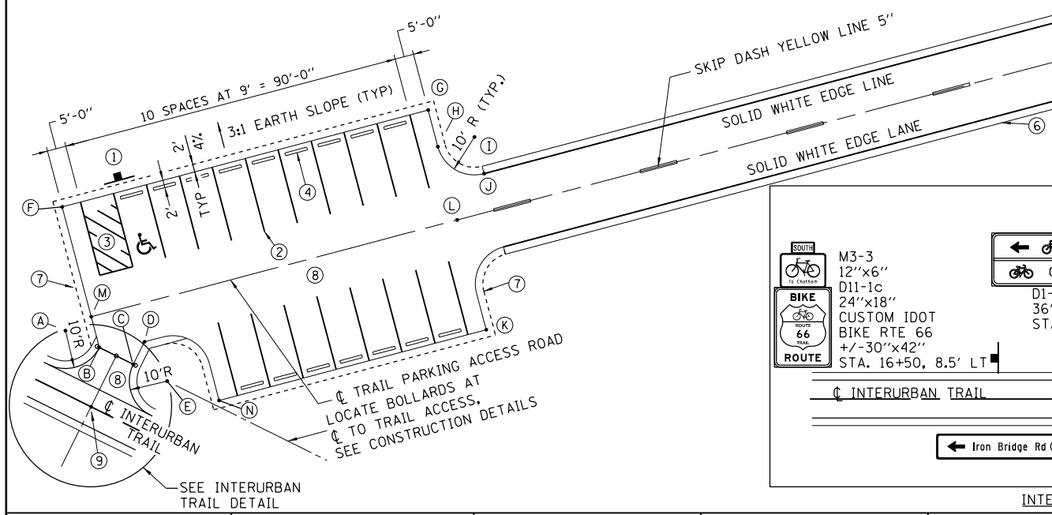


Ⓓ PROPOSED TRAFFIC BARRIER TERMINAL TYPE 6 - 701+67.50 TO 702+13.15 RT
Ⓔ PROPOSED S.P.B.G.R. TYPE A - 702+13.15 TO 702+25.65 RT
Ⓕ PROPOSED TRAFFIC BARRIER TERMINAL TYPE 1, SPECIAL (TANGENT) - 702+25.65 TO 702+75.65 RT



NOTES:

① ACCESSIBLE PARKING SIGN R7-I101 WITH $250 FINE
② 5″ WIDE WHITE PERMANENT PAINT PAVEMENT MARKING (TYPICAL ALL STALLS)
③ 5″ WIDE WHITE DIAGONAL PERMANENT PAINT PAVEMENT MARKING
④ PRECAST CONCRETE CAR BUMPER
⑤ NOT USED
⑥ SEE SHEET "INTERURBAN TRAIL PARKING LOT ACCESS ROAD" FOR DRAINAGE INFORMATION
⑦ 2′ WIDE EARTH SHOULDER
⑧ HOT-MIX ASPHALT SURFACE COURSE MIX "C", N50 ON AGGREGATE BASE COURSE TYPE A, 8″
⑨ STA 16+92.40 INTERURBAN TRAIL
10′ WIDE LOT ACCESS CONNECTION



INTERURBAN TRAIL DETAIL

COORDINATE TABLE PARKING LOT					
POINT	STATION	OFFSET	NORTHING	EASTING	ELEV.
A ℄ 10′ R	49+92.48	1.80′ RT.	1,111,444.529	2,433,180.821	-
B	50+00	8.39′ RT	1,111,453.739	2,433,184.716	596.08
C	50+07.52	14.98′ RT	1,111,462.949	2,433,188.612	596.28
D	50+11.89	10.00′ RT	1,111,465.529	2,433,182.511	596.31
E ℄ 10′ R	50+15.04	21.57′ RT	1,111,472.159	2,433,192.507	-
F	50+00	30.00′ LT	1,111,441.686	2,433,148.265	595.70
G	51+00	30.00′ LT	1,111,536.629	2,433,116.870	597.50
H	51+00	20.00′ LT	1,111,539.769	2,433,126.364	597.60
I ℄ 10′ R	51+10	20.00′ LT	1,111,549.263	2,433,123.225	-
J	51+10	10+00 LT	1,111,552.403	2,433,132.719	597.88
K	51+00	30.00′ RT	1,111,555.467	2,433,173.860	597.70
L	51+00	0.00′	1,111,546.048	2,433,145.353	597.80
M	50+00	0.00′	1,111,451.104	2,433,176.748	596.00
N	50+27	30.00′	1,111,486.158	2,433,196.755	596.19

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		DRAWN - RSJ	REVISED -
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	PLOT DATE = 4/28/2023	DATE - 8/24/2020	REVISED -

STATE OF ILLINOIS
SANGAMON COUNTY HIGHWAY DEPARTMENT

SIGNING, STRIPING, AND GUARDRAIL PLAN
PHASE 1 – IRON BRIDGE DETAIL SHEET

SCALE: | SHEET NO. OF SHEETS | STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	SANGAMON	368	120
	96S2002F	CONTRACT NO.	93671	
FED. ROAD DIST. NO. 6	ILLINOIS	FED. AID PROJECT 6		

• 07-00164-04-FP, 07-00090-08-FP

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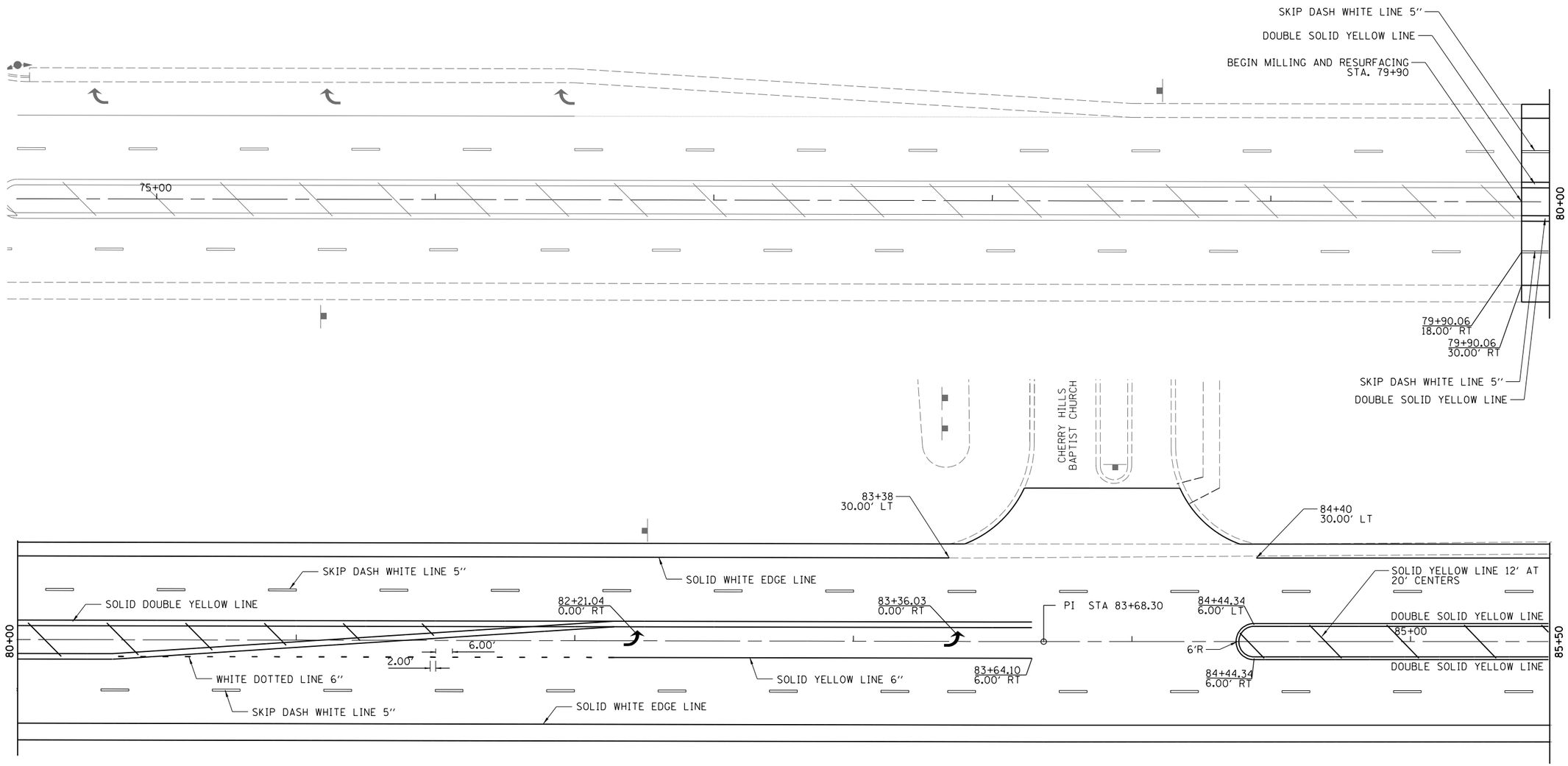

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	PLOT DATE = 10/27/2022	DATE - 8/24/2020	REVISED -

STATE OF ILLINOIS
SANGAMON COUNTY HIGHWAY DEPARTMENT

SIGNING, STIRPING, AND GUARDRAIL PLAN
PHASE 1 – WOODSIDE DETAIL SHEET

SCALE: | SHEET NO. OF SHEETS | STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	SANGAMON	368	121
	96S2002F	CONTRACT NO.	93671	
FED. ROAD DIST. NO. 6	ILLINOIS	FED. AID PROJECT 6		

• 07-00164-04-FP, 07-00090-08-FP

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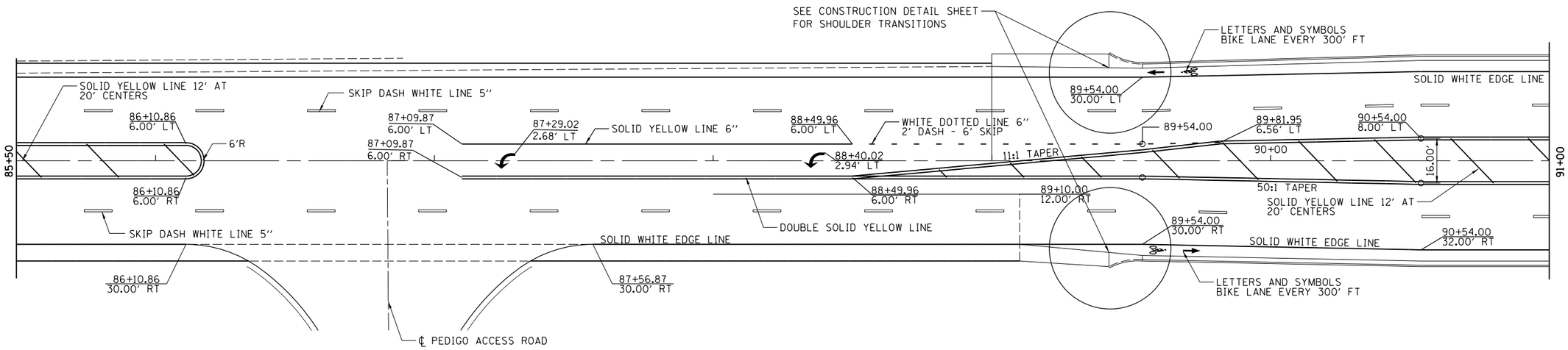

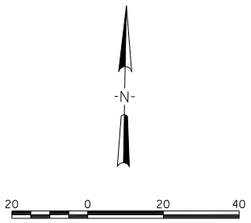

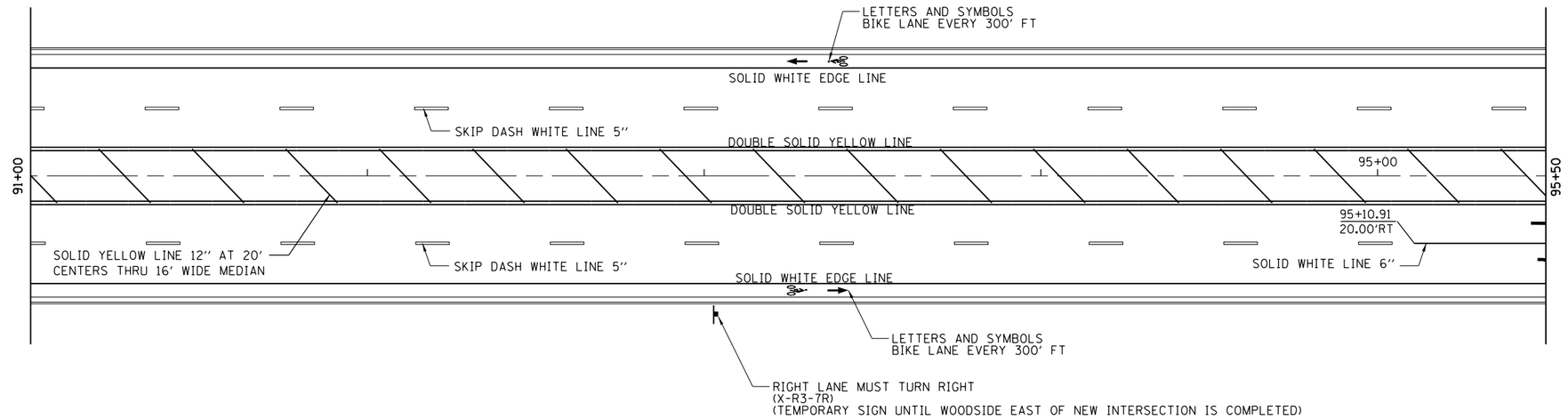

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	PLOT DATE = 10/26/2022	DATE - 8/24/2020	REVISED -

STATE OF ILLINOIS
SANGAMON COUNTY HIGHWAY DEPARTMENT

SIGNING, STRIPING, AND GUARDRAIL PLAN
PHASE 1 – WOODSIDE DETAIL SHEET

SCALE: | SHEET NO. OF SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	SANGAMON	368	122
	96S2002F	CONTRACT NO.	93671	

FED. ROAD DIST. NO. 6 | ILLINOIS | FED. AID PROJECT 6

• 07-00164-04-FP, 07-00090-08-FP

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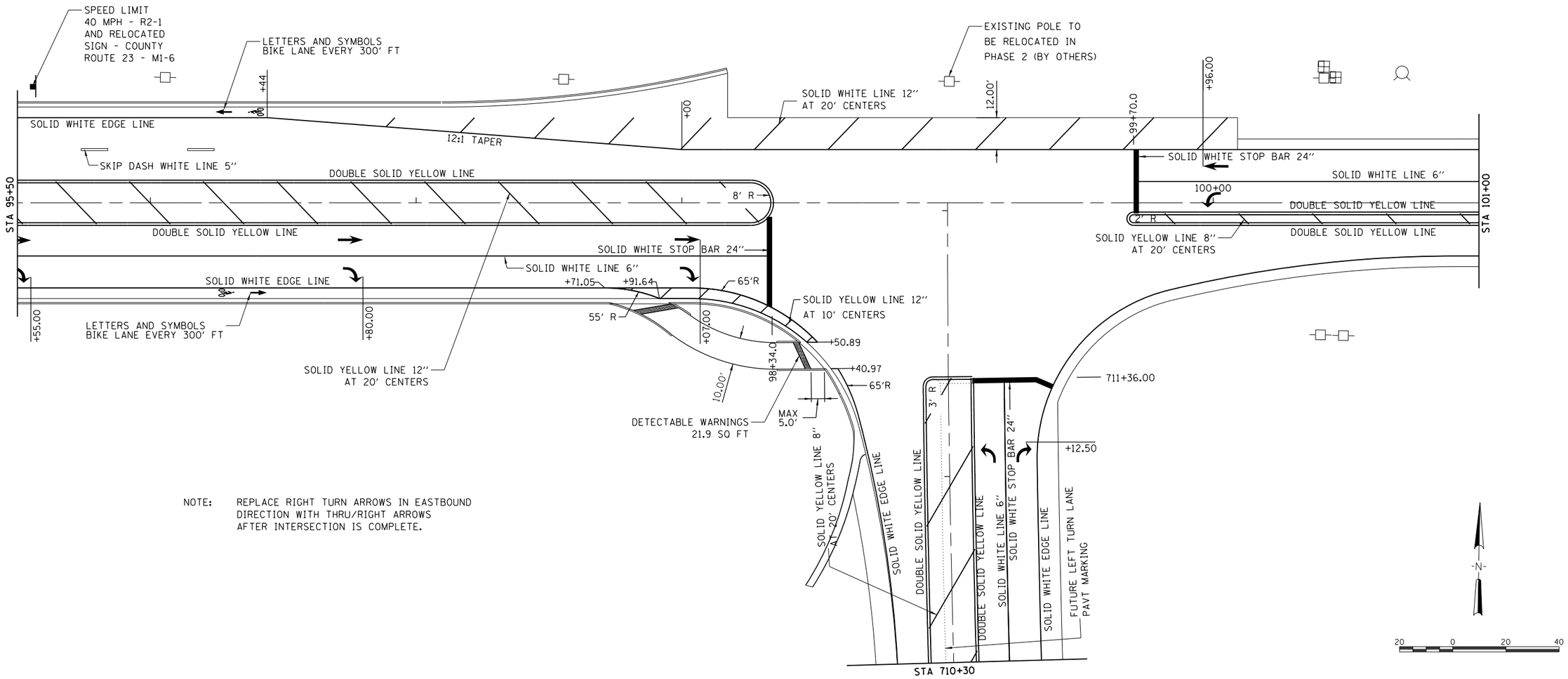

NOTE: REPLACE RIGHT TURN ARROWS IN EASTBOUND DIRECTION WITH THRU/RIGHT ARROWS AFTER INTERSECTION IS COMPLETE.

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	PLOT DATE = 10/26/2022	DATE - 8/24/2020	REVISED -

STATE OF ILLINOIS
SANGAMON COUNTY HIGHWAY DEPARTMENT

SIGNING, STRIPING, AND GUARDRAIL PLAN
PHASE 1 – WOODSIDE ROAD /IRON BRIDGE JUNCTION

SCALE: | SHEET NO. OF SHEETS | STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	SANGAMON	368	123
	96S2002F	CONTRACT NO.	93671	
FED. ROAD DIST. NO. 6	ILLINOIS	FED. AID PROJECT 6		

• 07-00164-04-FP, 07-00090-08-FP

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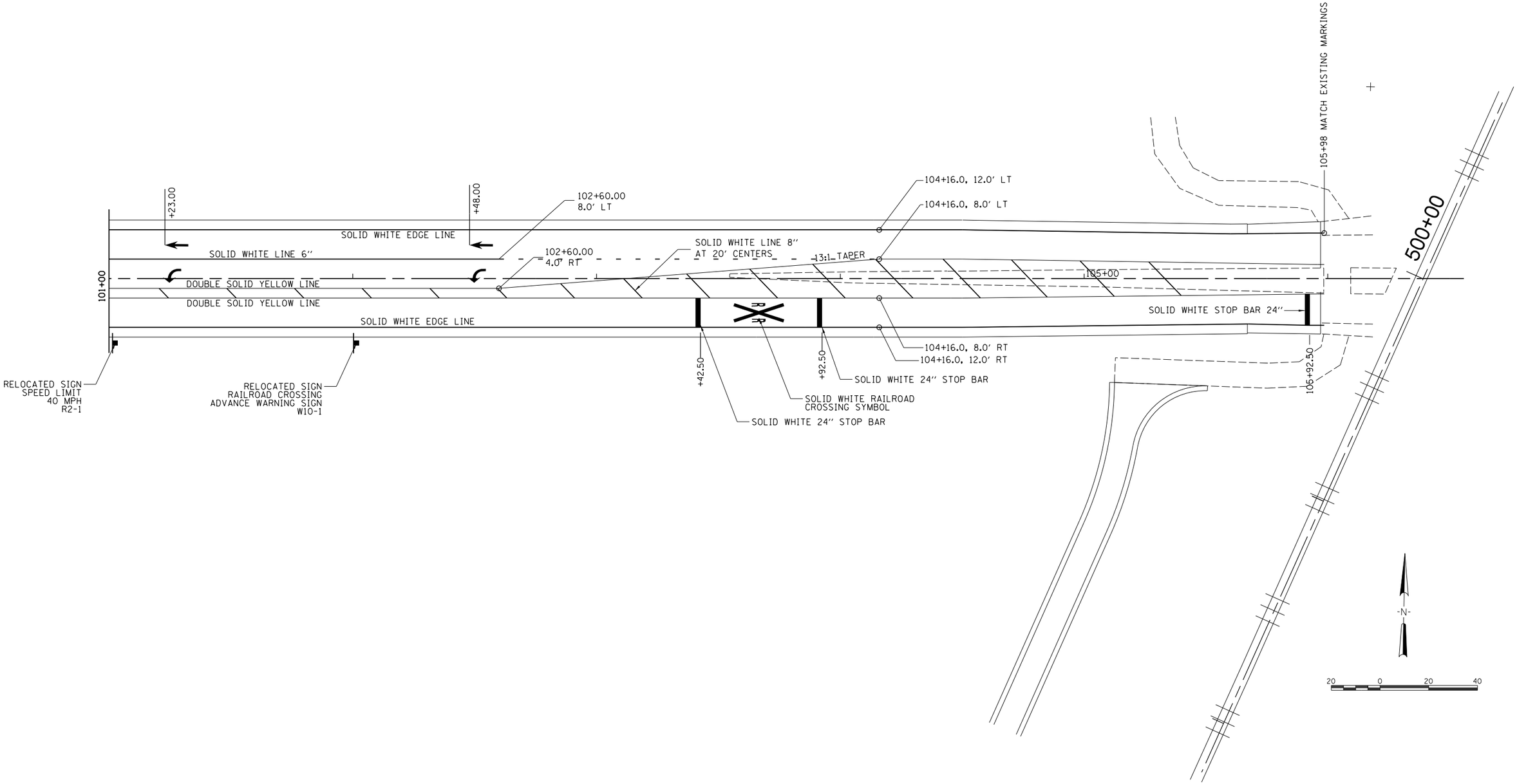

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	PLOT DATE = 10/26/2022	DATE - 8/24/2020	REVISED -

STATE OF ILLINOIS
SANGAMON COUNTY HIGHWAY DEPARTMENT

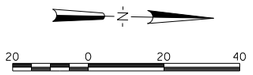
SIGNING, STRIPING, AND GUARDRAIL PLAN
PHASE 1 – WOODSIDE DETAIL SHEET

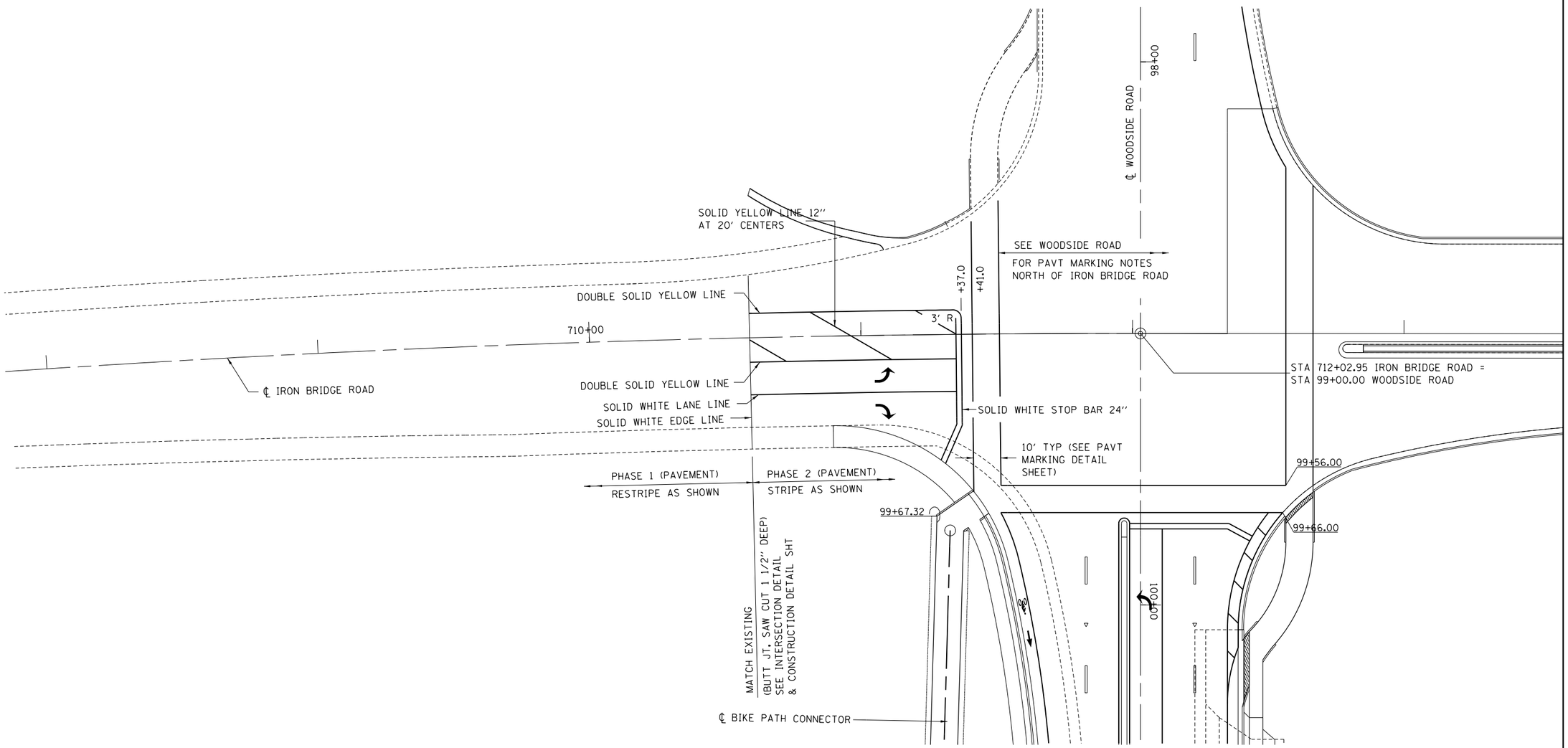
SCALE: | SHEET NO. OF SHEETS | STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	*	SANGAMON	368	124
	96S2002F	CONTRACT NO.	93671	
FED. ROAD DIST. NO. 6	ILLINOIS	FED. AID PROJECT 6		

• 07-00164-04-FP, 07-00090-08-FP

HANSON
Hanson Professional Services Inc.





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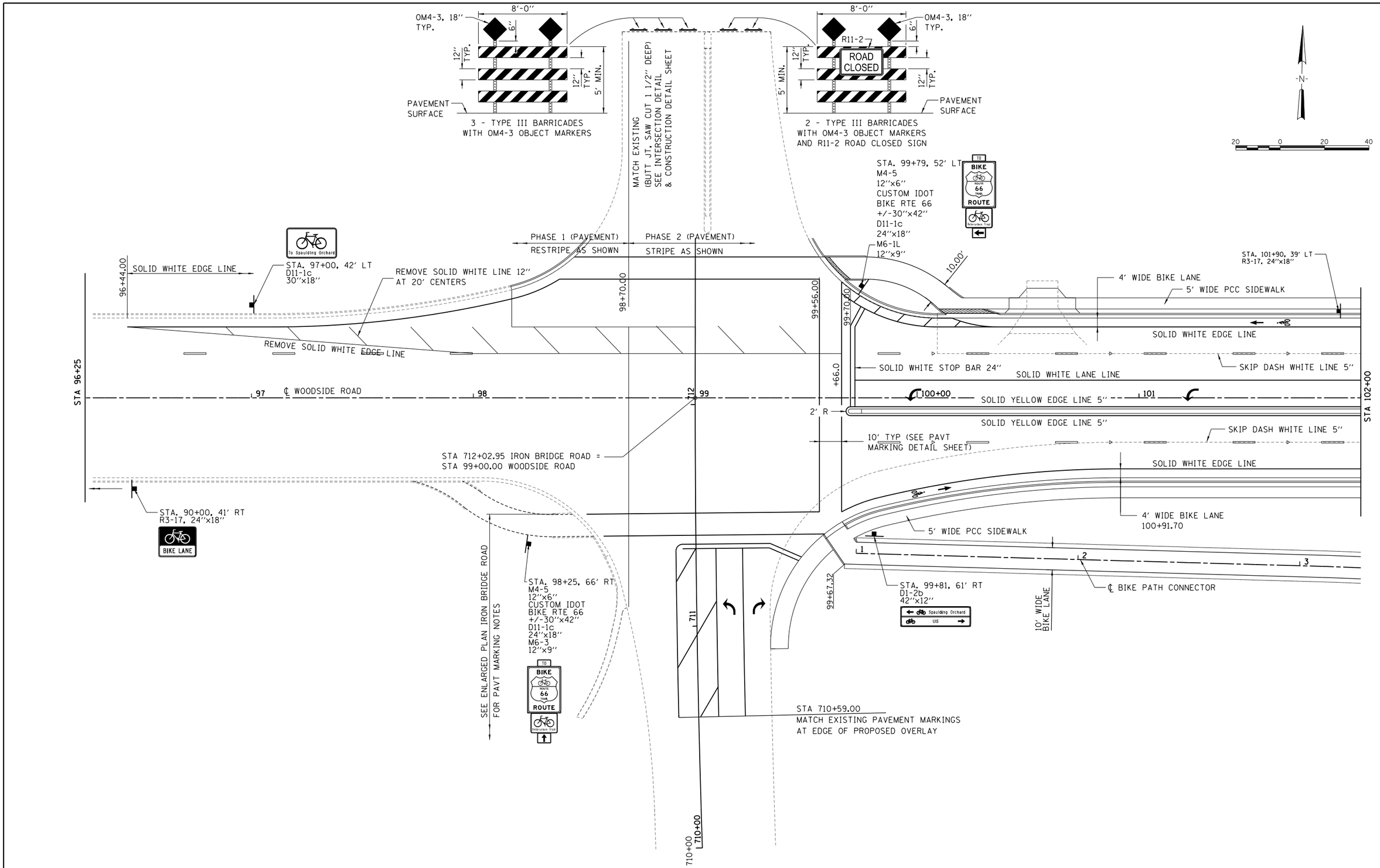
		DRAWN -	REVISED -				•	SANGAMON	368	125
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -				96S2002F	CONTRACT NO. 93671		
	PLOT DATE = 10/26/2022	DATE -	REVISED -		SCALE: SHEET NO. OF SHEETS STA. TO STA.	FED. ROAD DIST. NO. 6	ILLINOIS	FED. AID PROJECT 6		

• 07-00164-04-FP, 07-00090-08-FP

HANSON
Hanson Professional Services Inc.



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	PLOT DATE = 1/11/2023	DATE -	REVISED -

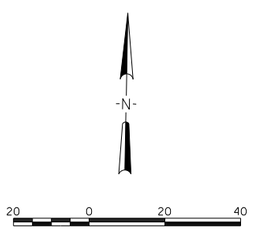
STATE OF ILLINOIS
SANGAMON COUNTY HIGHWAY DEPARTMENT

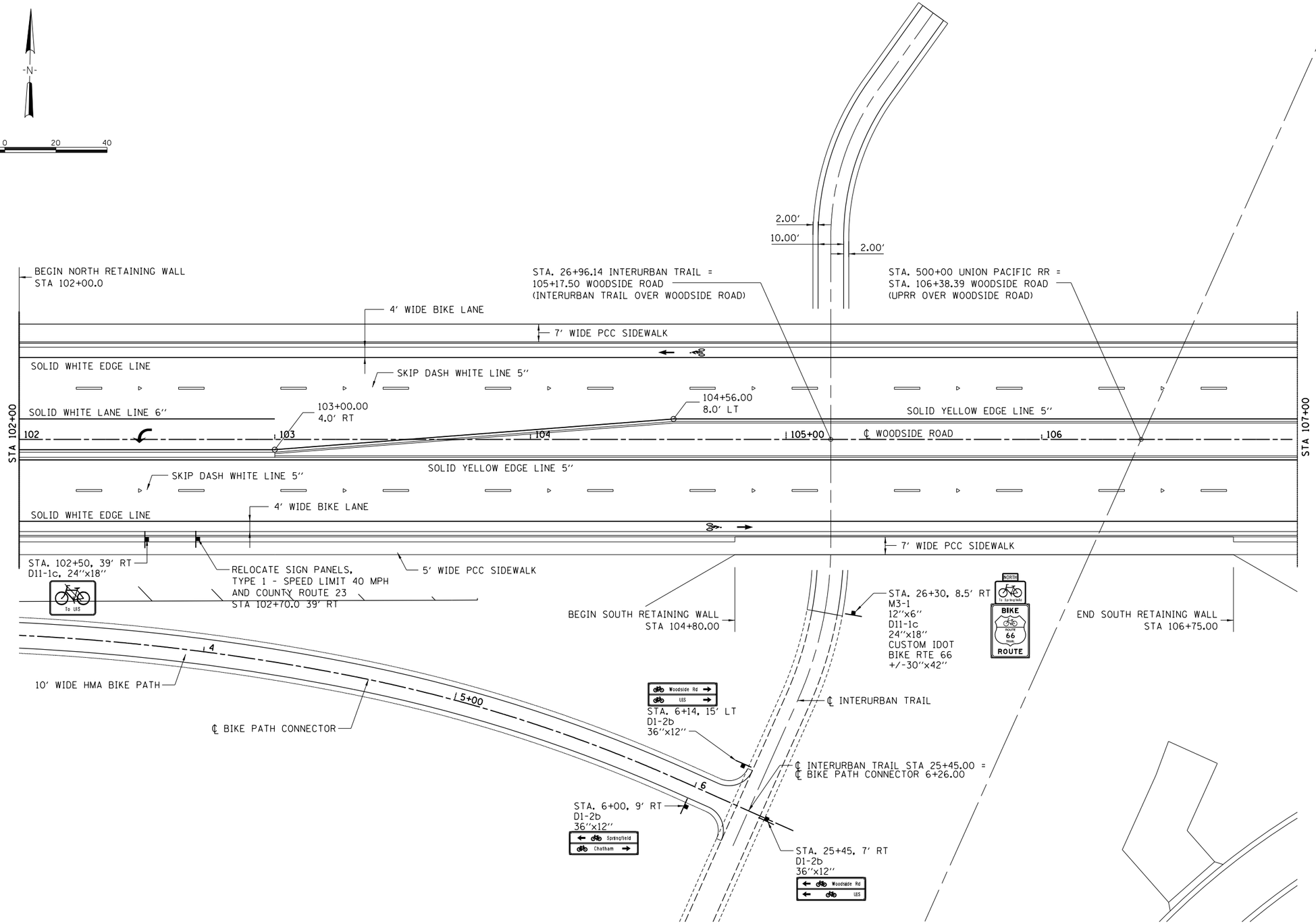
SIGNING, STRIPING, AND GUARDRAIL PLAN
PHASE 2 – WOODSIDE ROAD – 1

SCALE: | SHEET NO. OF SHEETS | STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	SANGAMON	368	126
	96S2002F	CONTRACT NO. 93671		
FED. ROAD DIST. NO. 6	ILLINOIS	FED. AID PROJECT 6		

• 07-00164-04-FP, 07-00090-08-FP





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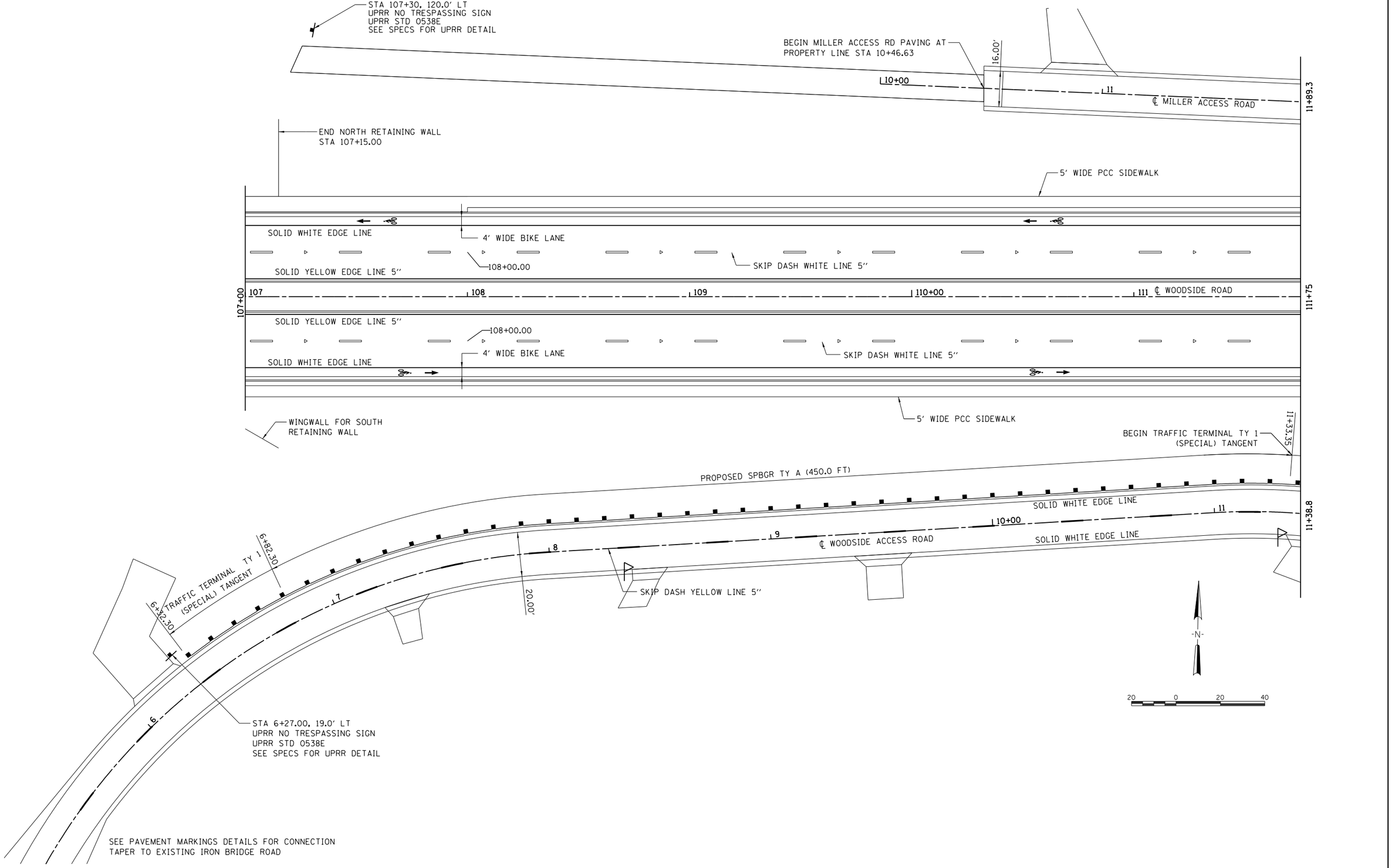
STATE OF ILLINOIS
SANGAMON COUNTY HIGHWAY DEPARTMENT

SIGNING, STRIPING, AND GUARDRAIL PLAN
PHASE 2 – WOODSIDE ROAD – 2

SCALE: | SHEET NO. OF SHEETS | STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	SANGAMON	368	127
	96S2002F	CONTRACT NO.	93671	
FED. ROAD DIST. NO. 6	ILLINOIS	FED. AID PROJECT 6		

• 07-00164-04-FP, 07-00090-08-FP



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STATE OF ILLINOIS
SANGAMON COUNTY HIGHWAY DEPARTMENT

SIGNING, STRIPING, AND GUARDRAIL PLAN
PHASE 2 – WOODSIDE ROAD – 3

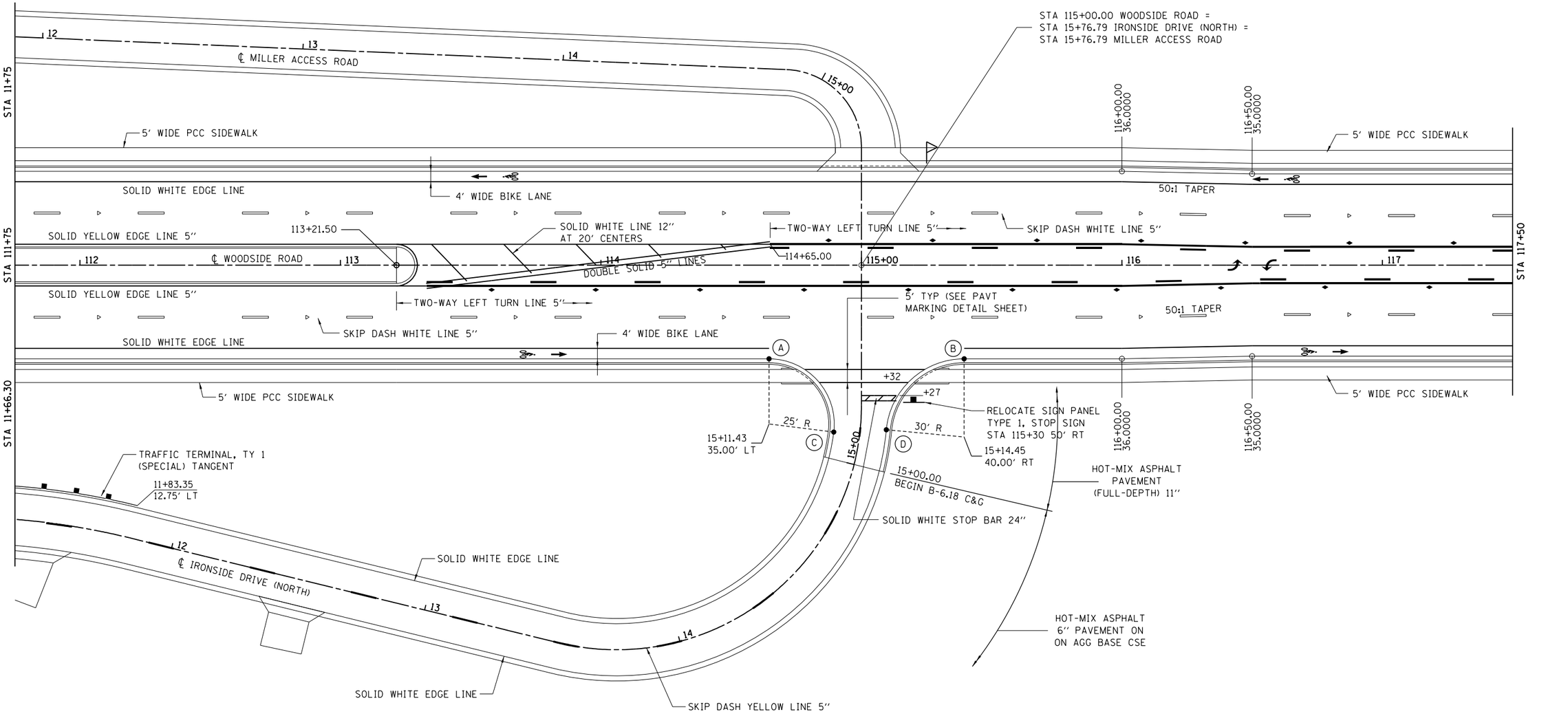
SCALE: | SHEET NO. OF SHEETS | STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	SANGAMON	368	128
	96S2002F	CONTRACT NO. 93671		

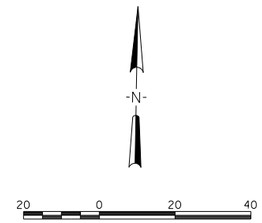
FED. ROAD DIST. NO. 6 | ILLINOIS | FED. AID PROJECT 6

• 07-00164-04-FP, 07-00090-08-FP

HANSON
Hanson Professional Services Inc.



WOODSIDE ROAD AT IRON BRIDGE ROAD						
	STATION	OFFSET	℄ OR ℬ	NORTHING	EASTING	ELEVATION
A	114+64.55	36.00	WOODSIDE	1112374.0077	2434485.9768	585.51
B	115+39.43	36.00	WOODSIDE	1112375.4329	2434560.8510	584.53
C	15+11.43	10.00	ACCESS	1112346.3898	2434511.3147	585.64
D	15+14.45	10.00	ACCESS	1112347.6241	2434531.5017	585.63



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STATE OF ILLINOIS
SANGAMON COUNTY HIGHWAY DEPARTMENT

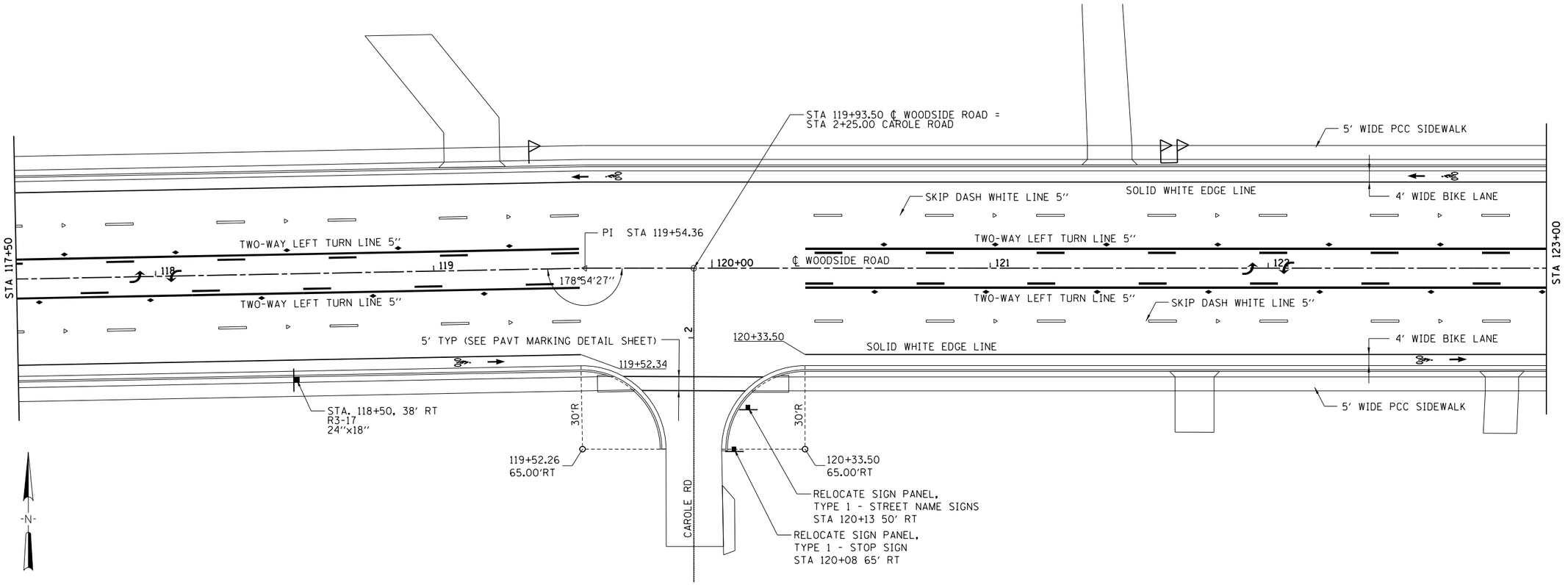
SIGNING, STRIPING, AND GUARDRAIL PLAN
PHASE 2 – WOODSIDE ROAD – 4

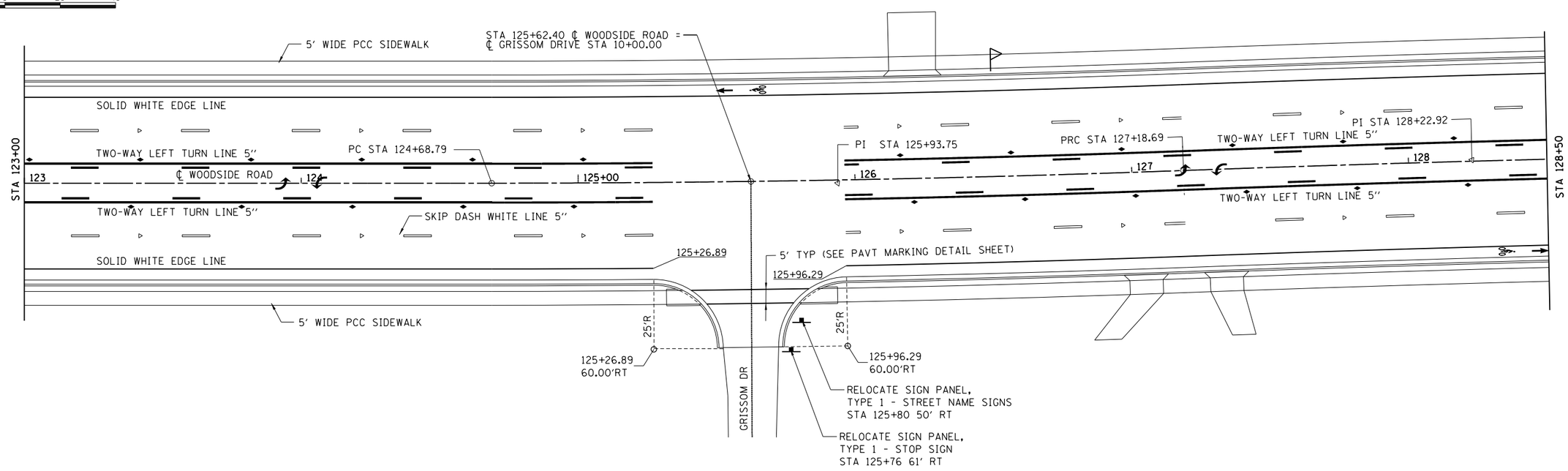
SCALE: | SHEET NO. OF SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	SANGAMON	368	129
	96S2002F	CONTRACT NO.	93671	
FED. ROAD DIST. NO. 6	ILLINOIS	FED. AID PROJECT 6		

• 07-00164-04-FP, 07-00090-08-FP

HANSON
Hanson Professional Services Inc.





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	PLOT DATE = 10/26/2022	DATE -	REVISED -

STATE OF ILLINOIS
SANGAMON COUNTY HIGHWAY DEPARTMENT

SIGNING, STRIPING, AND GUARDRAIL PLAN
PHASE 2 – WOODSIDE ROAD – 5

SCALE: | SHEET NO. OF SHEETS | STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	SANGAMON	368	130
	96S2002F	CONTRACT NO.	93671	

FED. ROAD DIST. NO. 6 | ILLINOIS | FED. AID PROJECT 6

• 07-00164-04-FP, 07-00090-08-FP

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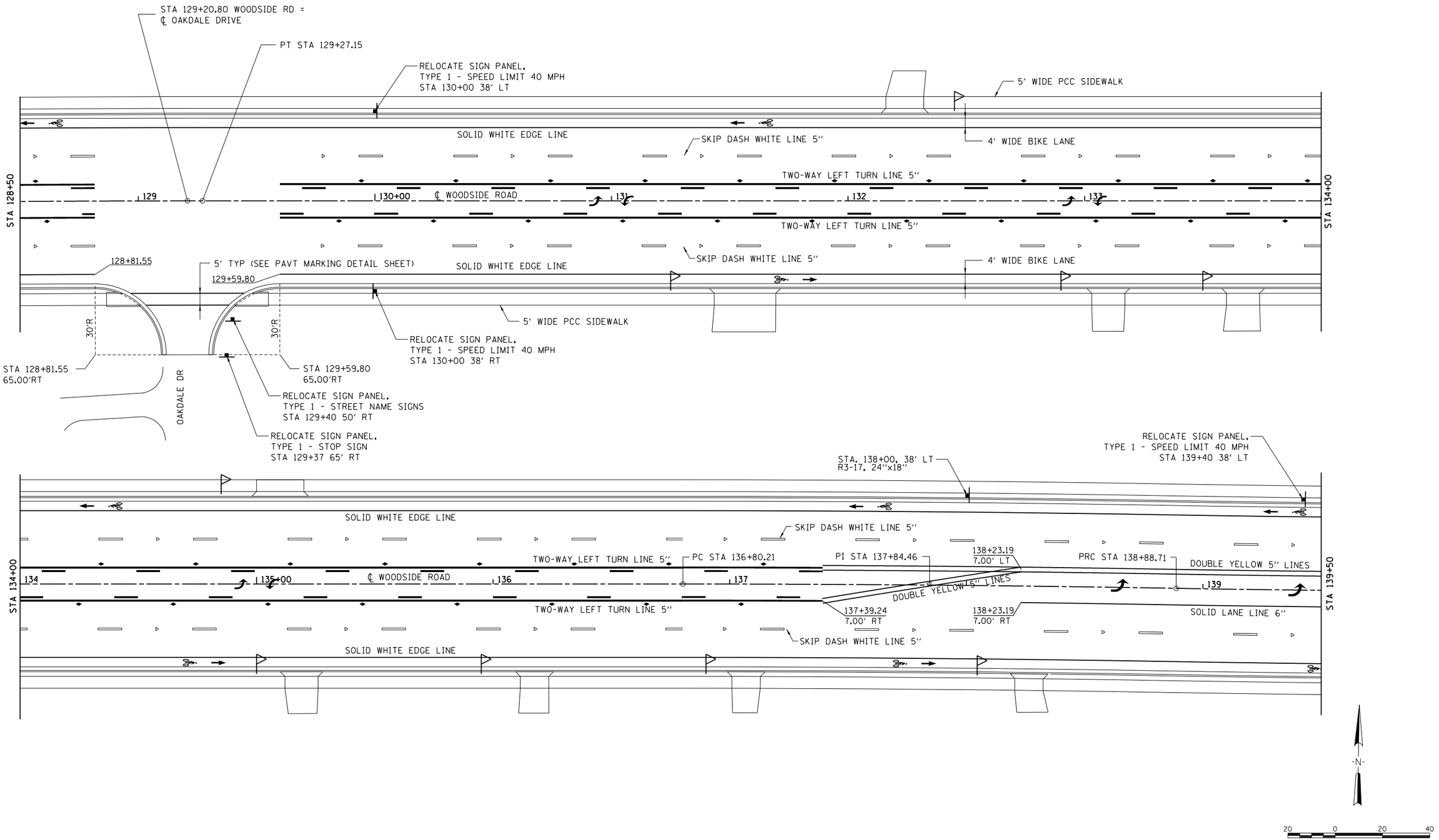
Hanson Professional Services Inc.



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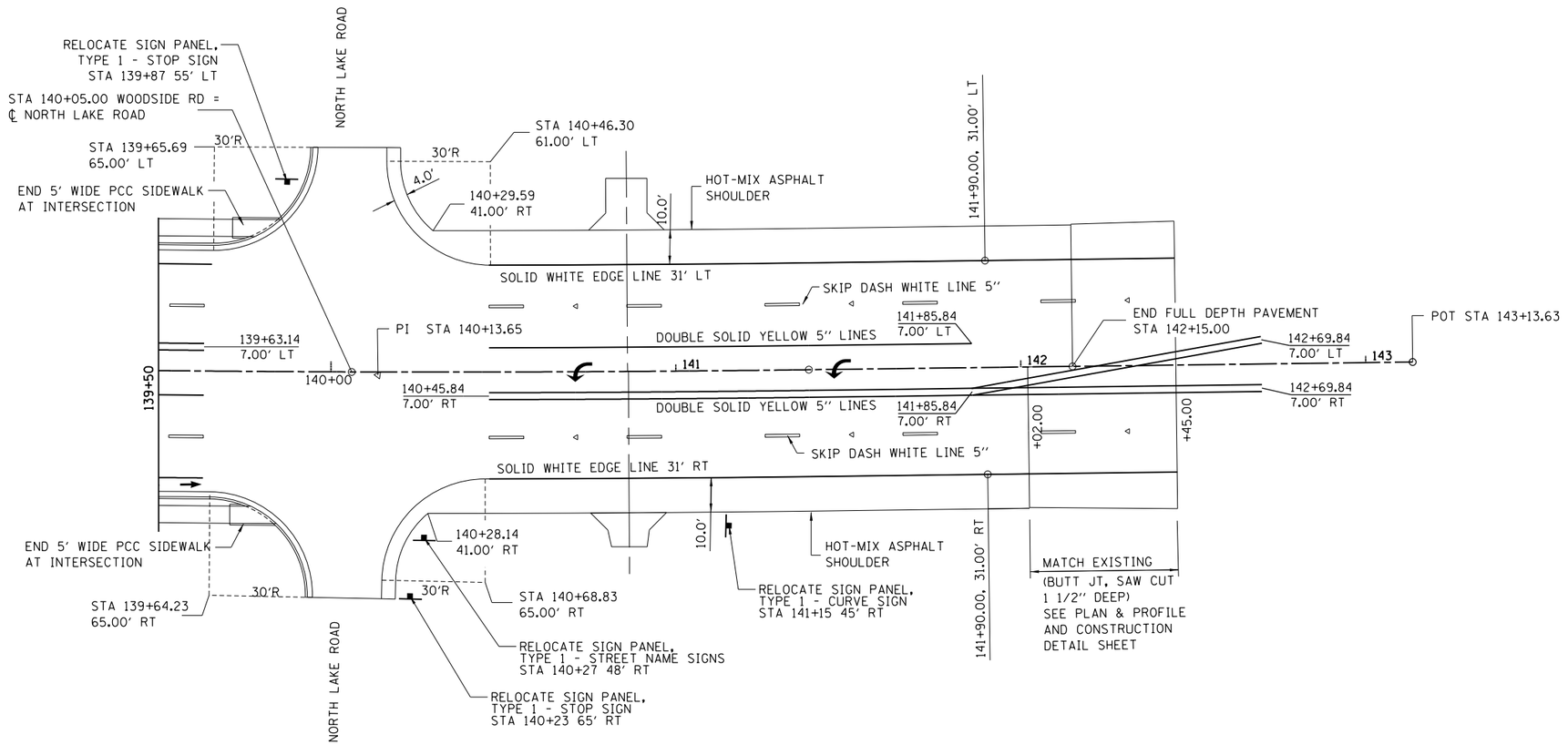
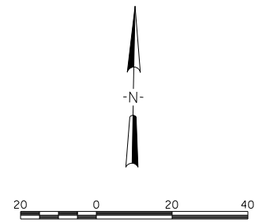
		DRAWN -	REVISED -				•	SANGAMON	368	131
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -				96S2002F	CONTRACT NO. 93671		
	PLOT DATE = 10/26/2022	DATE -	REVISED -		SCALE: SHEET NO. OF SHEETS STA. TO STA.	FED. ROAD DIST. NO. 6	ILLINOIS	FED. AID PROJECT 6		

• 07-00164-04-FP, 07-00090-08-FP





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		DRAWN -	REVISED -				•	SANGAMON	368	132
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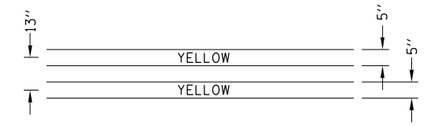
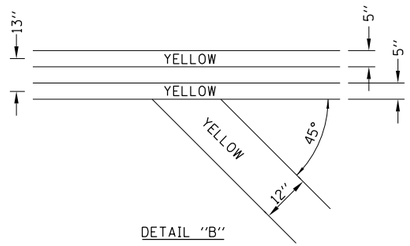
	PLOT DATE = 10/26/2022	DATE -	REVISED -		SCALE: SHEET NO. OF SHEETS STA. TO STA.	FED. ROAD DIST. NO. 6	ILLINOIS	FED. AID PROJECT 6		

• 07-00164-04-FP, 07-00090-08-FP

HANSON
Hanson Professional Services Inc.



DETAIL "A"



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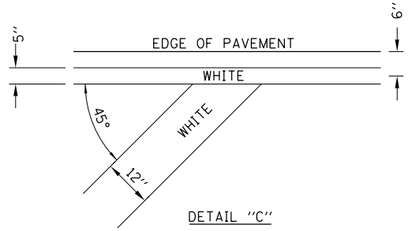

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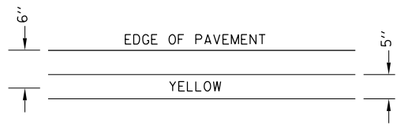
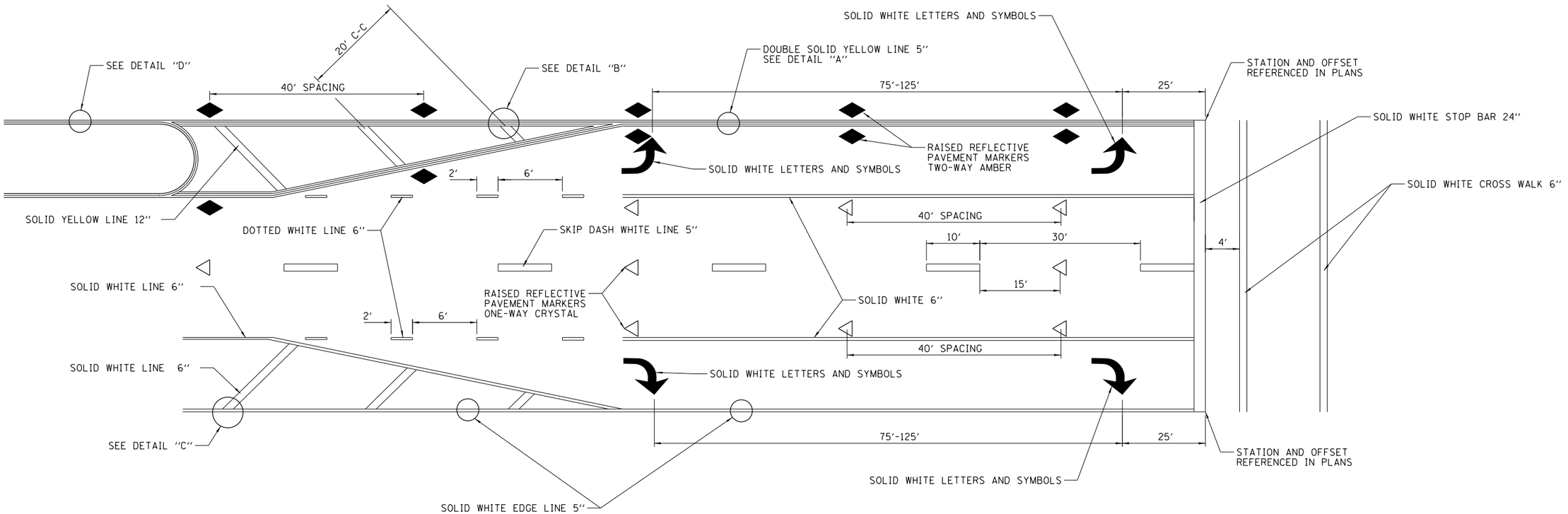
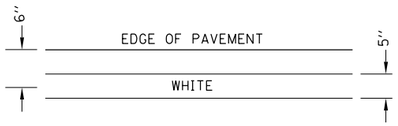


MEDIAN EDGE STRIPE DETAIL "D"



TYPICAL PAVEMENT MARKING DETAIL

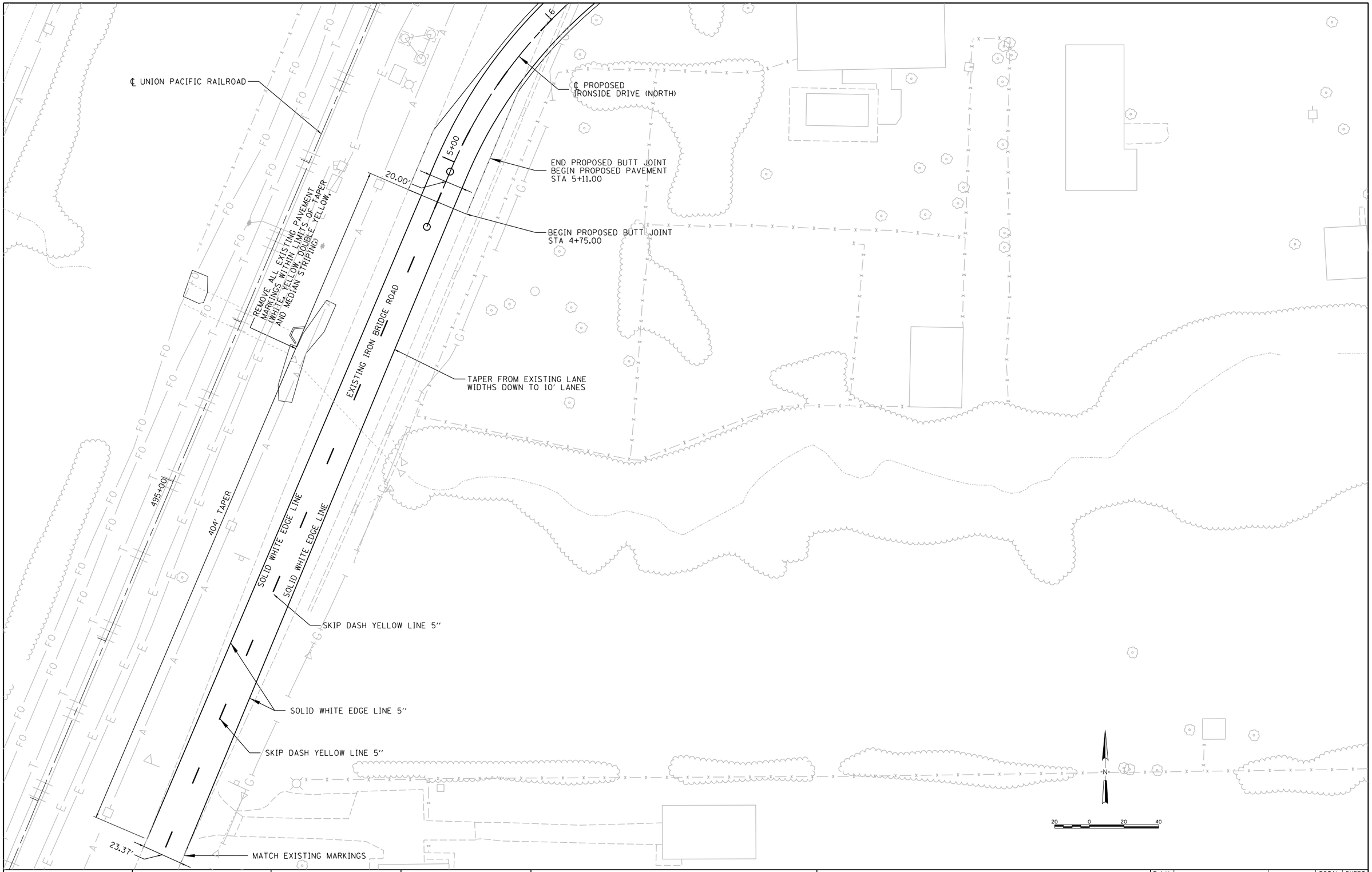


EDGE STRIPE DETAIL "E"

FILE NAME = FGc-5-MARKDTLS.dgn	USER NAME = Johns00944	DESIGNED -	REVISED -	**STATE OF ILLINOIS** **SANGAMON COUNTY HIGHWAY DEPARTMENT**	**PAVEMENT MARKING DETAILS – 1**	F.A.U RTE.	SECTION: •
		DRAWN -	REVISED -				96S2002F
	PLOT SCALE = 100.000 ' / in.	CHECKED -	REVISED -		SCALE: SHEET NO. OF SHEETS STA. TO STA.	COUNTY: SANGAMON	CONTRACT NO. 93671
	PLOT DATE = 10/26/2022	DATE -	REVISED -			TOTAL SHEETS: 368	SHEET NO. 133
						FED. ROAD DIST. NO. 6 | ILLINOIS | FED. AID PROJECT 6	

• 07-00164-04-FP, 07-00090-08-FP

HANSON
Hanson Professional Services Inc.



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	PLOT DATE = 10/26/2022	DATE -	REVISED -

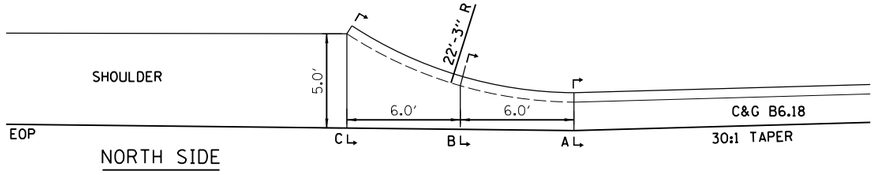
STATE OF ILLINOIS
SANGAMON COUNTY HIGHWAY DEPARTMENT

PAVEMENT MARKING DETAILS – 2

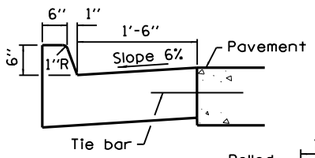
SCALE: | SHEET NO. OF SHEETS | STA. TO STA.

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	SANGAMON	368	134
	96S2002F	CONTRACT NO. 93671		
FED. ROAD DIST. NO. 6	ILLINOIS	FED. AID PROJECT 6		

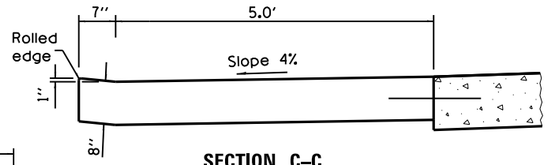
• 07-00164-04-FP, 07-00090-08-FP



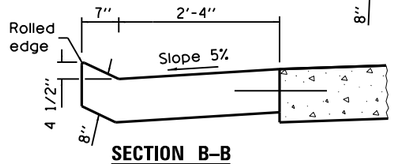
NORTH SIDE



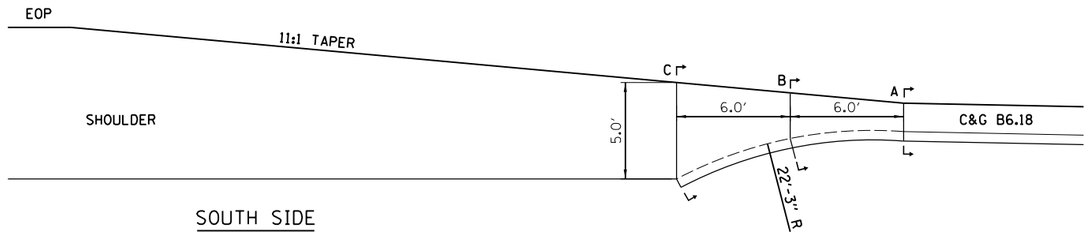
SECTION A–A



SECTION C–C

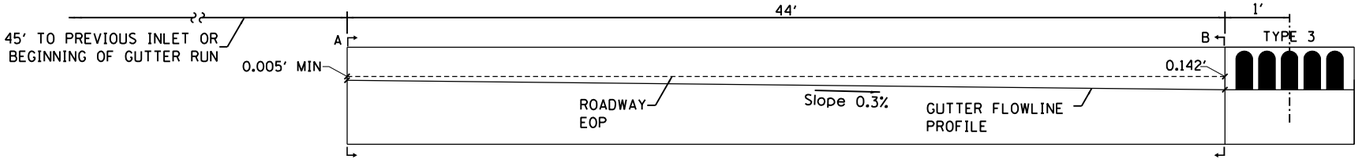


SECTION B–B

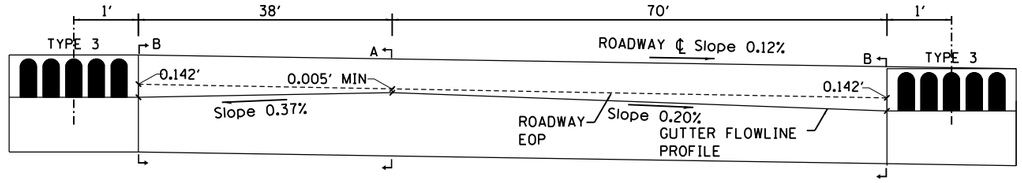


SOUTH SIDE

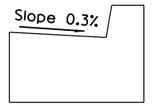
WOODSIDE SHOULDER TRANSITION DETAILS



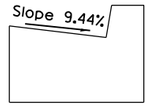
FLOW PROFILE FOR INLETS AT 90' SPACING



FLOWLINE PROFILE FOR INLETS AT 100' SPACING

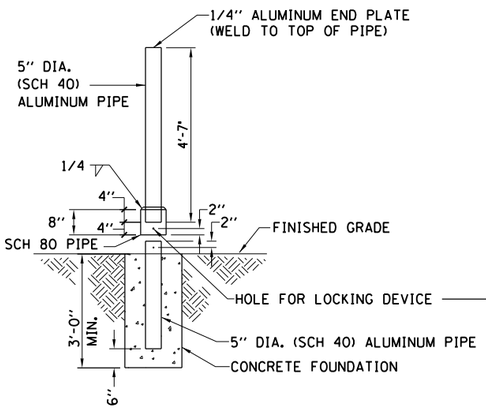


SECTION A–A

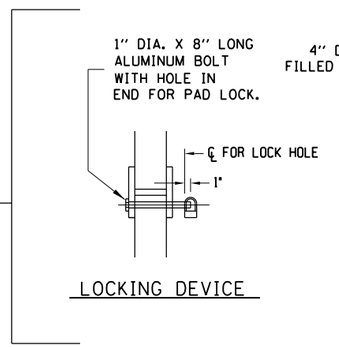


SECTION B–B

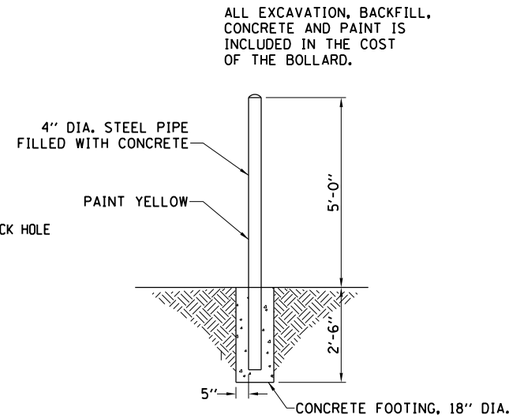
PHASE 2 - WOODSIDE RD CURB DETAIL



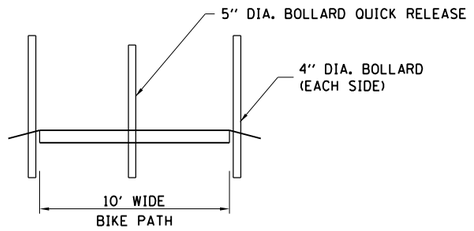
5" DIA. BOLLARD QUICK RELEASE



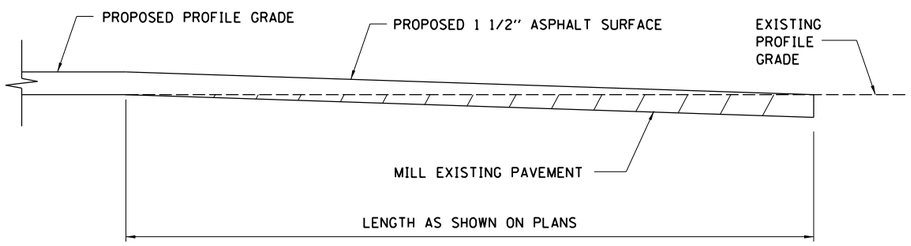
LOCKING DEVICE



4" DIA. BOLLARD



ELEVATION
BOLLARDS FOR INTERURBAN TRAIL



BUTT JOINT DETAIL

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		DRAWN - JDS	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED - JWM	REVISED -
	PLOT DATE = 4/28/2023	DATE - 8/24/2020	REVISED -

STATE OF ILLINOIS
SANGAMON COUNTY HIGHWAY DEPARTMENT

CONSTRUCTION DETAILS

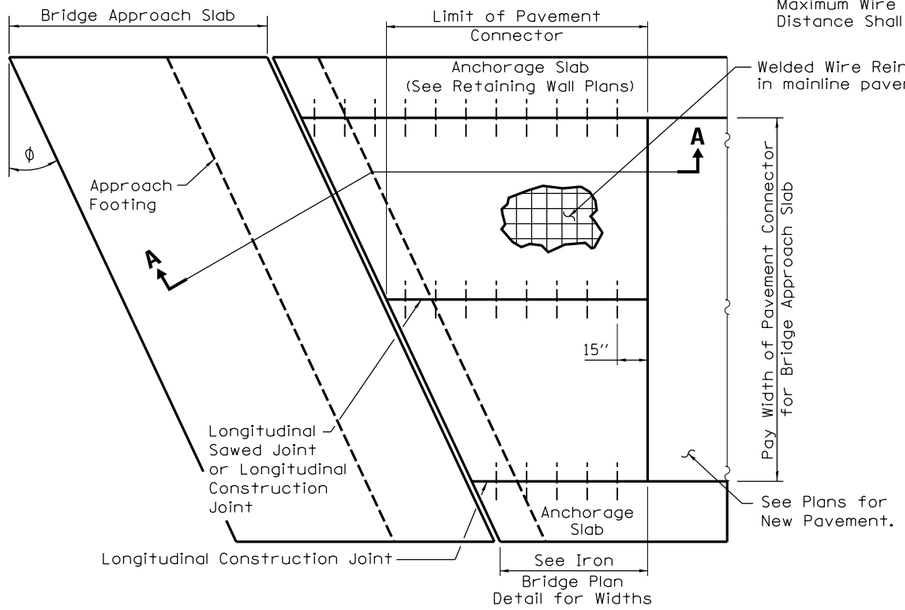
SCALE: | SHEET NO. OF SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	SANGAMON	368	135
	96S2002F	CONTRACT NO.		93671

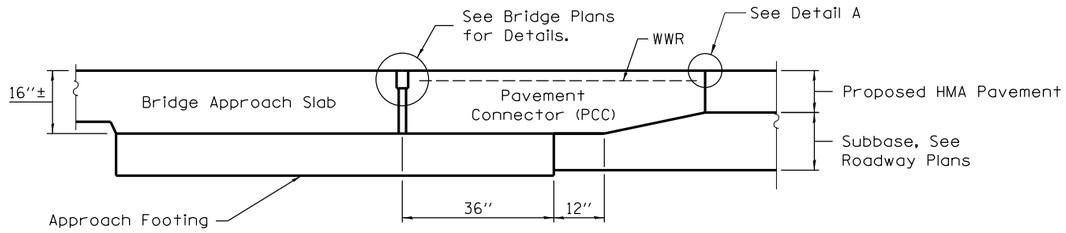
FED. ROAD DIST. NO. 6 | ILLINOIS | FED. AID PROJECT 6

• 07-00164-04-FP, 07-00090-08-FP

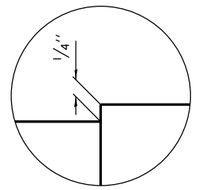
① WWR Shall be 0.11 Sq. In./Ft. in Both Directions. Maximum Wire Spacing Shall be 6". Minimum Lap Distance Shall be Two Cross Wires.



PLAN DETAIL



SECTION A–A



DETAIL A

GENERAL NOTES

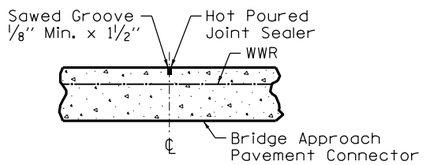
THICKNESS - "t" = Thickness of Pavement.

See Standard 420001 for Pavement Joint Details Not Shown.

See Standard 610001 for Shoulder Inlet with Curb When Required.

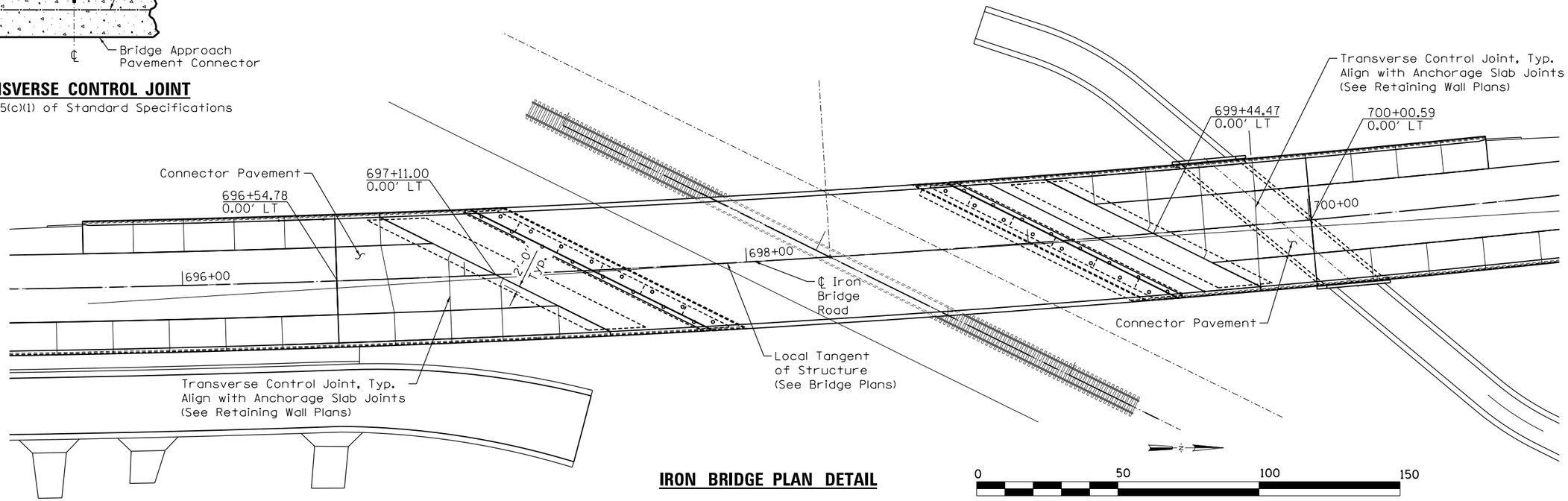
See Plans for Details of Bridge Approach Slab, Approach Footing, and Joint Treatment.

All Dimensions are Shown in Inches Unless Otherwise Shown.



TRANSVERSE CONTROL JOINT

See Art. 420.05(c)(1) of Standard Specifications



IRON BRIDGE PLAN DETAIL

0 50 100 150

SCALE IN FEET
(FOR PLAN VIEW ONLY)

FILE NAME = FGc-5-CONST_DTL_2001.dgn	USER NAME = Johns00944	DESIGNED - JDS	REVISED -
		DRAWN - JDS	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED - JWM	REVISED -
	PLOT DATE = 10/26/2022	DATE - 8/24/2020	REVISED -

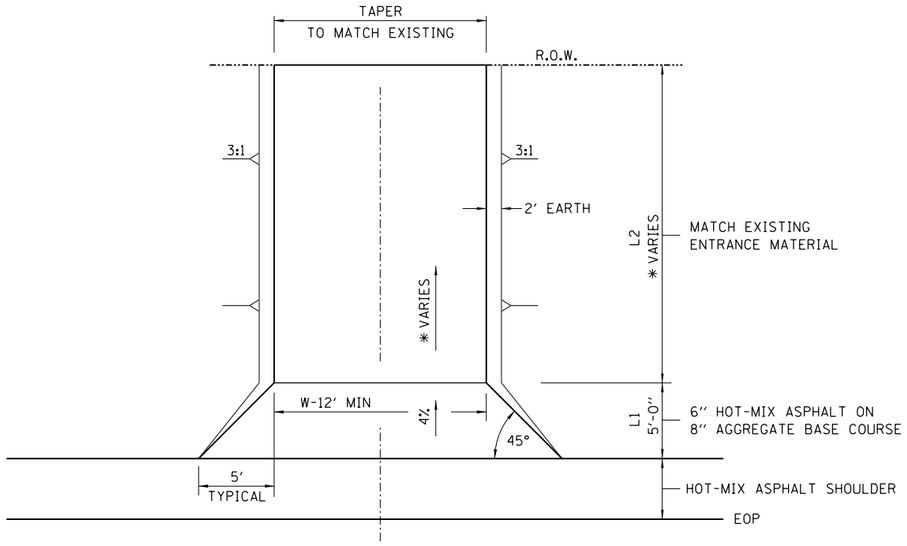
STATE OF ILLINOIS
SANGAMON COUNTY HIGHWAY DEPARTMENT

BRIDGE APPROACH PAVEMENT CONNECTOR DETAILS

SCALE: | SHEET NO. OF SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	SANGAMON	368	136
	96S2002F	CONTRACT NO.	93671	
FED. ROAD DIST. NO. 6	ILLINOIS	FED. AID PROJECT 6		

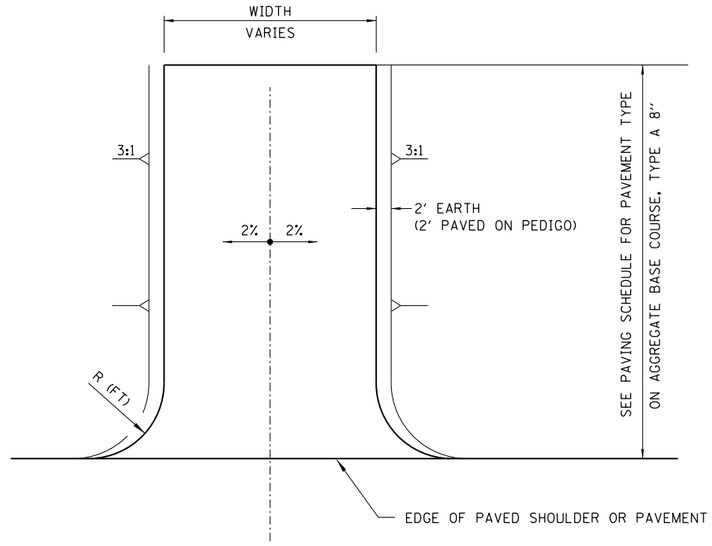
• 07-00164-04-FP, 07-00090-08-FP



TYPICAL ENTRANCE TYPE 1

FIELD ENTRANCE / PRIVATE ENTRANCE

* SEE PLAN CROSS SECTIONS



TYPICAL ENTRANCE TYPE 2

PRIVATE ENTRANCE - BAPTIST CAMP ROAD & RELOCATED PEDIGO LANE

GENERAL NOTES

THE RESIDENT ENGINEER WILL DETERMINE THE EXACT TYPE OF IMPROVEMENT TO BE COMPLETED FOR ALL ENTRANCES.

THE PLAN DETAILS AND SCHEDULES SHOULD BE USED AS A GUIDE FOR THE ENGINEER TO IMPLEMENT THE FINAL DESIGN. THE ENGINEER MAY DECIDE TO SALVAGE PORTIONS OF THE EXISTING ENTRANCE PAVEMENT STRUCTURE: THEREFORE REDUCING PAY ITEM QUANTITIES. NO ADDITIONAL PAYMENT WILL BE ALLOWED FOR THIS REDUCTION IN QUANTITIES.

ANY WORK THE ENGINEER REQUIRES WHICH IS NOT COVERED BY A PAY ITEM CONTAINED IN THE PLANS WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS.

PHASE 1 - ENTRANCE SCHEDULE

ROADWAY	NOTE	STATION	LT OR RT	SKEW	TYPE	WIDTH	L1	L2
IRON BRIDGE ROAD	P.E.	688+25	LT	90°	1	12'	5'	16.6'
IRON BRIDGE ROAD	P.E.	688+98.7	LT	90°	1	24'	5'	10.0'
IRON BRIDGE ROAD	P.E.	689+16	RT	90°	1	12'	5'	11.0'
IRON BRIDGE ROAD	P.E.	689+57.0	LT	112°	1	16'	5'	24.4'
IRON BRIDGE ACCESS BAPTIST CAMP ROAD	P.E.	9+98.07	RT	LT AH 1°	2	16.5'	R(N)=20' R(S)=20'	
IRONSIDE DRIVE (SOUTH)	P.E.	10+65.70	RT	90°	1	12'	5.0'	10.0'
IRONSIDE DRIVE (SOUTH)	P.E.	12+40.79	RT	90°	1	12'	4.8'	6.2'
IRONSIDE DRIVE (SOUTH)	P.E.	13+59.62	RT	90°	1	12'	4.7'	6.3'
IRONSIDE DRIVE (SOUTH)	P.E.	13+94.59	RT	LT AH 5°	1	12'	4.7'	11.4'
IRONSIDE DRIVE (SOUTH)	P.E.	14+61.07	RT	LT AH 5°	1	12'	4.7'	14.9'
WOODSIDE ROAD	P.E.	83+89.48	LT	90°	2	49.2'	-	20'
WOODSIDE ROAD	F.E.	100+56.5	LT	90°	1	30'	5'	23.8'
WOODSIDE ROAD REPLACE PEDIGO LANE	P.E.	86+83.06	RT	90°	2	24'	R= 85'-45' 8' O/S	
PEDIGO LANE	F.E.	103+00.0	LT	90°	1	30'	5'	16.0'
PEDIGO LANE	F.E.	116+50.0	RT	90°	1	24'	0'	10.4'

FILE NAME = Fc-5-ENT_DTLS.dgn	USER NAME = johns00944	DESIGNED - JDS	REVISED -
		DRAWN - JDS	REVISED -
	PLOT SCALE = 100.000 ' / in.	CHECKED - JWM	REVISED -
	PLOT DATE = 5/1/2023	DATE - 8/24/2020	REVISED -

STATE OF ILLINOIS
SANGAMON COUNTY HIGHWAY DEPARTMENT

ENTRANCE DETAILS
PHASE 1 – IRON BRIDGE ROAD

SCALE: | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	SANGAMON	368	137
	96S2002F	CONTRACT NO.	93671	
FED. ROAD DIST. NO. 6	ILLINOIS	FED. AID PROJECT 6		

• 07-00164-04-FP, 07-00090-08-FP

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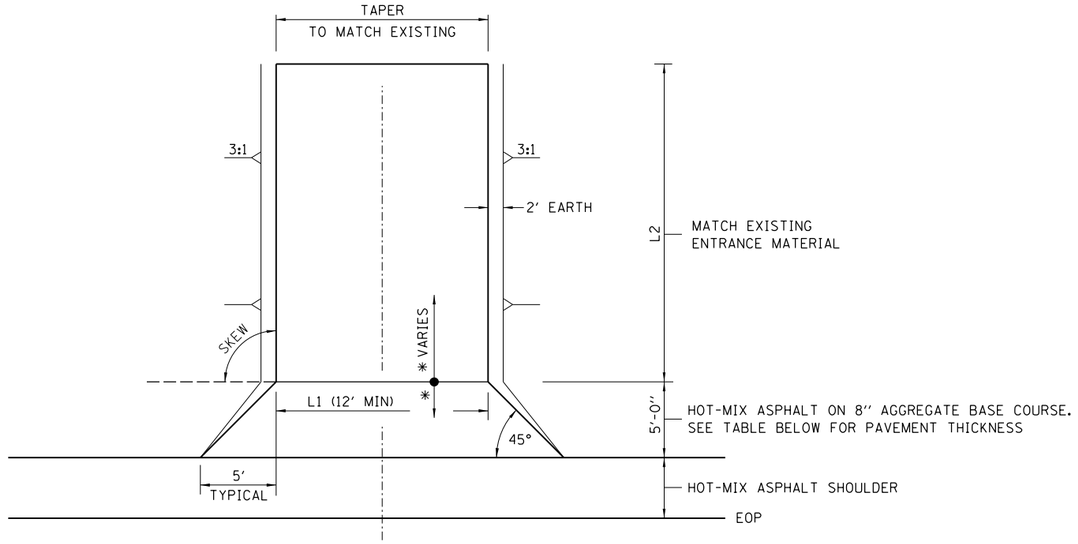
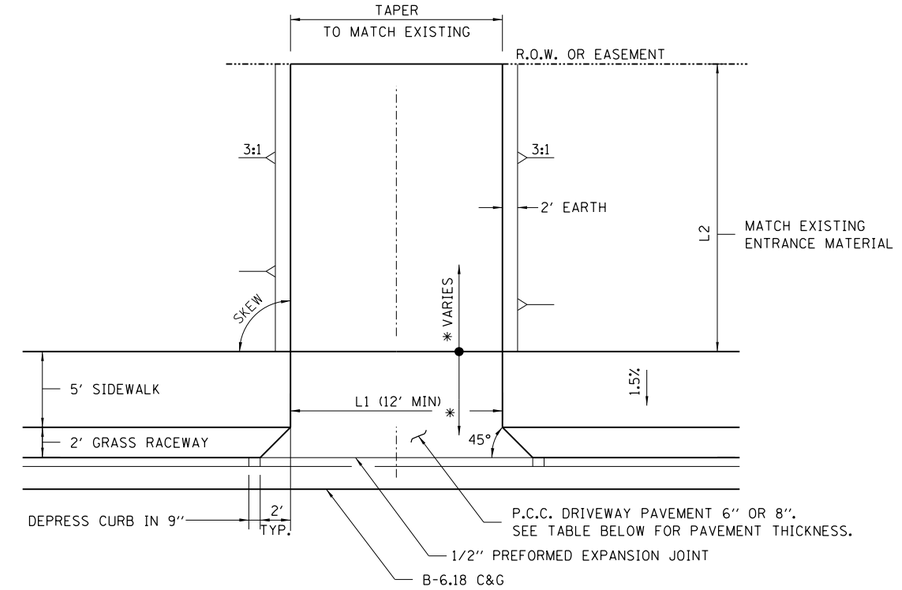


TYPICAL ENTRANCE TYPE 1
FIELD ENTRANCE / PRIVATE ENTRANCE

* SEE PLAN CROSS SECTIONS FOR ENTRANCE SLOPES



TYPICAL ENTRANCE TYPE 2
FIELD ENTRANCE / PRIVATE ENTRANCE

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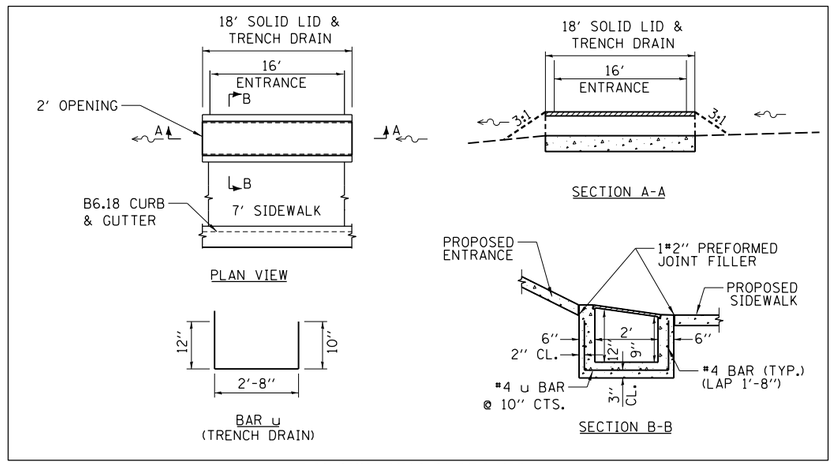
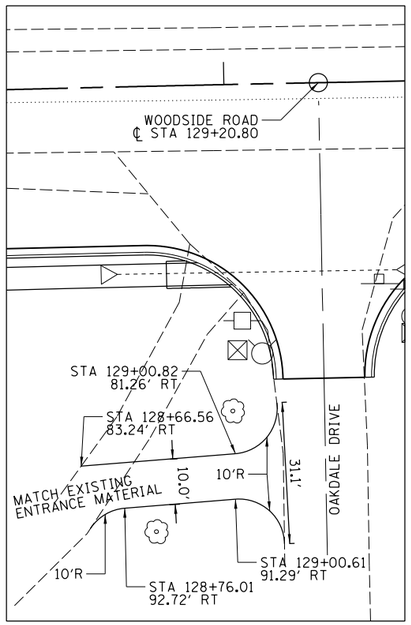


TRENCH DRAIN DETAIL
WOODSIDE ENT STA 121+43 LT



OAKDALE DRIVE ENTRANCE LEFT

GENERAL NOTES

THE RESIDENT ENGINEER WILL DETERMINE THE EXACT TYPE OF IMPROVEMENT TO BE COMPLETED FOR ALL ENTRANCES. SIDE ROADS ARE PRESENT ON THIS PROJECT.

THE PLAN DETAILS AND SCHEDULES SHOULD BE USED AS A GUIDE FOR THE ENGINEER TO IMPLEMENT THE FINAL DESIGN. THE ENGINEER MAY DECIDE TO SALVAGE PORTIONS OF THE EXISTING ENTRANCE PAVEMENT STRUCTURE: THEREFORE REDUCING PAY ITEM QUANTITIES. NO ADDITIONAL PAYMENT WILL BE ALLOWED FOR THIS REDUCTION IN QUANTITIES.

ANY WORK THE ENGINEER REQUIRES WHICH IS NOT COVERED BY PAY ITEMS CONTAINED IN THE PLANS WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS.

ENTRANCE SKEW ANGLES ARE MEASURED ON THE UPSTATION END OF THE ENTRANCE TO THE ADJACENT SIDEWALK OR SHOULDER. ALL ENTRANCE OPENINGS ARE CONSTRUCTED 90° TO THE CENTERLINE. SKEWS ARE INCLUDED BEYOND THE APRON TO CONNECT THE PROPOSED ENTRANCE TO THE EXISTING ENTRANCE.

PHASE 2 - ENTRANCE SCHEDULE

ROADWAY	NOTE	STATION	LT OR RT	SKEW	TYPE	WIDTH L1	LENGTH L2	THICKNESS
IRONSIDE DRIVE (NORTH)	P.E.	7+30.82	RT	94° 43'	1	12'	13.0'	6"
IRONSIDE DRIVE (NORTH)	P.E.	8+51.51	RT	120° 03'	1	12'	13.7'	6"
IRONSIDE DRIVE (NORTH)	P.E.	9+50.00	RT	90°	1	16'	15.0'	6"
IRONSIDE DRIVE (NORTH)	P.E.	11+51.49	RT	110° 17'	1	18'	18.5'	6"
IRONSIDE DRIVE (NORTH)	P.E.	12+50.00	RT	90°	1	16'	12.7'	6"
WOODSIDE ROAD	F.E.	100+56.5	LT	90°	2	30'	4.3'	6"
WOODSIDE ROAD	P.E.	119+14.5	LT	90°	2	20'	49'	8"
WOODSIDE ROAD	P.E.	121+43	LT	87° 58'	2	16'	73'	8"
WOODSIDE ROAD	P.E.	121+73.5	RT	90°	2	14'	14.8'	6"
WOODSIDE ROAD	P.E.	122+84	RT	87° 23'	2	12'	15.2'	6"
WOODSIDE ROAD	P.E.	126+21.5	LT	90°	2	17'	16'	8"
WOODSIDE ROAD	P.E.	127+04	RT	49° 55'	2	12'	21'	6"
WOODSIDE ROAD	P.E.	127+34.5	RT	114° 38'	2	12'	17.0'	6"
WOODSIDE ROAD	P.E.	131+56.5	RT	90°	2	26'	11.3'	6"
WOODSIDE ROAD	P.E.	132+24	LT	96° 10'	2	16'	11'	8"
WOODSIDE ROAD	P.E.	133+10	RT	90°	2	14'	11'	6"
WOODSIDE ROAD	P.E.	133+67	RT	90°	2	14'	11'	6"
WOODSIDE ROAD	F.E.	135+10	LT	90°	2	20'	0'	8"
WOODSIDE ROAD	P.E.	135+19	RT	90°	2	14'	11'	6"
WOODSIDE ROAD	P.E.	136+17.5	RT	90°	2	12'	10.5'	6"
WOODSIDE ROAD	P.E.	137+07	RT	90°	2	12'	10.3'	6"
WOODSIDE ROAD	P.E.	138+27	RT	96° 06'	2	12'	9.3'	6"
WOODSIDE ROAD	P.E.	140+86	RT	90°	1	12'	5'	6"
WOODSIDE ROAD	F.E.	140+86	LT	90°	1	12'	10'	8"
CAROLE ROAD	P.E.	1+30.0	RT	90°	1	18.5'	NA	6"
GRISSOM DRIVE	P.E.	8+70.5	RT	90° 34'	1	13'	4'	6"
OAKDALE DRIVE	P.E.	SEE DETAIL	LT	90°	1	10'	34'	6"

FILE NAME = Gc-5-ENT_DTLS.dgn	USER NAME = Johns00944	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 100.000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 10/26/2022	DATE -	REVISED -

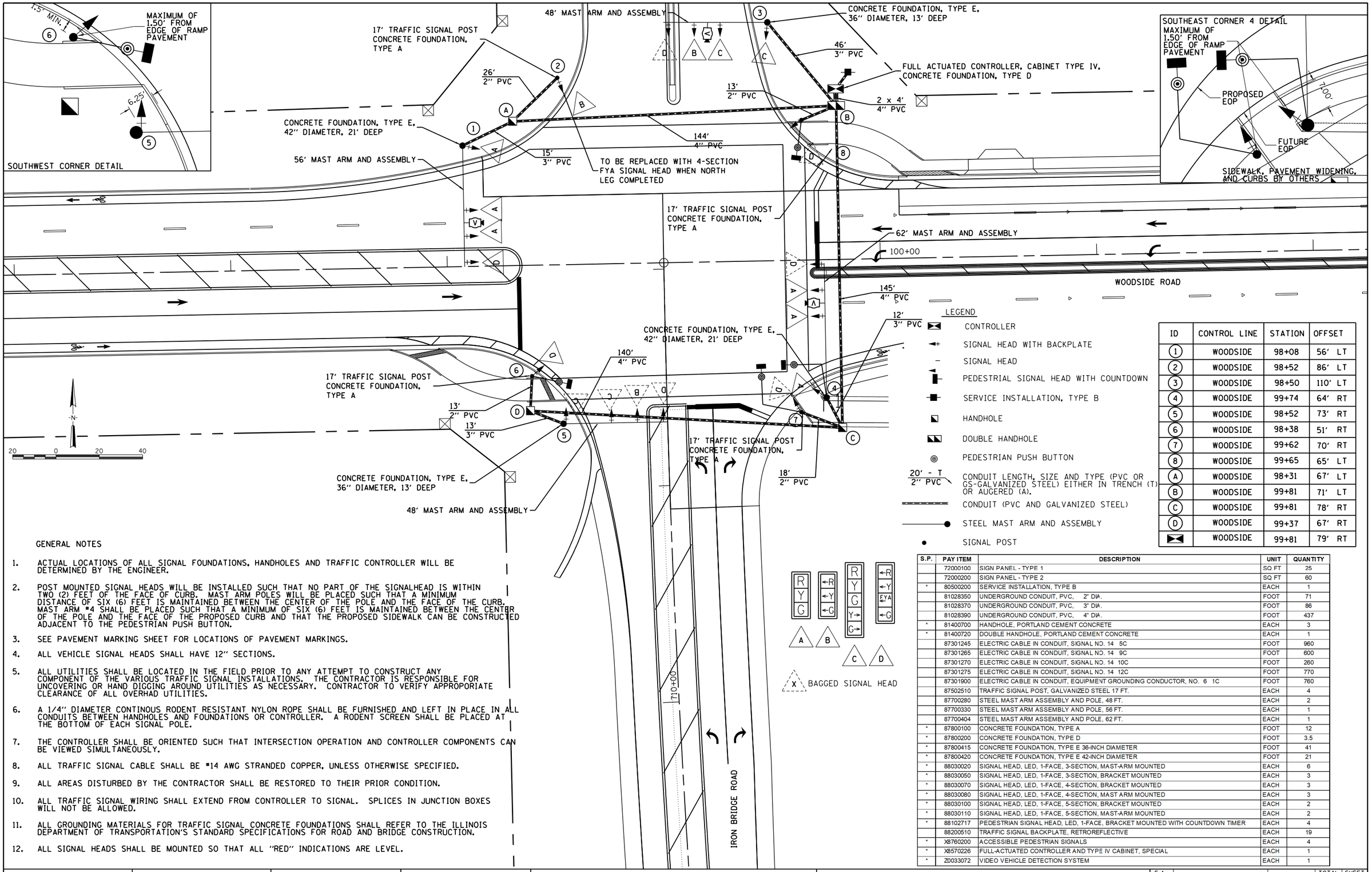
STATE OF ILLINOIS
SANGAMON COUNTY HIGHWAY DEPARTMENT

ENTRANCE DETAILS
PHASE 2 – WOODSIDE ROAD

SCALE: | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	SANGAMON	368	138
	96S2002F	CONTRACT NO.	93671	
FED. ROAD DIST. NO. 6	ILLINOIS	FED. AID PROJECT 6		

• 07-00164-04-FP, 07-00090-08-FP



LEGEND

- CONTROLLER
- SIGNAL HEAD WITH BACKPLATE
- SIGNAL HEAD
- PEDESTRIAL SIGNAL HEAD WITH COUNTDOWN
- SERVICE INSTALLATION, TYPE B
- HANDHOLE
- DOUBLE HANDHOLE
- PEDESTRIAN PUSH BUTTON
- 20' - T / 2" PVC — CONDUIT LENGTH, SIZE AND TYPE (PVC OR GS-GALVANIZED STEEL) EITHER IN TRENCH (T) OR AUGERED (A).
- CONDUIT (PVC AND GALVANIZED STEEL)
- STEEL MAST ARM AND ASSEMBLY
- SIGNAL POST

ID	CONTROL LINE	STATION	OFFSET
1	WOODSIDE	98+08	56' LT
2	WOODSIDE	98+52	86' LT
3	WOODSIDE	98+50	110' LT
4	WOODSIDE	99+74	64' RT
5	WOODSIDE	98+52	73' RT
6	WOODSIDE	98+38	51' RT
7	WOODSIDE	99+62	70' RT
8	WOODSIDE	99+65	65' LT
A	WOODSIDE	98+31	67' LT
B	WOODSIDE	99+81	71' LT
C	WOODSIDE	99+81	78' RT
D	WOODSIDE	99+37	67' RT
⋈	WOODSIDE	99+81	79' RT

GENERAL NOTES

1. ACTUAL LOCATIONS OF ALL SIGNAL FOUNDATIONS, HANDHOLES AND TRAFFIC CONTROLLER WILL BE DETERMINED BY THE ENGINEER.
2. POST MOUNTED SIGNAL HEADS WILL BE INSTALLED SUCH THAT NO PART OF THE SIGNALHEAD IS WITHIN TWO (2) FEET OF THE FACE OF CURB. MAST ARM POLES WILL BE PLACED SUCH THAT A MINIMUM DISTANCE OF SIX (6) FEET IS MAINTAINED BETWEEN THE CENTER OF THE POLE AND THE FACE OF THE CURB. MAST ARM #4 SHALL BE PLACED SUCH THAT A MINIMUM OF SIX (6) FEET IS MAINTAINED BETWEEN THE CENTER OF THE POLE AND THE FACE OF THE PROPOSED CURB AND THAT THE PROPOSED SIDEWALK CAN BE CONSTRUCTED ADJACENT TO THE PEDESTRIAN PUSH BUTTON.
3. SEE PAVEMENT MARKING SHEET FOR LOCATIONS OF PAVEMENT MARKINGS.
4. ALL VEHICLE SIGNAL HEADS SHALL HAVE 12" SECTIONS.
5. ALL UTILITIES SHALL BE LOCATED IN THE FIELD PRIOR TO ANY ATTEMPT TO CONSTRUCT ANY COMPONENT OF THE VARIOUS TRAFFIC SIGNAL INSTALLATIONS. THE CONTRACTOR IS RESPONSIBLE FOR UNCOVERING OR HAND DIGGING AROUND UTILITIES AS NECESSARY. CONTRACTOR TO VERIFY APPROPORIATE CLEARANCE OF ALL OVERHAD UTILITIES.
6. A 1/4" DIAMETER CONTINOUS RODENT RESISTANT NYLON ROPE SHALL BE FURNISHED AND LEFT IN PLACE IN ALL CONDUITS BETWEEN HANDHOLES AND FOUNDATIONS OR CONTROLLER. A RODENT SCREEN SHALL BE PLACED AT THE BOTTOM OF EACH SIGNAL POLE.
7. THE CONTROLLER SHALL BE ORIENTED SUCH THAT INTERSECTION OPERATION AND CONTROLLER COMPONENTS CAN BE VIEWED SIMULTANEOUSLY.
8. ALL TRAFFIC SIGNAL CABLE SHALL BE #14 AWG STRANDED COPPER, UNLESS OTHERWISE SPECIFIED.
9. ALL AREAS DISTURBED BY THE CONTRACTOR SHALL BE RESTORED TO THEIR PRIOR CONDITION.
10. ALL TRAFFIC SIGNAL WIRING SHALL EXTEND FROM CONTROLLER TO SIGNAL. SPLICES IN JUNCTION BOXES WILL NOT BE ALLOWED.
11. ALL GROUNDING MATERIALS FOR TRAFFIC SIGNAL CONCRETE FOUNDATIONS SHALL REFER TO THE ILLINOIS DEPARTMENT OF TRANSPORTATION'S STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
12. ALL SIGNAL HEADS SHALL BE MOUNTED SO THAT ALL "RED" INDICATIONS ARE LEVEL.

S.P.	PAY ITEM	DESCRIPTION	UNIT	QUANTITY
	72000100	SIGN PANEL - TYPE 1	SQ FT	25
	72000200	SIGN PANEL - TYPE 2	SQ FT	60
*	80500200	SERVICE INSTALLATION, TYPE B	EACH	1
	81028350	UNDERGROUND CONDUIT, PVC, 2" DIA.	FOOT	71
	81028370	UNDERGROUND CONDUIT, PVC, 3" DIA.	FOOT	86
	81028390	UNDERGROUND CONDUIT, PVC, 4" DIA.	FOOT	437
*	81400700	HANDHOLE, PORTLAND CEMENT CONCRETE	EACH	3
*	81400720	DOUBLE HANDHOLE, PORTLAND CEMENT CONCRETE	EACH	1
	87301245	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	960
	87301265	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 9C	FOOT	600
	87301270	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 10C	FOOT	260
	87301275	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 12C	FOOT	770
	87301900	ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	760
	87502510	TRAFFIC SIGNAL POST, GALVANIZED STEEL 17 FT.	EACH	4
	87700280	STEEL MAST ARM ASSEMBLY AND POLE, 48 FT.	EACH	2
	87700330	STEEL MAST ARM ASSEMBLY AND POLE, 56 FT.	EACH	1
	87700404	STEEL MAST ARM ASSEMBLY AND POLE, 62 FT.	EACH	1
*	87800100	CONCRETE FOUNDATION, TYPE A	FOOT	12
*	87800200	CONCRETE FOUNDATION, TYPE D	FOOT	3.5
*	87800415	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	41
*	87800420	CONCRETE FOUNDATION, TYPE E 42-INCH DIAMETER	FOOT	21
*	88030020	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	6
*	88030050	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	3
*	88030070	SIGNAL HEAD, LED, 1-FACE, 4-SECTION, BRACKET MOUNTED	EACH	3
*	88030080	SIGNAL HEAD, LED, 1-FACE, 4-SECTION, MAST ARM MOUNTED	EACH	3
*	88030100	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	2
*	88030110	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	2
*	88102717	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	4
	88200510	TRAFFIC SIGNAL BACKPLATE, RETROREFLECTIVE	EACH	19
*	X8760200	ACCESSIBLE PEDESTRIAN SIGNALS	EACH	4
*	X8570226	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1
*	Z0033072	VIDEO VEHICLE DETECTION SYSTEM	EACH	1

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FILE NAME = FC-SignalPlan.dgn	USER NAME = Johns00944	DESIGNED - JDS	REVISED -
		DRAWN - BWW	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED - TA	REVISED -
	PLOT DATE = 10/26/2022	DATE - 6/9/2020	REVISED -

STATE OF ILLINOIS
SANGAMON COUNTY HIGHWAY DEPARTMENT

WOODSIDE RD. AND IRON BRIDGE RD.
SIGNAL PLAN

SCALE: 1" = 20' | SHEET NO. OF SHEETS | STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	SANGAMON	368	139
	96S2002F	CONTRACT NO. 93671		
FED. ROAD DIST. NO. 6	ILLINOIS	FED. AID PROJECT 6		

• 07-00164-04-FP, 07-00090-08-FP

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TO BE REPLACED WITH 4-SECTION FYA SIGNAL HEAD WHEN NORTH LEG COMPLETED

NO. 6, 2C

WOODSIDE ROAD

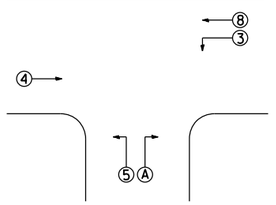
100+00

IRON BRIDGE ROAD

710+00

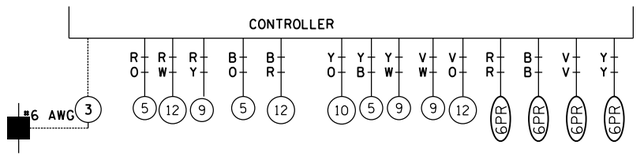
LEGEND

- CONTROLLER
- 12" TRAFFIC SIGNAL SECTION
- SERVICE INSTALLATION
- DENOTES WIRE COLOR (YELLOW/ORANGE)
- (5) DENOTES NUMBER OF CONDUCTORS. ALL LOOP DETECTOR CABLES TO BE SHIELDED. ALL CABLE TO BE NO. 14 EXCEPT AS INDICATED
- SIGNAL FACE WITH BACKPLATE
- PEDESTRIAN SIGNAL FACE WITH COUNTDOWN
- CONDUIT (PVC AND GALVANIZED STEEL)
- STEEL MAST ARM AND ASSEMBLY
- VIDEO VEHICLE DETECTION
- GROUND WIRE (M=MAST ARM, P=POLE, H=HANDHOLE, C=CONTROLLER)



PHASE	PROTECTED	PERMISSIVE
A	3	5

PHASE DESIGNATION DIAGRAM:



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	PLOT DATE = 10/26/2022	DATE - 6/9/2020	REVISED -

STATE OF ILLINOIS
SANGAMON COUNTY HIGHWAY DEPARTMENT

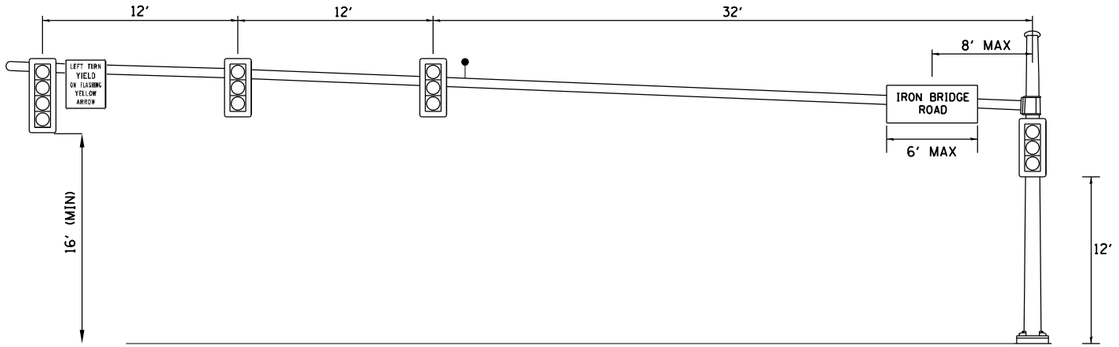
WOODSIDE RD. AND IRON BRIDGE RD.
CABLE PLAN

SCALE: | SHEET NO. OF SHEETS | STA. | TO STA.

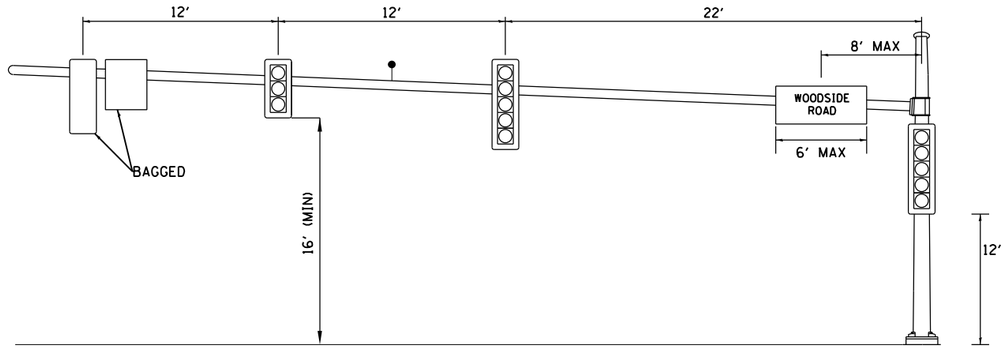
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	SANGAMON	368	140
	96S2002F	CONTRACT NO. 93671		
FED. ROAD DIST. NO. 6	ILLINOIS	FED. AID PROJECT 6		

• 07-00164-04-FP, 07-00090-08-FP

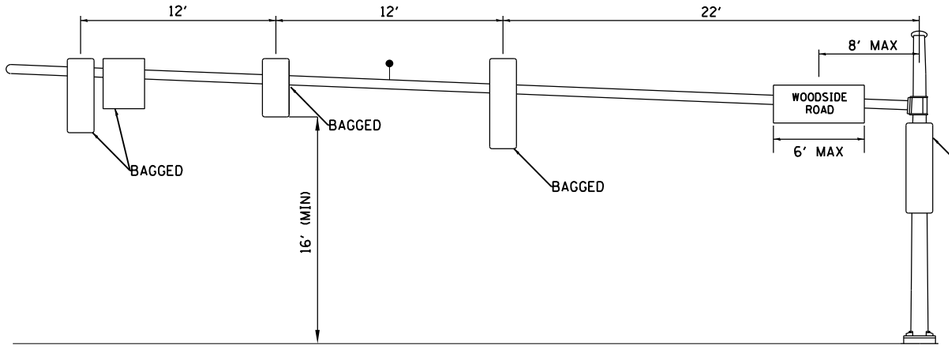
HANSON
Hanson Professional Services Inc.



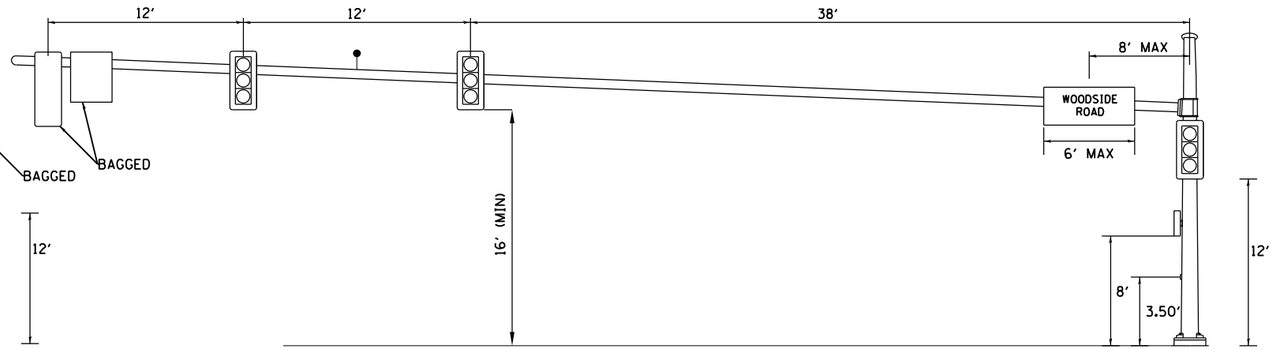
MAST ARM 1
NORTHWEST QUADRANT (WESTBOUND)



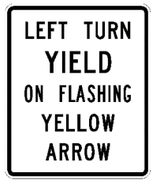
MAST ARM 3
NORTHEAST QUADRANT (NORTHBOUND)



MAST ARM 3
NORTHEAST QUADRANT (NORTHBOUND)



MAST ARM 4
SOUTHEAST QUADRANT (EASTBOUND)



ILLINOIS STANDARD
R 10-1109
30″X30″

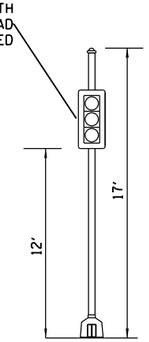
SIGN PANEL TYPE I

4 REQUIRED OF ILLINOIS STANDARD R10-1109 = 6.25 SQ FT
ONLY HIGH INTENSITY SHEETING
SHALL BE USED

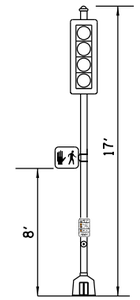
R 10-3e (L OR R)
9″ X 15″

PEDESTRIAN CROSSING
(NOT TO SCALE)

4 REQUIRED (1 LEFT AND 3 RIGHT)
TYPE B SHEETING
THE CONTRACTOR SHALL SUPPLY AND MOUNT ONE SIGN WITH EACH PEDESTRIAN PUSH-BUTTON.
COST TO BE INCLUDED IN THE COST OF PEDESTRIAN PUSH-BUTTON PAY ITEM.

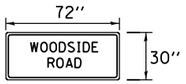


TRAFFIC SIGNAL POST 2



TRAFFIC SIGNAL POST 6, 7*, 8*

*SIGNAL HEAD BAGGED ON POSTS 7 AND 8



SIGN PANEL TYPE II

0.8″ BORDER
2 REQUIRED OF WOODSIDE ROAD= 30.0 SQ FT
2 REQUIRED OF IRON BRIDGE ROAD= 30.0 SQ FT
TOTAL REQUIRED = 60.0 SQ FT
8″ SERIES D LETTERS
MAST ARM MOUNTED
ONLY HIGH INTENSITY SHEETING SHALL BE USED

FILE NAME = Fc-MastArm.dgn	USER NAME = Johns00944	DESIGNED - JDS	REVISED -
		DRAWN - BWW	REVISED -
	PLOT SCALE = 2.0000 ′ / in.	CHECKED - TA	REVISED -
	PLOT DATE = 10/26/2022	DATE - 6/9/2020	REVISED -

STATE OF ILLINOIS
SANGAMON COUNTY HIGHWAY DEPARTMENT

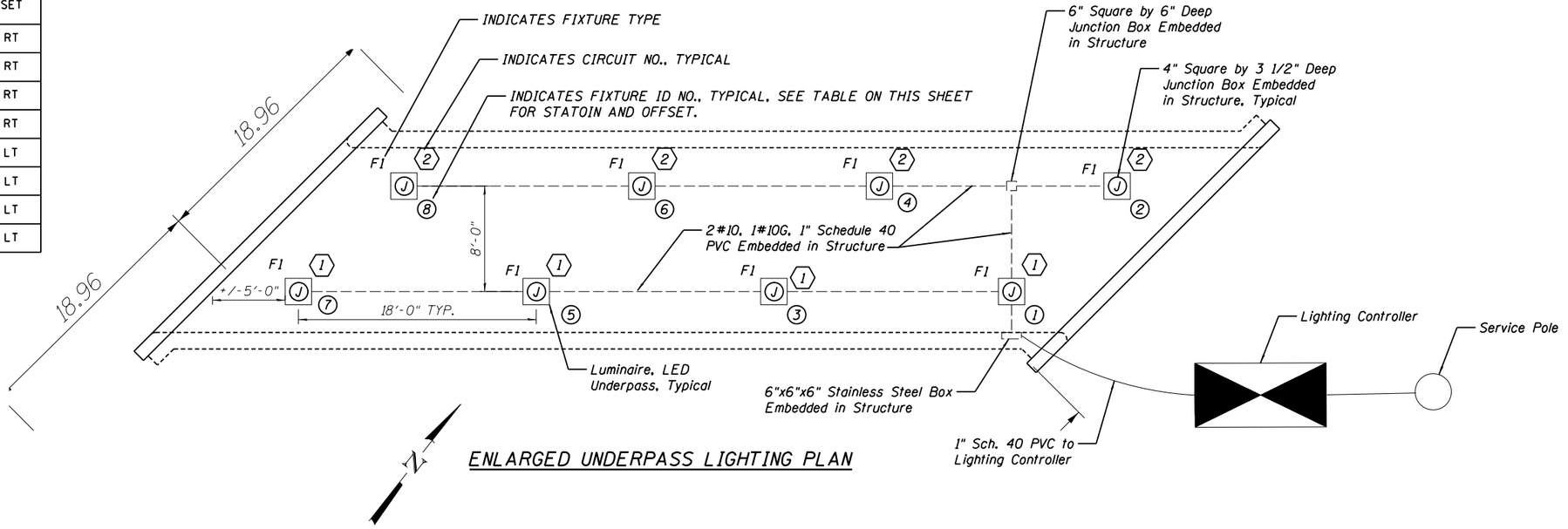
WOODSIDE RD. AND IRON BRIDGE RD. INTERSECTION
MAST ARM LOADING PLAN

SCALE: | SHEET NO. OF SHEETS | STA. | TO STA.

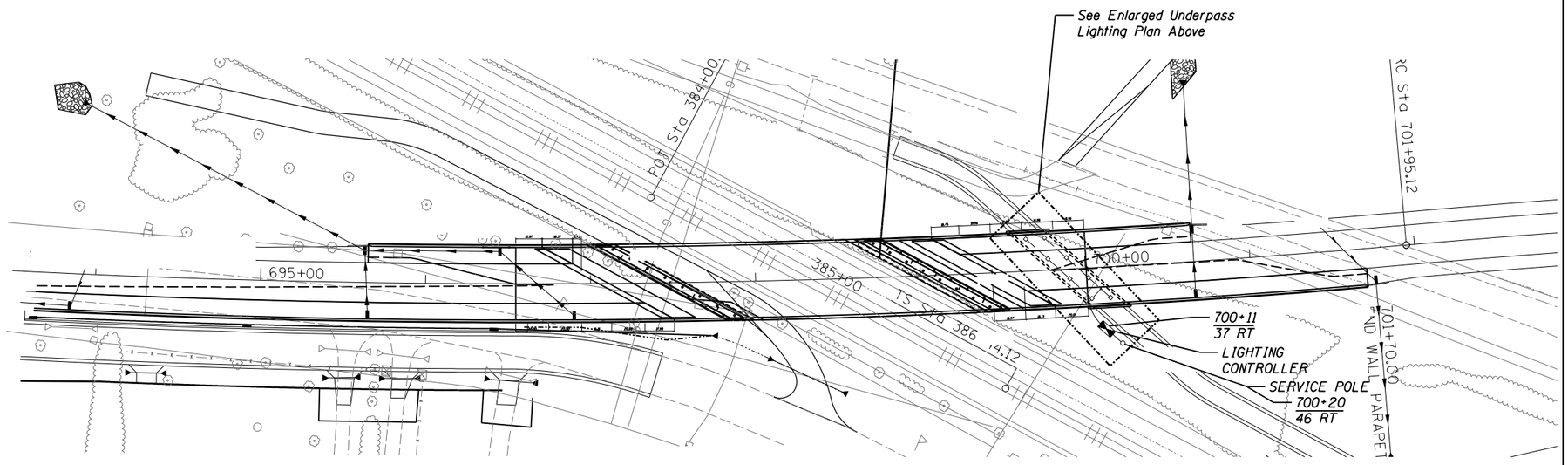
F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	SANGAMON	368	141
	96S2002F	CONTRACT NO. 93671		
FED. ROAD DIST. NO. 6	ILLINOIS	FED. AID PROJECT 6		

• 07-00164-04-FP, 07-00090-08-FP

ID	CONTROL LINE	STATION	OFFSET
1	WOODSIDE	700+3	18' RT
2	WOODSIDE	700+14	19' RT
3	WOODSIDE	699+90	6' RT
4	WOODSIDE	700+2	6' RT
5	WOODSIDE	699+77	7' LT
6	WOODSIDE	699+89	7' LT
7	WOODSIDE	699+76	19' LT
8	WOODSIDE	699+64	19' LT



ENLARGED UNDERPASS LIGHTING PLAN



PLAN

LIGHTING FIXTURE SCHEDULE						
FIXT. TYPE	DESCRIPTION	MANUFACTURER & CATALOG NO.	LAMPS/ WATTS	VOLTS	MOUNTING	REMARKS
F1	LED SURFACE LIGHTING FIXTURE, ALUMINUM HOUSING WITH CONTOURED EDGES, IMPACT RESISTANT, TEMEPERED GLASS LENS FULLY GASKETED WITH ONEPIECE TUBULAR SILICONE, 530mA SOLID STATE DRIVER, 4000K COLOR, WITH A LIGHT ENGINE CONTAINING 20 LEDS	LITHONIA: KACM LED 20C 700 40K R5 MVOLT COOPER: CLCS15-5500/40W-4k/80CRI-120-277V CURRENT LIGHTING: NRG-30L-U-4K-035-BZ	4K 40 WATT LED	240	SURFACE MOUNTED	

S.P.	PAY ITEM	DESCRIPTION	UNIT	QUANTITY
	80500200	SERVICE INSTALLATION, TYPE B	EACH	1
	81028320	UNDERGROUND CONDUIT, PVC, 1" DIA.	FOOT	30
	81200210	CONDUIT EMBEDDED IN STRUCTURE, 1" DIA., PVC	FOOT	120
	81303950	JUNCTION BOX EMBEDDED IN STRUCTURE 6" X 6" X 6"	EACH	2
	81702450	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 3-1/C NO. 10	FOOT	160
	82500335	LIGHTING CONTROLLER, PEDESTAL MOUNTED, 240VOLT, 100AMP	EACH	1
*	82110026	LUMINAIRE, LED, UNDERPASS, SUSPENDED, OUTPUT DESIGNATION D	EACH	8
*	X8130350	JUNCTION BOX EMBEDDED IN STRUCTURE, SPECIAL	EACH	8

DESIGNED	JFC	11/18/15
DRAWN	SKB	11/18/15
REVIEWED		

I:\96jobs\96S2002F\CADD\Elec\Sheet\96S2002F-LightingPlan.dgn

HANSON

USER NAME = Johns00944	DESIGNED - JFC	REVISED -
	CHECKED -	REVISED -
PLOT SCALE = 0.1667 ' / in.	DRAWN - SKB	REVISED -
PLOT DATE = 10/26/2022	CHECKED -	REVISED -

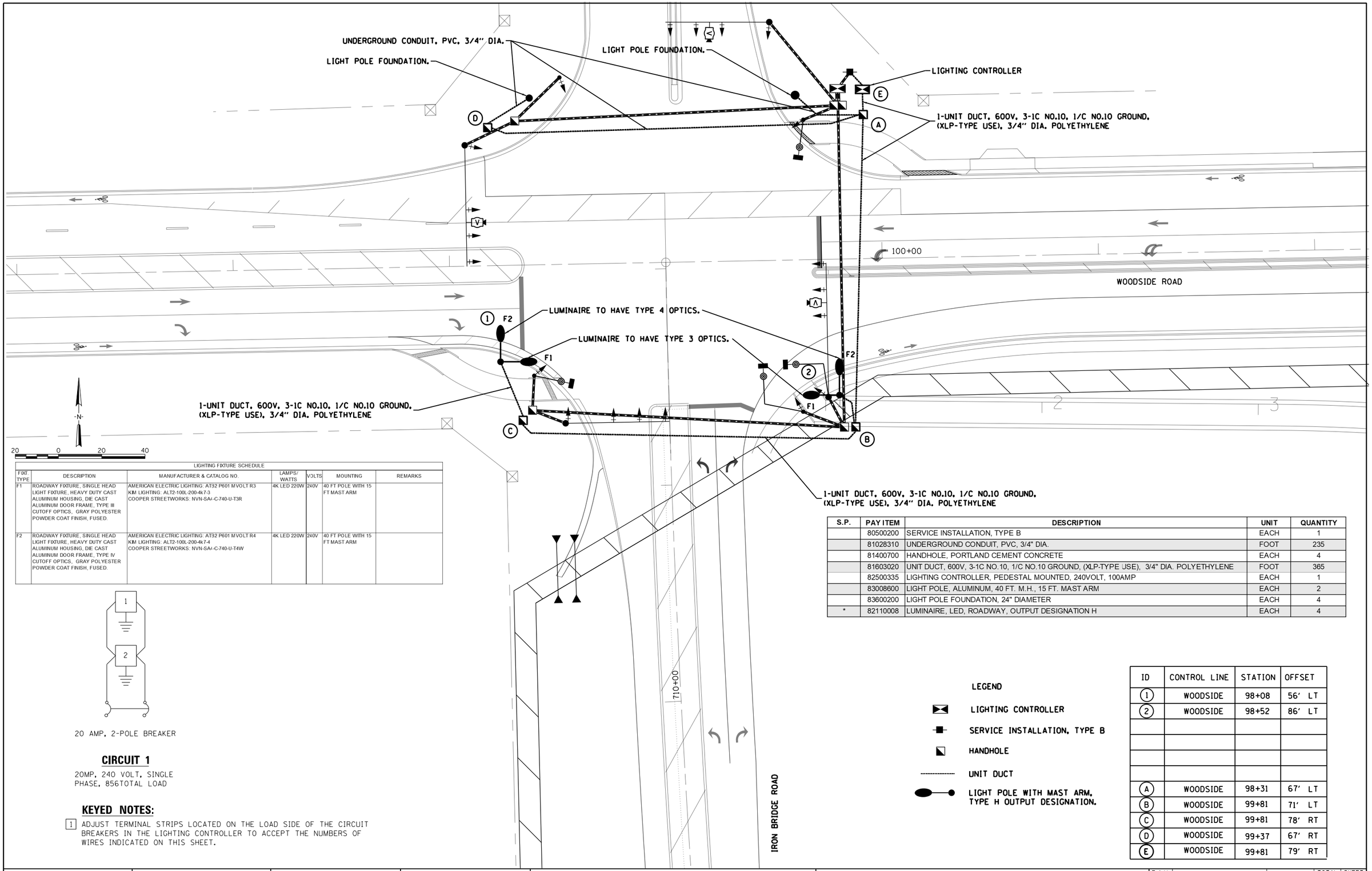
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PEDESTRIAN UNDERPASS LIGHTING PLAN
PHASE 1 – IRON BRIDGE ROAD
SHEET NO. 1 OF 4 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	SANGAMON	368	142
		CONTRACT NO. 93671		
	ILLINOIS	FED. AID PROJECT 6		

• 07-00164-04-FP, 07-00090-08-FP

HANSON
Hanson Professional Services Inc.



LIGHTING FIXTURE SCHEDULE						
FIXT. TYPE	DESCRIPTION	MANUFACTURER & CATALOG NO.	LAMPS/ WATTS	VOLTS	MOUNTING	REMARKS
F1	ROADWAY FIXTURE, SINGLE HEAD LIGHT FIXTURE, HEAVY DUTY CAST ALUMINUM HOUSING, DIE CAST ALUMINUM DOOR FRAME, TYPE III CUTOFF OPTICS, GRAY POLYESTER POWDER COAT FINISH, FUSED.	AMERICAN ELECTRIC LIGHTING: AT32 P601 M VOLT R3 KIM LIGHTING: ALT2-100L-200-4k7-3 COOPER STREETWORKS: NVN-SA-C-740-U-T3R	4K LED 220W	240V	40 FT POLE WITH 15 FT MAST ARM	
F2	ROADWAY FIXTURE, SINGLE HEAD LIGHT FIXTURE, HEAVY DUTY CAST ALUMINUM HOUSING, DIE CAST ALUMINUM DOOR FRAME, TYPE IV CUTOFF OPTICS, GRAY POLYESTER POWDER COAT FINISH, FUSED.	AMERICAN ELECTRIC LIGHTING: AT32 P601 M VOLT R4 KIM LIGHTING: ALT2-100L-200-4k7-4 COOPER STREETWORKS: NVN-SA-C-740-U-T4W	4K LED 220W	240V	40 FT POLE WITH 15 FT MAST ARM	

20 AMP, 2-POLE BREAKER

CIRCUIT 1

20MP, 240 VOLT, SINGLE PHASE, 856TOTAL LOAD

KEYED NOTES:

1 ADJUST TERMINAL STRIPS LOCATED ON THE LOAD SIDE OF THE CIRCUIT BREAKERS IN THE LIGHTING CONTROLLER TO ACCEPT THE NUMBERS OF WIRES INDICATED ON THIS SHEET.

S.P.	PAY ITEM	DESCRIPTION	UNIT	QUANTITY
	80500200	SERVICE INSTALLATION, TYPE B	EACH	1
	81028310	UNDERGROUND CONDUIT, PVC, 3/4" DIA.	FOOT	235
	81400700	HANDHOLE, PORTLAND CEMENT CONCRETE	EACH	4
	81603020	UNIT DUCT, 600V, 3-1C NO.10, 1/C NO.10 GROUND, (XLP-TYPE USE), 3/4" DIA. POLYETHYLENE	FOOT	365
	82500335	LIGHTING CONTROLLER, PEDESTAL MOUNTED, 240VOLT, 100AMP	EACH	1
	83008600	LIGHT POLE, ALUMINUM, 40 FT. M.H., 15 FT. MAST ARM	EACH	2
	83600200	LIGHT POLE FOUNDATION, 24" DIAMETER	EACH	4
*	82110008	LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION H	EACH	4

LEGEND

- LIGHTING CONTROLLER
- SERVICE INSTALLATION, TYPE B
- HANDHOLE
- UNIT DUCT
- LIGHT POLE WITH MAST ARM, TYPE H OUTPUT DESIGNATION.

ID	CONTROL LINE	STATION	OFFSET
1	WOODSIDE	98+08	56' LT
2	WOODSIDE	98+52	86' LT
A	WOODSIDE	98+31	67' LT
B	WOODSIDE	99+81	71' LT
C	WOODSIDE	99+81	78' RT
D	WOODSIDE	99+37	67' RT
E	WOODSIDE	99+81	79' RT

JFC 11/18/15
SKB 11/18/15

FILE NAME = 96S2002G-LightingPlan.dgn	USER NAME = Johns00944	DESIGNED - JFC	REVISED -
		DRAWN - SKB	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 10/26/2022	DATE -	REVISED -

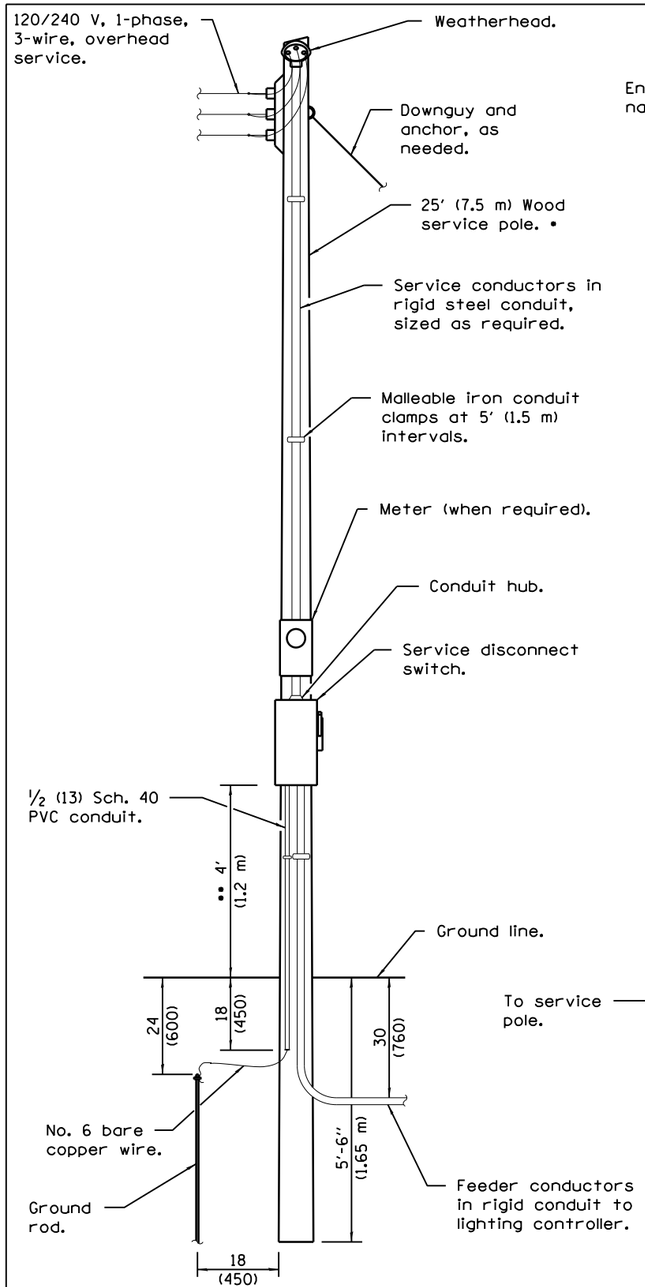
STATE OF ILLINOIS
SANGAMON COUNTY HIGHWAY DEPARTMENT

WOODSIDE RD. AND IRON BRIDGE RD.
LIGHTING PLAN

SCALE: 1" = 20' | SHEET NO. OF SHEETS | STA. | TO STA.

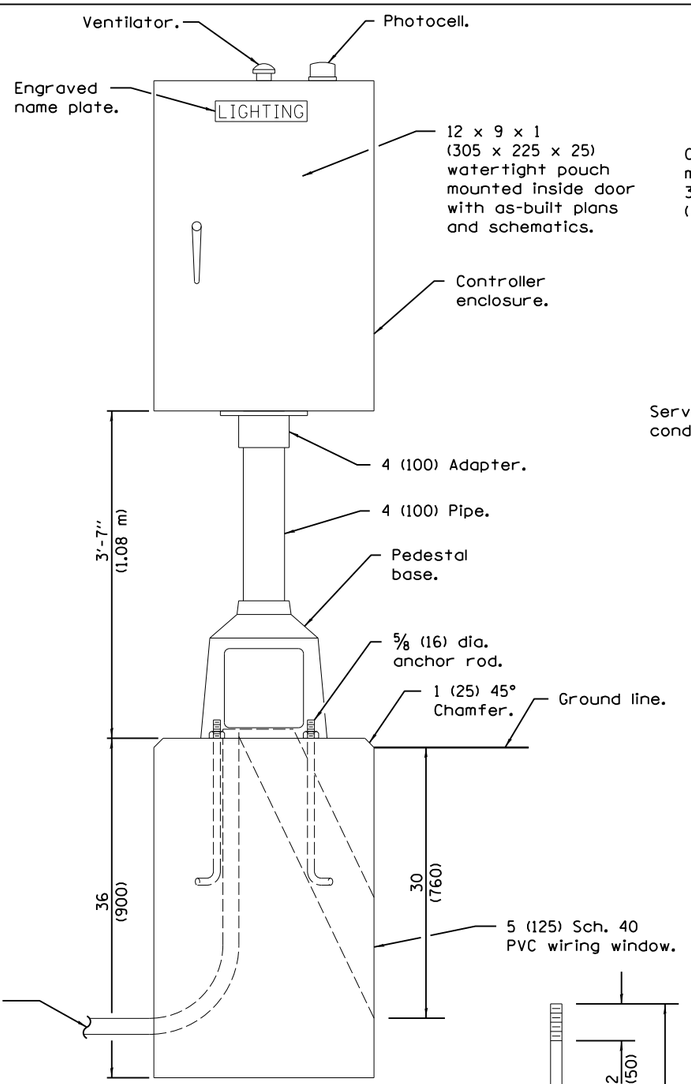
F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	SANGAMON	368	143
	96S2002F	CONTRACT NO.	93671	
FED. ROAD DIST. NO. 6	ILLINOIS	FED. AID PROJECT 6		

• 07-00164-04-FP, 07-00090-08-FP

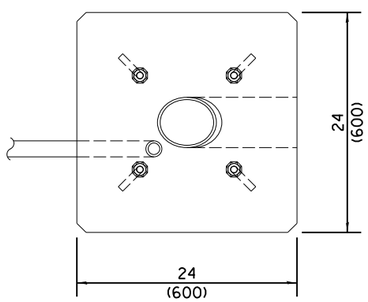


ELECTRIC SERVICE INSTALLATION

• Size larger as needed.
•• Or as directed by Utility Company.

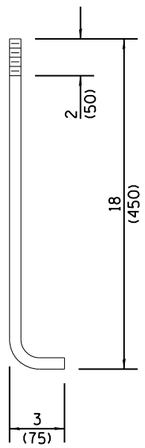


LIGHTING CONTROLLER

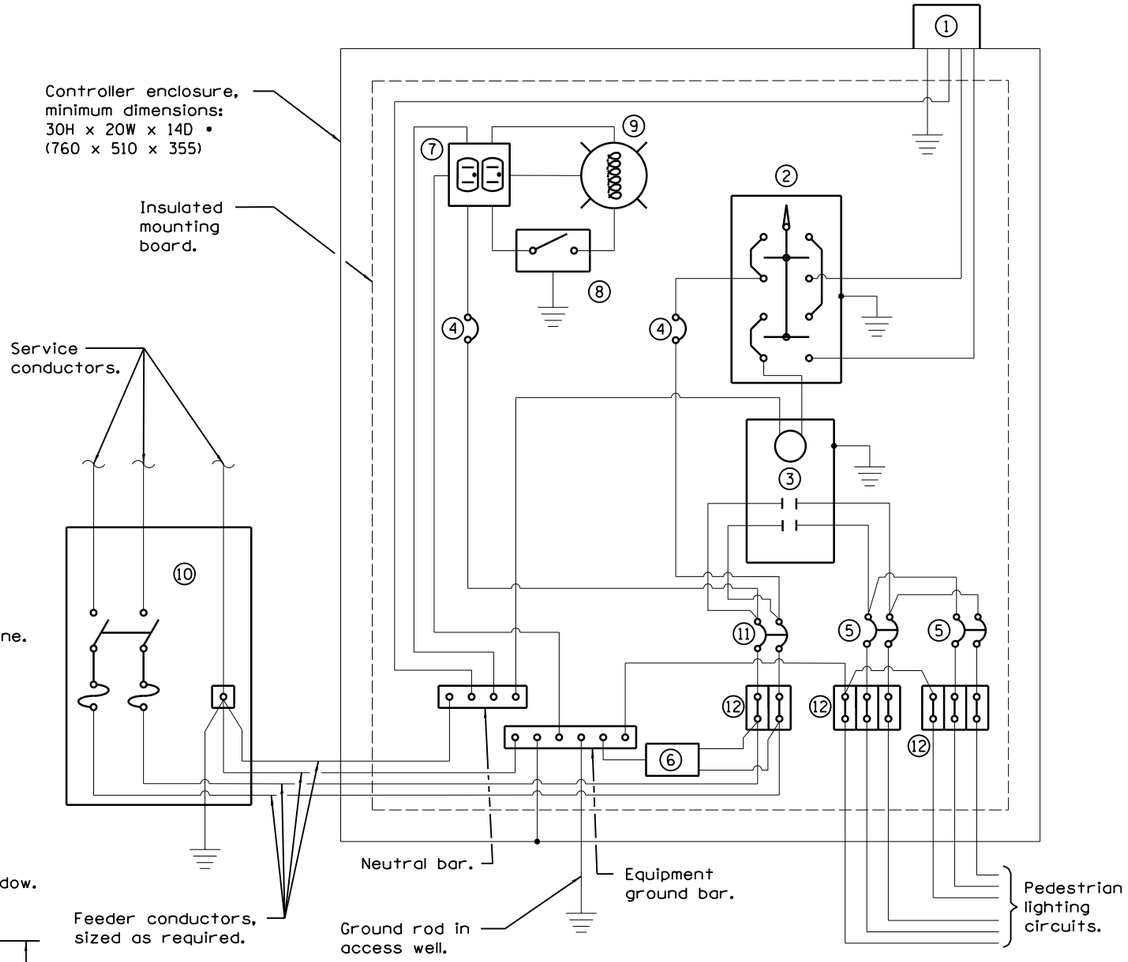


FOUNDATION (PLAN)

(Work pad not shown.)



ANCHOR ROD DETAIL



CONTROL SCHEMATIC

① Photocell with integral surge arrester.
② HAND-OFF-AUTO selector switch.
③ 100 amp•, electrically held contactor.
④ 15 amp, 1-pole circuit breaker.
⑤ 20 amp•, 2-pole circuit breaker (two spares required but not shown).
⑥ Surge arrester.
⑦ GFCI duplex receptacle.
⑧ Single-pole, single-throw switch.
⑨ Incandescent luminaire, enclosed and gasketted with 100 watt lamp.
⑩ Service disconnect switch - 2-pole, 3-wire, 60 amp•, fused at 60 amp•, solid neutral in NEMA 4X enclosure having lockable external handle.
⑪ 60 amp•, 2-pole circuit breaker.
⑫ Terminal block sized for conductors as shown on plans.
• Size larger as needed.

All dimensions are in inches (millimeters) unless otherwise shown.

DESIGNED	JFC	11/18/15
DRAWN	SKB	11/18/15
REVIEWED		

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HANSON

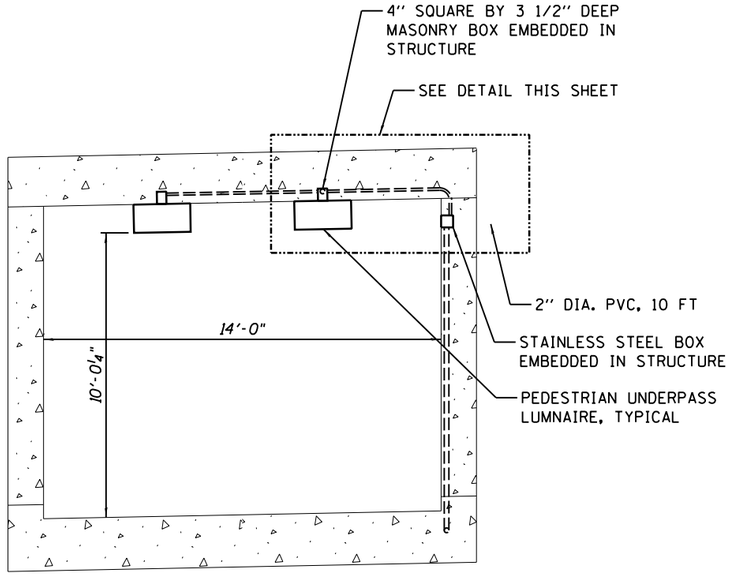
USER NAME = Johns00944	DESIGNED - JFC	REVISED -
	CHECKED -	REVISED -
PLOT SCALE = 0.1667 ' / in.	DRAWN - SKB	REVISED -
PLOT DATE = 10/26/2022	CHECKED -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

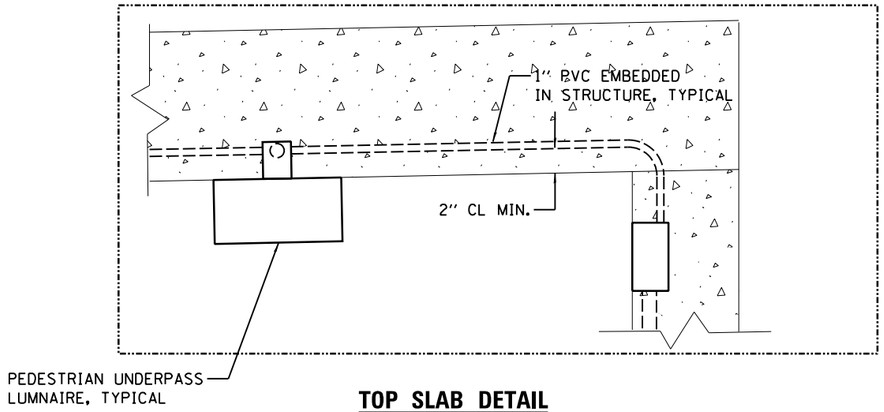
LIGHTING DETAILS – SHEET 1
PHASE 1 & PHASE 2
SHEET NO. 3 OF 4 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	SANGAMON	368	144
		CONTRACT NO. 93671		
	ILLINOIS	FED. AID PROJECT 6		

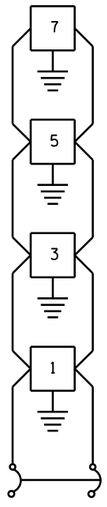
• 07-00164-04-FP, 07-00090-08-FP



TYPICAL SECTION THRU BOX UNDERPASS



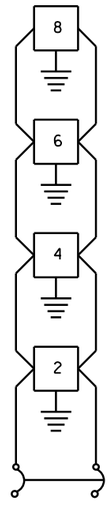
TOP SLAB DETAIL



20 AMP, 2-POLE BREAKER

CIRCUIT 1

20 AMP, 240 VOLT, SINGLE PHASE, 148 VA TOTAL LOAD



20 AMP, 2-POLE BREAKER

CIRCUIT 2

20 AMP, 240 VOLT, SINGLE PHASE, 148 VA TOTAL LOAD

KEYED NOTES:

[1] ADJUST TERMINAL STRIPS LOCATED ON THE LOAD SIDE OF THE CIRCUIT BREAKERS IN THE LIGHTING CONTROLLER TO ACCEPT THE NUMBERS OF WIRES INDICATED ON THIS SHEET.

DESIGNED	JFC	11/18/15
DRAWN	SKB	11/18/15
REVIEWED		

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HANSON

USER NAME = Johns00944	DESIGNED - JFC	REVISED -
	CHECKED -	REVISED -
PLOT SCALE = 0.1667 ' / in.	DRAWN - SKB	REVISED -
PLOT DATE = 10/26/2022	CHECKED -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LIGHTING DETAILS – SHEET 2
PHASE 1 & PHASE 3

SHEET NO. 4 OF 4 SHEETS

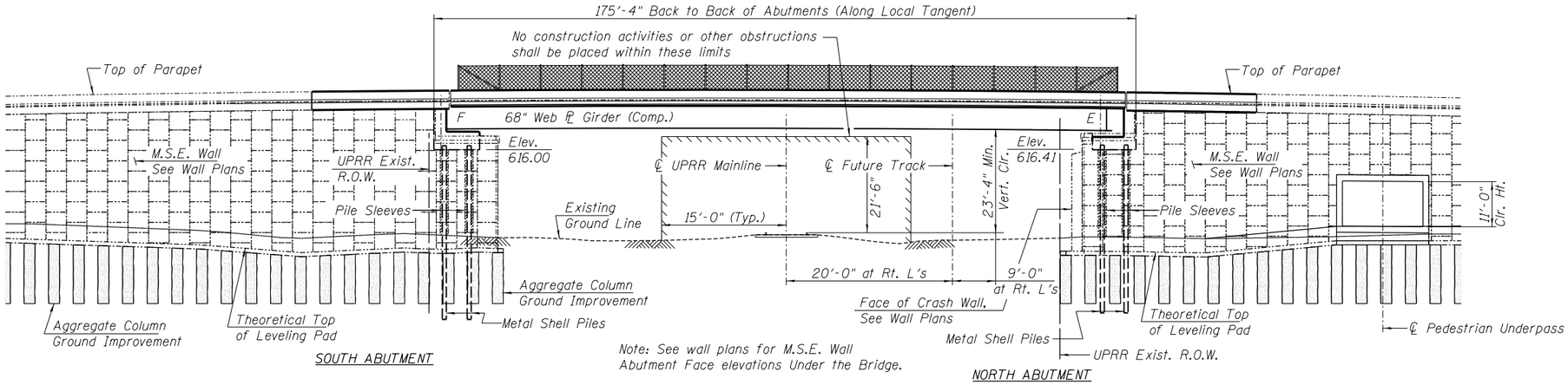
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	SANGAMON	368	145
		CONTRACT NO. 93671		
	ILLINOIS	FED. AID PROJECT 6		

• 07-00164-04-FP, 07-00090-08-FP

B.M. 359 - Chsld. "x" on South Cap Bolt FH - North Side of Woodside Road., Approx. 300' West of Pedigo Lane., 6' East of Private Drive., South of Two Grain Silos. Elev=595.21
B.M. H3 - Spike Nail in South Face of PP - North Side Woodside Road - ± 325' East of Driveway to House #1329 Woodside Road - Between Iron Bridge Road and Carole Drive. Elev=590.49

Existing Structure: None

Note:
No freefall deck drains will be permitted in the span over the tracks or within 10 ft. of a cross arms of a railroad pole line.



Note: See wall plans for M.S.E. Wall Abutment Face elevations Under the Bridge.

ELEVATION
(Looking West)

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 Sec. (S_{D1}) = 0.11
Design Spectral Acceleration at 0.2 Sec. (S_{DS}) = 0.22
Soil Site Class = C

DESIGN SPECIFICATIONS

BRIDGE

2014 AASHTO LRFD Bridge Design Specifications, 7th Edition

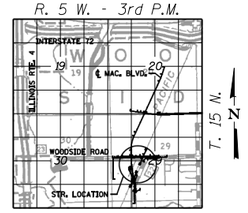
DESIGN STRESSES

FIELD UNITS

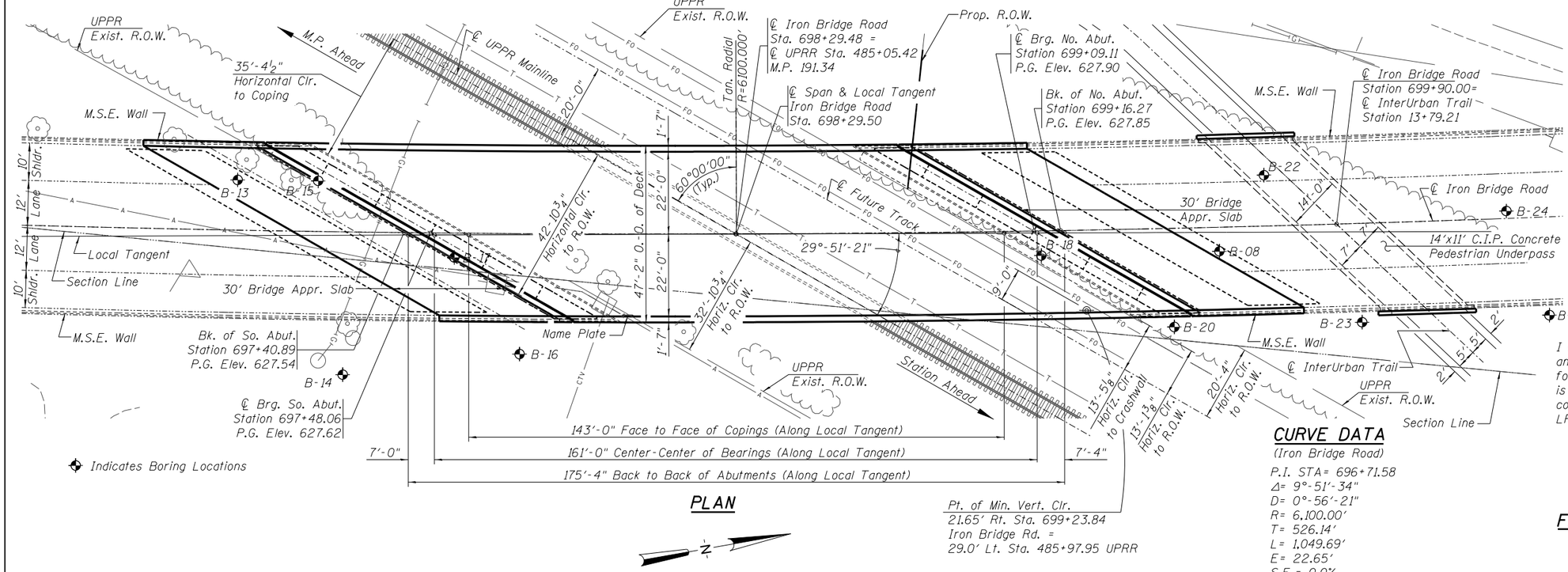
f'c = 3,500 psi
f'c = 4,000 psi (Superstructure Concrete)
fy = 60,000 psi (Reinforcement)
fy = 50,000 psi (M270 Grade 50)

LOADING HL-93

Allow 50#/sq. ft. for future wearing surface.



LOCATION SKETCH



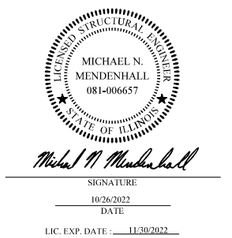
Indicates Boring Locations

PLAN

Pt. of Min. Vert. Clr.
21.65' Rt. Sta. 699+23.84
Iron Bridge Rd. =
29.0' Lt. Sta. 485+97.95 UPRR

CURVE DATA
(Iron Bridge Road)

P.I. STA= 696+71.58
Δ= 9°-51'-34"
D= 0°-56'-21"
R= 6,100.00'
T= 526.14'
L= 1,049.69'
E= 22.65'
S.E.= 0.0%
P.C. STA= 691+45.43
P.T. STA= 701+95.12



Michael N. Mendenhall
SIGNATURE
10/26/2022
DATE
LIC. EXP. DATE : 11/30/2022

I certify that to the best of knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current AASHTO LRFD Specifications.

GENERAL PLAN and ELEVATION
IRON BRIDGE ROAD over UPRR
F.A.P. 1638 - SEC. 07-00164-04-FP
SANGAMON COUNTY
STA. 698+29.67
STRUCTURE NUMBER 084-9949

DESIGNED	MNM	11/12/15
DRAWN	Rod	11/20/15
REVIEWED	JWM	11/20/15

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HANSON
PROFESSIONAL DESIGN FIRM LICENSE #184-001084

USER NAME = Johns00944	DESIGNED	MNM	REVISED -
	CHECKED	JWM	REVISED -
PLOT SCALE = 0.166667 ' / in.	DRAWN	Rod	REVISED -
PLOT DATE = 10/26/2022	CHECKED	MNM	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN and ELEVATION
STRUCTURE NUMBER 084-9949
SHEET NO. 1 OF 34 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	SANGAMON	368	146
		CONTRACT NO. 93671		
	ILLINOIS	FED. AID PROJECT 6		

• 07-00164-04-FP, 07-00090-08-FP

GENERAL NOTES

Fasteners shall be ASTM A325 Type 1, mechanically galvanized bolts in painted areas and ASTM A325 Type 3 in unpainted areas, unless otherwise noted. Bolts $\frac{7}{8}$" ϕ, holes $\frac{15}{16}$" ϕ, unless otherwise noted.

Calculated weight of Structural Steel, AASHTO M270 Grade 50 = 415,020 lbs.
AASHTO M270 Grade 36 = 11,370 lbs.

All structural steel shall be AASHTO M 270 Grade 50, unless otherwise noted.

No field welding is permitted except as specified in the contract documents.

Reinforcement bars designated (E) shall be epoxy coated.

If the Contractor elects to use cantilever forming brackets on the exterior beams or girders, the brackets shall be placed at the same locations as required for the hardwood blocks in Article 503.06(b) of the Standard Specifications. If additional cantilever forming brackets are required, hardwood blocking shall be wedged between the exterior and first interior beam at each of these additional bracket locations.

Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of $\frac{1}{8}$ inch (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimming the bearings.

Concrete Sealer shall be applied to the backwalls, seats, step areas and front face of the South and North Abutments.

The Inorganic Zinc Rich Primer / Acrylic / Acrylic Paint System shall be used for shop and field painting of new structural steel except where otherwise noted. The color of the final finish coat for all interior steel surfaces shall be gray, Munsell No. 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be Reddish Brown, Munsell no. 2.5YR 3/4.

The concrete for bridge decks finished according to Article 503.16(a) of the Standard Specifications shall be placed and compacted parallel to the skew in uniform increments along centerline of bridge. The machine used for finishing shall be set either parallel to the skew or perpendicular to the centerline of bridge for striking off and screeding the concrete. Approach (and roadway) parapets may need to be poured after the deck to facilitate the bridge deck pour.

Slipforming of parapets is not allowed.

The calculated deflections of the primary girders under steel self-weight shall be used to detail cross frame connections and to erect structural steel such that the girders will be plumb within a tolerance of $\pm\frac{1}{8}$" per vertical foot throughout when supporting their own weight.

INDEX OF SHEETS

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Concrete Structures	Cu. Yd.	52.3	232.3	284.6
Concrete Superstructure	Cu. Yd.	316.0	-	316.0
Concrete Superstructure (Approach Slab)	Cu. Yd.	138.0		138.0
Bridge Deck Grooving	Sq. Yd.	1089	-	1089
Protective Coat	Sq. Yd.	1344	-	1344
Furnishing and Erecting Structural Steel Bridge No. 1	L. Sum	1	-	1
Stud Shear Connectors	Each	3528	-	3528
Reinforcement Bars, Epoxy Coated	Pound	124810	25490	150300
Bar Splicers	Each	180	-	180
Furnishing Metal Shell Piles 12" x 0.250"	Foot	-	1335	1335
Driving Piles	Foot	-	1335	1335
Test Pile Metal Shells	Each	-	2	2
Name Plates	Each	1	-	1
Preformed Joint Strip Seal	Foot	90	-	90
Anchor Bolts, $1\frac{1}{2}$"	Each	48	-	48
Concrete Sealer	Sq. Ft.	-	2933	2933
High Load Multi-Rotational Bearings, Pot, Guided Expansion-300k	Each	9	-	9
High Load Multi-Rotational Bearings, Pot, Fixed-300k	Each	1	-	1
High Load Multi-Rotational Bearings, Pot, Non-Guided Expansion-300k	Each	2	-	2
Modular Expansion Joint - Swivel 9"	Foot	86	-	86
Bridge Fence Railing (Special)	Foot	320	-	320

UP GENERAL NOTES

The proposed grade separation project shall not increase the quantity and/or characteristics of the flow in the Railroad's ditches and/or drainage structures.

The elevation of the existing top-of-rail profile shall be verified before beginning construction. All discrepancies shall be brought to the attention of the Railroad prior to construction.

The contractor must submit a proposed method of erosion and sediment control and have the method approved by the Railroad.

All shoring systems that impact the Railroad's operations and/or supports the Railroad's embankment shall be designed and constructed per current Railroad Guidelines for Temporary Shoring.

All demolitions within the Railroad's right-of-way and/or demolition that may impact the Railroad's tracks or operations shall be in compliance with the Railroad's Demolition Guidelines.

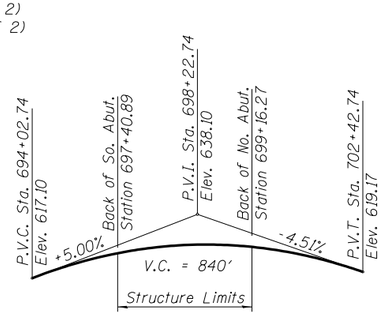
Erection over the Railroad's right-of-way shall be designed to cause no interruption to the Railroad's operation, enabling the track(s) to remain open to traffic per the Railroad's requirements.

Railroad requirements do not allow work within 50 feet of track centerline when a train passes the work site and all personnel must clear the area within 25 feet of the track centerline and secure all equipment.

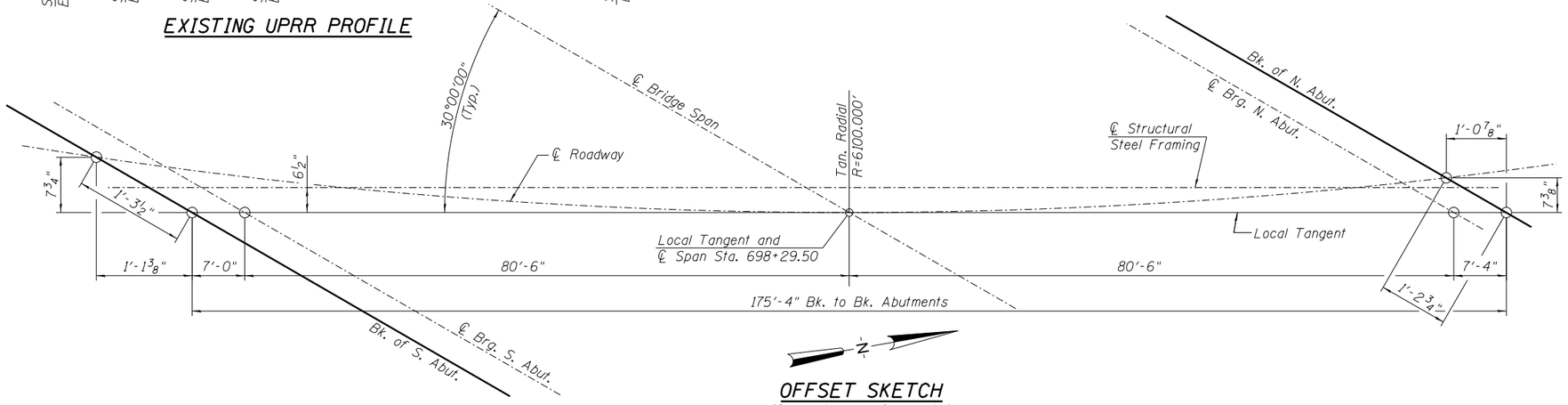
False-work clearances shall comply with minimum construction clearances.

All permanent clearances shall be verified before project closing.

EXISTING UPRR PROFILE



PROPOSED PROFILE GRADE
℄ Roadway



OFFSET SKETCH
(Scale distorted for clarity)

UNION PACIFIC RAILROAD
BUILT 20__ BY
SANGAMON COUNTY
SEC. 07-00164-04-FP
F.A.P. 1638 - STATION 698+29.67
STR. NO. 084-9949
LOADING HL93

NAME PLATE
See Std. 515001

DESIGNED	JGT	11/12/15
DRAWN	DAP	11/20/15
REVIEWED	MNM	11/20/15

I:\96jobs\96S2002F\CADD\Struct\Sheet\002_General Data.dgn

HANSON
PROFESSIONAL DESIGN FIRM LICENSE #184-001084

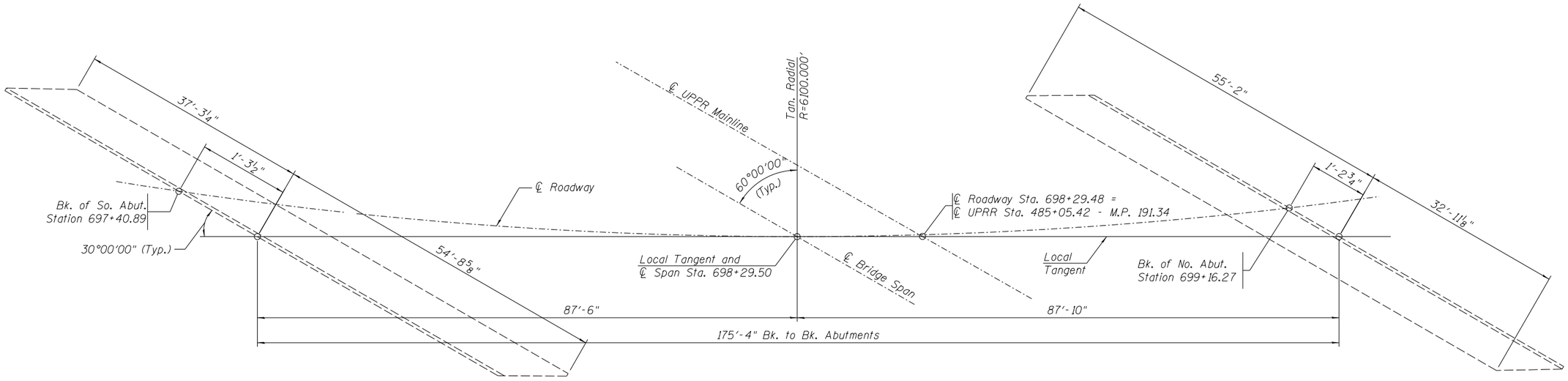
USER NAME = johns00944	DESIGNED	JGT	REVISED -
	CHECKED	MNM	REVISED -
PLOT SCALE = 0.166667 ' / in.	DRAWN	DAP	REVISED -
PLOT DATE = 4/28/2023	CHECKED	JGT/MNM	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL DATA
STRUCTURE NUMBER 084-9949
SHEET NO. 2 OF 34 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	SANGAMON	368	147
		CONTRACT NO. 93671		
	ILLINOIS	FED. AID PROJECT 6		

• 07-00164-04-FP, 07-00090-08-FP



FOOTING LAYOUT

(Scale distorted for clarity)

N

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HANSON
PROFESSIONAL DESIGN FIRM LICENSE #184.001084

USER NAME = Johns00944	DESIGNED JGT	REVISED -	
	CHECKED MNM	REVISED -	
PLOT SCALE = 0.166667 ' / in.	DRAWN DAP	REVISED -	
PLOT DATE = 10/26/2022	CHECKED JGT/MNM	REVISED -	

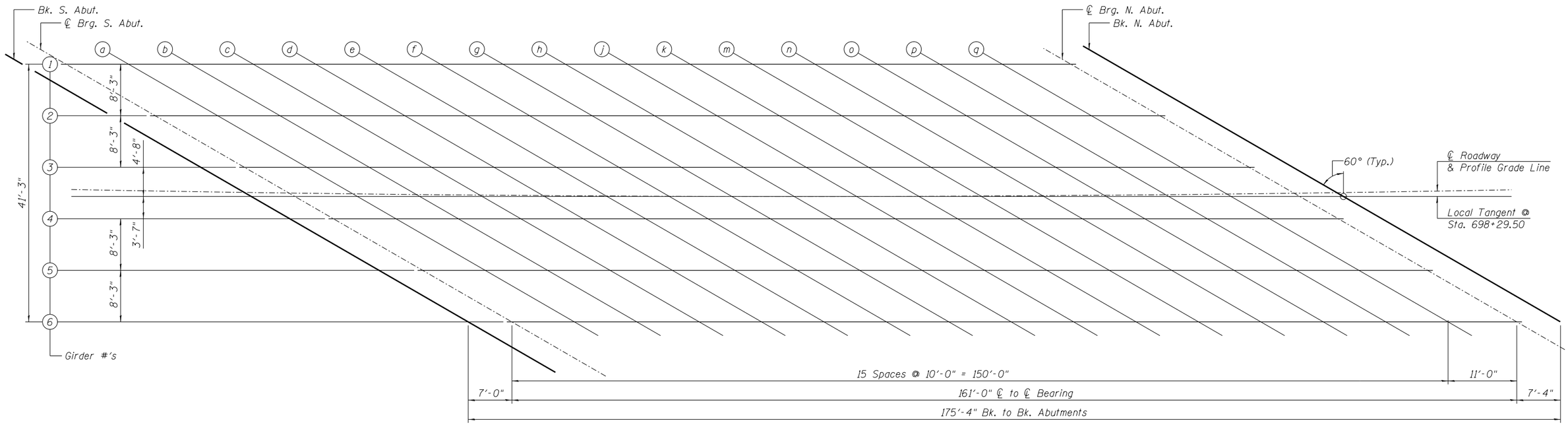
DESIGNED JGT 11/12/15
DRAWN DAP 11/20/15
REVIEWED MNM 11/20/15

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

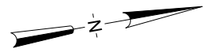
SUBSTRUCTURE LAYOUT
STRUCTURE NUMBER 084-9949
SHEET NO. 3 OF 34 SHEETS

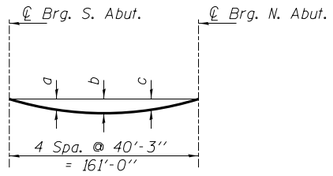
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	SANGAMON	368	148
		CONTRACT NO. 93671		
	ILLINOIS	FED. AID PROJECT 6		

• 07-00164-04-FP, 07-00090-08-FP



DIAGRAMMATIC PLAN





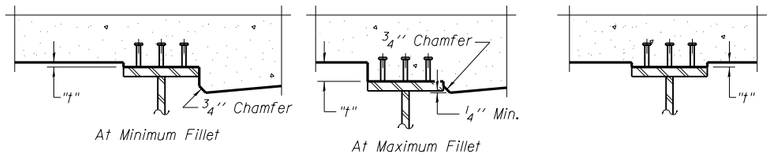
DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only.)

DEAD LOAD DEFLECTION TABLE

Girder	Deflection		
	a	b	c
1	$4\frac{9}{16}$"	$6\frac{3}{8}$"	$4\frac{5}{8}$"
2	$4\frac{5}{16}$"	$5\frac{7}{8}$"	$4\frac{1}{4}$"
3	$4\frac{1}{8}$"	$5\frac{11}{16}$"	$4\frac{1}{8}$"
4	$4\frac{1}{8}$"	$5\frac{11}{16}$"	$4\frac{1}{8}$"
5	$4\frac{3}{16}$"	$5\frac{13}{16}$"	$4\frac{1}{4}$"
6	$4\frac{9}{16}$"	$6\frac{1}{4}$"	$4\frac{9}{16}$"

Note:
The above deflections are not to be used in the field if the Engineer is working from the grade elevations adjusted for dead load deflections as shown on sheets 05 & 06 of 34.



EXTERIOR BEAMS

INTERIOR BEAMS

To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown on this sheet. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on sheets 05 & 06 of 34, minus 8" slab thickness, equals the fillet heights "t" above top flange of beams.

FILLET HEIGHTS

DESIGNED	JGT	11/12/15
DRAWN	DAP	11/20/15
REVIEWED	MNM	11/20/15

I:\96jobs\9652002F\CADD\Struct\Sheet\004_Top of Deck Elevations (Sheet 1 of 3).dgn

HANSON
PROFESSIONAL DESIGN FIRM LICENSE #184-001084

USER NAME = Johns00944	DESIGNED	JGT	REVISED -
	CHECKED	MNM	REVISED -
PLOT SCALE = 0.166667 ' / in.	DRAWN	DAP	REVISED -
PLOT DATE = 10/26/2022	CHECKED	JGT/MNM	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF DECK ELEVATIONS (SHEET 1 OF 3)
STRUCTURE NUMBER 084-9949
SHEET NO. 4 OF 34 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	SANGAMON	368	149
		CONTRACT NO. 93671		
	ILLINOIS FED. AID PROJECT 6			

• 07-00164-04-FP, 07-00090-08-FP

GIRDER 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	697+04.92	-19.90	626.70	626.70
℄ Brg. S. Abut.	697+11.94	-20.04	626.81	626.81
a	697+21.98	-20.22	626.95	627.06
b	697+32.01	-20.39	627.08	627.29
c	697+42.04	-20.54	627.20	627.50
d	697+52.07	-20.68	627.31	627.69
e	697+62.11	-20.80	627.40	627.85
f	697+72.14	-20.90	627.49	627.98
g	697+82.17	-20.98	627.56	628.08
h	697+92.21	-21.05	627.63	628.16
j	698+02.24	-21.11	627.68	628.20
k	698+12.28	-21.14	627.72	628.22
m	698+22.31	-21.16	627.75	628.21
n	698+32.35	-21.17	627.77	628.16
o	698+42.38	-21.15	627.78	628.10
p	698+52.42	-21.12	627.78	628.00
q	698+62.45	-21.08	627.76	627.89
℄ Brg. N. Brg	698+73.49	-21.01	627.74	627.74
Bk. N. Abut.	698+80.85	-20.95	627.71	627.71

GIRDER 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	697+19.41	-11.93	627.08	627.08
℄ Brg. S. Abut.	697+26.42	-12.05	627.17	627.17
a	697+36.44	-12.21	627.30	627.40
b	697+46.46	-12.35	627.41	627.61
c	697+56.48	-12.48	627.52	627.80
d	697+66.50	-12.59	627.61	627.96
e	697+76.52	-12.69	627.69	628.10
f	697+86.54	-12.77	627.76	628.21
g	697+96.56	-12.83	627.82	628.30
h	698+06.58	-12.87	627.87	628.35
j	698+16.60	-12.90	627.90	628.38
k	698+26.62	-12.92	627.93	628.38
m	698+36.64	-12.91	627.94	628.36
n	698+46.66	-12.89	627.95	628.30
o	698+56.69	-12.86	627.94	628.23
p	698+66.71	-12.80	627.92	628.12
q	698+76.73	-12.73	627.89	628.00
℄ Brg. N. Brg	698+87.75	-12.64	627.85	627.85
Bk. N. Abut.	698+95.10	-12.56	627.81	627.81

GIRDER 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	697+33.85	-3.92	627.39	627.39
℄ Brg. S. Abut.	697+40.86	-4.02	627.48	627.48
a	697+50.86	-4.16	627.59	627.68
b	697+60.87	-4.28	627.68	627.88
c	697+70.87	-4.39	627.77	628.05
d	697+80.88	-4.47	627.85	628.19
e	697+90.89	-4.54	627.91	628.31
f	698+00.90	-4.60	627.97	628.41
g	698+10.90	-4.64	628.01	628.48
h	698+20.91	-4.66	628.04	628.52
j	698+30.92	-4.67	628.06	628.53
k	698+40.93	-4.66	628.07	628.52
m	698+50.93	-4.63	628.07	628.47
n	698+60.94	-4.59	628.06	628.41
o	698+70.95	-4.53	628.04	628.32
p	698+80.96	-4.45	628.00	628.20
q	698+90.96	-4.36	627.96	628.06
℄ Brg. N. Brg	699+01.97	-4.24	627.89	627.89
Bk. N. Abut.	699+09.31	-4.14	627.84	627.84

Note:
Offsets measured from ℄ Roadway.

DESIGNED	JGT	11/12/15
DRAWN	DAP	11/20/15
REVIEWED	MNM	11/20/15

I:\96jobs\9652002F\CADD\Struct\Sheet\005_Top of Deck Elevations (Sheet 2 of 3).dgn

HANSON
PROFESSIONAL DESIGN FIRM LICENSE #184-001084

USER NAME = Johns00944	DESIGNED JGT	REVISED -	
	CHECKED MNM	REVISED -	
PLOT SCALE = 0.166667 ' / in.	DRAWN DAP	REVISED -	
PLOT DATE = 10/26/2022	CHECKED JGT/MNM	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF DECK ELEVATIONS (SHEET 2 OF 3)
STRUCTURE NUMBER 084-9949
SHEET NO. 5 OF 34 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	SANGAMON	368	150
		CONTRACT NO. 93671		
	ILLINOIS	FED. AID PROJECT 6		

• 07-00164-04-FP, 07-00090-08-FP

℄ ROADWAY & P.G.L.

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	697+40.88	0.00	627.54	627.54
℄ Brg. S. Abut.	697+48.06	0.00	627.62	627.62
a	697+58.28	0.00	627.72	627.82
b	697+68.47	0.00	627.82	628.01
c	697+78.63	0.00	627.90	628.17
d	697+88.76	0.00	627.97	628.31
e	697+98.87	0.00	628.03	628.42
f	698+08.94	0.00	628.07	628.51
g	698+18.98	0.00	628.11	628.57
h	698+29.00	0.00	628.13	628.60
j	698+38.99	0.00	628.14	628.61
k	698+48.95	0.00	628.14	628.58
m	698+58.88	0.00	628.13	628.53
n	698+68.78	0.00	628.11	628.46
o	698+78.66	0.00	628.08	628.36
p	698+88.51	0.00	628.04	628.23
q	698+98.33	0.00	627.98	628.09
℄ Brg. N. Brg	699+09.13	0.00	627.91	627.91
Bk. N. Abut.	699+16.27	0.00	627.85	627.85

GIRDER 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	697+48.26	4.12	627.56	627.56
℄ Brg. S. Abut.	697+55.25	4.04	627.63	627.63
a	697+65.25	3.92	627.73	627.83
b	697+75.24	3.82	627.82	628.00
c	697+85.23	3.74	627.89	628.16
d	697+95.23	3.68	627.95	628.29
e	698+05.22	3.63	628.00	628.40
f	698+15.21	3.60	628.04	628.48
g	698+25.21	3.58	628.07	628.53
h	698+35.20	3.59	628.09	628.56
j	698+45.20	3.60	628.09	628.55
k	698+55.19	3.64	628.08	628.52
m	698+65.19	3.69	628.07	628.47
n	698+75.18	3.75	628.04	628.38
o	698+85.17	3.84	627.99	628.27
p	698+95.17	3.94	627.94	628.14
q	699+05.16	4.05	627.88	627.98
℄ Brg. N. Brg	699+16.15	4.20	627.79	627.79
Bk. N. Abut.	699+23.48	4.31	627.73	627.73

GIRDER 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	697+62.63	12.20	627.58	627.58
℄ Brg. S. Abut.	697+69.61	12.13	627.64	627.64
a	697+79.59	12.04	627.73	627.82
b	697+89.57	11.96	627.79	627.99
c	697+99.55	11.91	627.85	628.13
d	698+09.53	11.87	627.90	628.25
e	698+19.52	11.84	627.93	628.34
f	698+29.50	11.83	627.95	628.40
g	698+39.48	11.84	627.97	628.44
h	698+49.46	11.87	627.97	628.45
j	698+59.44	11.91	627.95	628.43
k	698+69.42	11.96	627.93	628.38
m	698+79.40	12.04	627.90	628.31
n	698+89.38	12.13	627.85	628.21
o	698+99.36	12.23	627.79	628.08
p	699+09.34	12.36	627.72	627.92
q	699+19.32	12.50	627.64	627.75
℄ Brg. N. Brg	699+30.29	12.67	627.53	627.53
Bk. N. Abut.	699+37.61	12.79	627.46	627.46

GIRDER 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	697+76.96	20.31	627.54	627.54
℄ Brg. S. Abut.	697+83.94	20.25	627.59	627.59
a	697+93.90	20.19	627.66	627.76
b	698+03.87	20.14	627.71	627.92
c	698+13.84	20.10	627.75	628.05
d	698+23.80	20.09	627.78	628.16
e	698+33.77	20.08	627.80	628.24
f	698+43.74	20.10	627.80	628.29
g	698+53.71	20.13	627.80	628.31
h	698+63.67	20.18	627.78	628.30
j	698+73.64	20.24	627.75	628.27
k	698+83.61	20.32	627.71	628.20
m	698+93.57	20.42	627.66	628.10
n	699+03.54	20.53	627.60	627.98
o	699+13.50	20.66	627.52	627.83
p	699+23.47	20.81	627.44	627.65
q	699+33.43	20.97	627.34	627.46
℄ Brg. N. Brg	699+44.39	21.17	627.22	627.22
Bk. N. Abut.	699+51.70	21.31	627.13	627.13

Note:
Offsets measured from ℄ Roadway.

DESIGNED	JGT	11/12/15
DRAWN	DAP	11/20/15
REVIEWED	MNM	11/20/15

I:\96jobs\96S2002F\CADD\Struct\Sheet\006_Top of Deck Elevations (Sheet 3 of 3).dgn

HANSON
PROFESSIONAL DESIGN FIRM LICENSE #184.001084

USER NAME = Johns00944	DESIGNED	JGT	REVISED -
	CHECKED	MNM	REVISED -
PLOT SCALE = 0.166667 ' / in.	DRAWN	DAP	REVISED -
PLOT DATE = 10/26/2022	CHECKED	JGT/MNM	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF DECK ELEVATIONS (SHEET 3 OF 3)
STRUCTURE NUMBER 084-9949
SHEET NO. 6 OF 34 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	SANGAMON	368	151
		CONTRACT NO. 93671		
	ILLINOIS FED. AID PROJECT 6			

• 07-00164-04-FP, 07-00090-08-FP

WEST GUTTER LINE

Location	Station	Offset	Theoretical Grade Elevations
Free End of South Appr.	696+70.74	-22.00	626.06
A	696+81.24	-22.00	626.26
B	696+91.70	-22.00	626.44
Abut. End of South Appr.	697+02.14	-22.00	626.62

WEST CROWN BREAKPOINT

Location	Station	Offset	Theoretical Grade Elevations
Free End of South Appr.	696+89.14	-12.00	626.60
A	696+99.56	-12.00	626.78
B	697+09.95	-12.00	626.94
Abut. End of South Appr.	697+20.31	-12.00	627.09

℄ ROADWAY & CROWN LINE

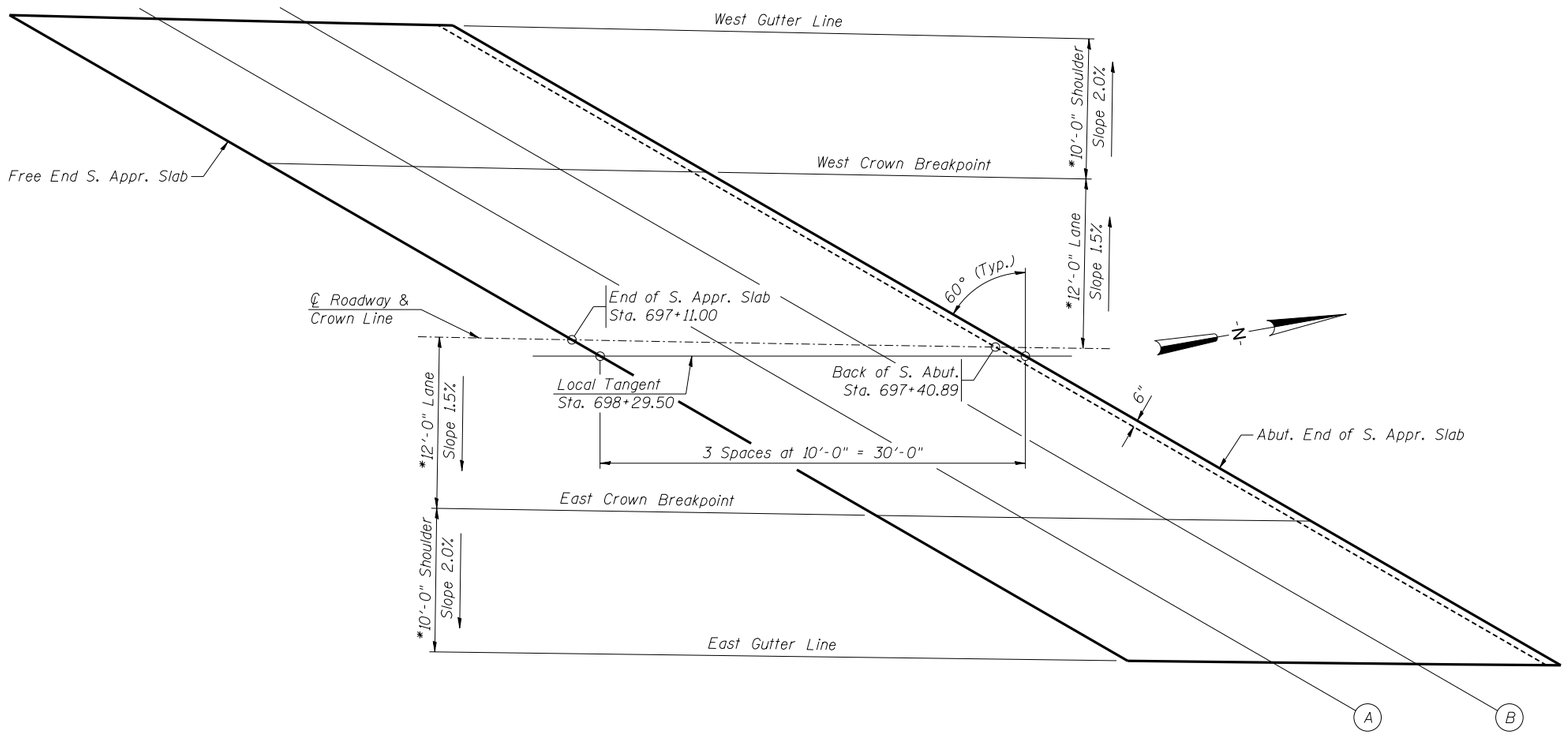
Location	Station	Offset	Theoretical Grade Elevations
Free End of South Appr.	697+11.00	0.00	627.14
A	697+21.34	0.00	627.29
B	697+31.64	0.00	627.42
Abut. End of South Appr.	697+41.91	0.00	627.55

EAST CROWN BREAKPOINT

Location	Station	Offset	Theoretical Grade Elevations
Free End of South Appr.	697+32.64	12.00	627.26
A	697+42.89	12.00	627.38
B	697+53.11	12.00	627.49
Abut. End of South Appr.	697+63.29	12.00	627.59

EAST GUTTER LINE

Location	Station	Offset	Theoretical Grade Elevations
Free End of South Appr.	697+50.50	22.00	627.26
A	697+60.68	22.00	627.37
B	697+70.83	22.00	627.46
Abut. End of South Appr.	697+80.95	22.00	627.54



PLAN

*Dimensions are measured radial to ℄ Roadway.

DESIGNED	JGT	11/12/15
DRAWN	DAP	11/20/15
REVIEWED	MNM	11/20/15

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HANSON
PROFESSIONAL DESIGN FIRM LICENSE #184-001084

USER NAME = Johns00944	DESIGNED JGT	REVISED -	
	CHECKED MNM	REVISED -	
PLOT SCALE = 0:2.000000 ':' / in.	DRAWN DAP	REVISED -	
PLOT DATE = 10/26/2022	CHECKED JGT/MNM	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SOUTH APPROACH SLAB ELEVATIONS
STRUCTURE NUMBER 084-9949
SHEET NO. 7 OF 34 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	SANGAMON	368	152
		CONTRACT NO. 93671		
	ILLINOIS	FED. AID PROJECT 6		

• 07-00164-04-FP, 07-00090-08-FP

WEST GUTTER LINE

Location	Station	Offset	Theoretical Grade Elevations
Abut. End of North Appr.	698+78.08	-22.00	627.70
A	698+87.96	-22.00	627.66
B	698+97.82	-22.00	627.60
Free End of North Appr.	699+07.65	-22.00	627.54

WEST CROWN BREAKPOINT

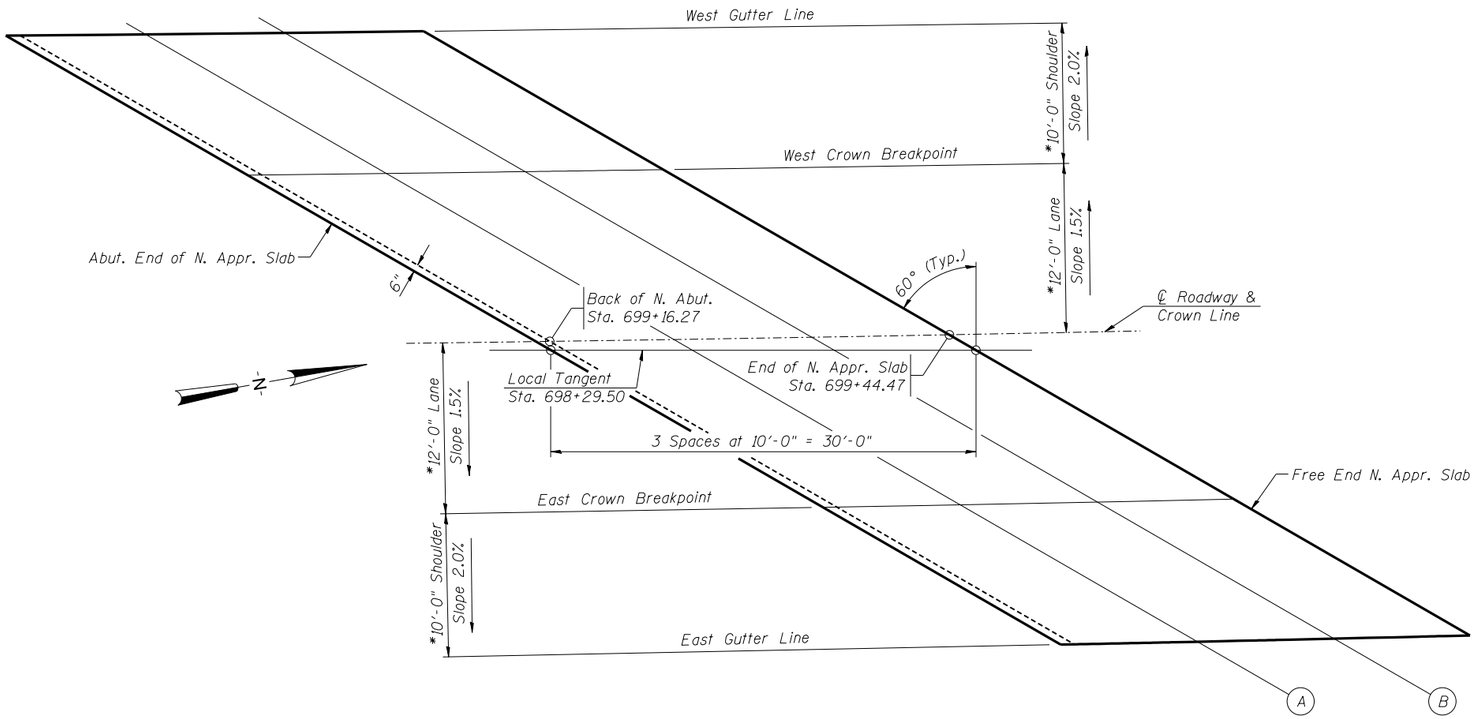
Location	Station	Offset	Theoretical Grade Elevations
Abut. End of North Appr.	698+95.07	-12.00	627.82
A	699+04.90	-12.00	627.76
B	699+14.70	-12.00	627.69
Free End of North Appr.	699+24.47	-12.00	627.60

℄ ROADWAY & CROWN LINE

Location	Station	Offset	Theoretical Grade Elevations
Abut. End of North Appr.	699+15.30	0.00	627.86
A	699+25.05	0.00	627.78
B	699+34.77	0.00	627.68
Free End of North Appr.	699+44.47	0.00	627.58

EAST CROWN BREAKPOINT

Location	Station	Offset	Theoretical Grade Elevations
Abut. End of North Appr.	699+35.33	12.00	627.50
A	699+45.01	12.00	627.39
B	699+54.66	12.00	627.28
Free End of North Appr.	699+64.28	12.00	627.15



PLAN

EAST GUTTER LINE

Location	Station	Offset	Theoretical Grade Elevations
Abut. End of North Appr.	699+51.88	22.00	627.11
A	699+61.50	22.00	626.99
B	699+71.09	22.00	626.86
Free End of North Appr.	699+80.66	22.00	626.72

*Dimensions are measured radial to ℄ Roadway.

DESIGNED	JGT	11/12/15
DRAWN	DAP	11/20/15
REVIEWED	MNM	11/20/15

I:\96jobs\9652002F\CADD\Struct\Sheet\008_Top of North Approach Slab Elevations.dgn

HANSON
PROFESSIONAL DESIGN FIRM LICENSE #184.001084

USER NAME = Johns00944	DESIGNED JGT	REVISED -	
	CHECKED MNM	REVISED -	
PLOT SCALE = 0.166667 ' / in.	DRAWN DAP	REVISED -	
PLOT DATE = 10/26/2022	CHECKED JGT/MNM	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF NORTH APPROACH SLAB ELEVATIONS
STRUCTURE NUMBER 084-9949
SHEET NO. 8 OF 34 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	SANGAMON	368	153
		CONTRACT NO. 93671		
	ILLINOIS	FED. AID PROJECT 6		

• 07-00164-04-FP, 07-00090-08-FP

All measurements are along Outside Face of Parapet unless noted - Radius = 6,076.42'

** Fan 2-#5 d4(E) bars

4 1/8"

167'-7 3/4" End to End Deck

19-#5 d4(E) bars at 11" cts.

24-#5 d3(E) bars at 11" cts.

23-#5 d2(E) bars at 11" cts.

116-#5 d1(E) bars at 11" cts.

11"

3x5-#5 b1(E) bars Bottom of slab, Each Side

**365-#6 a2(E) bars at 5 1/2" cts. Top (Lap with a(E), a3(E) or a5(E) bar)

1'-3 3/4" at 50° F.

See Point Block Detail 3

2-#5 a17(E) bars at 8" cts. between girders

See Point Block Detail 1

*44-#5 a3(E) bars at 5 1/2" cts. Top

*28-#5 a4(E) bars at 8 1/2" cts. Bottom

*44-#5 a5(E) bars at 5 1/2" cts. Top

*28-#5 a6(E) bars at 8 1/2" cts. Bottom

5 1/2" (Typ.)

8 1/2" (Typ.)

℄ Bridge Span

60° Skew

Tan. Radial R = 6100.00'

1'-7"

44'-0" Face to Face Parapet

47'-2" Out to Out Deck

44x6-#5 b(E) bars at 12" cts. Top of Slab

45x5-#5 b1(E) bars spaced as shown in cross section. Bottom of Slab

2x3-#5 a27(E) bars

6x3-#8 a14(E) bars at 12" cts. Top
5-#8 a12(E) bars at 12" cts. Bottom, between girders

8" at 50° F.

1x3-#8 a16(E) bar, Bottom

Back of N. Abut.

℄ Roadway

Local Tangent

Back of S. Abut.

2"

189-#5 a(E) bars at 5 1/2" cts. Top
123-#5 a1(E) bars at 8 1/2" cts. Bottom

℄ Span & Local Tangent Roadway Sta. 698+29.50

*41-#5 a9(E) bars at 5 1/2" cts. Top

*27-#5 a10(E) bars at 8 1/2" cts. Bottom

*41-#5 a7(E) bars at 5 1/2" cts. Top

*27-#5 a8(E) bars at 8 1/2" cts. Bottom

See Point Block Detail 4

MINIMUM BAR LAP

#5 bar = 3'-6"
#8 bar = 6'-9"

1x3-#8 a13(E) bar, Bottom

6x3-#8 a11(E) bars at 4" cts. Top
5-#8 a12(E) bars at 4" cts. Bottom between girders

See Point Block Detail 2

**353-#6 a2(E) bars at 5 1/2" cts. Top (Lap with a(E), a7(E) or a9(E) bar)

3x6-#5 b(E) bars Top of slab, Each Side

83-#5 d4(E) bars at 11" cts.

50-#5 d3(E) bars at 11" cts.

25-#5 d2(E) bars at 11" cts.

20-#5 d1(E) bars at 11" cts.

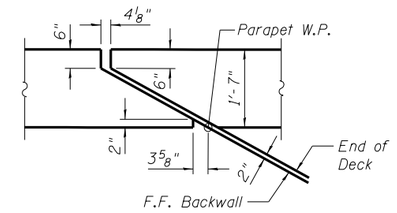
1'-3 1/2" at 50°F

163'-10 7/8" End to End Deck

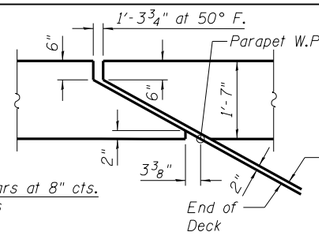
** Fan 2-#5 d1(E) bars

All measurements are along Outside Face of Parapet unless noted - Radius = 6,123.58'

PLAN



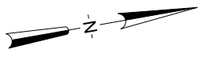
POINT BLOCK DETAIL 1

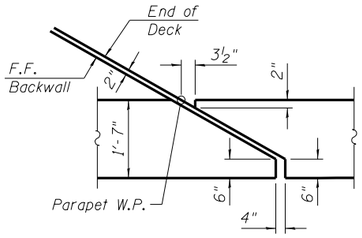


POINT BLOCK DETAIL 3

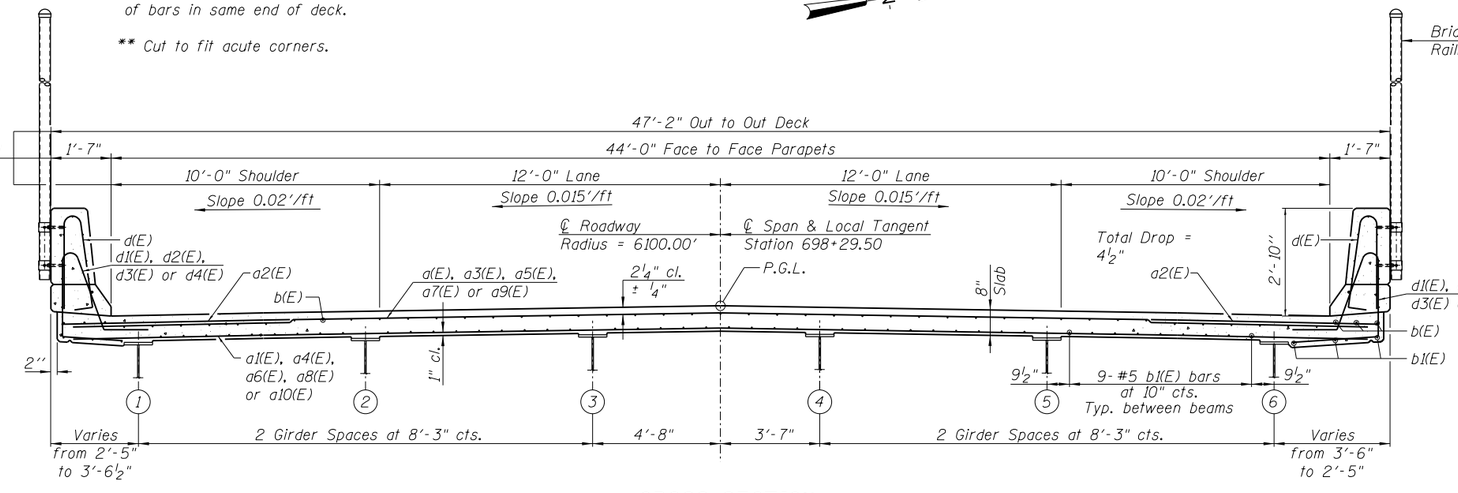
* Order a3(E) thru a10(E) bars full length. Cut to fit skew and use remainder of bars in same end of deck.

** Cut to fit acute corners.





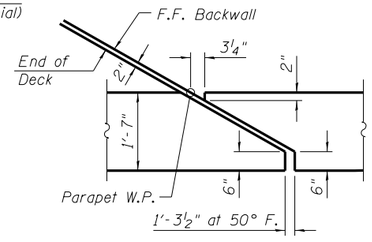
POINT BLOCK DETAIL 2



CROSS SECTION

(Looking North)

(Unless otherwise noted, horizontal dimensions are measured perpendicular to local tangent.)



POINT BLOCK DETAIL 4

Notes:

See Sheets 10 & 11 of 34 for superstructure details and Bill of Material.

Bars indicated thus 44 x 6-#5 etc. indicates 44 lines of bars with 6 lengths per line.

See Sheet 10 of 34 for parapet reinforcement.

See Sheet 11 of 34 for Sections A-A and B-B.

b1(E) bars between girders are placed parallel to the ℄ of girders. All other longitudinal bars are placed along the curve.

All transverse bars are placed radially in the deck with the plan specified spacing on the East side of the deck.

Dimensions are based on a Rolled Rail Strip Steel Joint. If the Contractor elects to use the Welded Rail Strip Seal Joint, deck dimensions may require adjustments to satisfy the details on Sheet 18 of 34.

DESIGNED	JGT	11/12/15
DRAWN	DAP	11/20/15
REVIEWED	MNM	11/20/15

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HANSON
PROFESSIONAL DESIGN FIRM LICENSE #184-001084

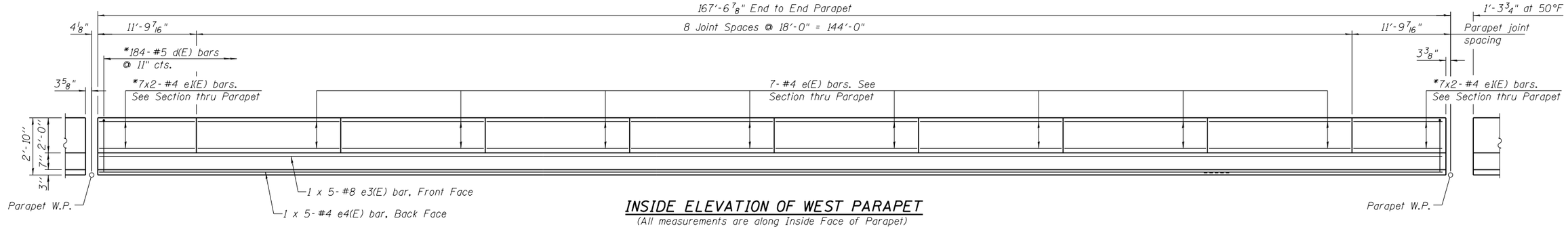
USER NAME = Johns00944	DESIGNED	JGT	REVISED	-
	CHECKED	MNM	REVISED	-
PLOT SCALE = 0.166667 ' / in.	DRAWN	DAP	REVISED	-
PLOT DATE = 10/26/2022	CHECKED	JGT/MNM	REVISED	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE
STRUCTURE NUMBER 084-9949
SHEET NO. 9 OF 34 SHEETS

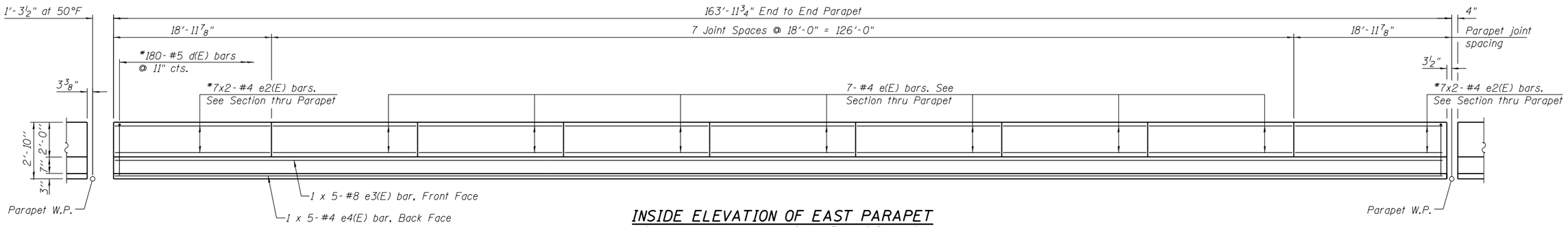
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	SANGAMON	368	154
		CONTRACT NO. 93671		
	ILLINOIS FED. AID PROJECT 6			

• 07-00164-04-FP, 07-00090-08-FP



INSIDE ELEVATION OF WEST PARAPET

(All measurements are along Inside Face of Parapet)

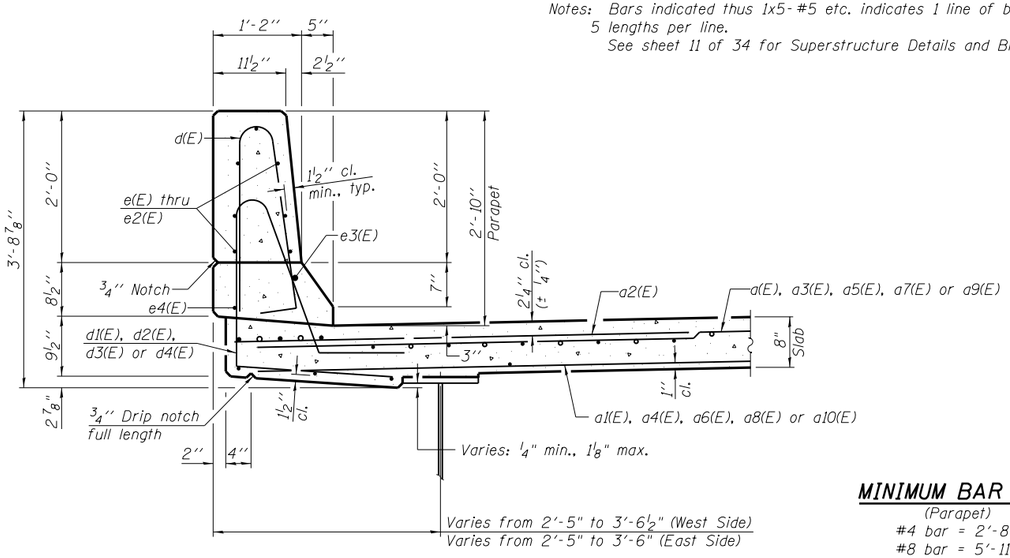


INSIDE ELEVATION OF EAST PARAPET

(All measurements are along Inside Face of Parapet)

* Field bend or cut as required.

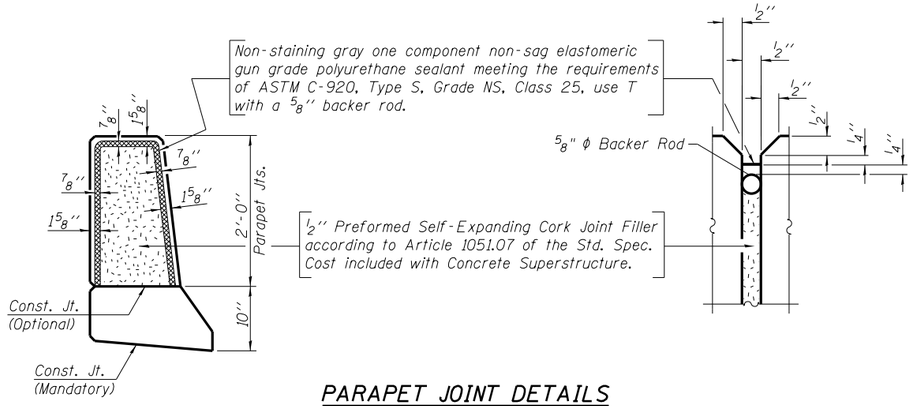
Notes: Bars indicated thus 1x5-#5 etc. indicates 1 line of bars with 5 lengths per line.
See sheet 11 of 34 for Superstructure Details and Bill of Material.



SECTION THRU PARAPET

MINIMUM BAR LAP

(Parapet)
#4 bar = 2'-8"
#8 bar = 5'-11'



PARAPET JOINT DETAILS

DESIGNED	JGT	11/12/15
DRAWN	DAP	11/20/15
REVIEWED	MNM	11/20/15

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HANSON
PROFESSIONAL DESIGN FIRM LICENSE #184-001084

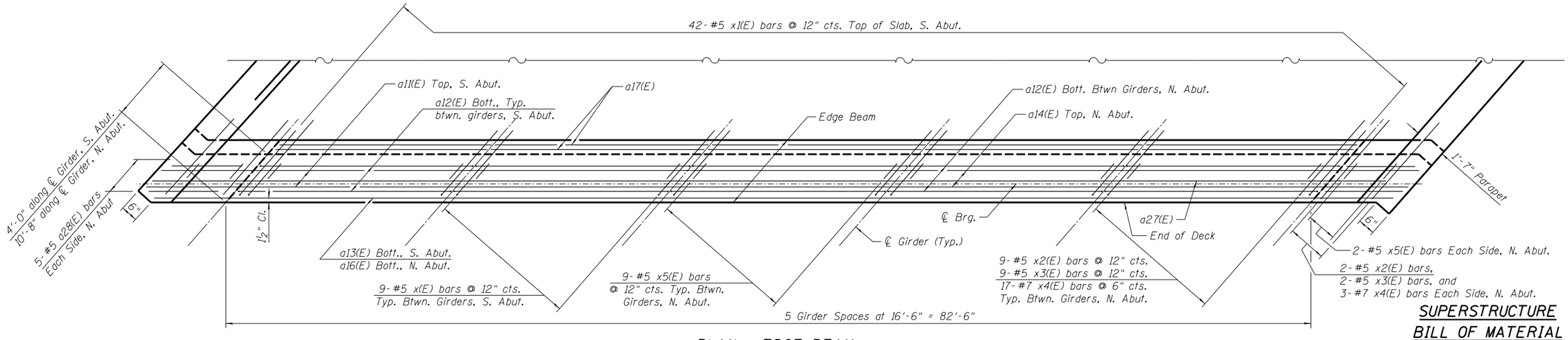
USER NAME = Johns00944	DESIGNED JGT	REVISED -	
	CHECKED MNM	REVISED -	
PLOT SCALE = 0.166666 ' / in.	DRAWN DAP	REVISED -	
PLOT DATE = 10/26/2022	CHECKED JGT/MNM	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

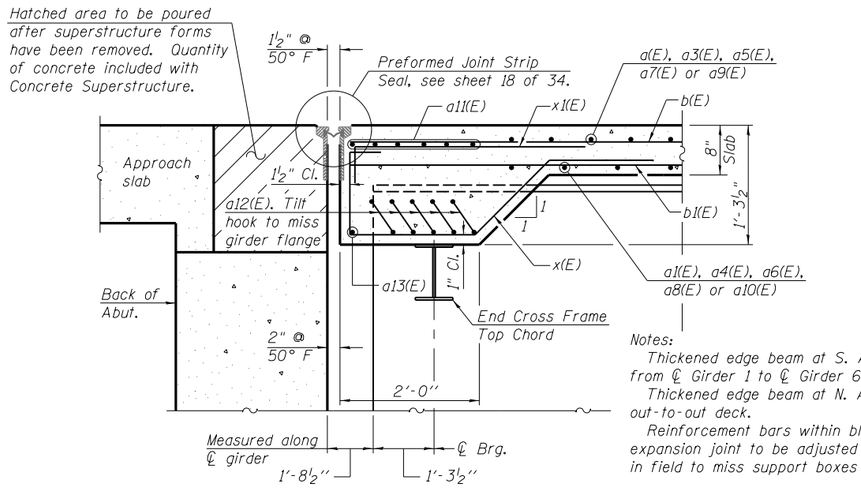
SUPERSTRUCTURE DETAILS (SHEET 1 OF 2)
STRUCTURE NUMBER 084-9949
SHEET NO. 10 OF 34 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	SANGAMON	368	155
		CONTRACT NO. 93671		
	ILLINOIS	FED. AID PROJECT 6		

• 07-00164-04-FP, 07-00090-08-FP



PLAN - EDGE BEAM



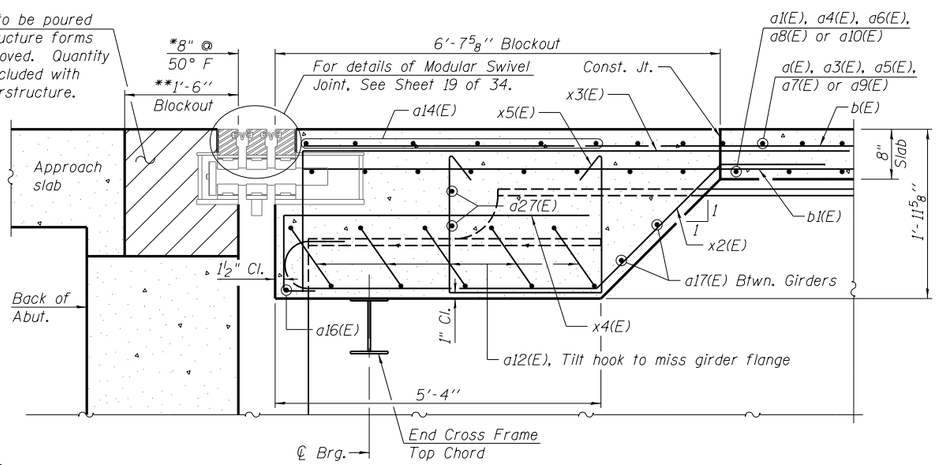
SECTION A-A

Notes:

Thickened edge beam at S. Abut extends from ℄ Girder 1 to ℄ Girder 6.

Thickened edge beam at N. Abut extends out-to-out deck.

Reinforcement bars within blockout for expansion joint to be adjusted and/or cut in field to miss support boxes or girder webs.



SECTION B-B

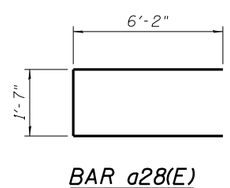
* Number of rails determined by the manufacturer.

** Contractor to verify blockout dimensions with joint manufacturer.

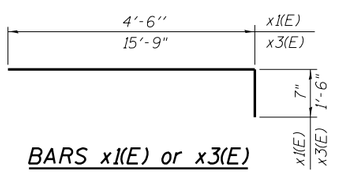
SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	189	#5	46'-2"	——
a1(E)	123	#5	46'-0"	——
a2(E)	718	#6	6'-6"	——
a3(E)	44	#5	58'-6"	——
a4(E)	28	#5	59'-0"	——
a5(E)	44	#5	36'-0"	——
a6(E)	28	#5	36'-10"	——
a7(E)	41	#5	59'-0"	——
a8(E)	27	#5	58'-8"	——
a9(E)	41	#5	37'-0"	——
a10(E)	27	#5	36'-0"	——
a11(E)	18	#8	36'-3"	——
a12(E)	50	#8	18'-0"	⊂⊃
a13(E)	3	#8	32'-0"	——
a14(E)	18	#8	35'-0"	——
a16(E)	3	#8	35'-9"	——
a17(E)	10	#5	16'-0"	——
a27(E)	6	#5	33'-10"	——
a28(E)	10	#5	13'-11"	⊏
b(E)	300	#5	30'-11"	——
b1(E)	255	#5	36'-4"	——
d(E)	364	#5	5'-7"	⌊
d1(E)	138	#5	6'-11"	⌊
d2(E)	48	#5	7'-3"	⌊
d3(E)	74	#5	7'-7"	⌊
d4(E)	104	#5	7'-11"	⌊
e(E)	105	#4	17'-8"	——
e1(E)	28	#4	8'-3"	——
e2(E)	28	#4	11'-7"	——
e3(E)	10	#8	38'-3"	——
e4(E)	10	#4	35'-8"	——
x(E)	45	#5	9'-0"	⌐⌙
x1(E)	42	#5	5'-1"	⌐⌙
x2(E)	49	#5	16'-7"	⌐⌙
x3(E)	49	#5	17'-3"	⌐⌙
x4(E)	91	#7	12'-2"	⌐⌙
x5(E)	49	#5	8'-3"	⌐⌙
Reinforcement Bars, Epoxy Coated		Pound	75000	
Concrete Superstructure		Cu. Yds.	301.4	

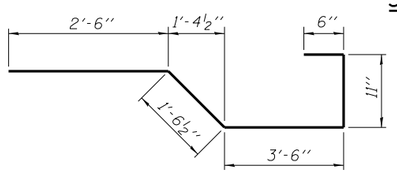
Bars indicated thus 6 x 4-#8 etc. indicates 6 lines of bars with 4 lengths per line.



BAR a28(E)



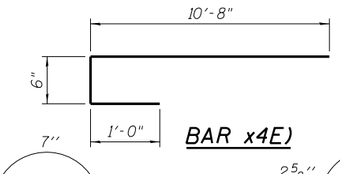
BARS x1(E) or x3(E)



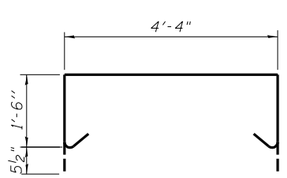
BAR x(E)

'A' Dimensions

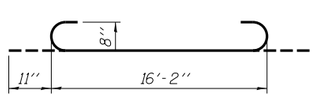
Bar	'A'
d1(E)	1'-3"
d2(E)	1'-7"
d3(E)	1'-11"
d4(E)	2'-3"



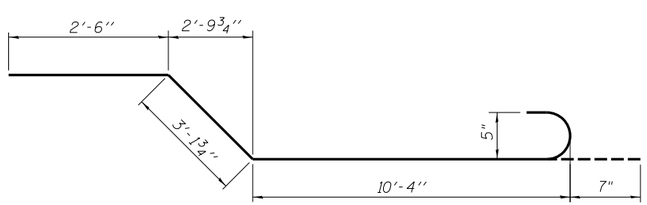
BAR x4E)



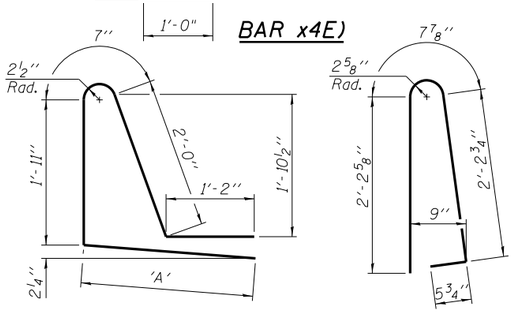
BAR x5(E)



BAR a12(E)



BAR x2(E)



BARS d1(E) thru d4(E)

BAR d(E)

DESIGNED	JGT	11/12/15
DRAWN	DAP	11/20/15
REVIEWED	MNM	11/20/15

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HANSON
PROFESSIONAL DESIGN FIRM LICENSE #184-001984

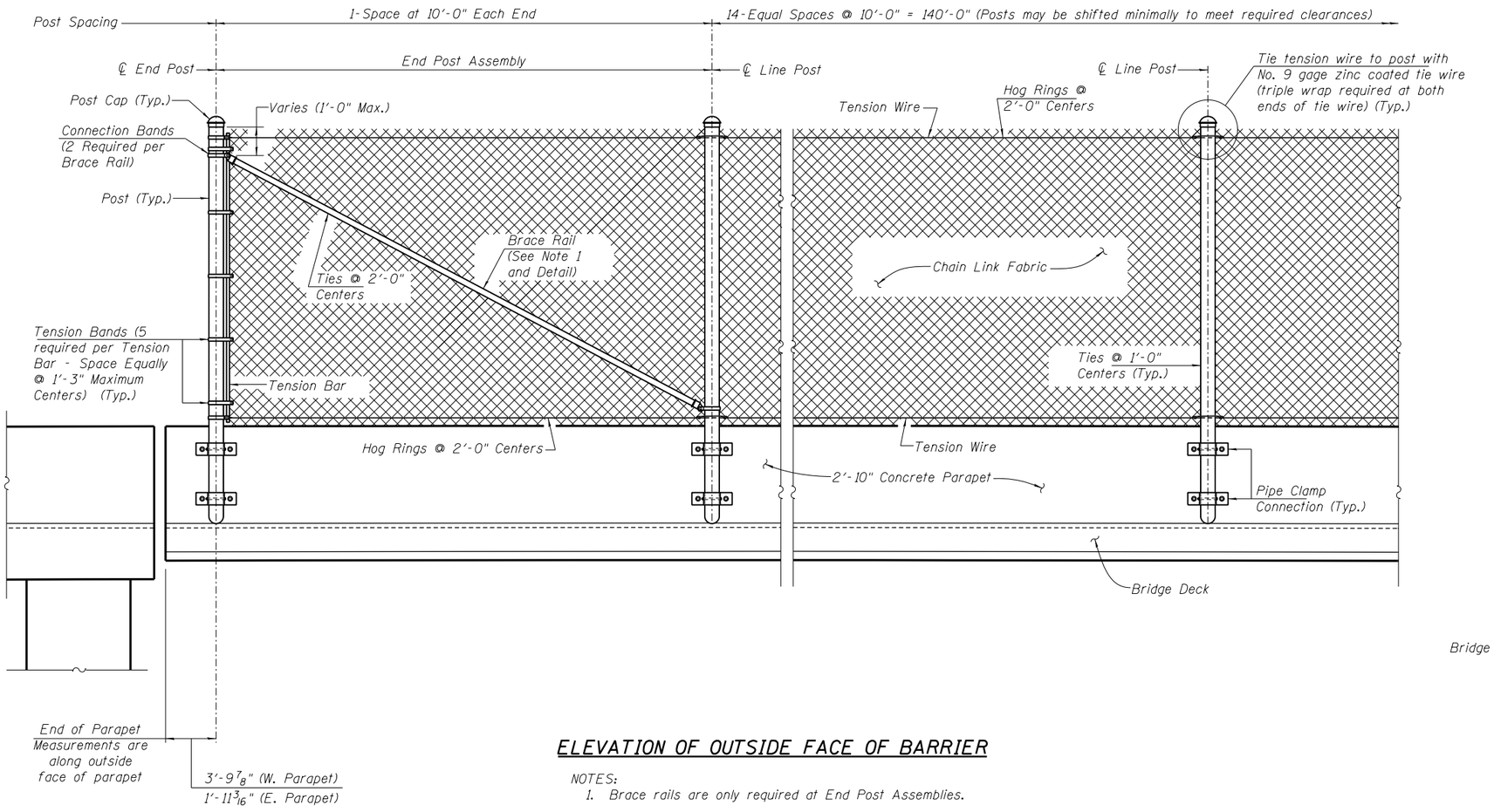
USER NAME = Johns00944	DESIGNED	JGT	REVISED -
	CHECKED	MNM	REVISED -
PLOT SCALE = 0.166666 ' / in.	DRAWN	DAP	REVISED -
PLOT DATE = 10/26/2022	CHECKED	JGT/MNM	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE DETAILS (SHEET 2 OF 2)
STRUCTURE NUMBER 084-9949
SHEET NO. 11 OF 34 SHEETS

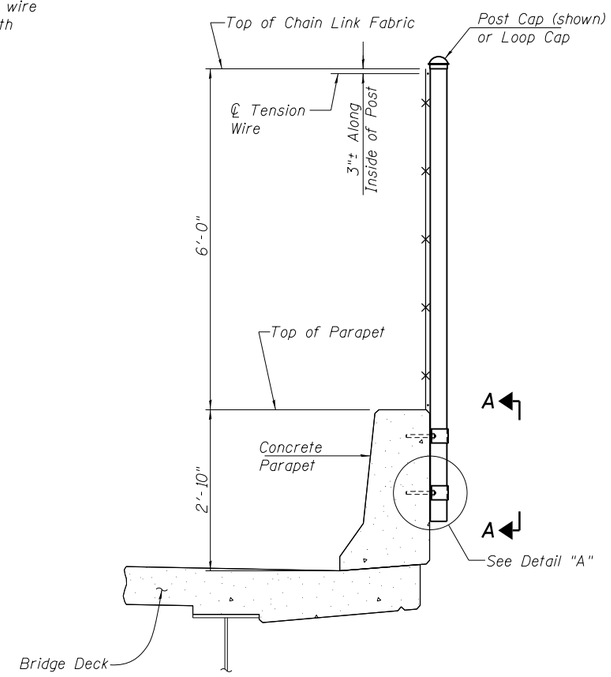
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	SANGAMON	368	156
		CONTRACT NO. 93671		
	ILLINOIS	FED. AID PROJECT 6		

• 07-00164-04-FP, 07-00090-08-FP



ELEVATION OF OUTSIDE FACE OF BARRIER

NOTES:
1. Brace rails are only required at End Post Assemblies.



TYPICAL SECTION THRU CONCRETE PARAPET

FENCING NOTES

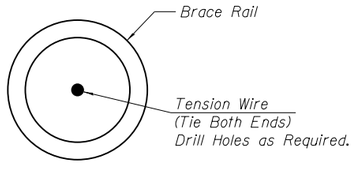
FENCE INSTALLATION:
Install posts plumb (within a tolerance of ±1½"). Use shim plates as required to achieve plumb. The required quantity and thickness of shim plates will be determined in the field. Install chain link fence in accordance with ASTM F 567, Section 509 of the Standard Specifications and Special Provision as applicable.

CONCRETE PARAPET DETAILS:
See Sheet 10 of 34 for Concrete Parapet Details.

PAYMENT:
Payment shall be for the contract unit price per foot for "Bridge Fence Railing (Special)". Payment includes posts, brace rails and bands, rail ends, combination rail ends, boulevard clamps, chain link fabric, tension wire, ties, hog rings, tension bars and bands, post and loop caps, pipe clamps, anchor rods, bolts, nuts, washers, neoprene pads, miscellaneous fence fittings and hardware and all incidental materials and labor and equipment required to complete installation of the fence.

COLOR and FINISH:
The chain link fabric, posts, fence framework, tension wire, ties and fittings, shall have a black polyvinyl chloride (PVC) coating. All non-aluminum material shall be galvanized prior to vinyl coating. See Section 1006.27 of the Standard Specifications. Hot-dip galvanize fence framework after fabrication.

Fabric:
Fabric shall not be spliced by pickets. Fabric spices if required only occur at posts at a minimum of 100' between splices.



BRACE RAIL DETAIL

CROSS REFERENCE:
For Table of Fence Components, Table of Post Attachment Components, View A-A and Detail "A" see Sheet 13 of 34.

DESIGNED	JGT	11/12/15
DRAWN	DAP	11/20/15
REVIEWED	MNM	11/20/15

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HANSON
PROFESSIONAL DESIGN FIRM LICENSE #184-001984

USER NAME = Johns00944	DESIGNED JGT	REVISED -	
	CHECKED MNM	REVISED -	
PLOT SCALE = 0.166666 ' / in.	DRAWN DAP	REVISED -	
PLOT DATE = 10/26/2022	CHECKED JGT/MNM	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BRIDGE FENCE RAILING (SPECIAL) – DETAILS (Sheet 1 of 3)
STRUCTURE NUMBER 084-9949
SHEET NO. 12 OF 34 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	SANGAMON	368	157
		CONTRACT NO. 93671		
	ILLINOIS	FED. AID PROJECT 6		

• 07-00164-04-FP, 07-00090-08-FP

TABLE OF CHAIN LINK FENCE COMPONENTS		
COMPONENT	ASTM DESIGNATION	COMPONENT INFORMATION
Posts	F 1083	Galvanized Steel Pipe - 3" NPS, Schedule 40 (3.500" Outside Diameter, 0.216" Wall Thickness)
Chain Link Fabric (2" mesh with twisted top and knuckled bottom selvage)	A 392	Zinc Coated Steel - No. 9 gage (coated wire diameter), Class 2 Coating
	A 491	Aluminum Coated Steel - No. 9 gage (coated wire diameter)
	F 668	Polyvinyl Chloride (PVC) Coated Steel - No. 9 gage Zinc Coated Wire (metallic-coated core wire diameter)
Tie Wires	F 626	Zinc Coated Steel Wire - No. 9 gage
Brace Bands	F 626	No. 12 Gage (Min. thickness) x $\frac{3}{4}$" (Min. width) Steel Bands (Beveled or Heavy)
Tension Bars	F 626	$\frac{3}{16}$" (Min. thickness) x $\frac{3}{4}$" (Min. width) x 5'-10" (Min. height) Steel Bars
Tension Bands	F 626	No. 14 Gage (Min. thickness) x $\frac{3}{4}$" (Min. width) Steel Bands
Miscellaneous Fence Components	F 626	Zinc Coated Steel - (includes post or loop caps, horizontal and brace rail ends, combination rail ends, boulevard clamps and all other miscellaneous fittings & hardware)
Tension Wire	A 824 & A 817	Type II (Zinc Coated Steel Wire) - No. 7 gage, Class 4 Coating
		Type I (Aluminum Coated Steel Wire) - No. 7 gage
Hog Rings	F 626	Zinc Coated Steel Wire - No. 12 gage
Brace Rails	F 1083	Galvanized Steel Pipe - 1$\frac{1}{4}$" NPS, Schedule 40 (1.660" Outside Diameter, 0.140" Wall Thickness)

TABLE OF POST ATTACHMENT COMPONENTS			
COMPONENT		ASTM DESIGNATION	COMPONENT INFORMATION
Pipe Clamps		A 36 or A 709 Grade 36	$\frac{1}{4}$" Steel PL
Pipe Clamp Connection	Epoxy Grouted Anchor Rods	F 1554 Grade 36	Fully threaded Headless Anchor Rods - $\frac{5}{8}$" ϕ x 6"
	C-I-P Anchor Rods	F 1554 Grade 36	Hex Head Anchor Rods - $\frac{5}{8}$" ϕ x 6"
Bolts		A 307	$\frac{3}{8}$" ϕ x 4$\frac{3}{4}$" Hex Head Bolts for Pipe Clamp Connections to Posts
Nuts		A 563	Hex Nuts for Pipe Clamp and Base Plate Connections
Washers		F 436	Flat Washers for Pipe Clamp and Base Plate Connections
Neoprene Pads		-	In accordance with Standard Specification Section 1052.02(a)

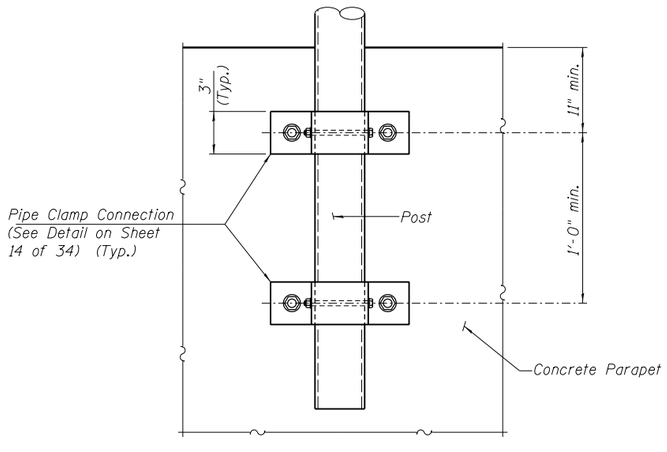
POST ATTACHMENT NOTES

ANCHOR RODS, NUTS and WASHERS:
After the nuts have been tightened, distort the Anchor Rod threads to prevent removal of the nuts. Coat distorted threads and exposed trimmed ends of anchors with a galvanizing compound in accordance with ASTM A780.

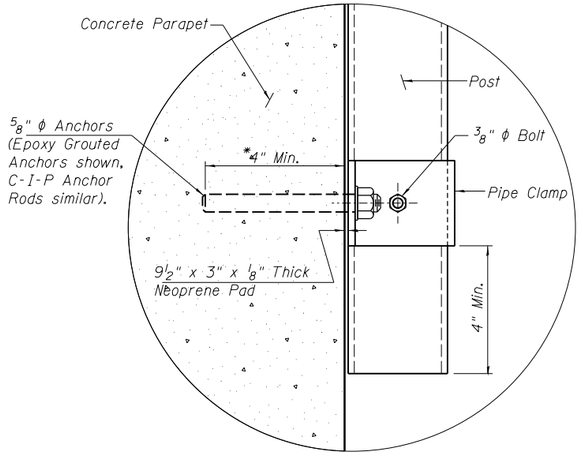
COATINGS:
Hot-dip galvanize all Nuts, Washers, Bolts, C-I-P Anchor Rods, Epoxy Grouted Anchors according to Section 1006.09 of the Standard Specifications. Hot-dip galvanize pipe clamps in accordance with ASTM A123. See Fencing Notes on Sheet 12 of 34 for PVC coating details.

EPOXY GROUTING of ANCHOR RODS and BARS:
Chemical Adhesive Resin System for Anchor Rods and Bars shall comply with Special Provisions. Space reinforcement bars in parapet to miss anchors.

WELDING:
All welding will be in accordance with the American Welding Society Structural Welding Code (Steel) ANSI/AWS D1.1 (current edition). Weld metal will be E60XX or E70XX. Nondestructive testing of welds is not required.



VIEW A-A



DETAIL "A"

*The minimum embedment length shall be 6" or embedment length necessary to achieve 125% of the specified yield strength of the anchor rod or bar.

CROSS REFERENCE:
For location of View A-A and Detail "A" see Sheet 12 of 34.

DESIGNED	JGT	11/12/15
DRAWN	DAP	11/20/15
REVIEWED	MNM	11/20/15

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HANSON
PROFESSIONAL DESIGN FIRM LICENSE #184-001084

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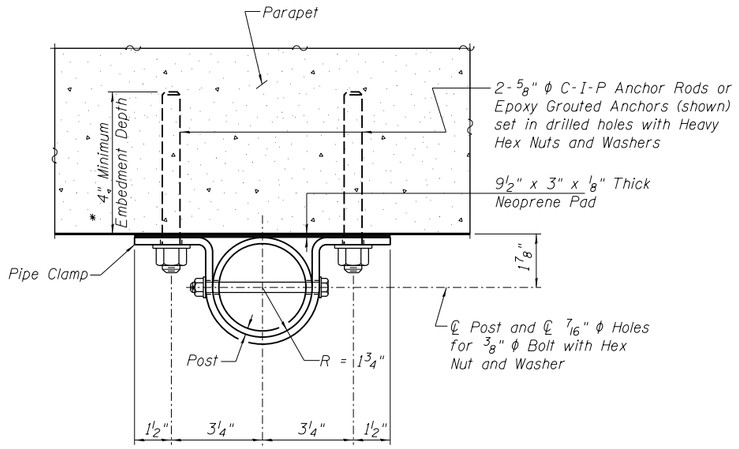
	CHECKED	MNM	REVISED -
PLOT SCALE = 0.166666 ' / in.	DRAWN	DAP	REVISED -
PLOT DATE = 10/26/2022	CHECKED	JGT/MNM	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BRIDGE FENCE RAILING (SPECIAL) – DETAILS (Sheet 2 of 3)
STRUCTURE NUMBER 084-9949
SHEET NO. 13 OF 34 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	SANGAMON	368	158
		CONTRACT NO. 93671		
	ILLINOIS	FED. AID PROJECT 6		

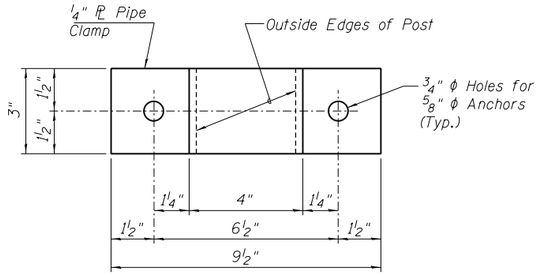
• 07-00164-04-FP, 07-00090-08-FP



PIPE CLAMP CONNECTION DETAIL

(Connection without spacer shown, Connection with spacer similar)

*The minimum embedment length shall be 4" or embedment length necessary to achieve 125% of the specified yield strength of the anchor rod or bar.



PIPE CLAMP DETAIL

BILL OF MATERIAL

ITEM	UNIT	Quantity
Bridge Fence Railing (Special)	Foot	320

DESIGNED	JGT 11/12/15
DRAWN	DAP 11/20/15
REVIEWED	MNM 11/20/15

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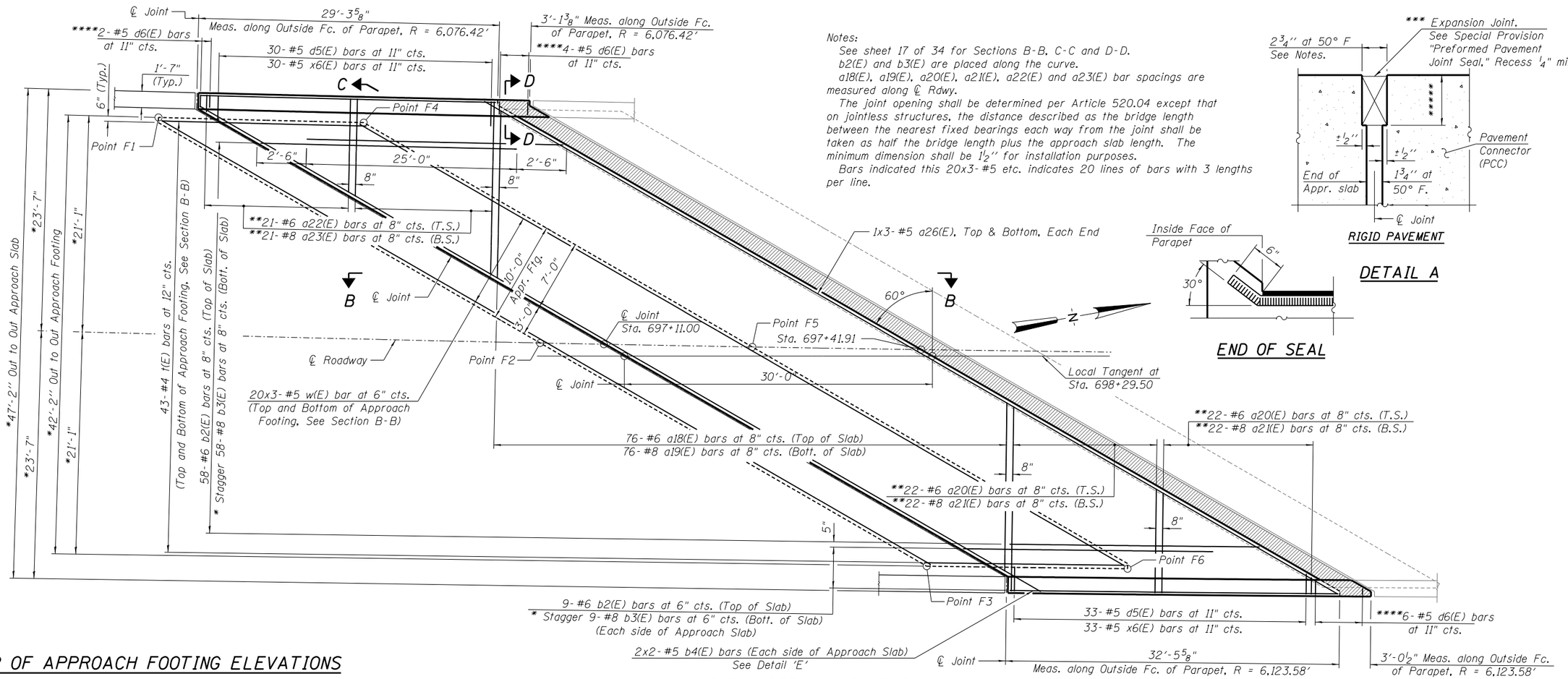
PLOT DATE = 10/26/2022	CHECKED JGT/MNM	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BRIDGE FENCE RAILING (SPECIAL) – DETAILS (Sheet 3 of 3)
STRUCTURE NUMBER 084-9949
SHEET NO. 14 OF 34 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	SANGAMON	368	159
		CONTRACT NO. 93671		
	ILLINOIS FED. AID PROJECT 6			

• 07-00164-04-FP, 07-00090-08-FP



Notes:

See sheet 17 of 34 for Sections B-B, C-C and D-D.

b2(E) and b3(E) are placed along the curve.

a18(E), a19(E), a20(E), a21(E), a22(E) and a23(E) bar spacings are measured along ℄ Rdwy.

The joint opening shall be determined per Article 520.04 except that on jointless structures, the distance described as the bridge length between the nearest fixed bearings each way from the joint shall be taken as half the bridge length plus the approach slab length. The minimum dimension shall be 1 1/2" for installation purposes.

Bars indicated this 20x3- #5 etc. indicates 20 lines of bars with 3 lengths per line.

RIGID PAVEMENT

DETAIL A

END OF SEAL

TOP OF APPROACH FOOTING ELEVATIONS

Point	F1	F2	F3	F4	F5	F6
Elevation	624.65	625.71	625.86	625.05	626.01	626.07

MINIMUM BAR LAP

#4 bar = 2'-8" (parapet)
#5 bar = 3'-3"
#8 bar = 5'-11" (parapet)

SOUTH APPROACH SLAB PLAN

* Dimensions Radial to ℄ Roadway.

** Order a20(E), a21(E), a22(E) and a23(E) bars full length. Cut to fit skew and use remainder of bars in same end of deck.

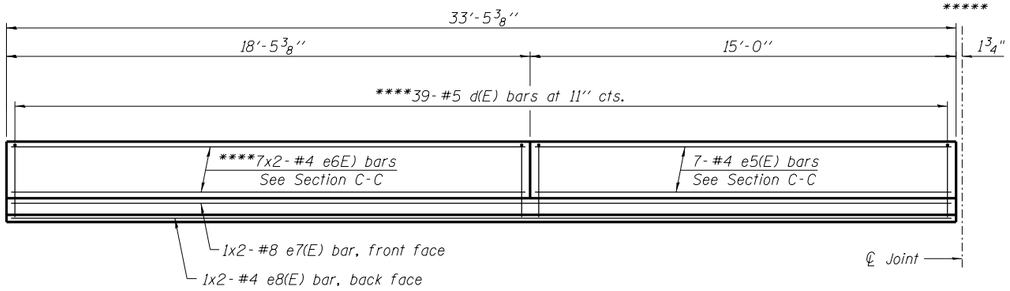
*** Cost included with Concrete Superstructure. (Approach Slab)

T.S. = Top of Slab

B.S. = Bottom of Slab

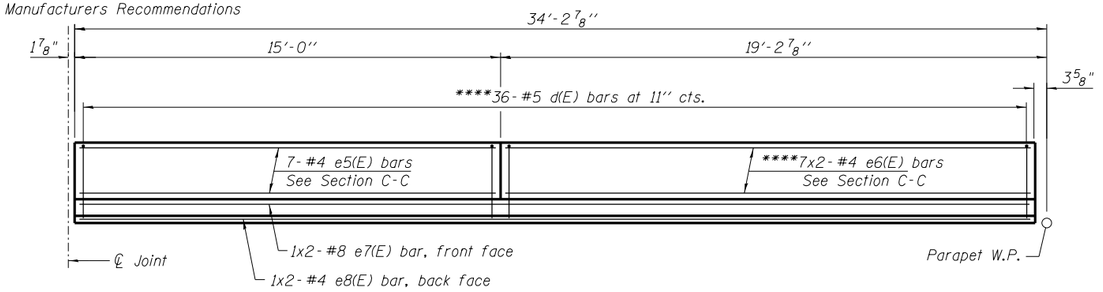
**** Field bend or cut as required

***** Per Manufacturers Recommendations



INSIDE FACE OF EAST PARAPET

Dimensions are measured along inside face of parapet.



INSIDE FACE OF WEST PARAPET

Dimensions are measured along inside face of parapet.

DESIGNED	JGT	11/12/15
DRAWN	DAP	11/20/15
REVIEWED	MNM	11/20/15

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	CHECKED MNM	REVISED -	
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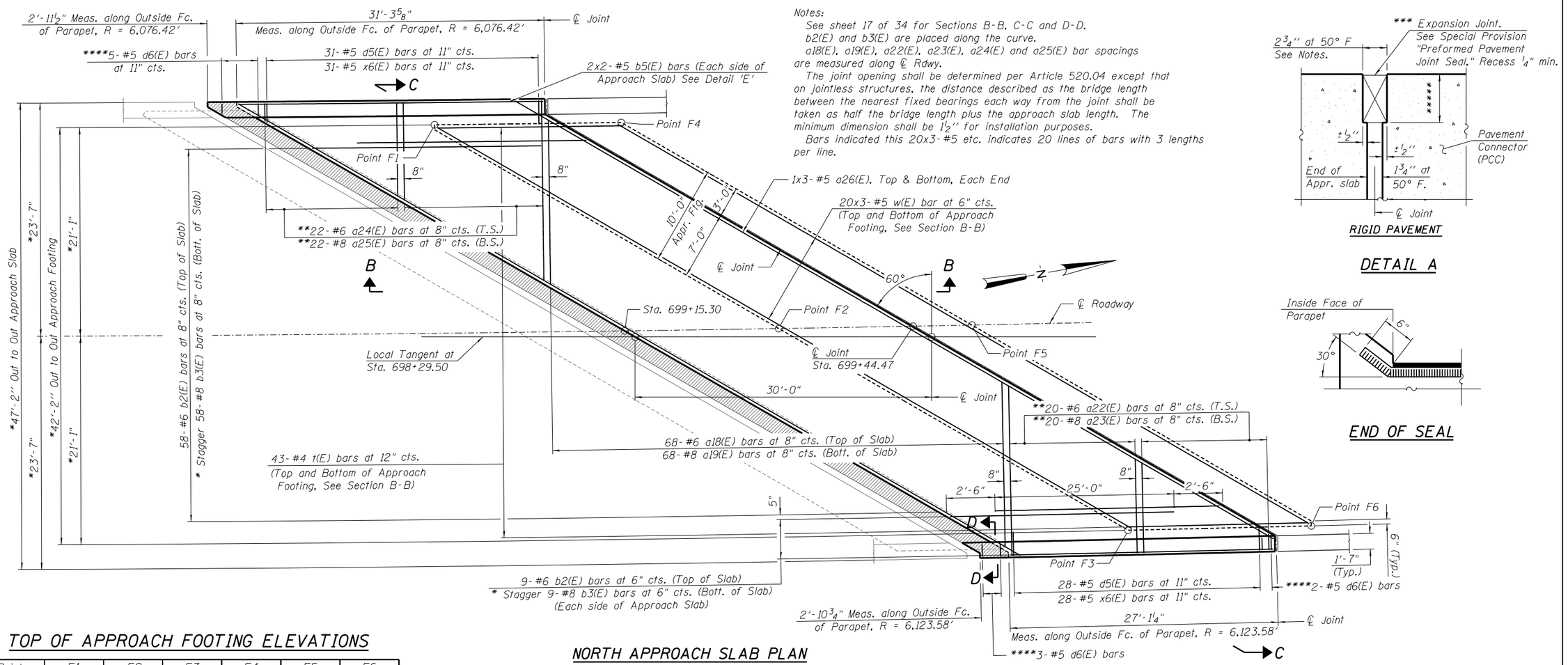
PLOT DATE = 10/26/2022	CHECKED JGT/MNM	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOUTH APPROACH SLAB
STRUCTURE NUMBER 084-9949
SHEET NO. 15 OF 34 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	SANGAMON	368	160
		CONTRACT NO. 93671		
	ILLINOIS FED. AID PROJECT 6			

• 07-00164-04-FP, 07-00090-08-FP



Notes:
See sheet 17 of 34 for Sections B-B, C-C and D-D.
b2(E) and b3(E) are placed along the curve.
a18(E), a19(E), a22(E), a23(E), a24(E) and a25(E) bar spacings are measured along ℄ Rdwy.
The joint opening shall be determined per Article 520.04 except that on jointless structures, the distance described as the bridge length between the nearest fixed bearings each way from the joint shall be taken as half the bridge length plus the approach slab length. The minimum dimension shall be 1½" for installation purposes.
Bars indicated this 20x3-#5 etc. indicates 20 lines of bars with 3 lengths per line.

RIGID PAVEMENT

DETAIL A

END OF SEAL

TOP OF APPROACH FOOTING ELEVATIONS

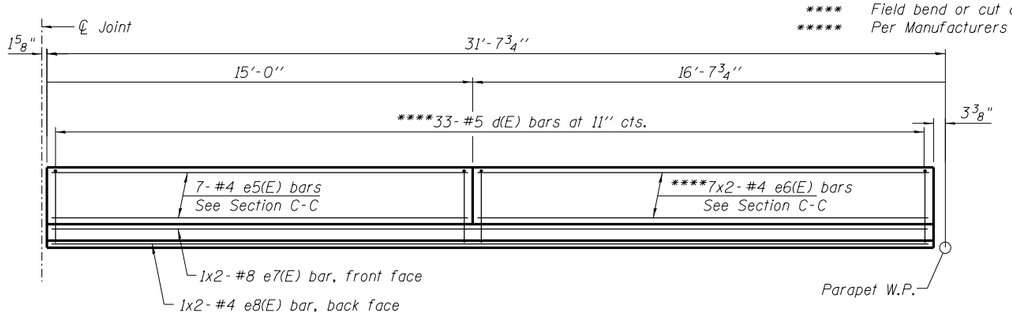
Point	F1	F2	F3	F4	F5	F6
Elevation	626.30	626.39	625.62	626.17	626.18	625.33

NORTH APPROACH SLAB PLAN

* Dimensions Radial to ℄ Roadway.
** Order a22(E), a23(E), a24(E) and a25(E) bars full length. Cut to fit skew and use remainder of bars in same end of deck.
*** Cost included with Concrete Superstructure. (Approach Slab)
T.S. = Top of Slab
B.S. = Bottom of Slab
**** Field bend or cut as required
***** Per Manufacturers Recommendations

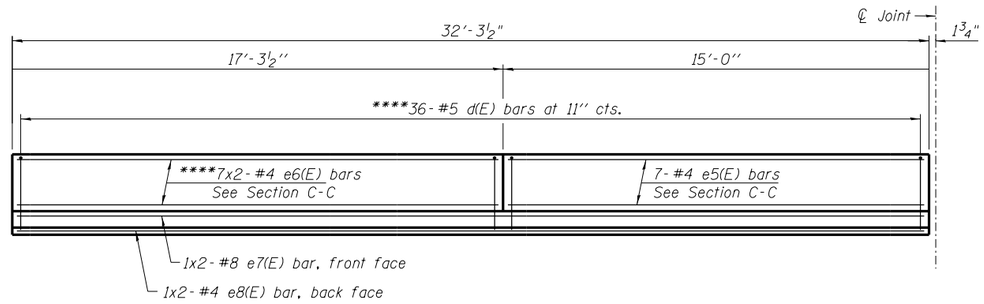
MINIMUM BAR LAP

#4 bar = 2'-8" (parapet)
#5 bar = 3'-3"
#8 bar = 5'-11" (parapet)



INSIDE FACE OF EAST PARAPET

Dimensions are measured along inside face of parapet.



INSIDE FACE OF WEST PARAPET

Dimensions are measured along inside face of parapet.

DESIGNED	JGT	11/12/15
DRAWN	DAP	11/20/15
REVIEWED	MNM	11/20/15

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	CHECKED	MNM	REVISED -
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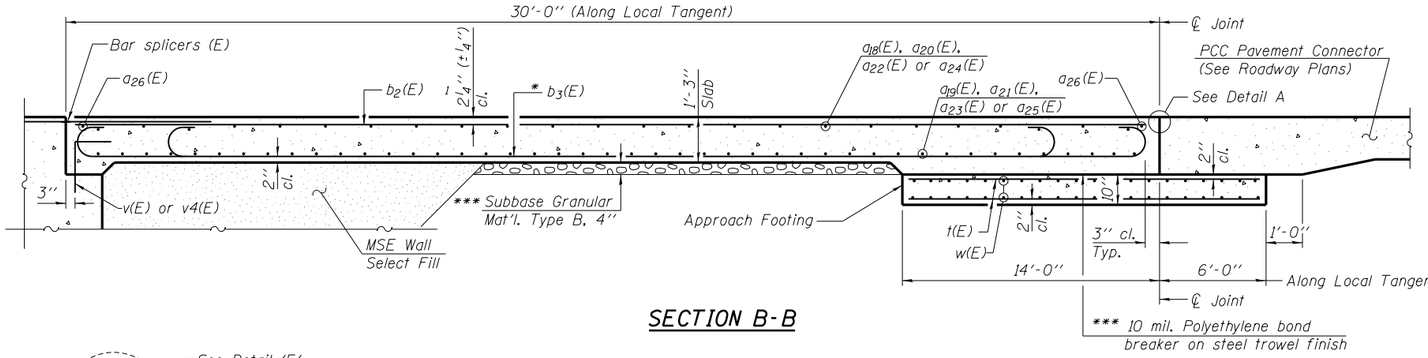
PLOT DATE = 10/26/2022	CHECKED	JGT/MNM	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

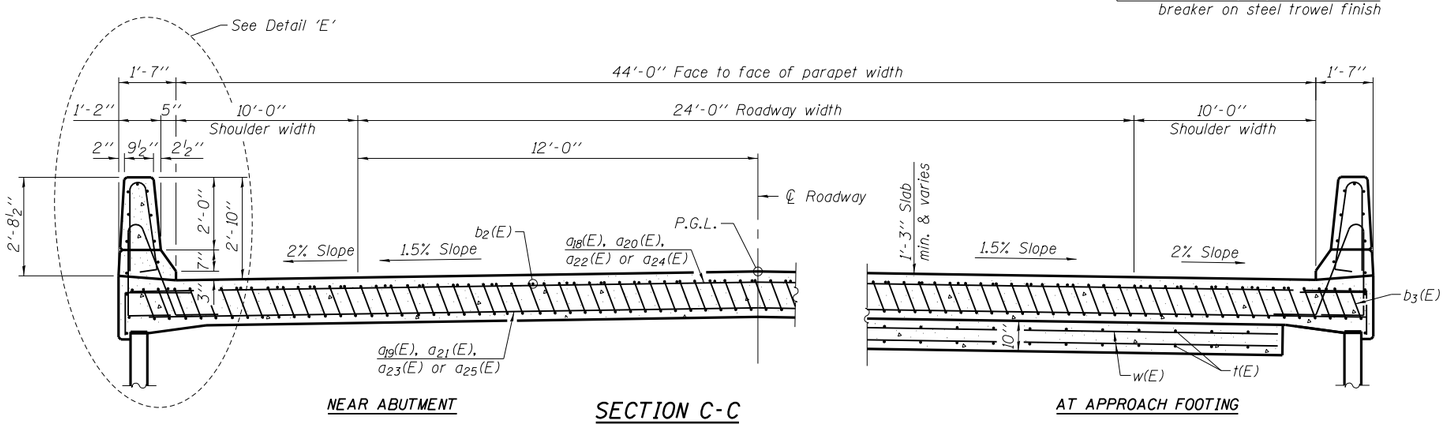
NORTH APPROACH SLAB
STRUCTURE NUMBER 084-9949
SHEET NO. 16 OF 34 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	SANGAMON	368	161
		CONTRACT NO. 93671		
	ILLINOIS	FED. AID PROJECT 6		

• 07-00164-04-FP, 07-00090-08-FP



SECTION B-B

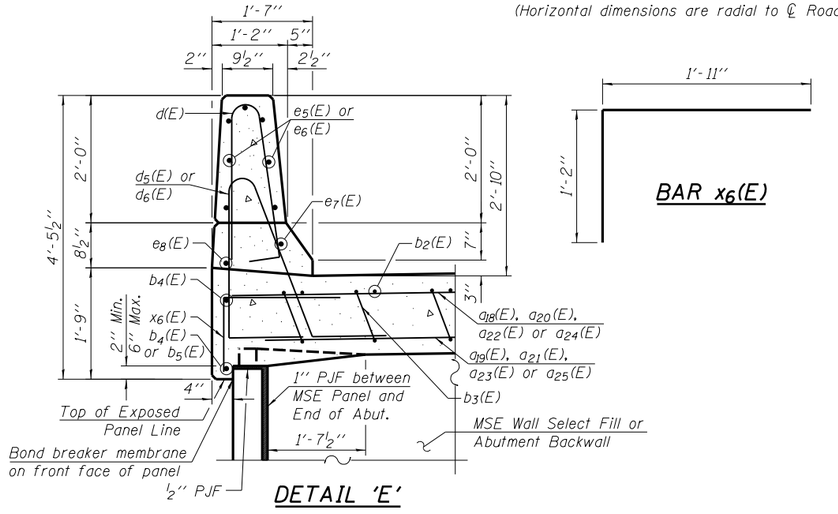


NEAR ABUTMENT

SECTION C-C

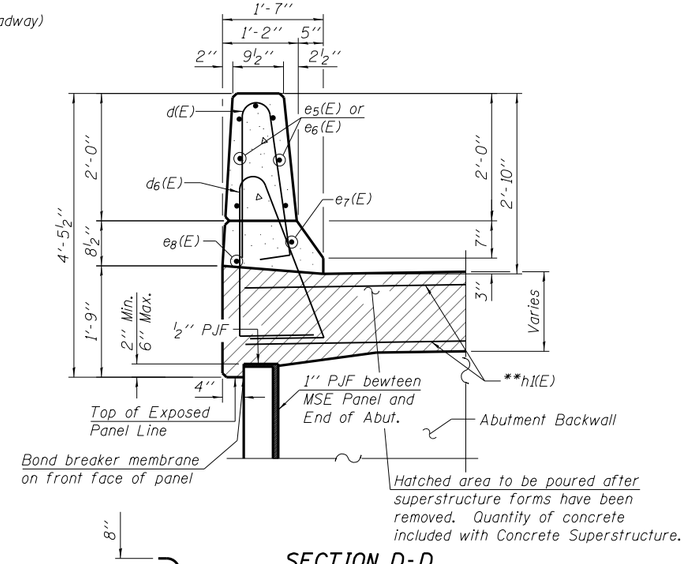
AT APPROACH FOOTING

(See Plan for dimensions not shown)
(Horizontal dimensions are radial to ℄ Roadway)

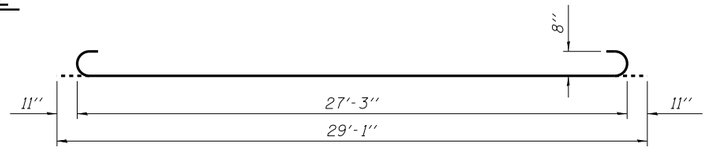


DETAIL 'E'

BAR x_6(E)

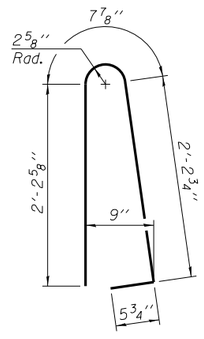


SECTION D-D

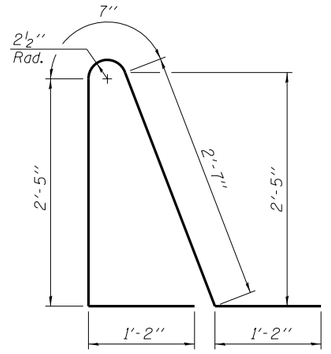


BAR b_3(E)

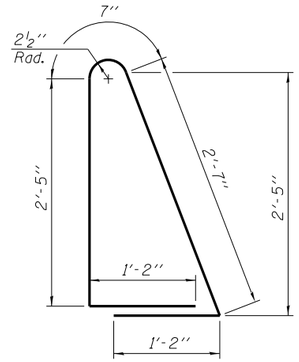
Notes:
See sheets 15 & 16 of 34 for Detail A.
Parapet concrete shall be paid for as Concrete Superstructure.
Approach slab shall be paid for as Concrete Superstructure (Approach Slab).
Approach footing concrete shall be paid for as Concrete Structures.
Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.
For v(E) bar details, see sheet 27 of 34.
For v_4(E) bar details, see sheet 29 of 34.
The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
For bar splicer details, see sheet 31 of 34.
Cost of excavation for approach footing included with Concrete Structures.
For additional parapet details, see sheets 15 & 16 of 34.



BAR d(E)



BAR d_5(E)



BAR d_6(E)

* Tilt #8 b_3(E) bars as required to maintain clearance.
** See Sheets 27 thru 30 of 34 for h1(E) bars.
*** Cost included with Concrete Superstructure (Approach Slab).

SOUTH APPROACH SLAB BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a_{18} (E)	76	#6	16'-6"	
a_{19} (E)	76	#8	16'-6"	
a_{20}(E)	22	#6	20'-2"	
a_{21}(E)	22	#8	20'-2"	
a_{22}(E)	21	#6	19'-0"	
a_{23}(E)	21	#8	19'-0"	
a_{26}(E)	6	#5	34'-4"	
b_2(E)	76	#6	29'-8"	
b_3(E)	76	#8	29'-1"	
b_4(E)	8	#5	17'-10"	
d(E)	75	#5	5'-7"	
d_5(E)	63	#5	7'-11"	
d_6(E)	12	#5	7'-11"	
e_5(E)	14	#4	14'-8"	
e_6(E)	28	#4	11'-5"	
e_7(E)	4	#8	20'-7"	
e_8(E)	4	#4	18'-11"	
t(E)	86	#4	19'-8"	
w(E)	120	#5	31'-0"	
x_6(E)	63	#5	3'-1"	
Concrete Superstructure		Cu. Yd.	7.5	
Concrete Superstructure (Approach Slab)		Cu. Yd.	71.3	
Concrete Structures		Cu. Yd.	26.9	
Reinforcement Bars, Epoxy Coated		Pound	25290	

NORTH APPROACH SLAB BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a_{18} (E)	68	#6	16'-6"	
a_{19} (E)	68	#8	16'-6"	
a_{22}(E)	20	#6	19'-0"	
a_{23}(E)	20	#8	19'-0"	
a_{24}(E)	22	#6	19'-9"	
a_{25}(E)	22	#8	19'-9"	
a_{26}(E)	6	#5	34'-4"	
b_2(E)	76	#6	29'-8"	
b_3(E)	76	#8	29'-1"	
b_5(E)	8	#5	17'-2"	
d(E)	69	#5	5'-7"	
d_5(E)	59	#5	7'-11"	
d_6(E)	10	#5	7'-11"	
e_5(E)	14	#4	14'-8"	
e_6(E)	28	#4	11'-5"	
e_7(E)	4	#8	20'-7"	
e_8(E)	4	#4	18'-11"	
t(E)	86	#4	19'-8"	
w(E)	120	#5	31'-0"	
x_6(E)	59	#5	3'-1"	
Concrete Superstructure		Cu. Yd.	7.1	
Concrete Superstructure (Approach Slab)		Cu. Yd.	66.7	
Concrete Structures		Cu. Yd.	25.4	
Reinforcement Bars, Epoxy Coated		Pound	24520	

DESIGNED	JGT	11/12/15
DRAWN	DAP	11/20/15
REVIEWED	MNM	11/20/15

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	CHECKED MNM	REVISED -	
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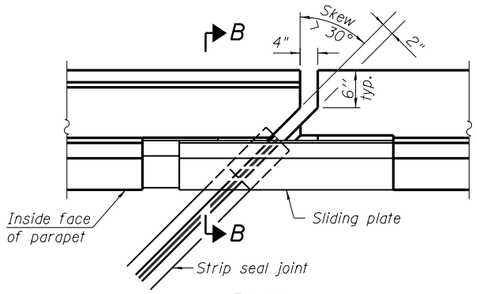
PLOT DATE = 10/26/2022	CHECKED JGT/MNM	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

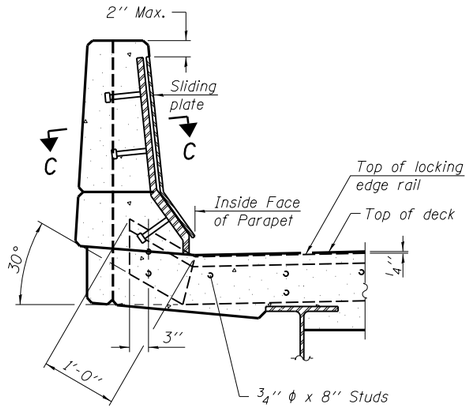
APPROACH SLAB DETAILS
STRUCTURE NUMBER 084-9949
SHEET NO. 17 OF 34 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	SANGAMON	368	162
		CONTRACT NO. 93671		
	ILLINOIS FED. AID PROJECT 6			

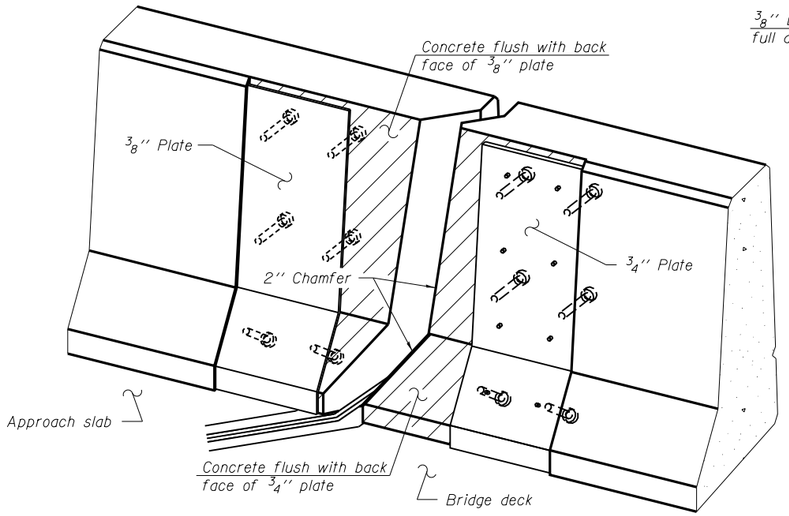
• 07-00164-04-FP, 07-00090-08-FP



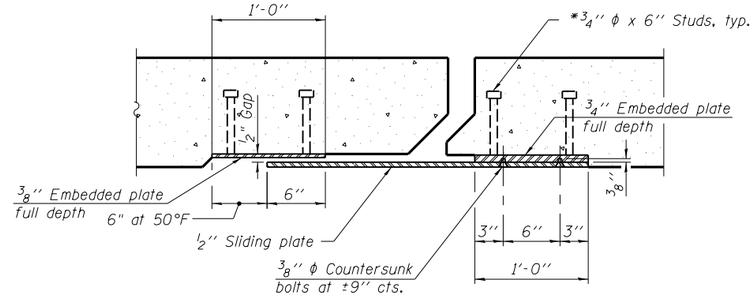
PLAN
(For skews > 30°)
Showing point block



SECTION B-B



TRIMETRIC VIEW
(Showing back plates only)



SECTION C-C

Notes:

The strip seal shall be made continuous and shall have a minimum thickness of 1/4". The configuration of the strip seal shall match the configuration of the locking edge rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches.

The locking edge rails depicted are configured for typical applications and are conceptual only. The actual configuration of the locking edge rails and matching strip seal may vary from manufacturer to manufacturer provided they fit the application and meet the minimum anchorage shown. Flanged edge rails, however, will not be allowed. Locking edge rails may exceed the 4 1/2" maximum depth provided the anchorage system is revised according to the manufacturer's recommendation.

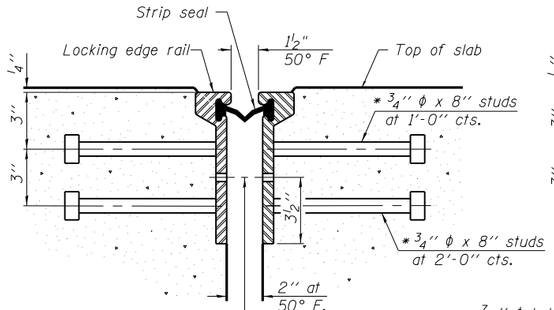
The manufacturer's recommended installation methods shall be followed.

All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.

The Maximum space between locking edge rail segments shall be 3/16" and sealed with a suitable sealant; however, any rail joint within 10' measured perpendicular to the face of the curb or parapet shall be welded as shown in the locking edge rail splice detail.

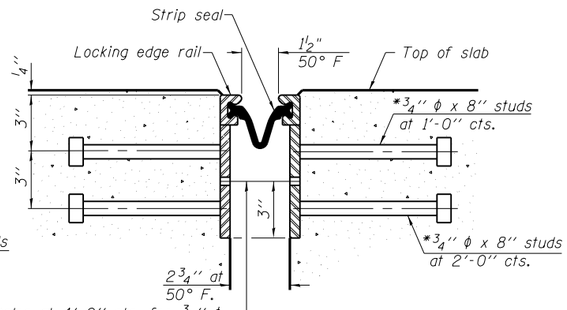
Cost of parapet sliding plates, embedded plates, and anchorage studs included with Preformed Joint Strip Seal.

The concrete opening below the strip seal will vary based on the locking edge rail chosen by the Contractor. Deck and parapet lengths shown elsewhere in the plans are dimensioned to the concrete opening, not the joint opening, and are based on the rolled locking edge rail. If the Contractor elects to use a different locking edge rail, dimensional adjustments may be required. One exception to this would be the strip seal joint at the end of the precast bridge approach slab. For these cases the pavement connector length shall be adjusted, not the length of the bridge approach slab.



7/16" ϕ holes at 4'-0" cts. for 3/8" ϕ bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

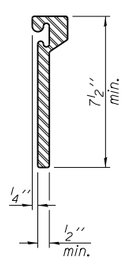
SECTION THRU
ROLLED RAIL JOINT



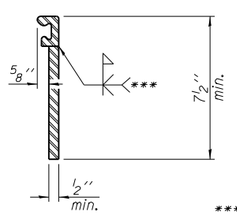
7/16" ϕ holes at 4'-0" cts. for 3/8" ϕ bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

SECTION THRU
WELDED RAIL JOINT

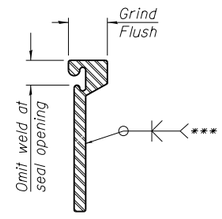
* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.



ROLLED
EXTRUDED RAIL



WELDED RAIL



*** Back gouge not required if complete joint penetration is verified by mock-up.

LOCKING EDGE
RAIL SPLICE

The inside of the locking edge rail groove shall be free of weld residue.

Rolled rail shown, welded rail similar.

LOCKING EDGE RAILS

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	90

DESIGNED	JGT	11/12/15
DRAWN	DAP	11/20/15
REVIEWED	MNM	11/20/15

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HANSON
PROFESSIONAL DESIGN FIRM LICENSE #184-001084

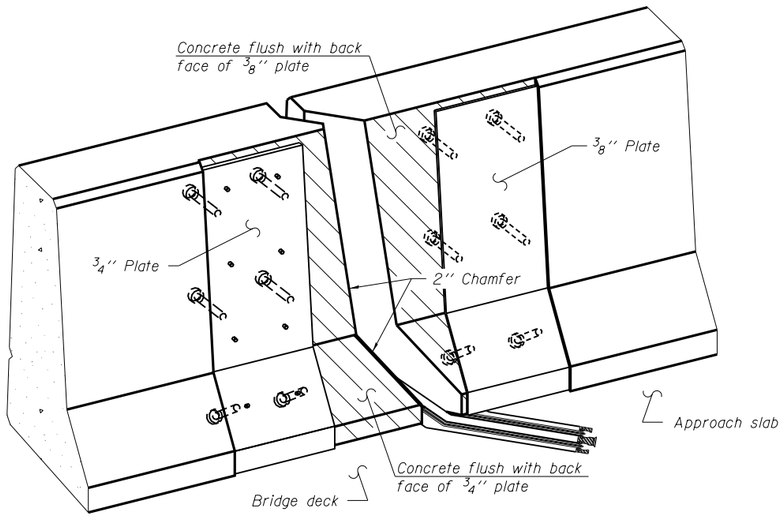
USER NAME = Johns00944	DESIGNED JGT	REVISED -	
	CHECKED MNM	REVISED -	
PLOT SCALE = 0.166667 ' / in.	DRAWN DAP	REVISED -	
PLOT DATE = 10/26/2022	CHECKED JGT/MNM	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

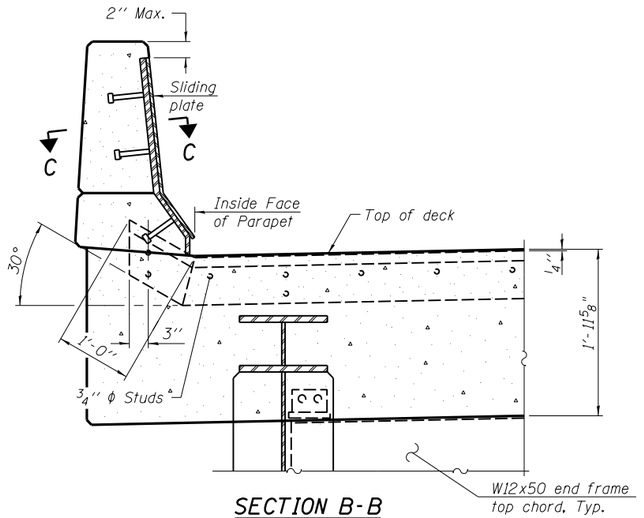
PREFORMED JOINT STRIP SEAL
STRUCTURE NUMBER 084-9949
SHEET NO. 18 OF 34 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	SANGAMON	368	163
		CONTRACT NO. 93671		
	ILLINOIS	FED. AID PROJECT 6		

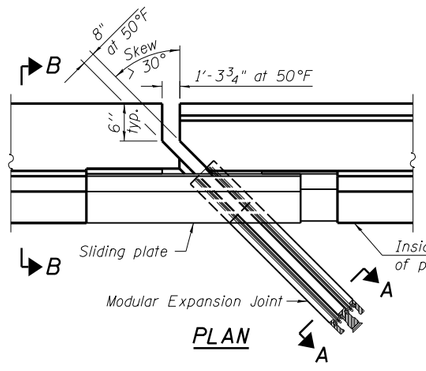
• 07-00164-04-FP, 07-00090-08-FP



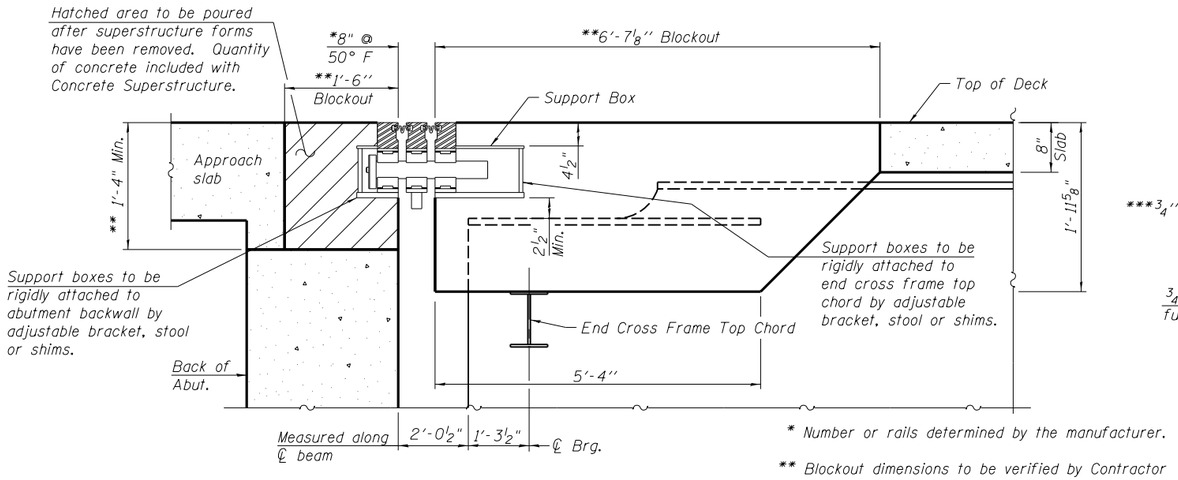
TRIMETRIC VIEW
(Showing back plates only)



SECTION B-B
(Looking North at Northwest corner of bridge)



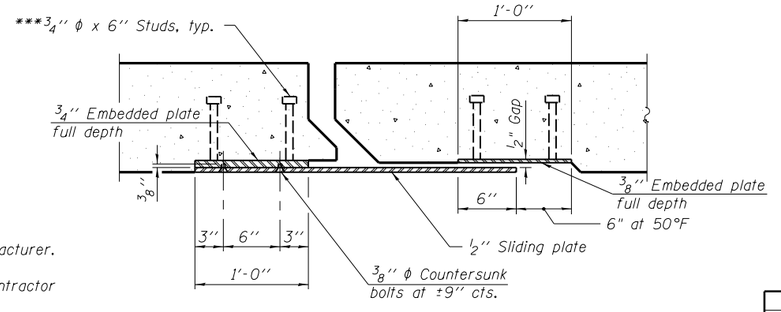
PLAN



SECTION A-A
(Dimensions are at right angles to back of abutment unless noted otherwise)

* Number or rails determined by the manufacturer.

** Blockout dimensions to be verified by Contractor with joint manufacturer.



SECTION C-C

*** Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.

Notes:

The expansion joint device shall be a prefabricated modular assembly with multiple support bars and separator beams providing a continuous seal across the deck.

Joint openings shall be adjusted according to article 520.04 of the Standard Specifications when the concrete blockout is cast at an ambient temperature other than 50° F.

The cost of furnishing and installing the barrier plate assemblies shall be included in the cost of Modular Expansion Joints.

Countersunk bolts shall be in accordance with ASTM A-307, Grade A.

Countersunk bolts and concrete inserts shall be hot-dipped galvanized according to AASHTO M232.

The modular joints shall be fabricated to conform to the roadway profile and cross slope.

Prior to the placement of the joint blockout, the Contractor shall coordinate with the Modular Joint Manufacturer to ensure that the joint will be properly supported and that the reinforcement bars will not interfere with the joint components. Any necessary adjustments to the reinforcement layout shall be submitted to the Engineer for approval.

Concrete in hatchblock and deck blockout areas to be placed after the modular joint is fixed in position.

The support box shall be rigidly attached to top chord of cross frame by adjustable brackets, studs or shims. Cost for rigid attachments shall be included in the cost of Modular Expansion Joint.

The modular expansion joint system shall be designed to accommodate 4 inches of movement in the longitudinal direction of the bridge and 1 1/2 inches of movement in the transverse direction of the bridge. Values include AASHTO LRFD load factor of 1.2 for TU loads.

The details shown are intended to be schematic. The actual components of the expansion joint system may vary from those shown. This includes, but is not limited to, the number of cells, the number of support boxes, and support bar box size, however, the total required range of expansion remains unchanged regardless of the manufacturer chosen.

BILL OF MATERIAL

Item	Unit	Total
Modular Expansion Joint-Swivel 9"	Foot	86

DESIGNED	JGT	11/12/15
DRAWN	DAP	11/20/15
REVIEWED	MNM	11/20/15

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HANSON
PROFESSIONAL DESIGN FIRM LICENSE #184-001084

USER NAME = Johns00944	DESIGNED JGT	REVISED -
	CHECKED MNM	REVISED -
PLOT SCALE = 0.166667 ' / in.	DRAWN DAP	REVISED -
PLOT DATE = 10/26/2022	CHECKED JGT/MNM	REVISED -

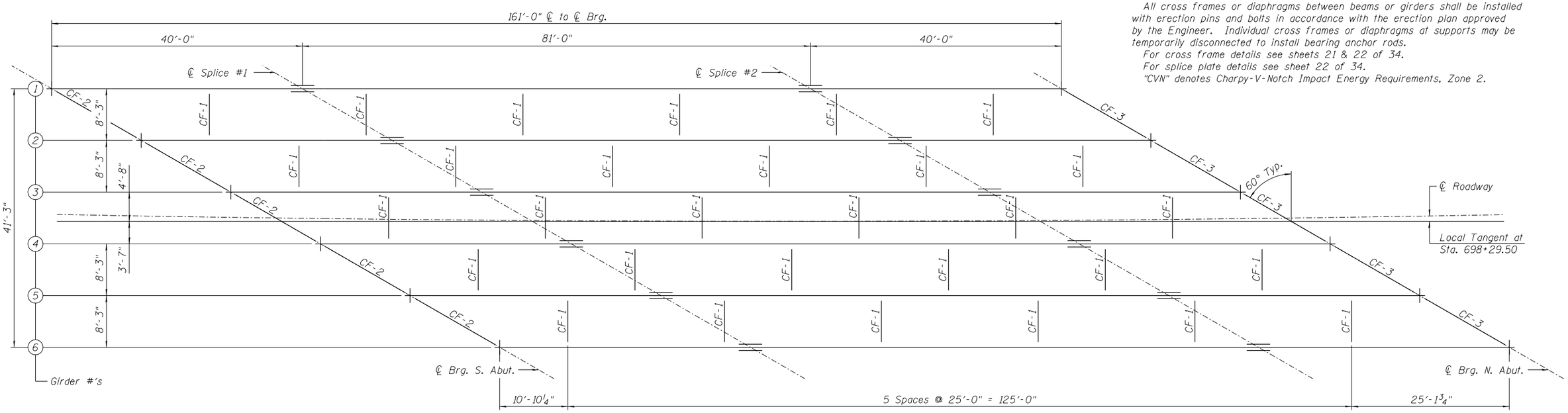
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MODULAR SWIVEL EXPANSION JOINT
STRUCTURE NUMBER 084-9949
SHEET NO. 19 OF 34 SHEETS

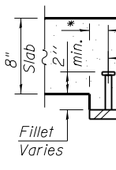
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	SANGAMON	368	164
		CONTRACT NO. 93671		
	ILLINOIS FED. AID PROJECT 6			

• 07-00164-04-FP, 07-00090-08-FP

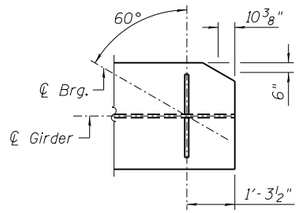
Notes:
All cross frames or diaphragms between beams or girders shall be installed with erection pins and bolts in accordance with the erection plan approved by the Engineer. Individual cross frames or diaphragms at supports may be temporarily disconnected to install bearing anchor rods.
For cross frame details see sheets 21 & 22 of 34.
For splice plate details see sheet 22 of 34.
"CVN" denotes Charpy-V-Notch Impact Energy Requirements, Zone 2.



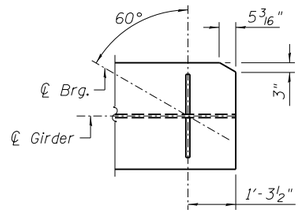
FRAMING PLAN



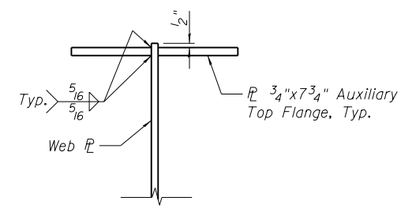
SECTION A-A



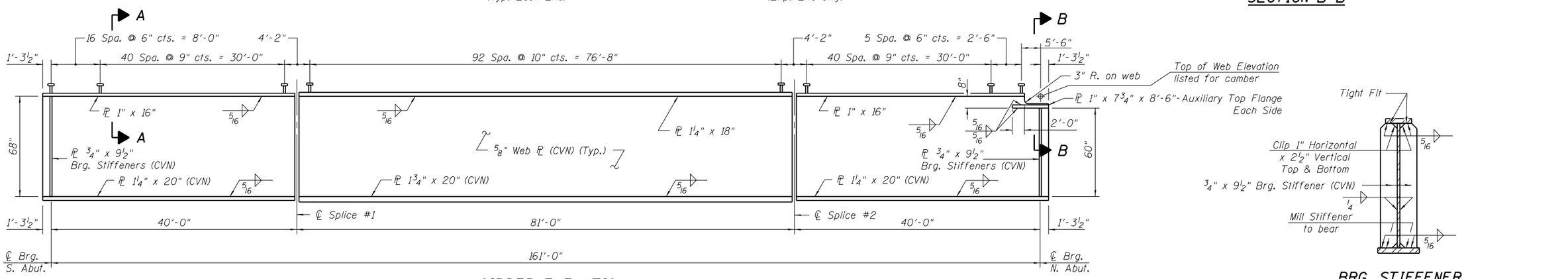
TOP FLANGE CLIP
(Typ. Each End)



BOTTOM FLANGE CLIP
(Exp. End Only)



SECTION B-B



GIRDER ELEVATION

BRG. STIFFENER

JGT	11/12/15
DAP	11/20/15
MNM	11/20/15
DESIGNED	
DRAWN	
REVIEWED	

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HANSON
PROFESSIONAL DESIGN FIRM LICENSE #184-001084

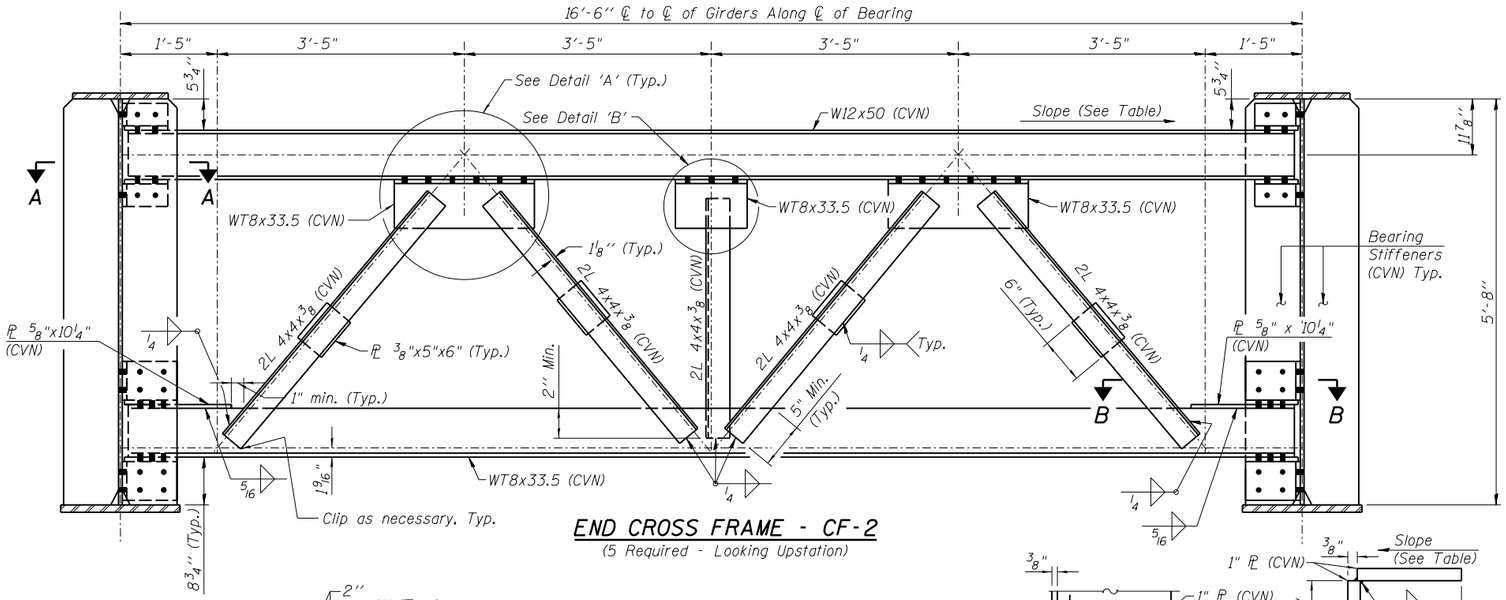
USER NAME	Johns00944	DESIGNED	JGT	REVISED	-
		CHECKED	MNM	REVISED	-
PLOT SCALE	0:1.999998 '=' / in.	DRAWN	DAP	REVISED	-
PLOT DATE	10/26/2022	CHECKED	JGT/MNM	REVISED	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STRUCTURAL STEEL FRAMING PLAN
STRUCTURE NUMBER 084-9949
SHEET NO. 20 OF 34 SHEETS

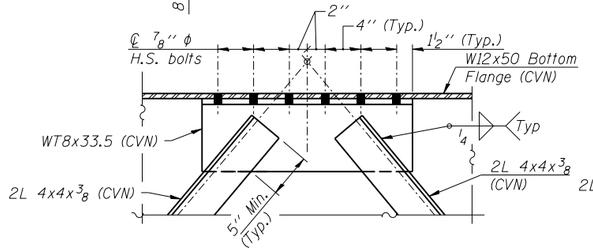
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	SANGAMON	368	165
		CONTRACT NO. 93671		
	ILLINOIS FED. AID PROJECT 6			

• 07-00164-04-FP, 07-00090-08-FP

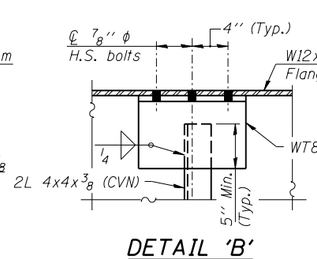


END CROSS FRAME - CF-2

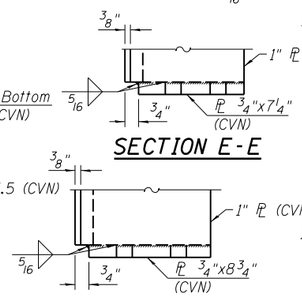
(5 Required - Looking Upstation)



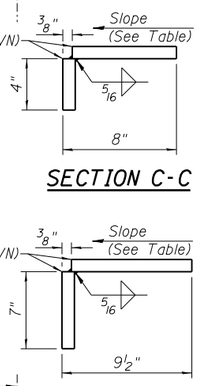
DETAIL 'A'



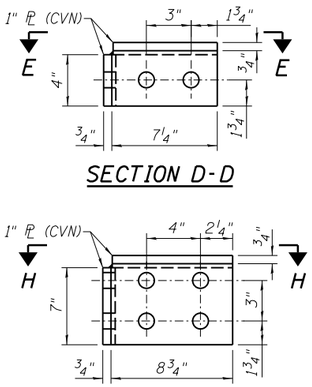
DETAIL 'B'



SECTION H-H

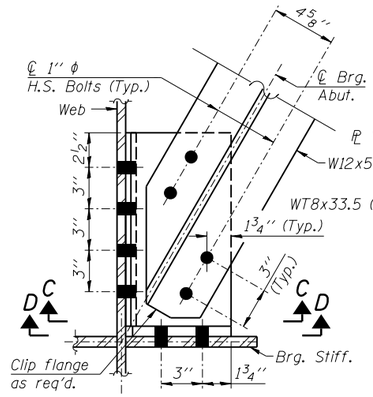


SECTION F-F

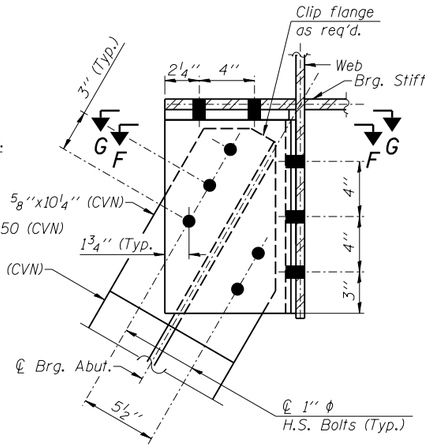


SECTION D-D

SECTION G-G



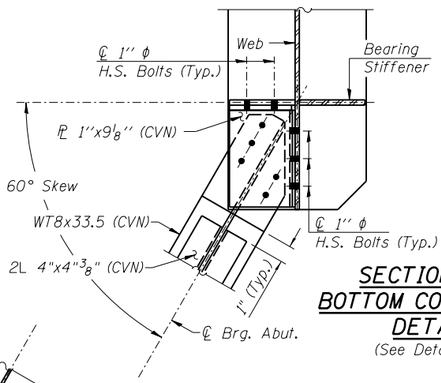
DETAIL 'C'



DETAIL 'D'

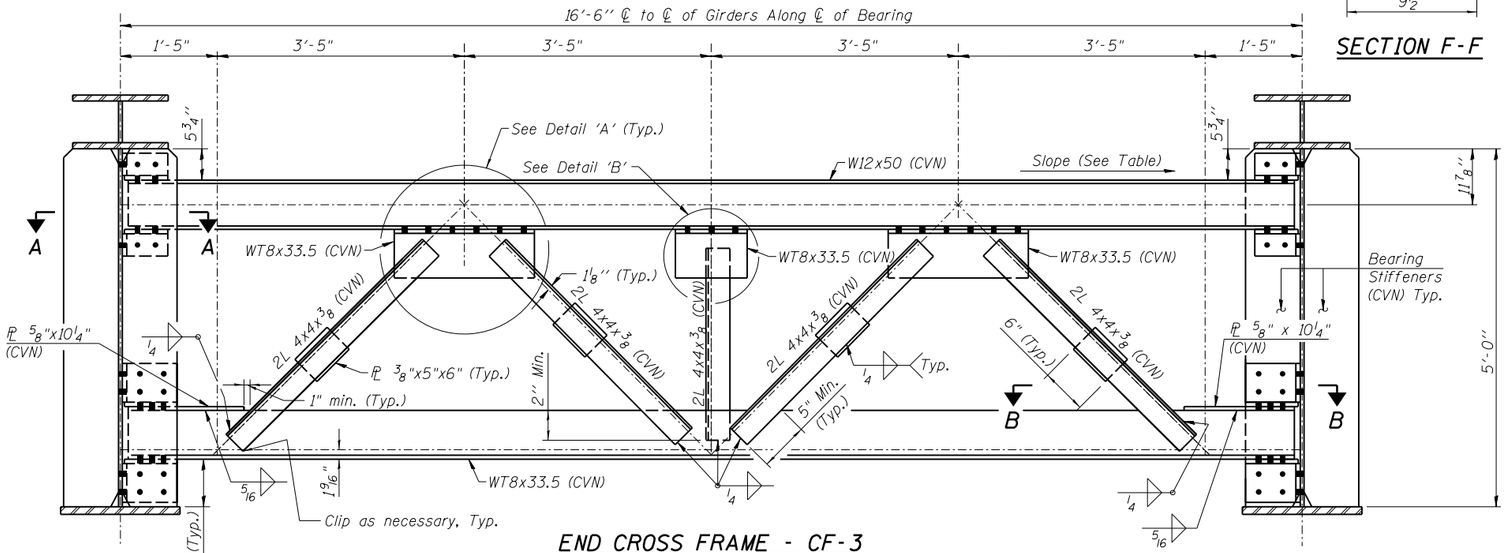
Between	* S. Abut. slope	* N. Abut. slope
Girders 1-2	2.21%	0.66%
Girders 2-3	1.83%	0.29%
Girders 3-4	0.95%	-0.62%
Girders 4-5	0.07%	-1.55%
Girders 5-6	-0.32%	-1.93%

* Slope along ℄ Brg. at Abuts. "+" Slope is upward looking upstation.



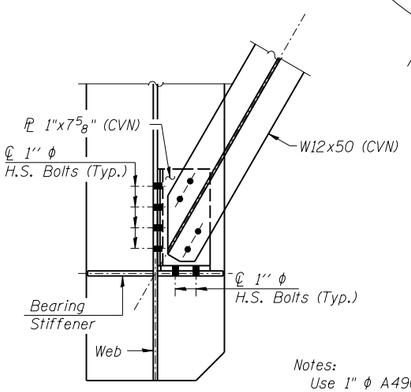
SECTION B-B
BOTTOM CONNECTION DETAIL

(See Detail 'D')



END CROSS FRAME - CF-3

(5 Required - Looking Upstation)



SECTION A-A
TOP CONNECTION DETAIL

(See Detail 'C')

Notes:

Use 1" ϕ A490 Bolts with 1 1/8" ϕ holes for all CF-2 and CF-3 connections, unless noted otherwise.

"CVN" denotes Charpy-V-Notch Impact Energy Requirements, Zone 2.

Structural Steel for the cross frames shall be:

AASHTO M270, Grade 50 - W, WT, Plates

AASHTO M270, Grade 36 - L

DESIGNED	JGT	11/12/15
DRAWN	DAP	11/20/15
REVIEWED	MNM	11/20/15

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HANSON

PROFESSIONAL DESIGN FIRM LICENSE #184-001084

USER NAME = Johns00944	DESIGNED	JGT	REVISED -
	CHECKED	MNM	REVISED -
PLOT SCALE = 01.999996 '/ in.	DRAWN	DAP	REVISED -
PLOT DATE = 10/26/2022	CHECKED	JGT/MNM	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STRUCTURAL STEEL DETAILS (SHEET 1 OF 2)
STRUCTURE NUMBER 084-9949

SHEET NO. 21 OF 34 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	SANGAMON	368	166
		CONTRACT NO. 93671		
		ILLINOIS FED. AID PROJECT 6		

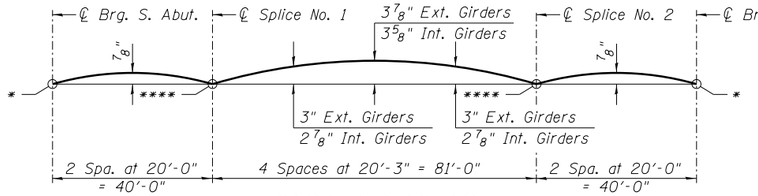
• 07-00164-04-FP, 07-00090-08-FP

INTERIOR GIRDER MOMENT TABLE		0.5 Sp. 1
I_s	(in^4)	83983
$I_c(n)$	(in^4)	179366
$I_c(3n)$	(in^4)	131468
$I_c(cr)$	(in^4)	-
S_s	(in^3)	2680
$S_c(n)$	(in^3)	3381
$S_c(3n)$	(in^3)	3118
$S_c(cr)$	(in^3)	-
S_{xc}	(in^3)	3103
DC1	(k/')	1.200
M_{DC1}	('k)	3889
DC2	(k/')	0.150
M_{DC2}	('k)	486
DW	(k/')	0.367
M_{DW}	('k)	1189
LLDF		0.526
M_{L+IM}	('k)	2921
f_f (Strength I)	(ksi)	5.0
$M_u + \frac{1}{3} f_f S_{xc}$	('k)	12795
$\phi_f M_n$	('k)	16895
f_s DC1	(ksi)	17.41
f_s DC2	(ksi)	1.87
f_s DW	(ksi)	4.58
f_s (L+IM)	(ksi)	10.37
f_f (Service II)	(ksi)	5.00
$f_s + f_f/2$ (Service II)	(ksi)	39.84
$0.95R_hF_{yf}$	(ksi)	47.50
V_f	(k)	40.3

GIRDER REACTION TABLE		Interior S. or N. Abuts.	Exterior S. or N. Abuts.
LLDF		0.832	0.832
OCF		-	1.273
R_{DC1}	(k)	96.6	96.6
R_{DC2}	(k)	12.1	12.1
R_{DW}	(k)	29.5	29.5
R_{L+IMP}	(k)	117.9	150.1
R_{Total}	(k)	256.1	288.3

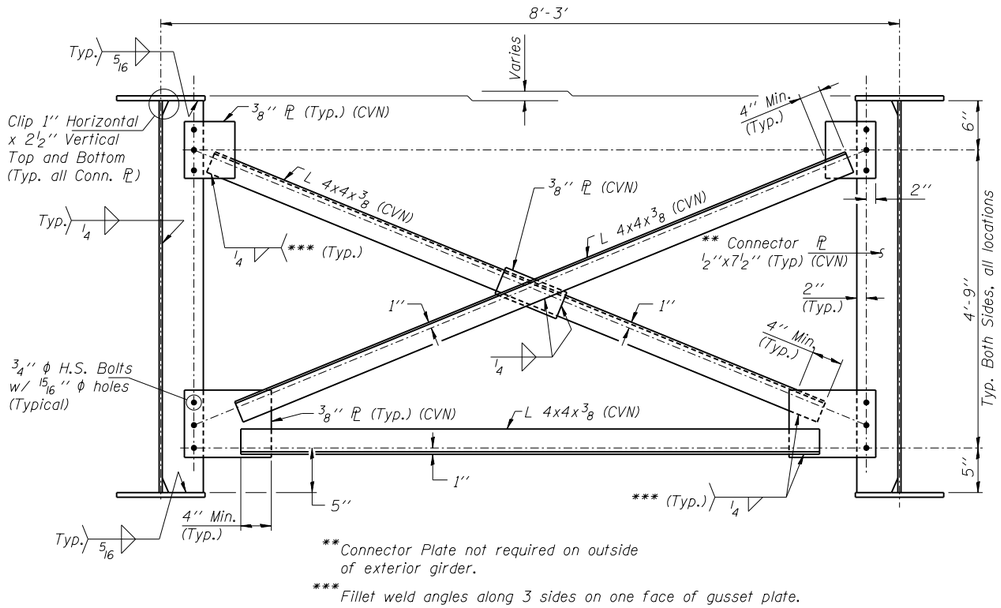
TOP OF WEB ELEVATIONS
(For Fabrication Only)

	℄ Brg. S. Abut.	Splice No. 1	Splice No. 2	℄ Brg. N. Abut.
Girder 1	625.98	626.89	627.36	626.91
Girder 2	626.35	627.16	627.49	627.02
Girder 3	626.65	627.38	627.59	627.07
Girder 4	626.81	627.49	627.57	626.96
Girder 5	626.82	627.44	627.39	626.71
Girder 6	626.76	627.36	627.17	626.39



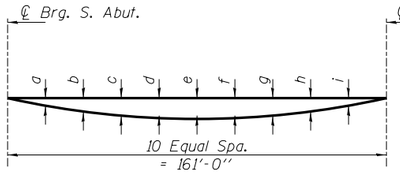
CAMBER DIAGRAM

Note: Camber includes deflections due to structural steel, deck and parapet.
* See Table for Final Top of Web Elevations at abutments.
**** Theoretical Top of Web Elevations before dead load deflections.



**Connector Plate not required on outside of exterior girder.
***Fillet weld angles along 3 sides on one face of gusset plate.

INTERIOR CROSS FRAME CF-1
(30 Required)



STRUCTURAL STEEL SELF-WEIGHT DEFLECTION DIAGRAM

I_s, S_s: Non-composite moment of inertia and section modulus of the steel section used for computing f_s (Total-Strength I, and Service II) due to non-composite dead loads ($in.^4$ and $in.^3$).

$I_c(n)$, $S_c(n)$: Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing f_s (Total-Strength I, and Service II) in uncracked sections due to short term composite live loads ($in.^4$ and $in.^3$).

$I_c(3n)$, $S_c(3n)$: Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing f_s (Total-Strength I, and Service II) in uncracked sections due to long-term composite (superimposed) dead loads ($in.^4$ and $in.^3$).

$I_{c(cr)}$, $S_{c(cr)}$: Composite moment of inertia and section modulus of the steel and longitudinal deck reinforcement, used for computing f_s (Total-Strength I and Service II) in cracked sections, due to both short-term composite live loads and long-term composite (superimposed) dead loads ($in.^4$ and $in.^3$).

S_{xc}: Section modulus about the major axis of section to the controlling flange, tension or compression, taken as yield moment with respect to the controlling flange over the yield strength of the controlling flange ($in.^3$).

DC1: Un-factored non-composite dead load (kips/ft.).

M_{DC1}: Un-factored moment due to non-composite dead load (kip-ft.).

DC2: Un-factored long-term composite (superimposed excluding future wearing surface) dead load (kips/ft.).

M_{DC2}: Un-factored moment due to long-term composite (superimposed excluding future wearing surface) dead load (kip-ft.).

DW: Un-factored long-term composite (superimposed future wearing surface only) dead load (kips/ft.).

M_{DW}: Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft.).

M_{L+IM}: Un-factored live load moment plus dynamic load allowance (impact)(kip-ft.).

M_u (Strength I): Factored design moment (kip-ft.).
$1.25\ (M_{DC1} + M_{DC2}) + 1.5\ M_{DW} + 1.75\ M_{L+IM}$

f_f: Factored calculated normal stress at edge of flange for controlling flange plate due to lateral bending, Strength I or Service II as applicable (kip-ft.).

$\phi_f M_n$: Compact composite positive moment capacity computed according to Article 6.10.7.1 or non-slender negative moment capacity according to Article A6.1.1 or A6.1.2 (kip-ft.).

f_s DC1: Un-factored stress at edge of flange for controlling steel flange due to vertical non-composite dead loads as calculated below (ksi).
M_{DC1} / S_{nc}

f_s DC2: Un-factored stress at edge of flange for controlling steel flange due to vertical composite dead loads as calculated below (ksi).
$M_{DC2} / S_c(3n)$ or $M_{DC2} / S_c(cr)$ as applicable.

f_s DW: Un-factored stress at edge of flange for controlling steel flange due to vertical composite future wearing surface loads as calculated below (ksi).
$M_{DW} / S_c(3n)$ or $M_{DW} / S_c(cr)$ as applicable.

f_s (L+IM): Un-factored stress at edge of flange for controlling steel flange due to vertical composite live plus impact loads as calculated below (ksi).
$M_{L+IM} / S_c(n)$ or $M_{DW} / S_c(cr)$ as applicable.

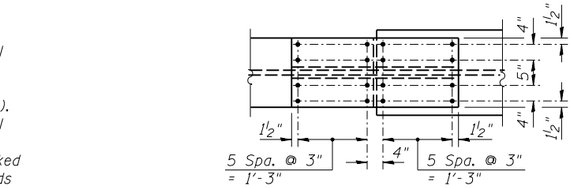
$f_s + f_f/2$ (Service II): Sum of stresses as computed below (ksi).
$f_{s\,DC1} + f_{sDC2} + f_{sDW} + 1.3\ f_s(L+IM) + f_f/2$

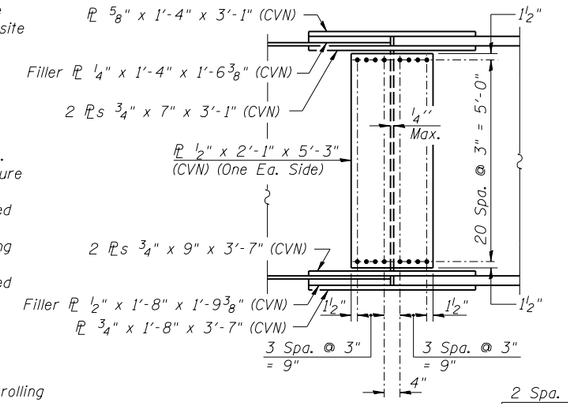
$0.95R_hF_yf$: Composite stress capacity for Service II loading according to Article 6.10.4.2 (ksi).

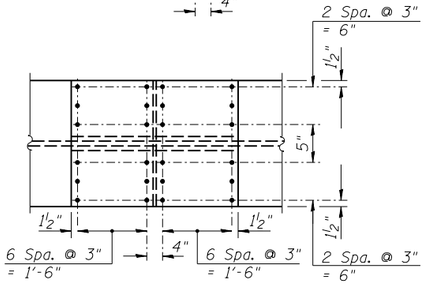
V_f: Maximum factored shear range in span computed according to Article 6.10.10.

LLDF: Live load distribution factor

OCF: Obtuse correction factor







FIELD SPLICE DETAIL

Notes:
Use 7/8" ϕ H.S. Bolts with 15/16" ϕ holes for all Splice Connections.
Two hardened washers shall be required over all oversized holes.
"CVN" denotes Charpy-V-Notch Impact Energy Requirements, Zone 2.
All cross frames or diaphragms between beams or girders shall be installed with erection pins and bolts in accordance with the erection plan approved by the Engineer. Individual cross frames or diaphragms at supports may be temporarily disconnected to install bearing anchor rods.
Structural Steel for the cross frames shall be:
AASHTO M270, Grade 50 - W, WT, Plates
AASHTO M270, Grade 36 - L
Top of Web Elevations at ℄ Brg. N. Abut. do not account for cope. See Girder Elevation on Sheet 20 of 34.

STRUCTURAL STEEL SELF-WEIGHT DEFLECTION TABLE

Girder	Deflection								
	a	b	c	d	e	f	g	h	i
1	3/4"	1 3/8"	1 7/8"	2 1/4"	2 3/8"	2 1/4"	1 7/8"	1 3/8"	3/4"
2	3/4"	1 1/4"	1 3/4"	2"	2 1/8"	2"	1 3/4"	1 1/4"	3/4"
3	5/8"	1 1/4"	1 3/4"	2"	2 1/8"	2"	1 3/4"	1 1/4"	5/8"
4	5/8"	1 1/4"	1 3/4"	2"	2 1/8"	2"	1 3/4"	1 1/4"	5/8"
5	3/4"	1 1/4"	1 3/4"	2"	2 1/8"	2"	1 3/4"	1 1/4"	3/4"
6	3/4"	1 3/8"	1 7/8"	2 1/4"	2 3/8"	2 1/4"	1 7/8"	1 3/8"	3/4"

DESIGNED	JGT	11/12/15
DRAWN	DAP	11/20/15
REVIEWED	MNM	11/20/15

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HANSON
PROFESSIONAL DESIGN FIRM LICENSE #184-001084

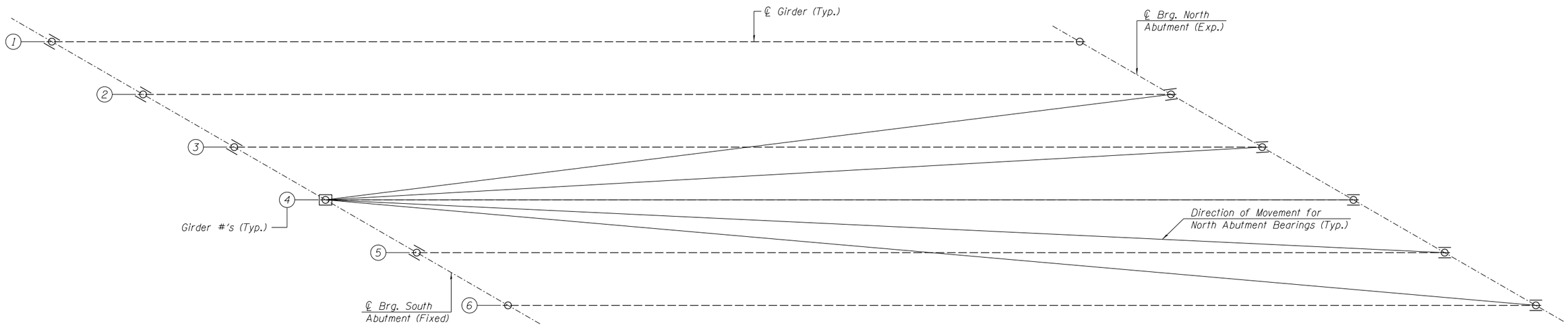
USER NAME = Johns00944	DESIGNED JGT	REVISED -	
	CHECKED MNM	REVISED -	
PLOT SCALE = 01.999996 '/ in.	DRAWN DAP	REVISED -	
PLOT DATE = 10/26/2022	CHECKED JGT/MNM	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

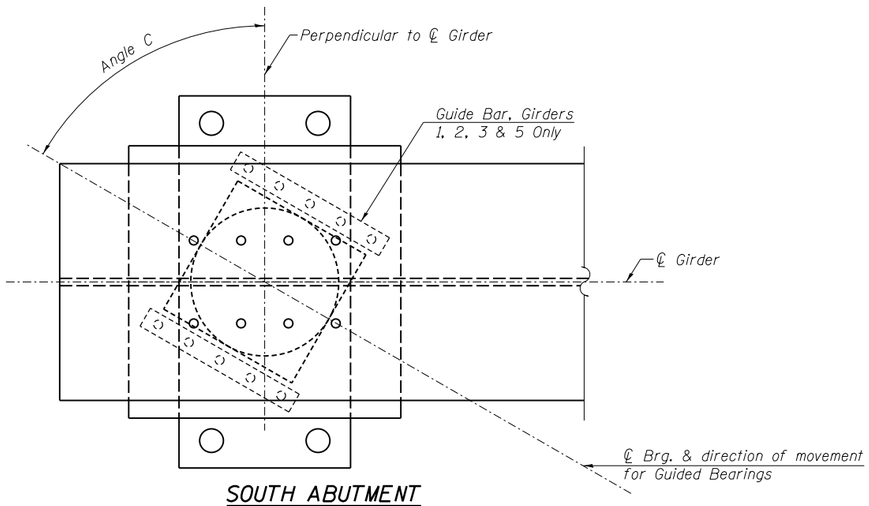
STRUCTURAL STEEL DETAILS (SHEET 2 OF 2)
STRUCTURE NUMBER 084-9949
SHEET NO. 22 OF 34 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	SANGAMON	368	167
		CONTRACT NO. 93671		
	ILLINOIS FED. AID PROJECT 6			

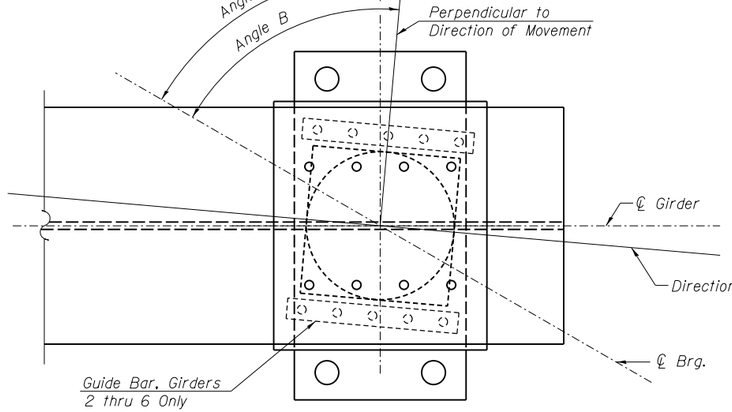
• 07-00164-04-FP, 07-00090-08-FP



BEARING LAYOUT PLAN



SOUTH ABUTMENT



NORTH ABUTMENT

POT BEARING LEGEND

- HLMR Guided
- HLMR Fixed
- HLMR Non-Guided

BEARING ORIENTATION PLAN

Girder	N. Abut. Angle A	N. Abut. Angle B	S. Abut. Angle C
1	60°-00'-00"	N/A	60°-00'-00"
2	60°-00'-00"	52°-53'-51"	60°-00'-00"
3	60°-00'-00"	56°-46'-53"	60°-00'-00"
4	60°-00'-00"	60°-00'-00"	60°-00'-00"
5	60°-00'-00"	62°-41'-41"	60°-00'-00"
6	60°-00'-00"	64°-58'-27"	60°-00'-00"

Notes:

1. South Abutment guided bearings shall be unrestrained in a direction along the centerline of bearing. The guide bars shall be oriented parallel to the centerline of the bearing.

2. North Abutment guided bearings shall be unrestrained in the direction of movement. The guide bars shall be oriented parallel to the direction of movement.

DESIGNED	JGT	11/12/15
DRAWN	DAP	11/20/15
REVIEWED	MNM	11/20/15

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HANSON
PROFESSIONAL DESIGN FIRM LICENSE #184-001084

USER NAME = johns00944	DESIGNED	JGT	REVISED -
	CHECKED	MNM	REVISED -
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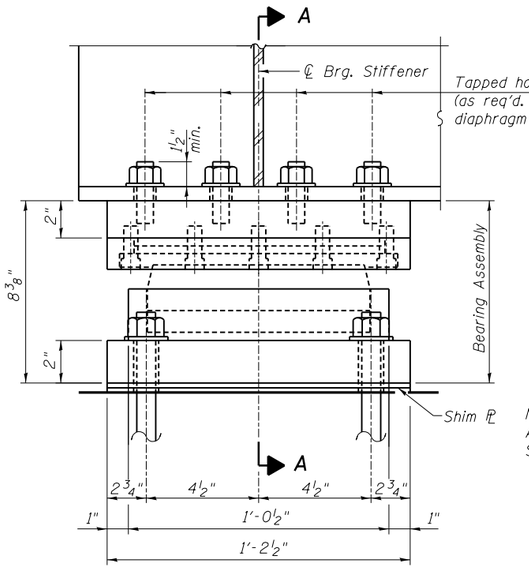
PLOT DATE = 4/28/2023	CHECKED	JGT/MNM	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BEARING ORIENTATION LAYOUT
STRUCTURE NUMBER 084-9949
SHEET NO. 23 OF 34 SHEETS

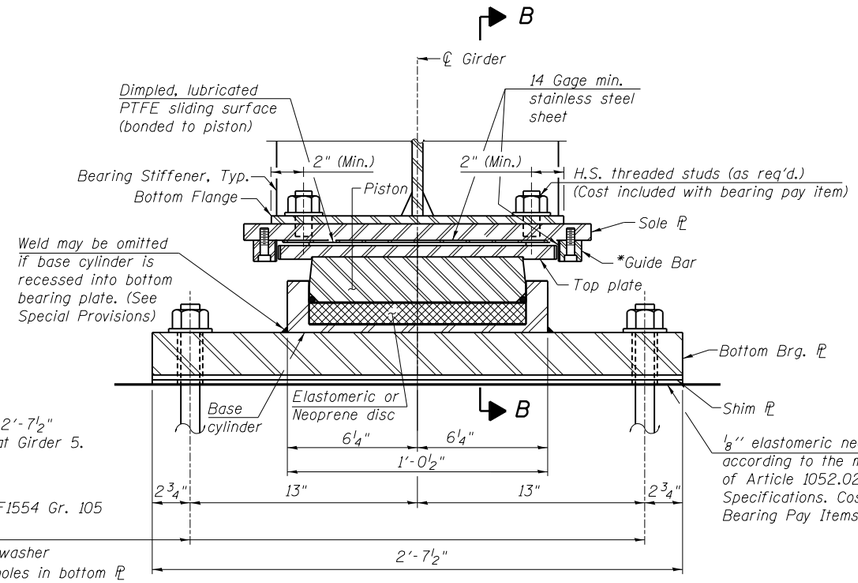
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	SANGAMON	368	168
		CONTRACT NO. 93671		
	ILLINOIS	FED. AID PROJECT 6		

• 07-00164-04-FP, 07-00090-08-FP



ELEVATION AT ABUTMENT

(Guide Bar not shown skewed for clarity)



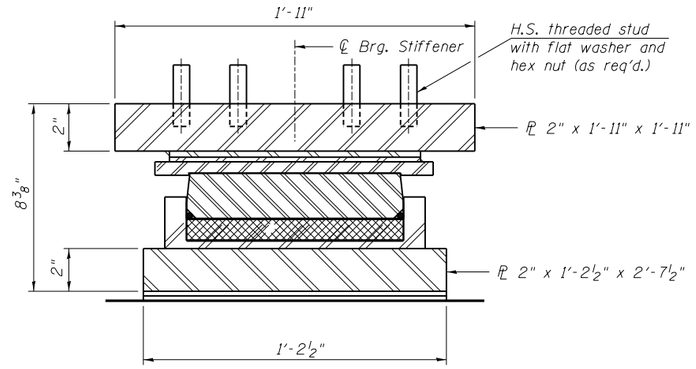
Note:
Additional ¾" x 1'-2½" x 2'-7½" Shim plates are required at Girder 5.

℄ 1½" ϕ x 1'-6" F1554 Gr. 105 anchor bolts with 3" x 3" x 5/16" ℙ washer under nut. 2" ϕ holes in bottom ℙ

⅛" elastomeric neoprene leveling pad according to the material properties of Article 1052.02(a) of the Standard Specifications. Cost included with Bearing Pay Items.

SECTION A-A

(Guide Bar not shown skewed for clarity)



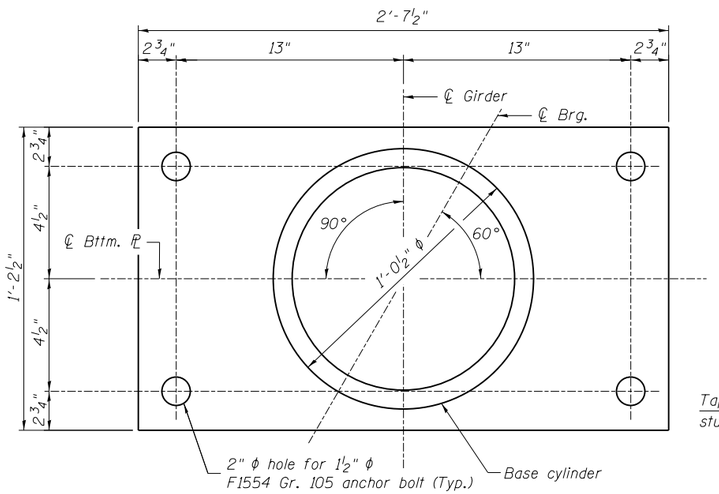
SECTION B-B

(Guide Bar omitted for clarity)

POT BEARING DESIGN DATA

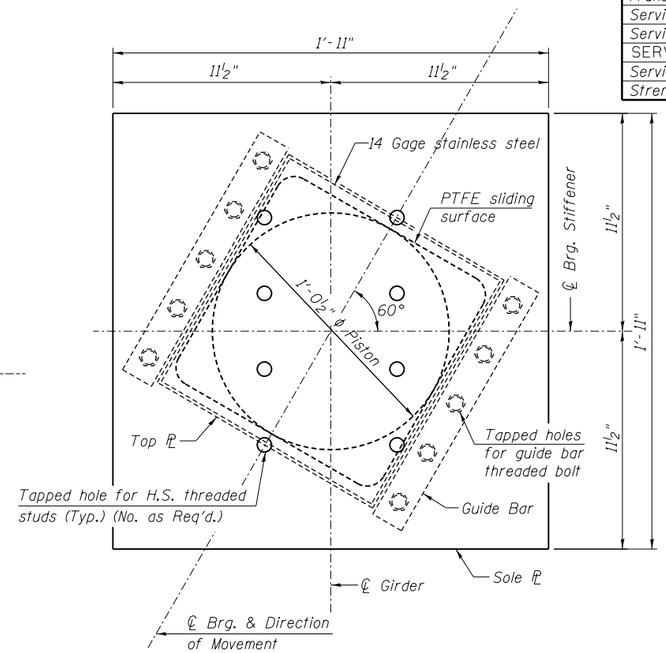
Girder No.		1	2	3	5	6
Bearing Type		Guided	Guided	Guided	Guided	Non-Guided
Unfactored Vertical Dead Load Reaction (R_{DC})	kips	109	109	109	109	109
Unfactored Vertical Wearing Surface Reaction (R_{DW})	kips	30	30	30	30	30
Unfactored Vertical Live Load without Impact Reaction (R_{LL})	kips	150	118	118	118	150
Maximum Strength or Extreme Event Lateral Reaction (H_u)	kips	130	120	40	300	-
Maximum Strength Limit State Rotation (θ_u according to Article 14.4.2.2)	rad	0.022	0.020	0.018	0.033	0.023
Unfactored Design Thermal Movement from 50° F (ΔT)	in.	0	0	0	0	0.04
Transverse Movement	in.	-	-	-	-	0.71
Service I Factored Lateral Reaction	kips	80	70	20	190	-
Service I Rotation	rad	0.018	0.016	0.014	0.023	0.017
SERVICE I FACTORED LONGITUDINAL MOVEMENT	in.	0.24	0.18	0.10	0.10	0.84
Service I Factored Vertical Reaction	kips	289	257	257	257	289
Strength I Factored Vertical Reaction	kips	444	388	388	388	444

Service I Load Factors = 1.0DC + 1.0DW + 1.00LL
Strength I Load Factors = 1.25DC + 1.5DW + 1.75LL + 1.2TU
Extreme Event Load Factors = 1.0EQ



BOTTOM BEARING ℙ AND BASE CYLINDER PLAN

Note: See Bearing Orientation Layout Plan sheet for orientation.



SOLE ℙ AND PISTON PLAN

Note: See Bearing Orientation Layout Plan sheet for sole plate orientation.

* As alternates to the bolted connection shown, the guide bars may be connected to the top bearing plate by groove welds or the guide bars and top bearing plate may be fabricated as a single piece.

BILL OF MATERIAL

	Item	Unit	Total
**	HLMR Bearings, Pot, Guided Expansion-300k	Each	4
**	HLMR Bearings, Pot, Non-Guided Expansion-300k	Each	1
	Anchor Bolts, 1½"	Each	20

** The value specified in the pay item name is an approximate vertical load capacity that is use for letting and bidding purposes only. Exact bearing capacity will vary subject to final design.

NOTES:

The Structural Steel plates of the Bearing Assembly shall conform to the requirements of AASHTO M270, Grade 50.

Horizontal forces in the table are the expected applied forces. The Bearing Assembly shall be capable of transmitting 20% of the vertical design load as a horizontal force in the direction normal to the guide bars, whichever is greater.

Shim plate(s) shall be the full dimension of the bottom bearing plate. Shim plates not included in total bearing height. Cost of shims is included with Bearing Pay Items.

Two ⅛" adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.

Total bearing height is estimated based on manufacturer data. Actual bearing height may differ from contract plans. The contractor shall be responsible for verifying bearing heights and adjusting seat elevations, if required, prior to placing pier or abutment concrete.

Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. The corresponding specified grade of ASTM M314 anchor bolts may be used in lieu of ASTM F1554.

Anchor bolts at HLMR Bearings may be either cast in place or installed in holes drilled after the supported member is in place.

Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.

For Non-Guided bearing, eliminate guide bars and top plate.

DESIGNED	JGT	11/12/15
DRAWN	DAP	11/20/15
REVIEWED	MNM	11/20/15

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HANSON
PROFESSIONAL DESIGN FIRM LICENSE #184-001084

USER NAME = johns00944	DESIGNED	JGT	REVISED -
	CHECKED	MNM	REVISED -
PLOT SCALE = 81.999996 ':' / in.	DRAWN	DAP	REVISED -
PLOT DATE = 5/1/2023	CHECKED	JGT/MNM	REVISED -

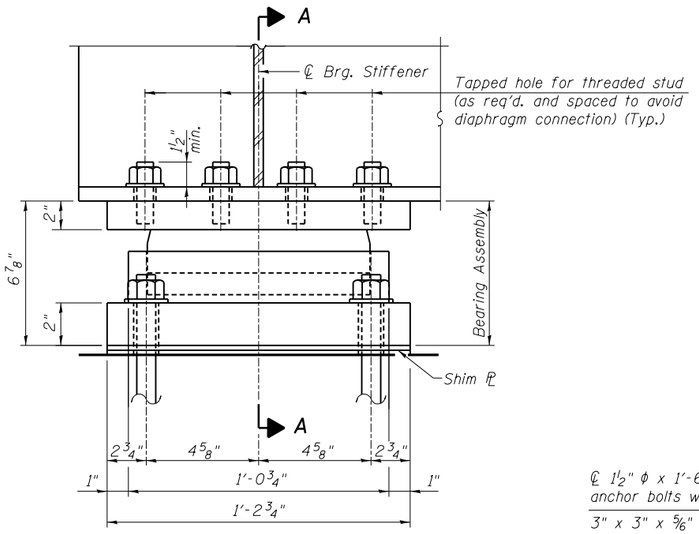
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

HLMR EXPANSION POT BEARING DETAILS – SOUTH ABUTMENT
STRUCTURE NUMBER 084-9949

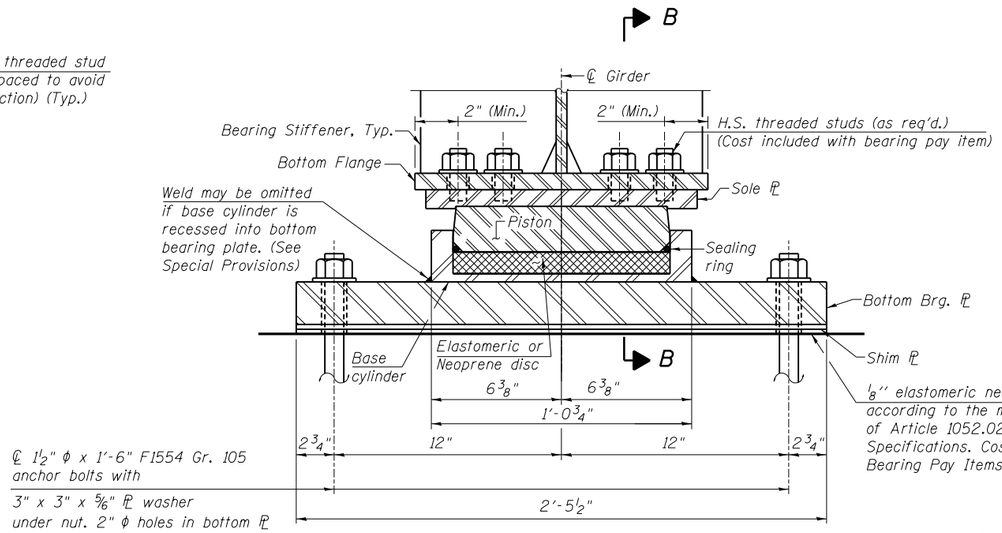
SHEET NO. 24 OF 34 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	SANGAMON	368	169
		CONTRACT NO. 93671		
	ILLINOIS FED. AID PROJECT 6			

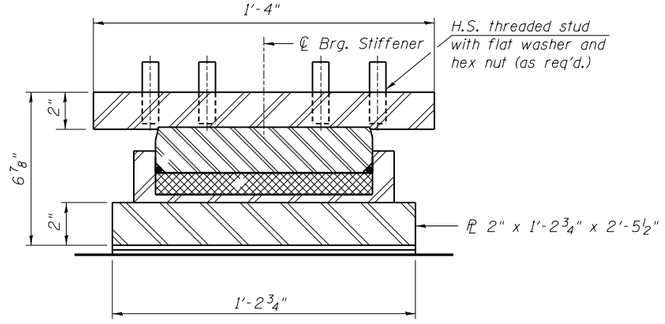
• 07-00164-04-FP, 07-00090-08-FP



ELEVATION AT ABUTMENT



SECTION A-A

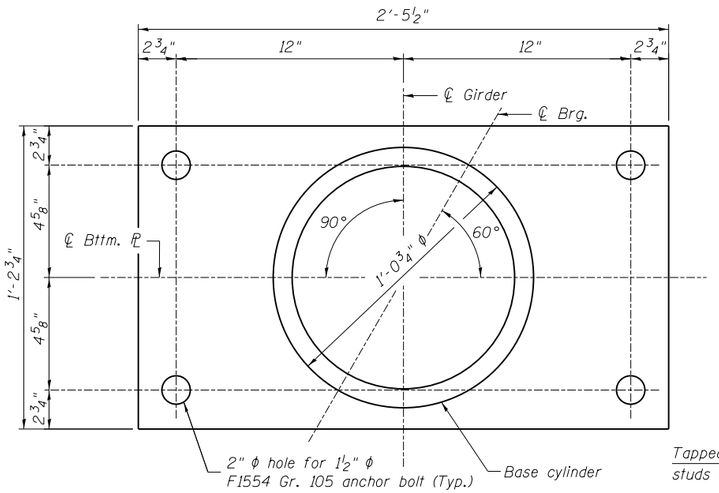


SECTION B-B

POT BEARING DESIGN DATA

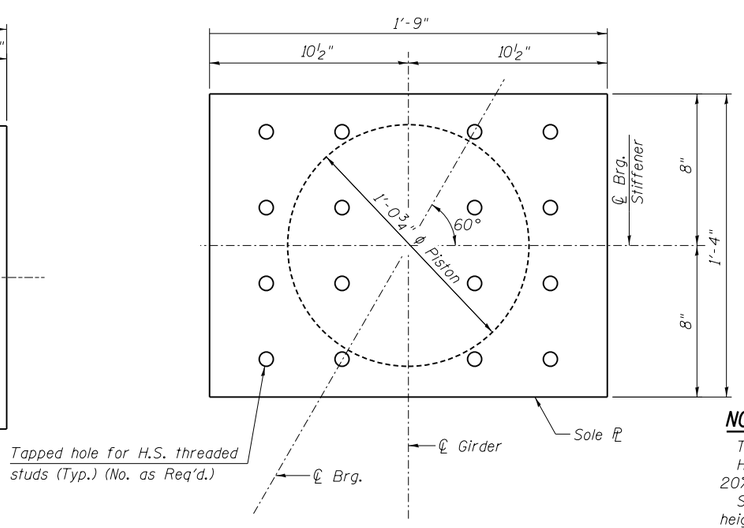
Girder No.		4
Bearing Type		Fixed
Unfactored Vertical Dead Load Reaction (R_{DC})	kips	109
Unfactored Vertical Wearing Surface Reaction (R_{DW})	kips	30
Unfactored Vertical Live Load without Impact Reaction (R_{LL})	kips	118
Maximum Strength or Extreme Event Lateral Reaction (H_u)	kips	200
Maximum Strength Limit State Rotation (θ_u according to Article 14.4.2.2)	rad	0.019
Service I Factored Lateral Reaction	kips	80
Service I Rotation	rad	0.013
Service I Factored Longitudinal Movement	in.	0
Service I Factored Vertical Reaction	kips	257
Strength I Factored Vertical Reaction	kips	388

Service I Load Factors = 1.0DC + 1.0DW + 1.00LL
Strength I Load Factors = 1.25DC + 1.5DW + 1.75LL + 1.2TU
Extreme Event Load Factors = 1.0EQ



BOTTOM BEARING ℙ AND BASE CYLINDER PLAN

Note: See Bearing Orientation Layout Plan sheet for bottom plate orientation.



SOLE ℙ AND PISTON PLAN

Note: See Bearing Orientation Layout Plan sheet for sole plate orientation.

BILL OF MATERIAL

	Item	Unit	Total
*	HLMR Bearings, Pot, Fixed-300k	Each	1
	Anchor Bolts, 1½"	Each	4

* The value specified in the pay item name is an approximate vertical load capacity that is use for letting and bidding purposes only. Exact bearing capacity will vary subject to final design.

NOTES:

The Structural Steel plates of the Bearing Assembly shall conform to the requirements of AASHTO M270, Grade 50.

Horizontal forces in the table are the expected applied forces. The Bearing Assembly shall be capable of transmitting 20% of the vertical design load as a horizontal force in the direction normal to the guide bars, whichever is greater.

Shim plate(s) shall be the full dimension of the bottom bearing plate. Shim plates not included in total bearing height. Cost of shims is included with Bearing Pay Items.

Two ⅛" adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.

Total bearing height is estimated based on manufacturer data. Actual bearing height may differ from contract plans. The contractor shall be responsible for verifying bearing heights and adjusting seat elevations, if required, prior to placing pier or abutment concrete.

Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. The corresponding specified grade of ASTM M314 anchor bolts may be used in lieu of ASTM F1554.

Anchor bolts at HLMR Bearings may be either cast in place or installed in holes drilled after the supported member is in place.

Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.

DESIGNED	JGT	11/12/15
DRAWN	DAP	11/20/15
REVIEWED	MNM	11/20/15

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HANSON
PROFESSIONAL DESIGN FIRM LICENSE #184-001084

USER NAME = johns00944	DESIGNED JGT	REVISED -	
	CHECKED MNM	REVISED -	
PLOT SCALE = 81.999996 '' / in.	DRAWN DAP	REVISED -	
PLOT DATE = 5/1/2023	CHECKED JGT/MNM	REVISED -	

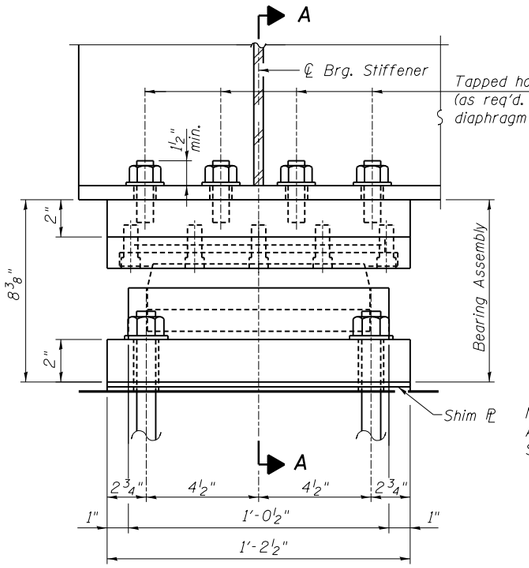
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

HLMR FIXED POT BEARING DETAILS – SOUTH ABUTMENT
STRUCTURE NUMBER 084-9949

SHEET NO. 25 OF 34 SHEETS

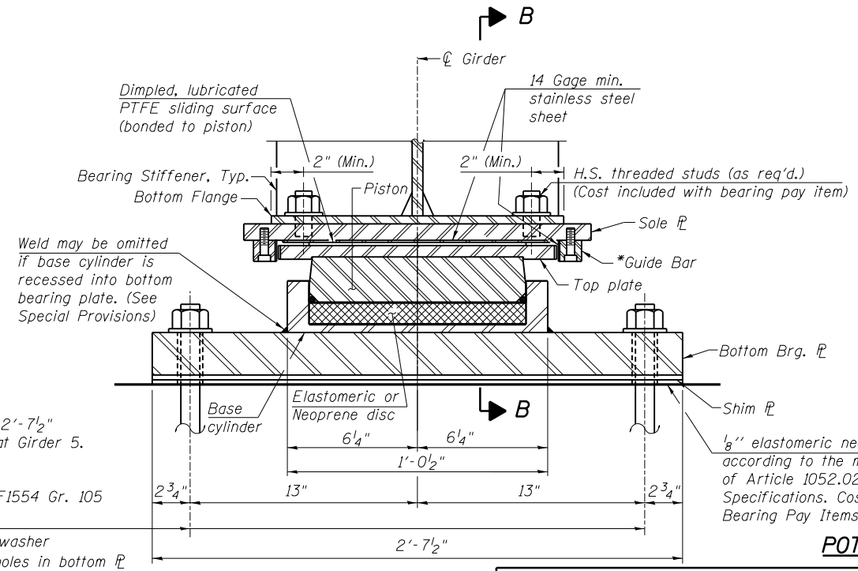
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	SANGAMON	368	170
		CONTRACT NO. 93671		
	ILLINOIS FED. AID PROJECT 6			

• 07-00164-04-FP, 07-00090-08-FP



ELEVATION AT ABUTMENT

(Guide Bar not shown skewed for clarity)



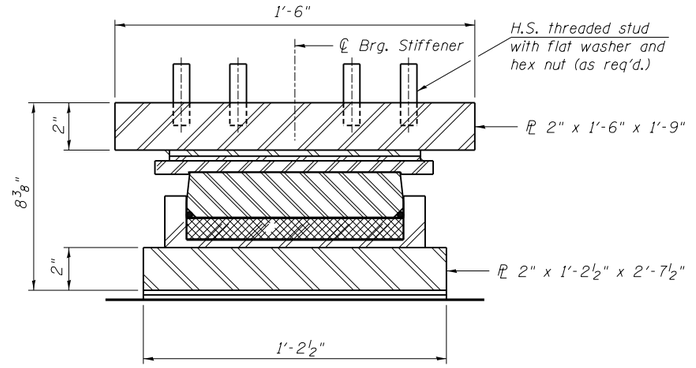
Note:
Additional ¾" x 1'-2½" x 2'-7½" Shim plates are required at Girder 5.

℄ 1½" ϕ x 1'-6" F1554 Gr. 105 anchor bolts with 3" x 3" x 5/16" ℙ washer under nut. 2" ϕ holes in bottom ℙ

⅛" elastomeric neoprene leveling pad according to the material properties of Article 1052.02(a) of the Standard Specifications. Cost included with Bearing Pay Items.

SECTION A-A

(Guide Bar not shown skewed for clarity)



SECTION B-B

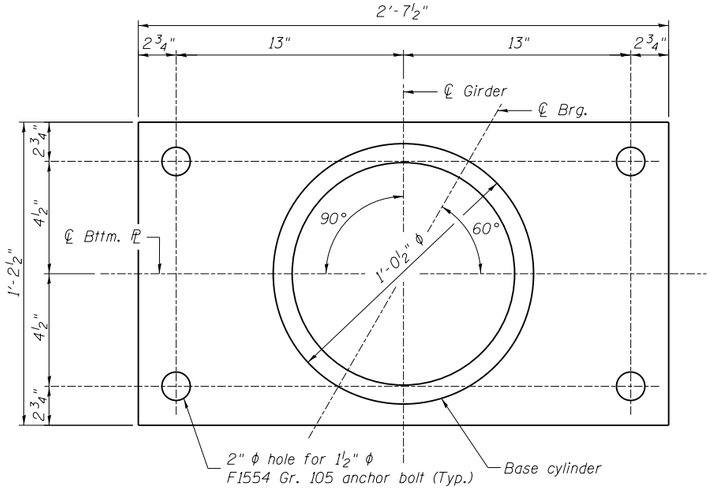
(Guide Bar omitted for clarity)

* As alternates to the bolted connection shown, the guide bars may be connected to the top bearing plate by groove welds or the guide bars and top bearing plate may be fabricated as a single piece.

POT BEARING DESIGN DATA

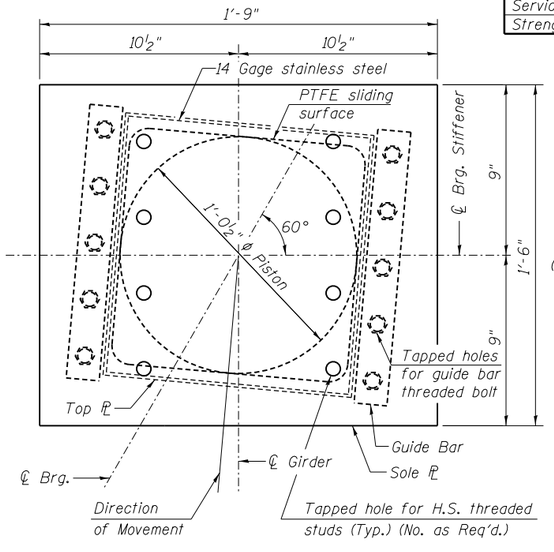
Girder No.		1	2	3	4	5	6
Bearing Type		Non-Guided	Guided	Guided	Guided	Guided	Guided
Unfactored Vertical Dead Load Reaction (R_{DC})	kips	109	109	109	109	109	109
Unfactored Vertical Wearing Surface Reaction (R_{DW})	kips	30	30	30	30	30	30
Unfactored Vertical Live Load without Impact Reaction (R_{LL})	kips	150	118	118	118	118	150
Maximum Strength or Extreme Event Lateral Reaction (H_u)	kips	0	200	80	50	70	90
Maximum Strength Limit State Rotation (Θ_u according to Article 14.4.2.2)	rad	0.031	0.034	0.027	0.024	0.023	0.020
Unfactored Design Thermal Movement from 50° F (ΔT)	in.	1.05	1.12	1.17	1.23	1.3	1.36
Transverse Movement	in.	0.9	-	-	-	-	-
Service I Factored Lateral Reaction	kips	-	130	50	30	30	60
Service I Rotation	rad	0.021	0.022	0.017	0.014	0.013	0.014
Service I Factored Longitudinal Movement	in.	2.79	2.59	2.52	2.49	2.49	2.48
Service I Factored Vertical Reaction	kips	289	257	257	257	257	289
Strength I Factored Vertical Reaction	kips	444	388	388	388	388	444

Service I Load Factors = 1.0DC + 1.0DW + 1.00LL
Strength I Load Factors = 1.25DC + 1.5DW + 1.75LL + 1.2TU
Extreme Event Load Factors = 1.0EQ



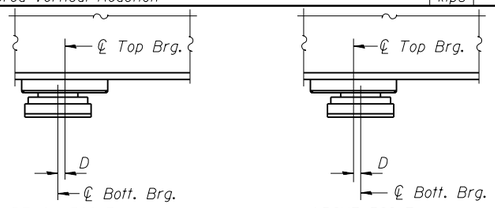
BOTTOM BEARING ℙ AND BASE CYLINDER PLAN

Note: See Bearing Orientation Layout Plan sheet for bottom plate orientation.



SOLE ℙ AND PISTON PLAN

Note: See Bearing Orientation Layout Plan sheet for sole plate and guide bar orientation.



SETTING ANCHOR BOLTS AT EXP. BRG.

D=⅛" per each 100' of expansion for every 15° temp. change from the normal temp. of 50° F.

BILL OF MATERIAL

	Item	Unit	Total
**	HLMR Bearings, Pot, Guided Expansion-300k	Each	5
**	HLMR Bearings, Pot, Non-Guided Expansion-300k	Each	1
	Anchor Bolts, 1½"	Each	24

** The value specified in the pay item name is an approximate vertical load capacity that is use for letting and bidding purposes only. Exact bearing capacity will vary subject to final design.

NOTES:

The Structural Steel plates of the Bearing Assembly shall conform to the requirements of AASHTO M270, Grade 50.

Horizontal forces in the table are the expected applied forces. The Bearing Assembly shall be capable of transmitting 20% of the vertical design load as a horizontal force in the direction normal to the guide bars, whichever is greater.

Shim plate(s) shall be the full dimension of the bottom bearing plate. Shim plates not included in the total bearing height. Cost of shims is included with Bearing Pay Items.

Two ⅛" adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.

Total bearing height is estimated based on manufacturer data. Actual bearing height may differ from contract plans. The contractor shall be responsible for verifying bearing heights and adjusting seat elevations, if required, prior to placing pier or abutment concrete.

Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. The corresponding specified grade of ASTM M314 anchor bolts may be used in lieu of ASTM F1554.

Anchor bolts at HLMR Bearings may be either cast in place or installed in holes drilled after the supported member is in place.

Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.

For Non-Guided bearing, eliminate guide bars and top plate.

DESIGNED	JGT	11/12/15
DRAWN	DAP	11/20/15
REVIEWED	MNM	11/20/15

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HANSON
PROFESSIONAL DESIGN FIRM LICENSE #184-001084

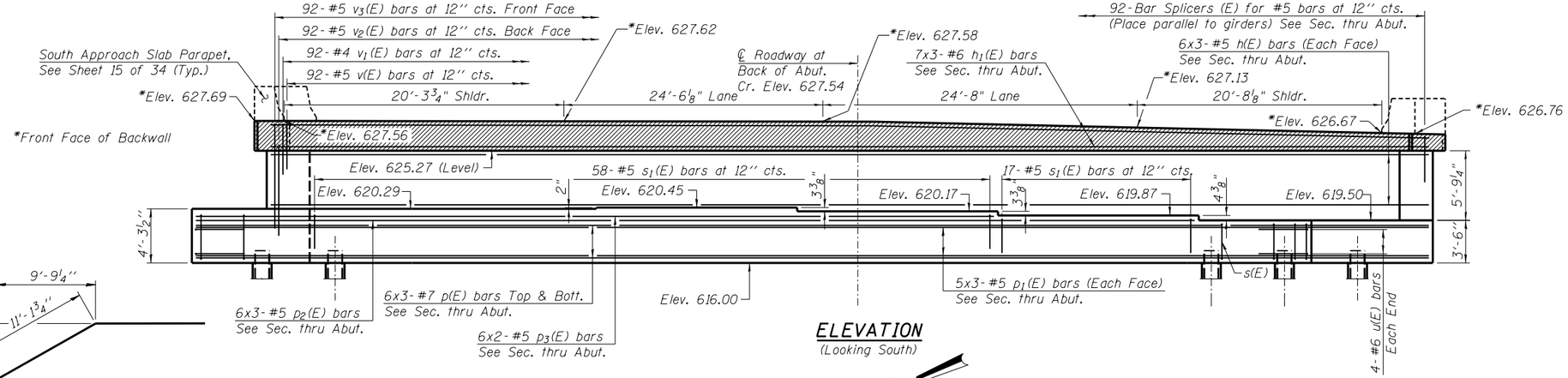
USER NAME = johns00944	DESIGNED JGT	REVISED -
	CHECKED MNM	REVISED -
PLOT SCALE = 01.999996 '/ in.	DRAWN DAP	REVISED -
PLOT DATE = 5/1/2023	CHECKED JGT/MNM	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

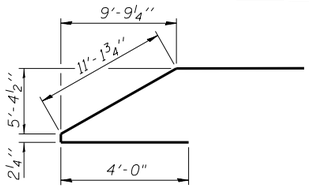
HLMR EXPANSION POT BEARING DETAILS – NORTH ABUTMENT
STRUCTURE NUMBER 084-9949
SHEET NO. 26 OF 34 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	SANGAMON	368	171
		CONTRACT NO. 93671		
	ILLINOIS FED. AID PROJECT 6			

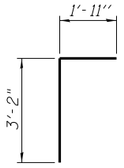
• 07-00164-04-FP, 07-00090-08-FP



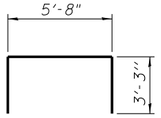
ELEVATION
(Looking South)



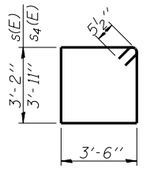
BAR u(E)



BAR v(E)

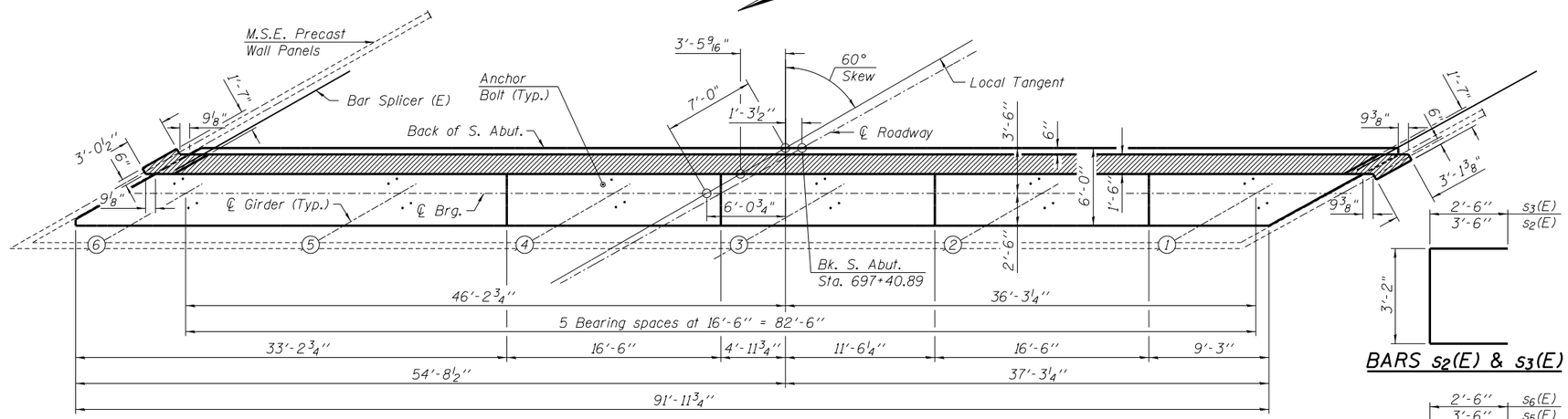


BAR s1(E)

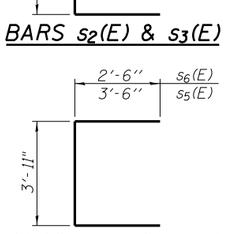


BARS s(E) & s4(E)

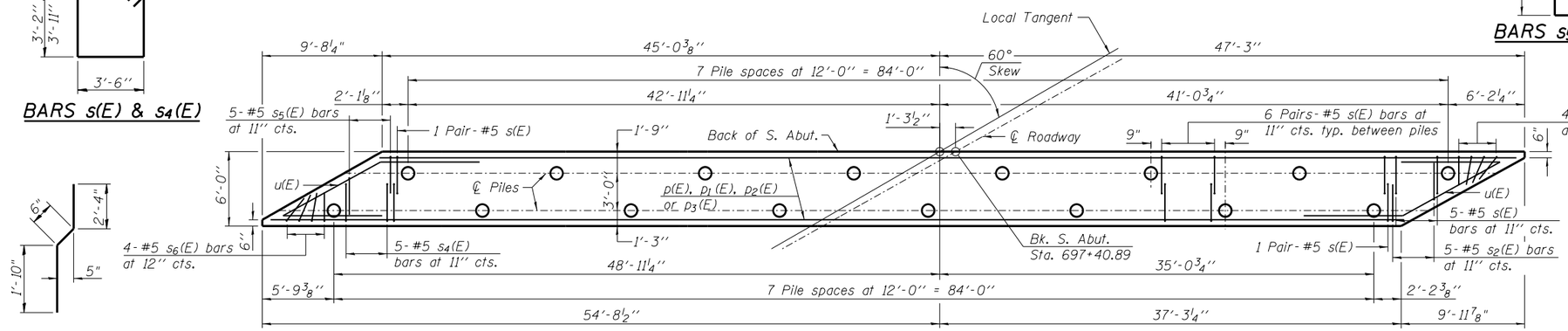
BAR v1(E)



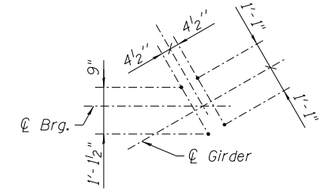
TOP VIEW



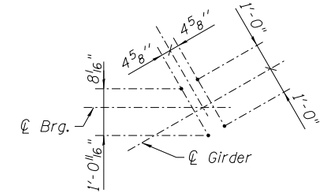
BARS s5(E) & s6(E)



PLAN-PILE CAP



ANCHOR BOLT LAYOUT
(Girders 1, 2, 3, 5 & 6 Only)



ANCHOR BOLT LAYOUT
(Girder 4 Only)

ABUTMENT BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	36	#5	33'-2''	
h1(E)	21	#6	33'-11''	
p(E)	36	#7	34'-7''	
p1(E)	30	#5	33'-3''	
p2(E)	18	#5	30'-1''	
p3(E)	12	#5	35'-0''	
s(E)	165	#5	14'-3''	
s1(E)	75	#5	12'-2''	
s2(E)	5	#5	10'-2''	
s3(E)	4	#5	8'-2''	
s4(E)	5	#5	15'-9''	
s5(E)	5	#5	10'-11''	
s6(E)	4	#5	8'-11''	
u(E)	8	#6	19'-4''	
v(E)	92	#5	5'-1''	
v1(E)	92	#4	4'-8''	
v2(E)	92	#5	8'-2''	
v3(E)	92	#5	10'-6''	
Concrete Structures			Cu. Yd.	119.4
Reinforcement Bars, Epoxy Coated			Pound	13370
Furnishing Metal Shell Piles, 12"x0.25"			Foot	705
Driving Piles			Foot	705
Test Pile, Metal Shell			Each	1
Concrete Sealer			Sq. Ft.	1512

For details of Bar Splicers, see sheet 31 of 34.
For details of piles see sheet 32 of 34.
Bars indicated thus 5x3-#5 etc. indicates 5 lines of bars with 3 lengths per line.

MINIMUM BAR LAP

#5 bar = 3'-9"
#6 bar = 4'-0"
#7 bar = 5'-10"

PILE DATA

Type: Metal Shell 12" x 0.25"
Nominal Required Bearing: 355
Factored Resistance Available: 195
Est. Length: 47
No. Production Piles: 15
No. Test Piles: 1

DESIGNED	JGT	11/12/15
DRAWN	DAP	11/20/15
REVIEWED	MNM	11/20/15

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HANSON
PROFESSIONAL DESIGN FIRM LICENSE #184-001084

USER NAME = Johns00944	DESIGNED JGT	REVISED -	
	CHECKED MNM	REVISED -	
PLOT SCALE = 0:1.999996 ':' / in.	DRAWN DAP	REVISED -	
PLOT DATE = 10/26/2022	CHECKED JGT/MNM	REVISED -	

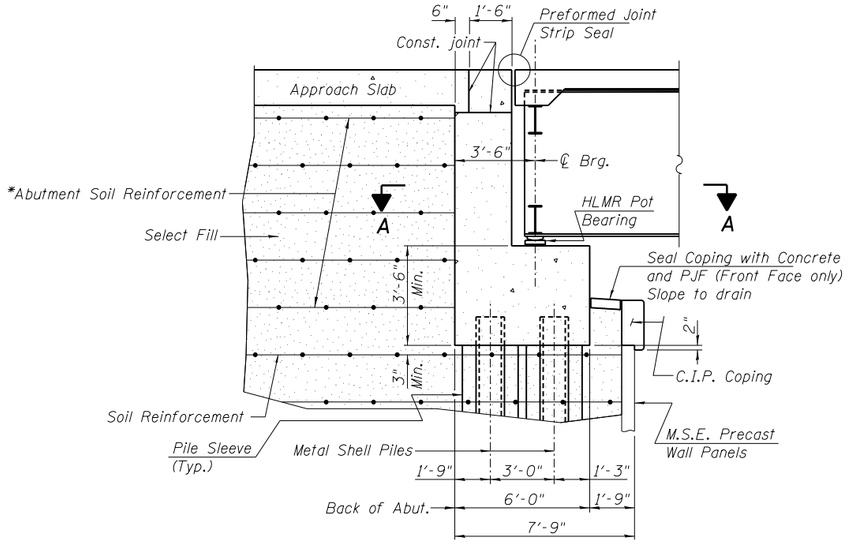
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOUTH ABUTMENT
STRUCTURE NUMBER 084-9949
SHEET NO. 27 OF 34 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	SANGAMON	368	172
		CONTRACT NO. 93671		
	ILLINOIS FED. AID PROJECT 6			

• 07-00164-04-FP, 07-00090-08-FP

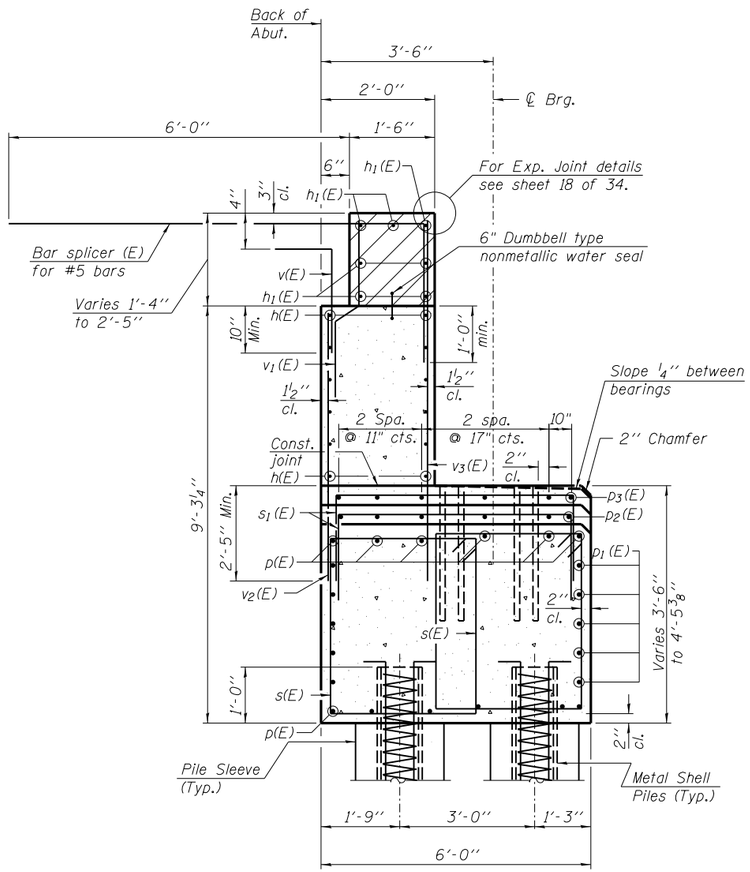
*The M.S.E. Wall supplier shall design the abutment soil reinforcement to resist a horizontal force of 2.44 K/ft. of abutment. (Service)



SECTION THRU PILE SUPPORTED STUB ABUTMENT - SOUTH ABUTMENT

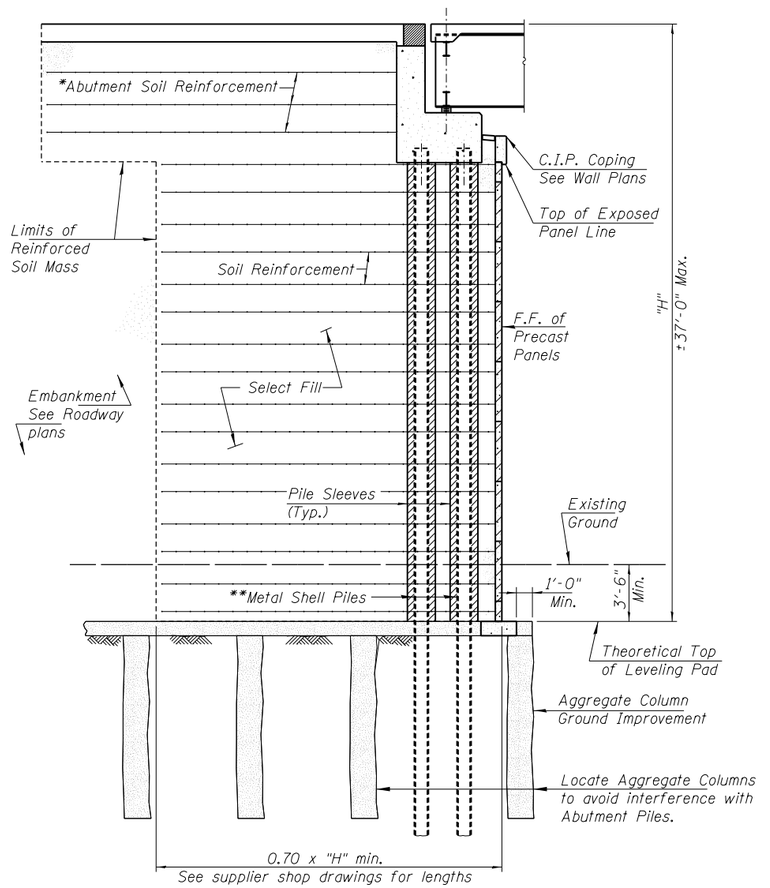
(Horiz. dim. @ Rt. L's)

SECTION A-A



SEC. THRU ABUT.

(Horiz. Dim. @ Rt. L's)



TYPICAL M.S.E. WALL SECTION AT ABUTMENT

(Section at Rt. L's)

** Drive piles after construction of M.S.E. wall and 90% Settlement thru Sleeves. The Sleeves should be filled with dry, loose sand after piles are driven. Complete pile driving after construction of MSE wall and required settlement period as determined by the Contractor's Aggregate Column Ground Improvement (ACGI) design. See Retaining Wall Plans for specific performance requirements. Piles shall be driven to final bearing after theoretical settlement remaining is 0.4 inches or less. Fill void between pile and sleeve with loose dry sand.

Contractor shall have the option to drive piles after ACGI installation and before construction of MSE wall if sleeves are set around piles and piles are redriven after required settlement period. Concrete and reinforcement bars, cut flush with concrete shall be placed before redriving . Redrive each pile to not less than 1.0 inch additional penetration and not less than the required nominal driven bearing unless in the opinion of the Engineer, further driving would result in damage to the pile.

Notes:
Hatched area to be poured after superstructure false work has been removed. Quantity of concrete included with Concrete Superstructure.
Space reinforcement in cap to miss anchor bolts.
Pour steps monolithically with cap.
See Wall Plans for Aggregate Column Ground Improvement Details.

DESIGNED	JGT	11/12/15
DRAWN	DAP	11/20/15
REVIEWED	MNM	11/20/15

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HANSON
PROFESSIONAL DESIGN FIRM LICENSE #184.001084

USER NAME = johns00944	DESIGNED	JGT	REVISED -
	CHECKED	MNM	REVISED -
PLOT SCALE = 0.166666 ' / in.	DRAWN	DAP	REVISED -
PLOT DATE = 4/28/2023	CHECKED	JGT/MNM	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOUTH ABUTMENT DETAILS
STRUCTURE NUMBER 084-9949
SHEET NO. 28 OF 34 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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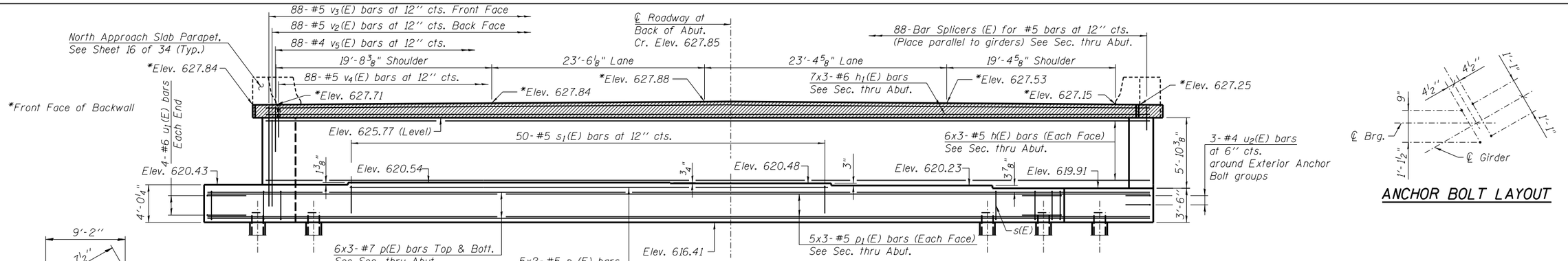
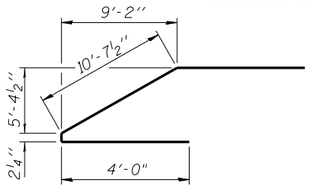
		CONTRACT NO. 93671		
	ILLINOIS FED. AID PROJECT 6			

• 07-00164-04-FP, 07-00090-08-FP

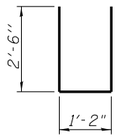


ELEVATION
(Looking North)

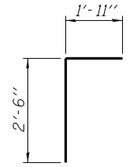


BAR u1(E)

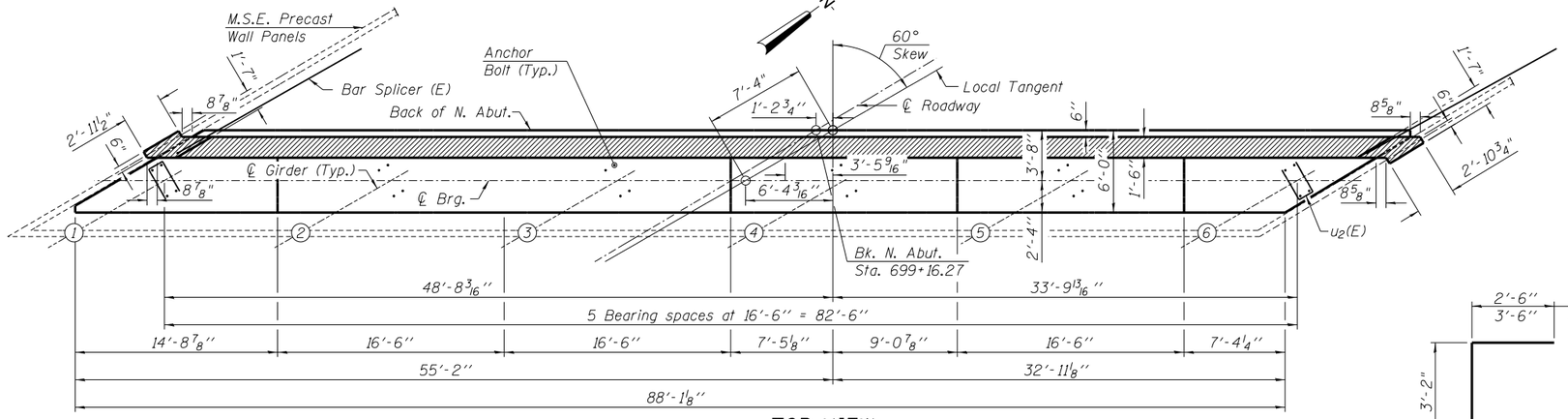
ANCHOR BOLT LAYOUT



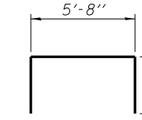
BAR u2(E)



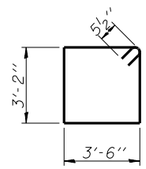
BAR v4(E)



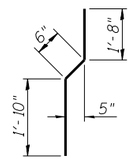
TOP VIEW



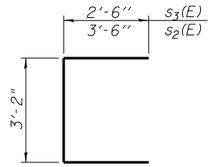
BAR s1(E)



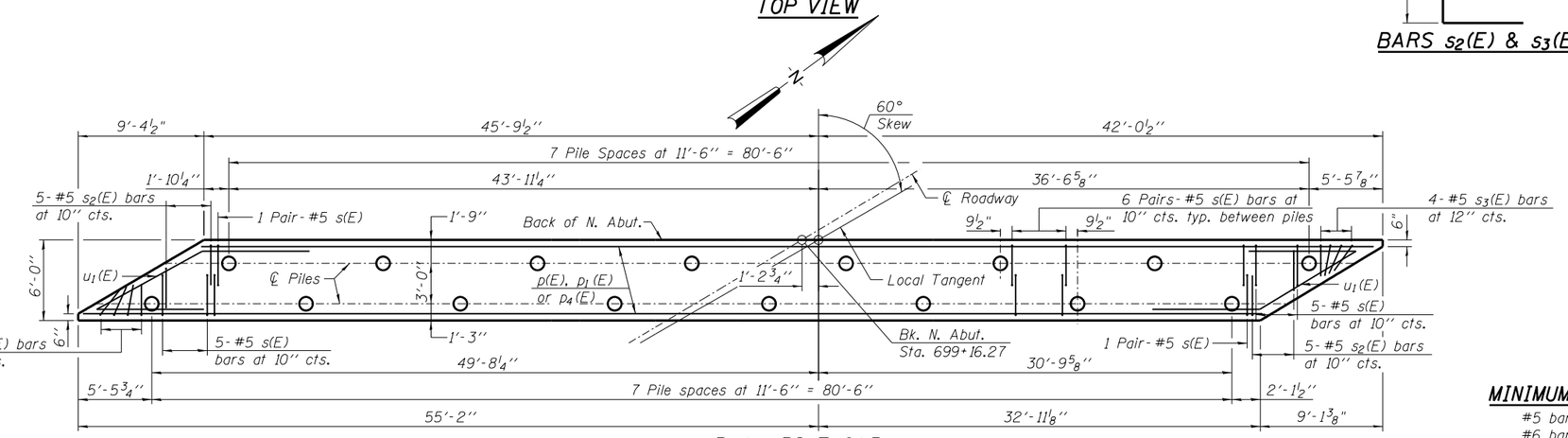
BAR s(E)



BAR v5(E)



BARS s2(E) & s3(E)



PLAN-PILE CAP

ABUTMENT BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	36	#5	33'-2"	—
h1(E)	21	#6	33'-11"	—
p(E)	36	#7	34'-7"	—
p1(E)	30	#5	33'-3"	—
p4(E)	10	#5	26'-8"	—
s(E)	170	#5	14'-3"	□
s1(E)	50	#5	12'-2"	⊓
s2(E)	10	#5	10'-2"	[
s3(E)	8	#5	8'-2"	[
u1(E)	8	#6	18'-10"	⌐
u2(E)	6	#4	6'-2"	u
v2(E)	88	#5	8'-2"	—
v3(E)	88	#5	10'-6"	—
v4(E)	88	#5	4'-5"	⌐
v5(E)	88	#5	4'-0"	⌐
Concrete Structures			Cu. Yd.	112.9
Reinforcement Bars, Epoxy Coated			Pound	12120
Furnishing Metal Shell Piles, 12"x0.25"			Foot	630
Driving Piles			Foot	630
Test Pile, Metal Shell			Each	1
Concrete Sealer			Sq. Ft.	1421

For details of Bar Splicers, see sheet 31 of 34.
For details of piles see sheet 32 of 34.
Bars indicated thus 5x3-#5 etc. indicates 5 lines of bars with 3 lengths per line.

MINIMUM BAR LAP

#5 bar = 3'-9"
#6 bar = 4'-0"
#7 bar = 5'-10"

PILE DATA

Type: Metal Shell 12" x 0.25"
Nominal Required Bearing: 355
Factored Resistance Available: 195
Est. Length: 42
No. Production Piles: 15
No. Test Piles: 1

DESIGNED	JGT	11/12/15
DRAWN	DAP	11/20/15
REVIEWED	MNM	11/20/15

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HANSON
PROFESSIONAL DESIGN FIRM LICENSE #184-001084

USER NAME = Johns00944	DESIGNED JGT	REVISED -	
	CHECKED MNM	REVISED -	
PLOT SCALE = 0.166666 ' / in.	DRAWN DAP	REVISED -	
PLOT DATE = 10/26/2022	CHECKED JGT/MNM	REVISED -	

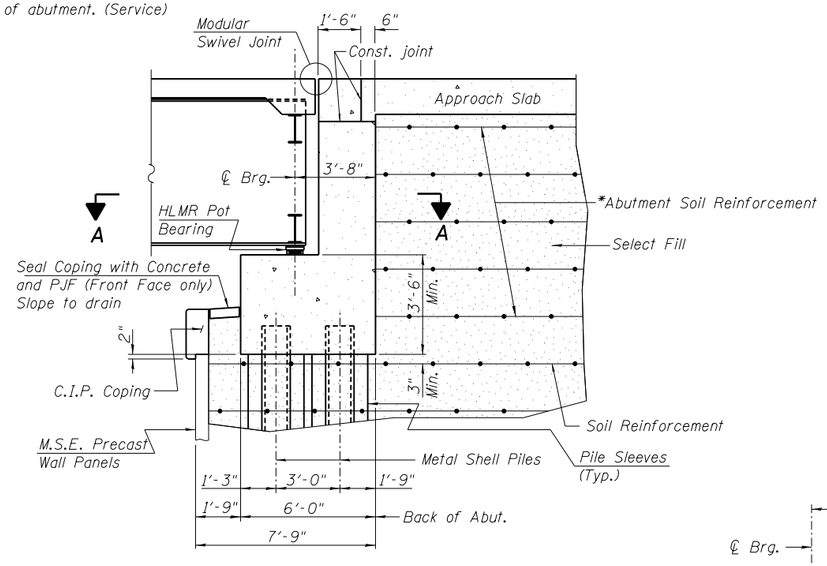
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NORTH ABUTMENT
STRUCTURE NUMBER 084-9949
SHEET NO. 29 OF 34 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	SANGAMON	368	174
		CONTRACT NO.	93671	
	ILLINOIS FED. AID PROJECT 6			

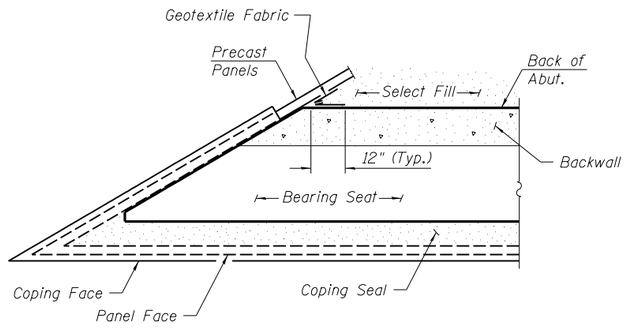
• 07-00164-04-FP, 07-00090-08-FP

*The M.S.E. Wall supplier shall design the abutment soil reinforcement to resist a horizontal force of 2.44 K/ft. of abutment. (Service)

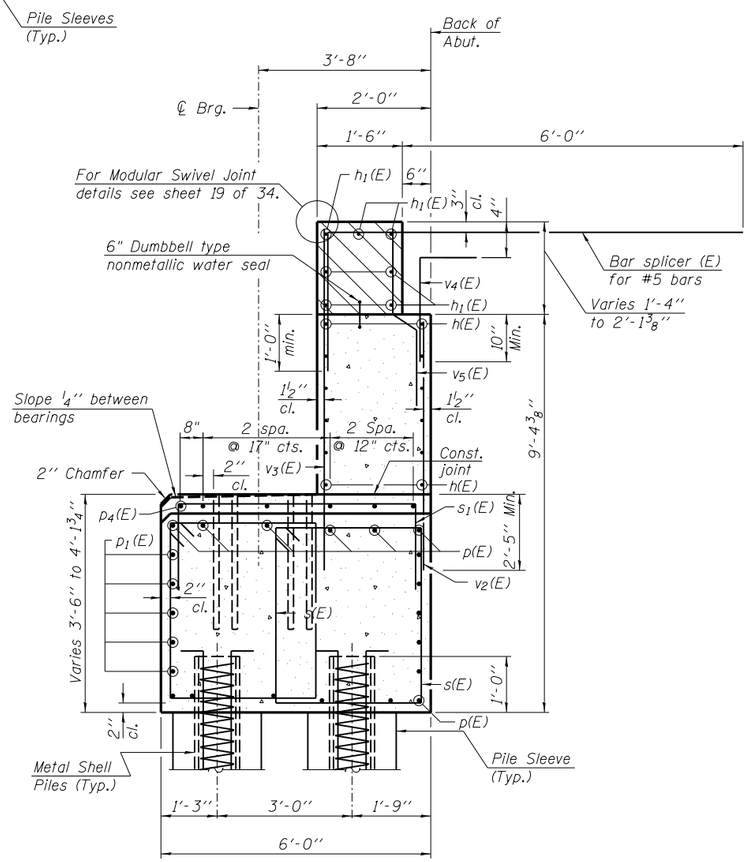


SECTION THRU PILE SUPPORTED STUB ABUTMENT - NORTH ABUTMENT

(Horiz. dim. @ Rt. L's)

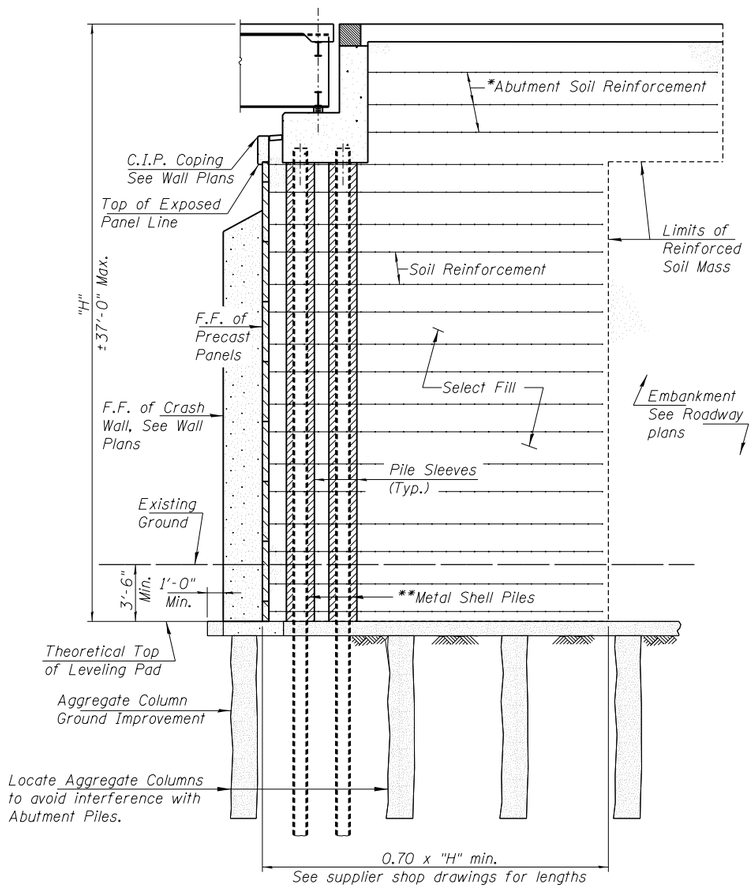


SECTION A-A



SEC. THRU ABUT.

(Horiz. Dim. @ Rt. L's)



TYPICAL M.S.E. WALL SECTION AT ABUTMENT

(Section at Rt. L's)

** Drive piles after construction of M.S.E. wall and 90% Settlement thru Sleeves. The Sleeves should be filled with dry, loose sand after piles are driven. Complete pile driving after construction of MSE wall and required settlement period as determined by the Contractor's Aggregate Column Ground Improvement (ACGI) design. See Retaining Wall Plans for specific performance requirements. Piles shall be driven to final bearing after theoretical settlement remaining is 0.4 inches or less. Fill void between pile and sleeve with loose dry sand.

Contractor shall have the option to drive piles after ACGI installation and before construction of MSE wall if sleeves are set around piles and piles are redriven after required settlement period. Concrete and reinforcement bars, cut flush with concrete shall be placed before redriving . Redrive each pile to not less than 1.0 inch additional penetration and not less than the required nominal driven bearing unless in the opinion of the Engineer, further driving would result in damage to the pile.

Notes:
Hatched area to be poured after superstructure false work has been removed. Quantity of concrete included with Concrete Superstructure.
Space reinforcement in cap to miss anchor bolts.
Pour steps monolithically with cap.
See Wall Plans for Aggregate Column Ground Improvement Details.

DESIGNED	JGT	11/12/15
DRAWN	DAP	11/20/15
REVIEWED	MNM	11/20/15

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HANSON
PROFESSIONAL DESIGN FIRM LICENSE #184.001084

USER NAME = johns00944	DESIGNED	JGT	REVISED -
	CHECKED	MNM	REVISED -
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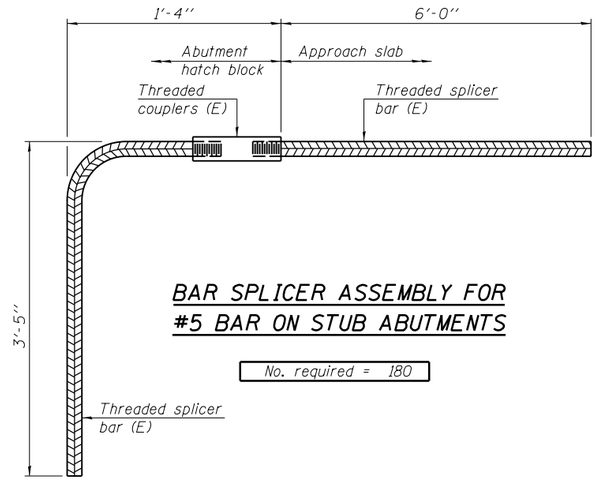
PLOT DATE = 4/28/2023	CHECKED	JGT/MNM	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NORTH ABUTMENT DETAILS
STRUCTURE NUMBER 084-9949
SHEET NO. 30 OF 34 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	SANGAMON	368	175
		CONTRACT NO. 93671		
	ILLINOIS	FED. AID PROJECT 6		

• 07-00164-04-FP, 07-00090-08-FP



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required = 180

NOTES

Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.

All reinforcement shall be lapped and tied to the splicer bars.

Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.

See approved list of bar splicer assemblies and mechanical splicers for alternatives.

DESIGNED	JGT	11/12/15
DRAWN	DAP	11/20/15
REVIEWED	MNM	11/20/15

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HANSON
PROFESSIONAL DESIGN FIRM LICENSE #184.001084

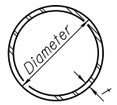
USER NAME = Johns00944	DESIGNED JGT	REVISED -
	CHECKED MNM	REVISED -
PLOT SCALE = 0.166667 ' / in.	DRAWN DAP	REVISED -
PLOT DATE = 10/26/2022	CHECKED JGT/MNM	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY DETAILS
STRUCTURE NUMBER 084-9949
SHEET NO. 31 OF 34 SHEETS

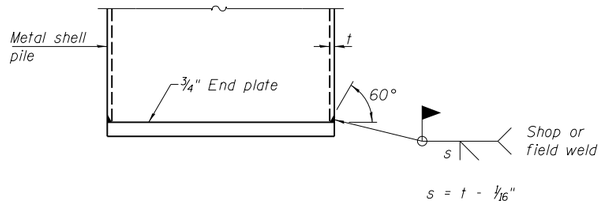
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	SANGAMON	368	176
		CONTRACT NO. 93671		
	ILLINOIS FED. AID PROJECT 6			

• 07-00164-04-FP, 07-00090-08-FP



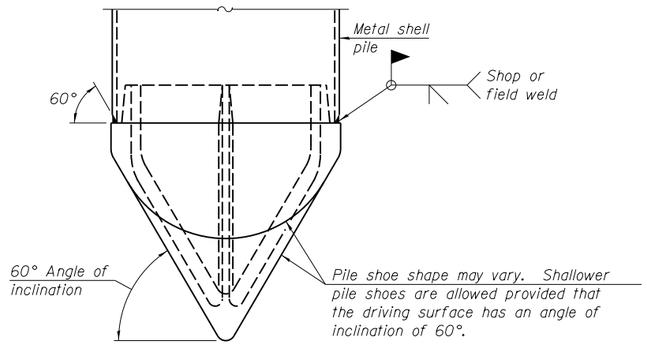
METAL SHELL PILE TABLE

Designation and outside diameter	Wall thickness t	Weight per foot (Lbs./ft.)	Inside volume (yd. 3/ft.)
PP12	0.250"	31.37	0.0267
PP14	0.250"	36.71	0.0368
PP14	0.312"	45.61	0.0361
PP16	0.312"	52.32	0.0478
PP16	0.375"	62.64	0.0470



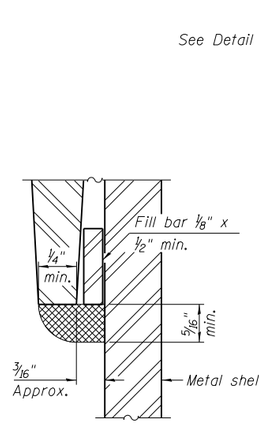
$s = t - \frac{1}{16}"$

END PLATE ATTACHMENT

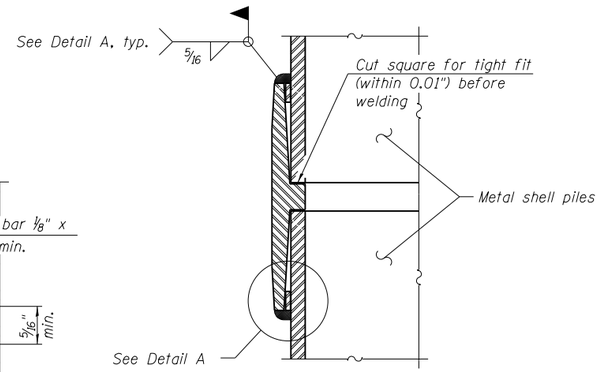


PILE SHOE ATTACHMENT

(When called for on the plans, the Contractor shall furnish metal shell pile shoes consisting of a single piece conical pile point as shown. The pile shoes shall be cast in one piece steel according to either ASTM A 148 Grade 80-50 or AASHTO M 103 Grade 65-35 and shall provide full bearing over the full circumference of the metal shell pile. The pile shoe shall have tapered leads to assure proper alignment and fitting and shall be secured to the pile with a circumferential weld).

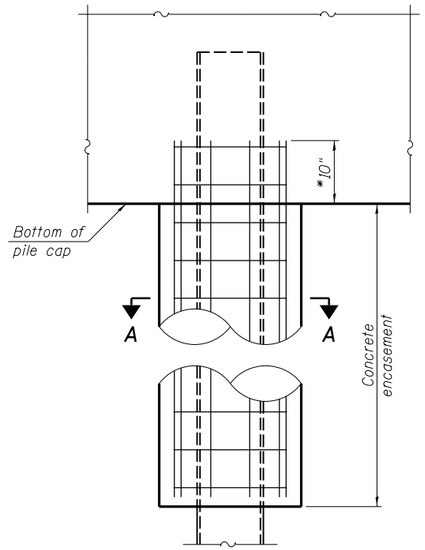


DETAIL A



WELDED COMMERCIAL SPLICE

Notes:
The ⅛" x ½" min. fill bar may be constructed of 2 bars with a ⅛" max. gap between them.
Pile segments shall be driven to solid contact with splicer before welding.



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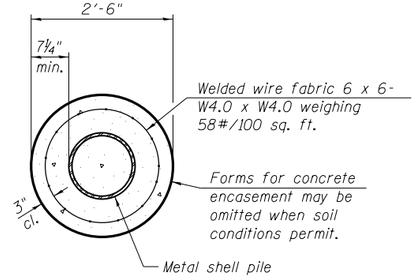
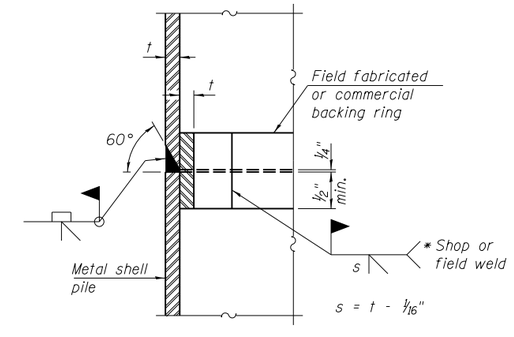


SECTION A-A

INDIVIDUAL PILE CONCRETE ENCASEMENT

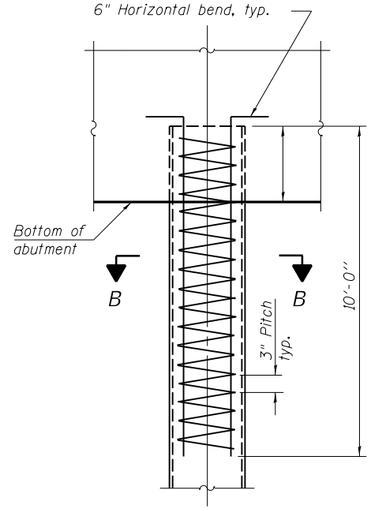
(When specified)



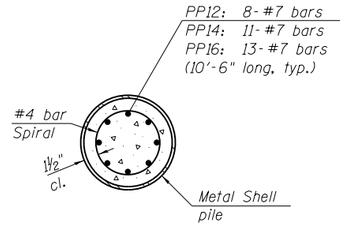
$s = t - \frac{1}{16}"$

COMPLETE PENETRATION WELD SPLICE

* Field fabricated backing ring may be made from pile shell by removing segment to allow reducing circumference and vertically rejoin with partial joint penetration weld.



ELEVATION



SECTION B-B

REINFORCEMENT AT ABUTMENTS

(Omit when concrete encasement is specified)

Note:
The metal shell piles shall be according to Article 1006.05 of the Standard Specifications.

DESIGNED	JGT	11/12/15
DRAWN	DAP	11/20/15
REVIEWED	MNM	11/20/15

F-MS 1-1-2020

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HANSON
PROFESSIONAL DESIGN FIRM LICENSE #184-001084

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	CHECKED MNM	REVISED -	
PLOT SCALE = 0.166667 ' / in.	DRAWN DAP	REVISED -	
PLOT DATE = 10/26/2022	CHECKED JGT/MNM	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

METAL SHELL PILE DETAILS
STRUCTURE NUMBER 084-9949
SHEET NO. 32 OF 34 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	SANGAMON	368	177
		CONTRACT NO. 93671		
	ILLINOIS	FED. AID PROJECT 6		

• 07-00164-04-FP, 07-00090-08-FP

B-15
Sta. 697+18, 14' LT

	N	Qu		w%	
595.23					Topsoil & dark brown silty clay w/ trace sand.
	4	1.67	BSH	31.3	
592.23					
▽ Oh					Black, brown and gray very fine sandy silty clay w/ oxidation spots - LOESS.
▼ DD	5	0.5	P	28.8	
	5	0.8	P	28.7	
	2	0.74	BSH	27.8	
	4	1.47	B	24.7	
581.23					
	2	0.47	BSH	32.6	Orange-brown, yellowish-brown, and gray very fine to fine sandy silty clay and sandy clayey silt w/ trace coarse sand, small gravel, and calcareous - TILL.
	6	1.75	BSH	16.3	
	15	6.21	SH	11.3	
	28			11.9	
570.23					Bottom of hole = 25.0 feet

B-16
Sta. 697+72, 32' RT

	N	Qu		w%	
595.47					Dark brown silty clay w/ trace sand & gravel - FILL.
	5	1.55	SH	25.8	
592.47					
▽ Oh					Yellowish-brown and gray very fine sandy silty clay w/ oxidation spots - LOESS.
▼ DD	6	1.16	BSH	26.9	
589.47					
	4	1.40	B	25.8	Orange-brown and gray very fine sandy silt w/ trace clay - LOESS.
587.47					
	2	0.58	SH	32.8	Orange-brown and gray very fine sandy silty clay - LOESS.
	2	1.12	BSH	27.2	
	3	1.86	BSH	23.9	
579.47					
	4	1.24	B	22.7	Yellow-brown, orange-brown, and gray sandy silty clay w/ trace coarse sand and small gravel - TILL.
	19	7.76	B	13.2	
	57	4.5	P	8.2	
570.47					Bottom of hole = 25.0 feet

B-17
Sta. 697+54, 6' RT

	N	Qu		w%	
594.54					Orange-brown and gray very fine sandy silty clay w/ oxidation spots - LOESS.
	6	1.55	SH	28.9	
591.54					
▽ Oh					Yellowish-brown and gray very fine sandy silt - LOESS.
▼ DD					
587.04					
				28	Yellowish-brown and gray very fine sandy silt w/ trace clay - LOESS.
		0.12	B	27	
578.54					
		1.64	SH	21	Orange-brown, yellowish-brown, and black very fine sandy silty clay w/ trace coarse sand and gravel - TILL.
		1.26	SH	19	
		1.01	SH	17	
	28	6.98	B	10.6	
569.54	46	4.5	P	11.2	Greenish-gray silty fine sand - TILL.
	50/5"	2.0	P	15.2	
563.54					Gray SHALE.
	70			15.8	
	61	1.44	SH	17.6	
	50/4"	1.0	P	19.5	
544.54	45	3.8	P	12.7	
					Bottom of hole = 50.0 feet

LEGEND

N	Standard Penetration Test N (blows/ft)
Qu	Unconfined Strength (tsf)
w%	Natural Moisture Content (%)
▼ DD	Water Surface Elevation Encountered in Boring DD = During Drilling
▽ Oh	Oh = At Completion

DESIGNED	JGT	11/12/15
DRAWN	DAP	11/20/15
REVIEWED	MNM	11/20/15

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HANSON
PROFESSIONAL DESIGN FIRM LICENSE #184.001084

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PLOT DATE = 10/26/2022	CHECKED	JGT/MNM	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORINGS (SHEET 1 OF 2)
STRUCTURE NUMBER 084-9949
SHEET NO. 33 OF 34 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	SANGAMON	368	178
		CONTRACT NO. 93671		
	ILLINOIS FED. AID PROJECT 6			

• 07-00164-04-FP, 07-00090-08-FP

B-18
Sta. 699+27, 8' RT

	N	Qu	w%	
595.44				TOPSOIL - black very fine sandy clayey silt.
	4	1.5 P	31.0	
▽ Oh				
590.94				Yellowish-brown and gray very fine sandy clayey silt - LOESS.
▼ DD				
587.94				Brown and gray very fine sandy silt w/ trace clay - LOESS.
		0.50 SH	30	
		1.41 SH	24	
		1.55 SH	22	
		0.33 SH	24	
579.44				Yellowish-brown and gray fine sandy clayey silt w/ trace coarse sand and small gravel - TILL.
			23	
	22	4.65 S	14.7	
	50/6"	3.30 S	9.3	
567.44				Greenish-gray silty very fine to fine sand - TILL.
	50/3"		20.9	
562.44				Gray SHALE.
	70	1.2 P	11.4	
	50/5"	1.0 P	19.5	
	50/4"	4.0 P	10.9	
545.44	50/5"		10.6	

Bottom of hole = 50.0 feet

B-20
Sta. 699+43, 30' RT

	N	Qu	w%	
595.83				TOPSOIL - black very fine sandy clayey silt.
	5	0.8 P	28.1	
592.83				
▽ Oh				Orange-brown and gray very fine sandy silty clay - LOESS.
	7	1.55 B	30.2	
	5	0.93 B	29.0	
▼ DD				
	4	0.97 B	22.5	
	3	0.58 B	25.7	
582.83				Orange-brown and gray very fine sandy silty clay and sandy clayey silt w/ trace coarse sand and small gravel - TILL.
	2	1.36 S	26.2	
	1	0.58 B	18.7	
	21	2.13 S	12.1	
	50/5"		13.0	
567.83				Greenish-brown very fine silty sand - TILL.
	50/5"		14.1	
562.83				Gray clayey SHALE.
	50/5"	1.51 S	18.8	
556.90	50/5"	6.21 S	14.4	

Bottom of hole = 40.0 feet

LEGEND

N	Standard Penetration Test N (blows/ft)
Qu	Unconfined Strength (tsf)
w%	Natural Moisture Content (%)
▼ DD ▽ Oh	Water Surface Elevation Encountered in Boring DD = During Drilling Oh = At Completion

DESIGNED	JGT 11/12/15
DRAWN	DAP 11/20/15
REVIEWED	MNM 11/20/15

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HANSON
PROFESSIONAL DESIGN FIRM LICENSE #184.001084

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	CHECKED	MNM	REVISED -
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PLOT DATE = 10/26/2022	CHECKED	JGT/MNM	REVISED -

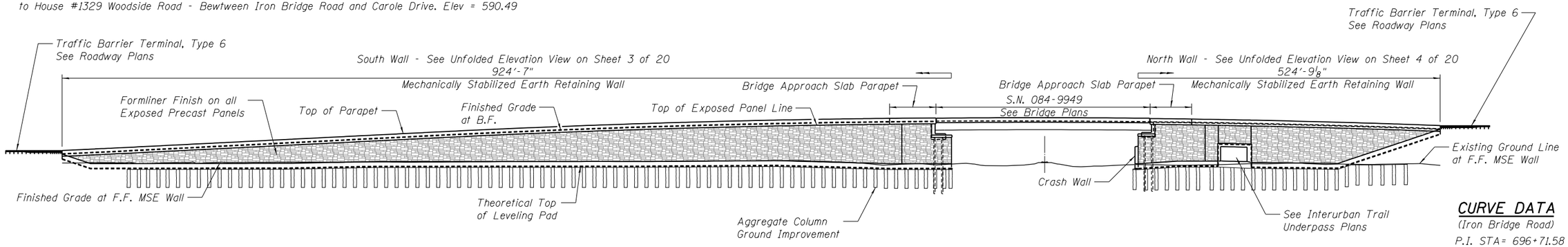
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORINGS (SHEET 2 OF 2)
STRUCTURE NUMBER 084-9949
SHEET NO. 34 OF 34 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	SANGAMON	368	179
		CONTRACT NO. 93671		
	ILLINOIS FED. AID PROJECT 6			

• 07-00164-04-FP, 07-00090-08-FP

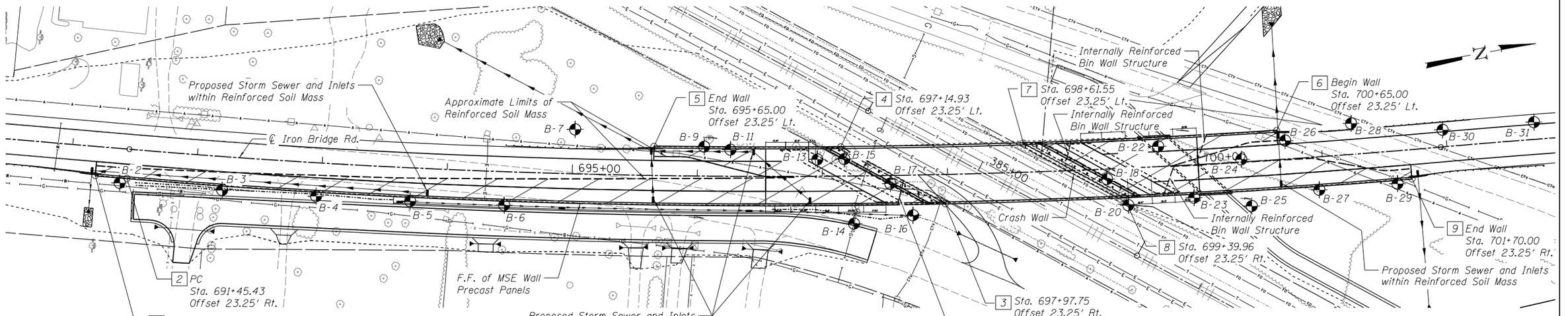
B.M. 359 - Chsld. "x" on South Cap Bolt FH - North Side of Woodside Road., Approx. 300' West of Pedigo Lane., 6' East of Private Drive., South of Two Grain Silos. Elev = 595.21
B.M. H3 - Spike Nail in South Face of PP - North Side Woodside Road - ± 325' East of Driveway to House #1329 Woodside Road - Bewtween Iron Bridge Road and Carole Drive. Elev = 590.49



ELEVATION
(Looking West)

CURVE DATA
(Iron Bridge Road)

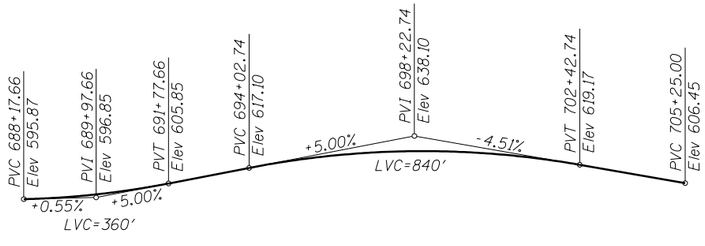
P.I. STA = 696+71.58
Δ = 9°-51'-34"
D = 0°-56'-21"
R = 6,100.00'
T = 526.14'
L = 1,049.69'
E = 22.65'
S.E. = N.C.
P.C. STA = 691+45.43
P.T. STA = 701+95.12



PLAN

Note: Wall offsets are measured from ℄ Iron Bridge Rd to the front face of precast panels.

F.F. - Front Face
B.F. - Back Face
3 = Control Point



PROFILE GRADE IRON BRIDGE ROAD
Along ℄ of Iron Bridge Rd.

LICENSED STRUCTURAL ENGINEER
ROBERT CHANTOME
081-006048
STATE OF ILLINOIS

10/27/2022
Expires November 30, 2022

I certify that to the best of my knowledge, information and belief, this retaining wall design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current "AASHTO Standard Specifications for Highway Bridges".

DESIGN SPECIFICATIONS

M.S.E. WALLS

2002 AASHTO
Standard Specifications
PARAPET & ANCHORAGE SLAB

2014 AASHTO LRFD Bridge
Design Specifications, 7th Edition

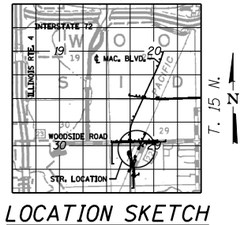
DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
f'c = 4,000 psi (Superstructure Concrete)
fy = 60,000 psi (Reinforcement)

PRECAST UNITS

f'c = 4,500 psi (Precast Panels)



LOCATION SKETCH

GENERAL PLAN & ELEVATION
IRON BRIDGE RD. RETAINING WALL
F.A.S. 1638-SECTION 07-00164-04-FP
SANGAMON COUNTY
STATION 691+20.00 TO 701+70.00

DESIGNED	KMS	6/30/15
DRAWN	KMS	6/30/15
REVIEWED	RGC	6/2/20

HANSON

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USER NAME = Johns00944	DESIGNED - KMS	REVISED -	
	CHECKED - RGC	REVISED -	
PLOT SCALE = 0.1667 ' / in.	DRAWN - KMS	REVISED -	
PLOT DATE = 10/26/2022	CHECKED - RGC	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN & ELEVATION
IRON BRIDGE ROAD RETAINING WALL
SHEET NO. 1 OF 20 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	SANGAMON	368	180
		CONTRACT NO. 93671		
	ILLINOIS FED. AID PROJECT 6			

• 07-00164-04-FP, 07-00090-08-FP

WALL CONTROL POINTS

Control Point	Station	Offset
1	691+20.00	23.25' RT
2	691+45.43	23.25' RT
3	697+97.75	23.25' RT
4	697+14.93	23.25' LT
5	695+65.00	23.25' LT
6	700+65.00	23.25' LT
7	698+61.55	23.25' LT
8	699+39.96	23.25' RT
9	701+70.00	23.25' RT

GENERAL NOTES

1. Reinforcement bars designated (E) shall be epoxy coated.

2. Bars indicated thus 12 x 4 - #5 etc. Indicates 12 lines of bars with 4 lengths per line.

3. The MSE wall supplier is alerted to the fact that up to 3.0 inches settlement are anticipated for the MSE wall at the maximum embankment height if the wall was constructed on untreated subgrade. The Aggregate Column Ground Improvement (ACGI) is expected to reduce the anticipated settlement. The MSE wall supplier shall take appropriate measures to accommodate the settlement.

4. The Top of Exposed Panel Elevations shown on Sheets 3 and 4 are final elevations after allowing settlement. The MSE wall supplier shall provide additional panel heights to allow for the settlement of the leveling pad during installation. Settlement may vary along the length of wall. Coordinate additional panel heights to be provided with Aggregate Column Ground Improvement subcontractor design.

INDEX OF SHEETS

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Mechanically Stabilized Earth Retaining Wall	Sq. Ft.	31979
Reinforcement Bars, Epoxy Coated	Pound	96510
Structure Excavation	Cu. Yd.	2979
Concrete Structures	Cu. Yd.	576.7
Concrete Superstructure	Cu. Yd.	119.9
Aggregate Column Ground Improvement	Lump Sum	1

DESIGNED	KMS	6/30/15
DRAWN	KMS	6/30/15
REVIEWED	RGC	6/2/20

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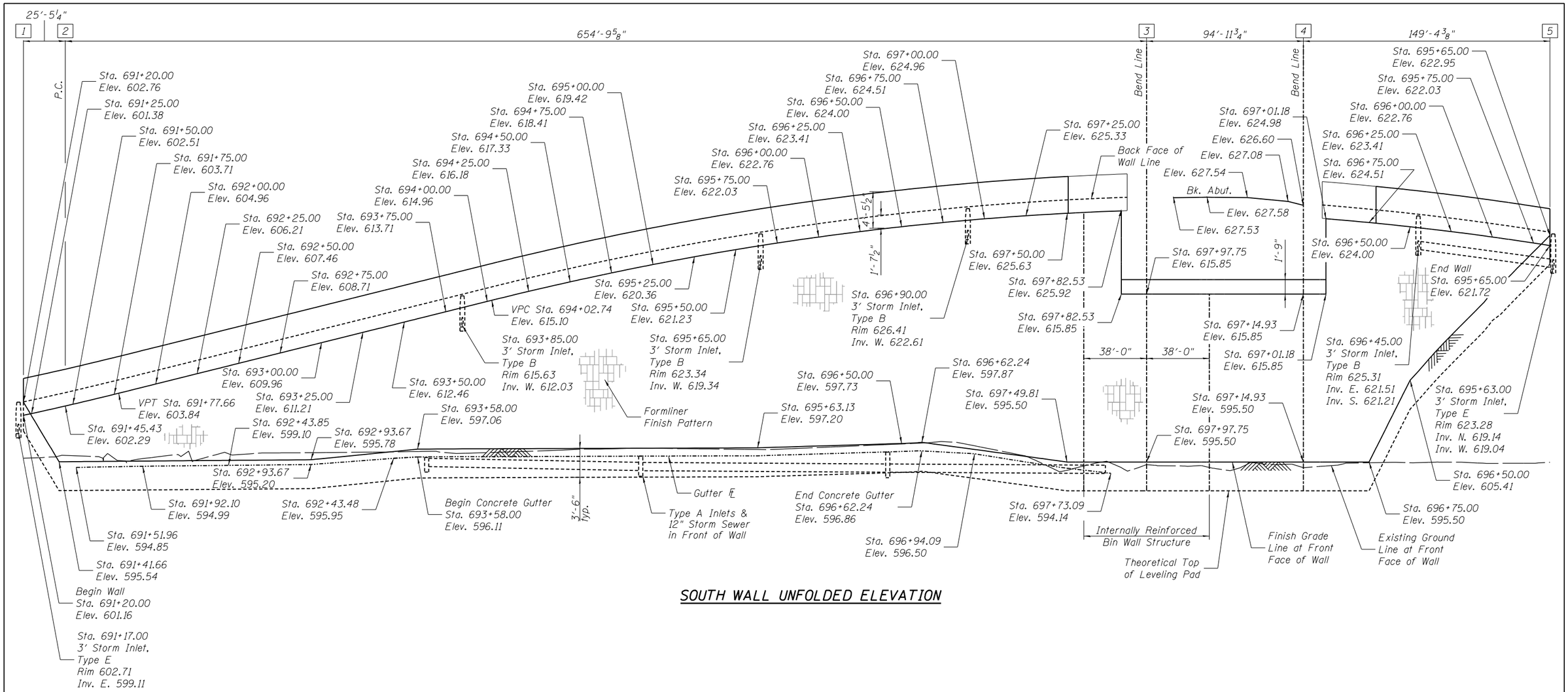
	PLOT DATE = 10/26/2022	CHECKED - RGC	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES
IRON BRIDGE ROAD RETAINING WALL
SHEET NO. 2 OF 20 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	SANGAMON	368	181
		CONTRACT NO. 93671		
	ILLINOIS	FED. AID PROJECT 6		

• 07-00164-04-FP, 07-00090-08-FP



SOUTH WALL UNFOLDED ELEVATION

DESIGNED	KMS	6/30/15
DRAWN	KMS	6/30/15
REVIEWED	RGC	6/2/20

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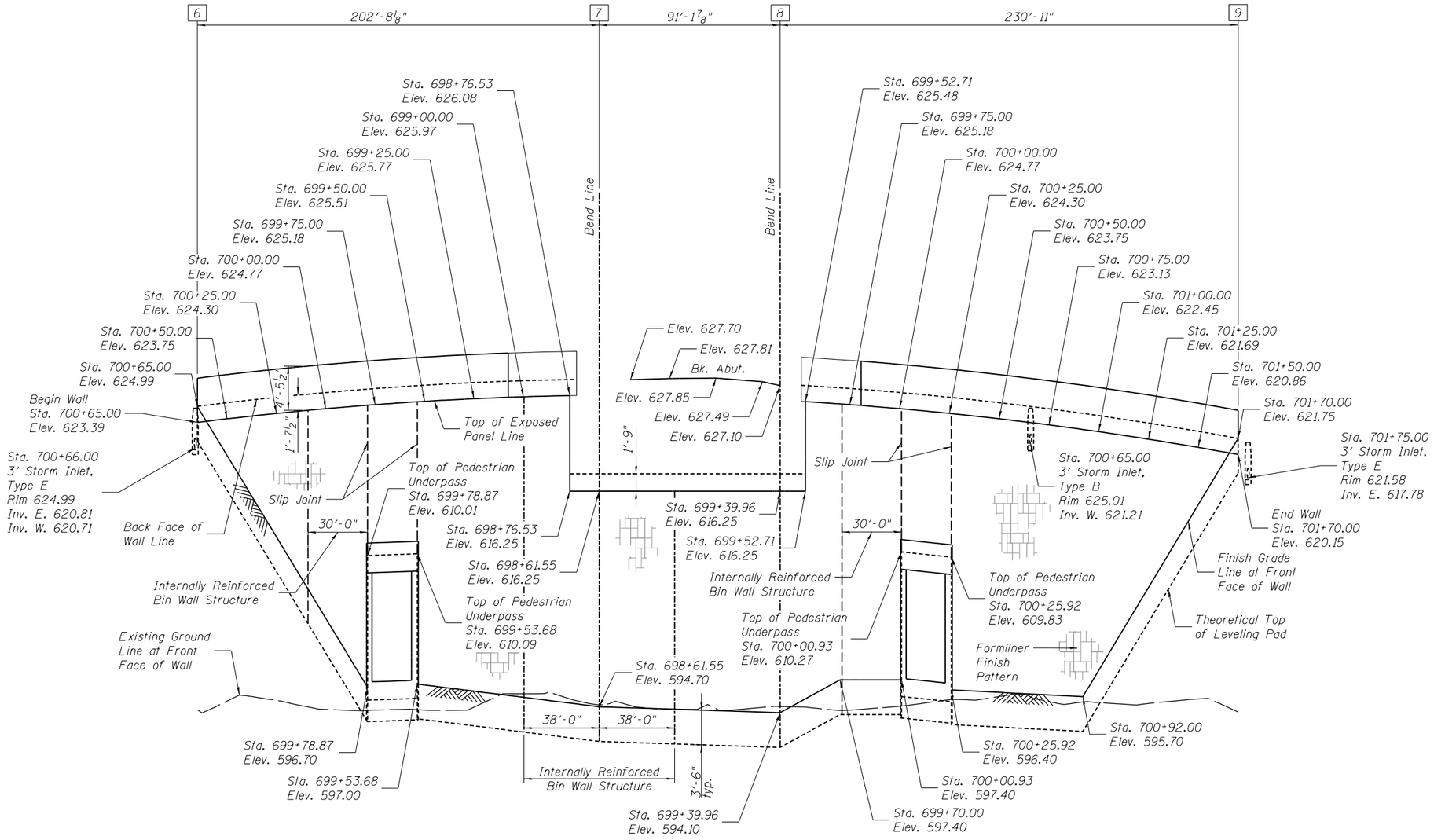
	PLOT SCALE = 0.1667 ' / in.	DRAWN - KMS	REVISED -
	PLOT DATE = 10/26/2022	CHECKED - RGC	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

M.S.E. UNFOLDED ELEVATION – SOUTH WALL
IRON BRIDGE ROAD RETAINING WALL
SHEET NO. 3 OF 20 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	SANGAMON	368	182
		CONTRACT NO. 93671		
	ILLINOIS FED. AID PROJECT 6			

• 07-00164-04-FP, 07-00090-08-FP



NORTH WALL UNFOLDED ELEVATION

DESIGNED	KMS	6/30/15	
DRAWN	KMS	6/30/15	
REVIEWED	RGC	6/2/20	

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		CHECKED - RGC	REVISED -
	PLOT SCALE = 0.1667 ' / in.	DRAWN - KMS	REVISED -
	PLOT DATE = 10/26/2022	CHECKED - RGC	REVISED -

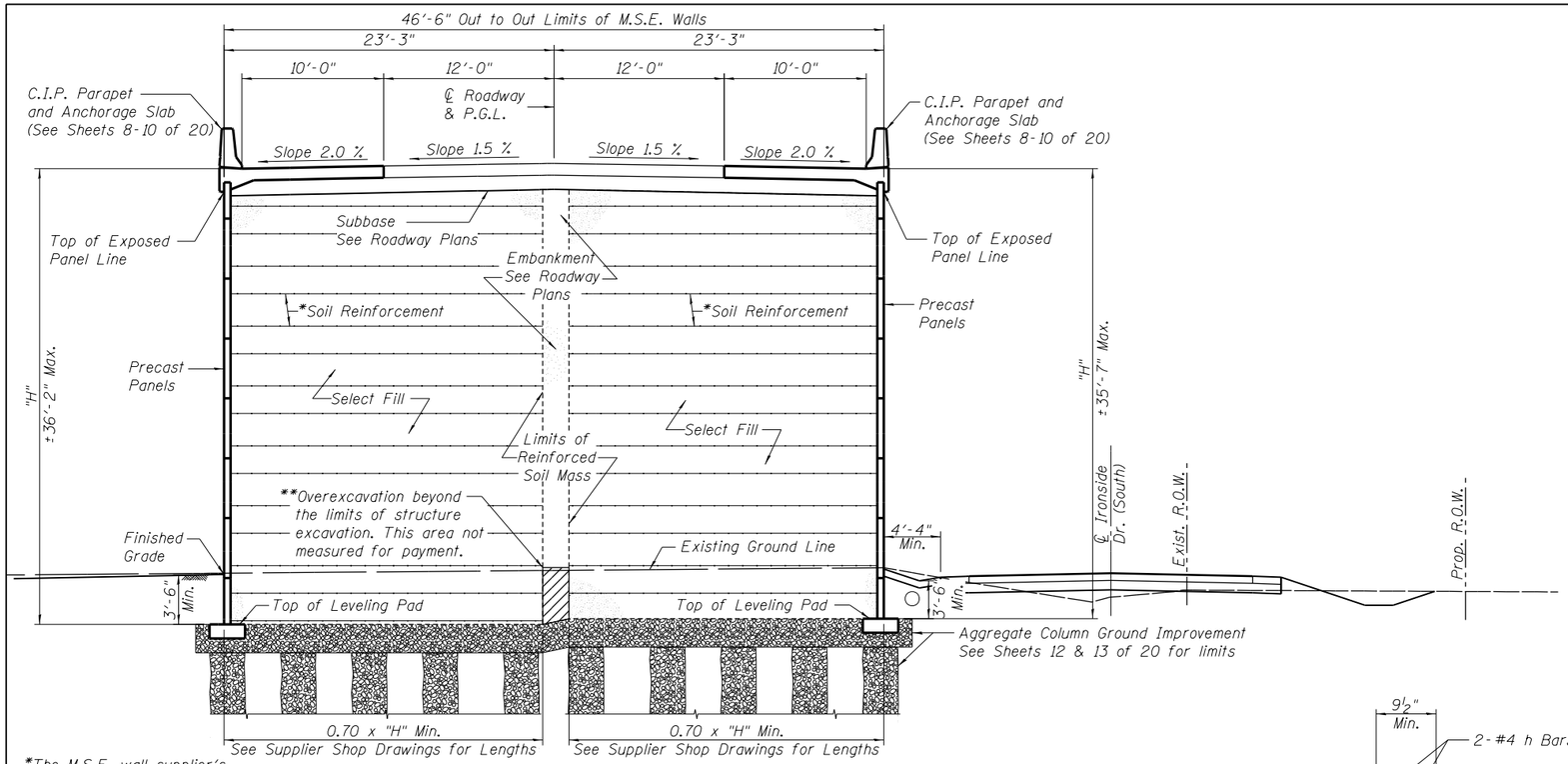
HANSON

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

M.S.E. UNFOLDED ELEVATION – NORTH WALL
IRON BRIDGE ROAD RETAINING WALL
SHEET NO. 4 OF 20 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	SANGAMON	368	183
		CONTRACT NO. 93671		
	ILLINOIS FED. AID PROJECT 6			

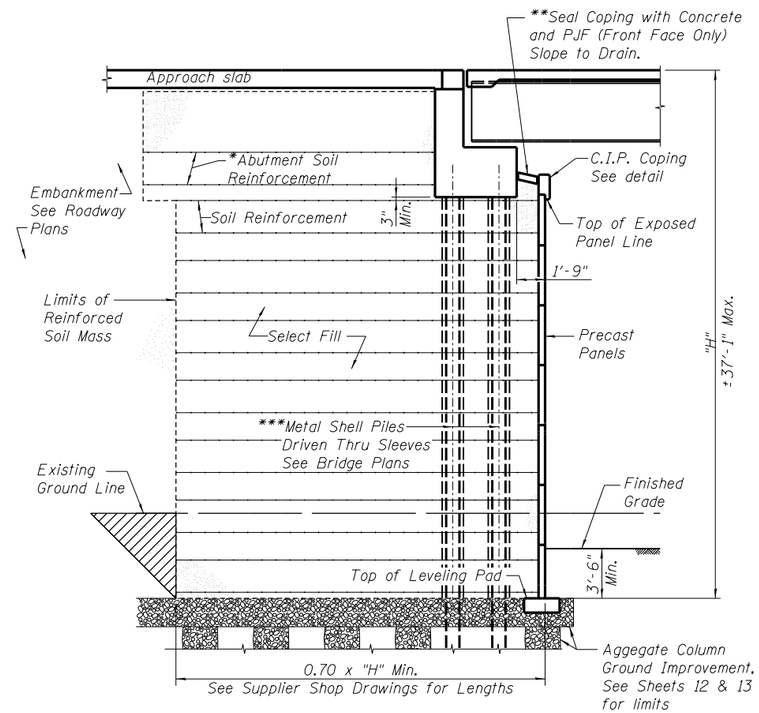
• 07-00164-04-FP, 07-00090-08-FP



*The M.S.E. wall supplier's internal stability design shall account for the anchorage slab's bearing pressure surcharge of 1.0 ksf and horizontal sliding force of 0.5 kips/ft. of wall.

** Backfill overexcavation with same material as used for select fill.

TYPICAL BACK TO BACK M.S.E. WALL SECTION

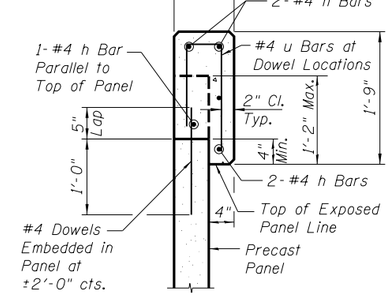


SECTION THRU ABUTMENT

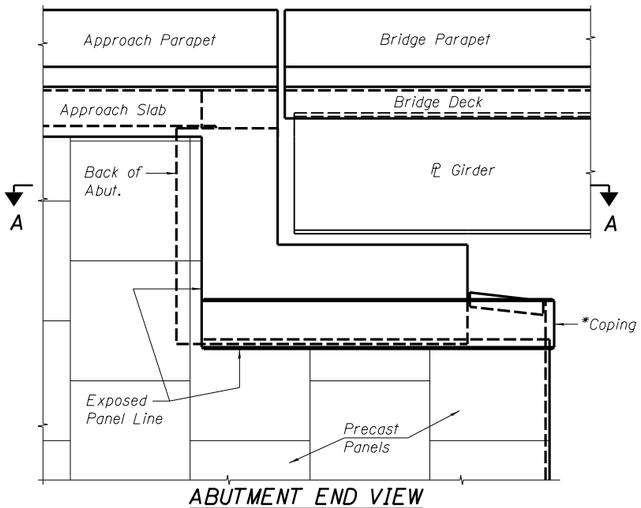
*The M.S.E. wall supplier shall design the abutment soil reinforcement to resist a horizontal force (service) of 2.44 kips/ft of abutment. Cost of furnishing and installing abutment soil reinforcement is included with "Mechanically Stabilized Earth Retaining Wall."

**Cost of placing concrete and PJF is included with "Mechanically Stabilized Earth Retaining Wall."

***Furnish and set a sleeve at each abutment pile location prior to placing select fill. Pile sleeves shall extend from the top of leveling pad to the bottom of abutment with a tolerance of +0 to -2 inches. Cost of pile sleeves and loose dry sand fill is included with "Mechanically Stabilized Earth Retaining Wall."

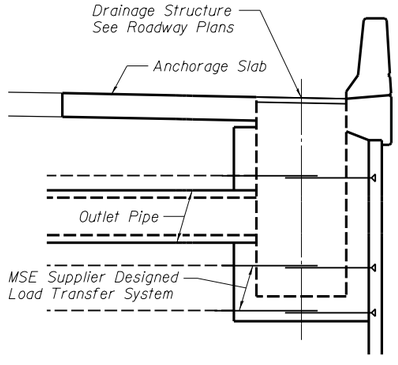


SECTION THRU C.I.P. COPING

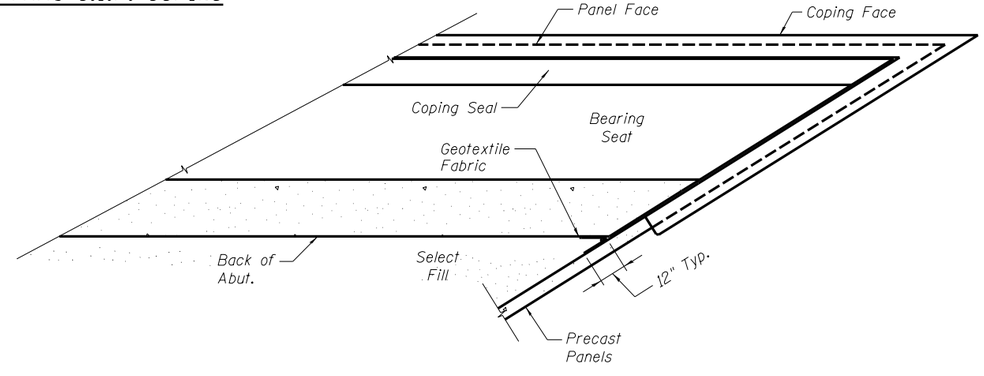


ABUTMENT END VIEW

*Cost of furnishing and installing Coping is included with "Mechanically Stabilized Earth Retaining Wall."



DETAIL INLET THRU ANCHORAGE SLAB



SECTION A-A

DESIGNED	KMS	6/30/15
DRAWN	KMS	6/30/15
REVIEWED	RGC	6/2/20

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FILE NAME =	USER NAME = Johns00944	DESIGNED - KMS	REVISED -
		CHECKED - RGC	REVISED -
	PLOT SCALE = 0.1667 ' / in.	DRAWN - KMS	REVISED -
	PLOT DATE = 10/26/2022	CHECKED - RGC	REVISED -

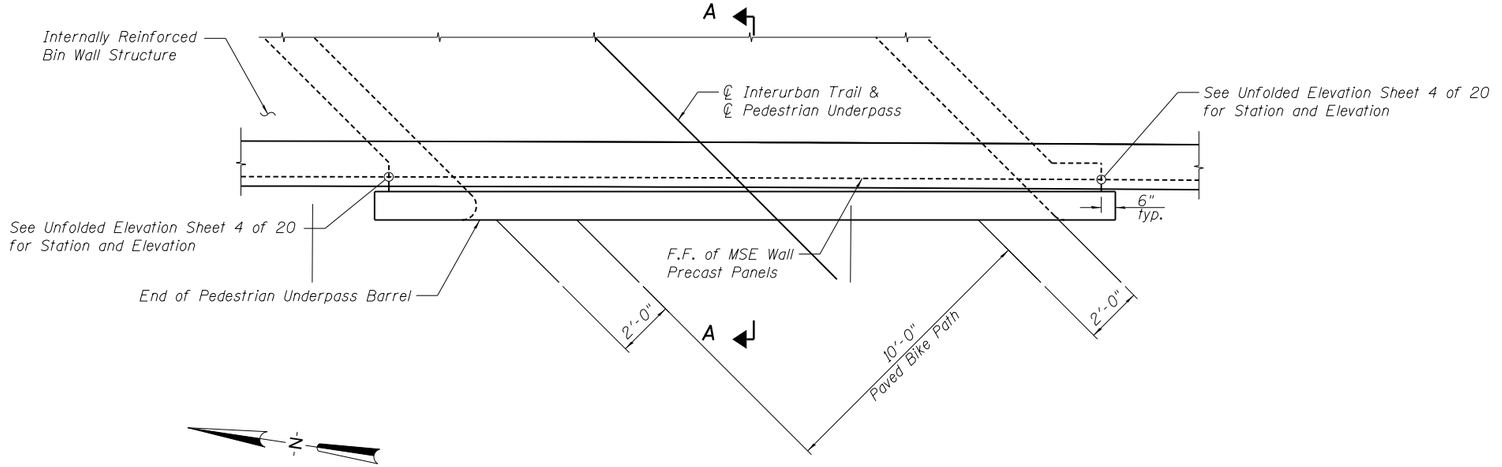
HANSON

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

M.S.E. DETAILS
IRON BRIDGE ROAD RETAINING WALL
SHEET NO. 5 OF 20 SHEETS

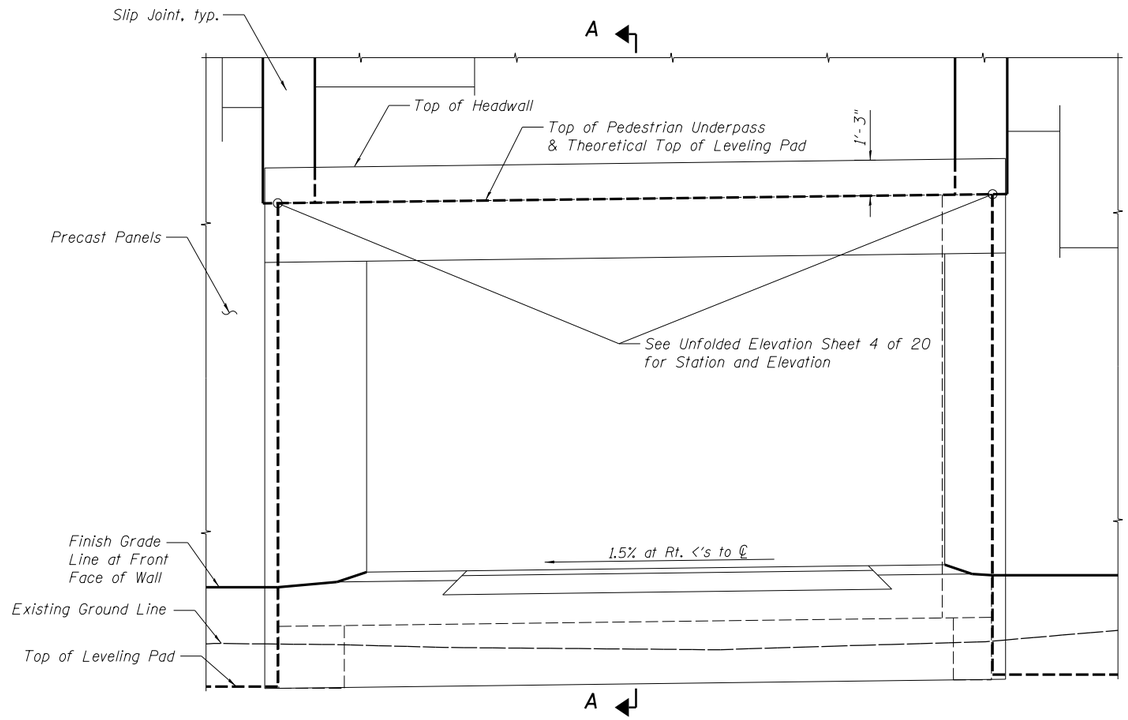
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	SANGAMON	368	184
		CONTRACT NO. 93671		
	ILLINOIS	FED. AID PROJECT 6		

• 07-00164-04-FP, 07-00090-08-FP



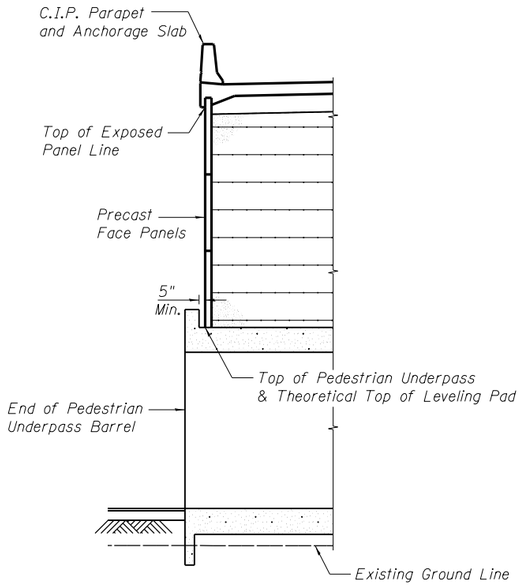
PARTIAL PLAN AT END OF PEDESTRIAN UNDERPASS

West End Shown, East End Similar



END ELEVATION OF PEDESTRIAN UNDERPASS

West End Shown, East End Similar



SECTION A-A

DESIGNED	KMS	6/30/15
DRAWN	KMS	6/30/15
REVIEWED	RGC	6/27/20

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	PLOT SCALE = 0.1667 ' / in.	DRAWN - KMS	REVISED -
	PLOT DATE = 10/26/2022	CHECKED - RGC	REVISED -

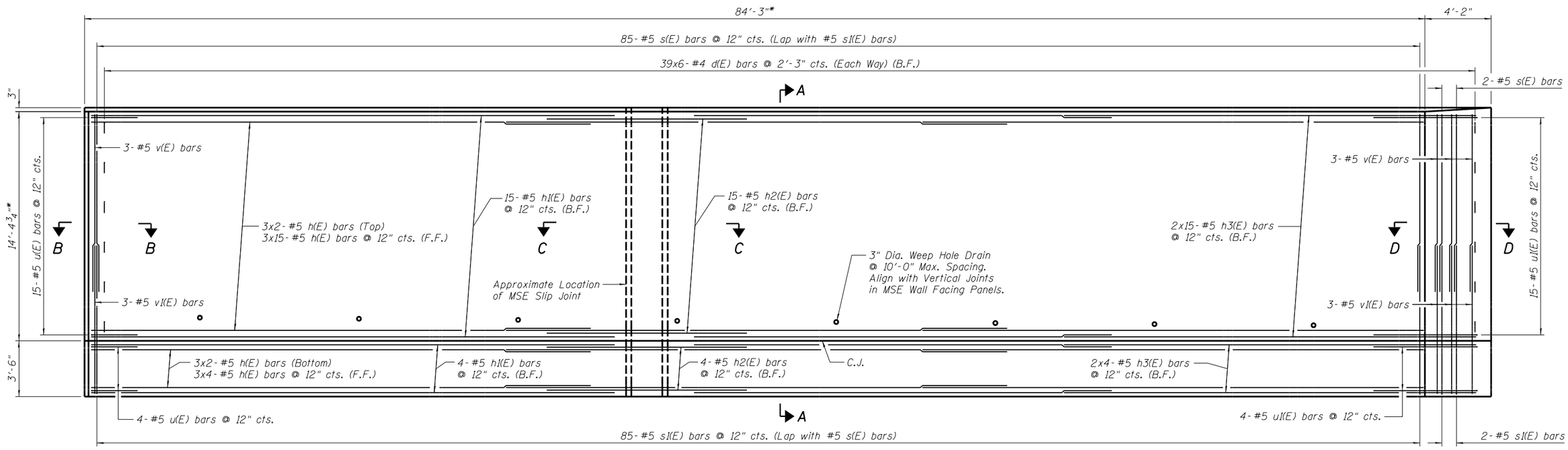
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DETAILS AT PEDESTRIAN UNDERPASS
IRON BRIDGE ROAD RETAINING WALL

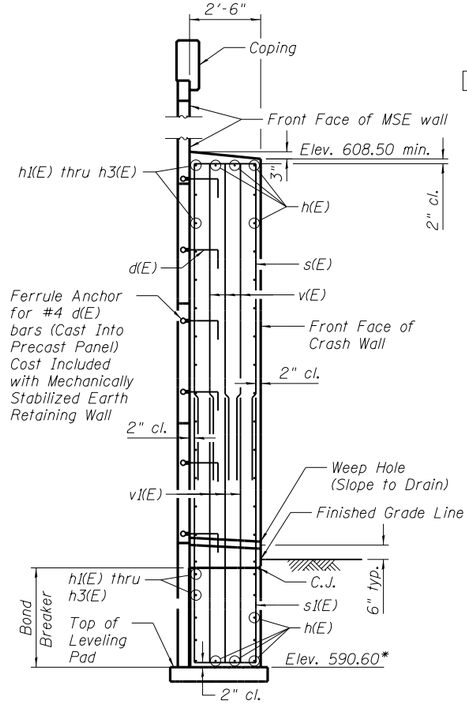
SHEET NO. 6 OF 20 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	SANGAMON	368	185
		CONTRACT NO. 93671		
	ILLINOIS FED. AID PROJECT 6			

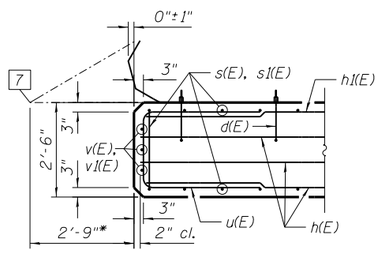
• 07-00164-04-FP, 07-00090-08-FP



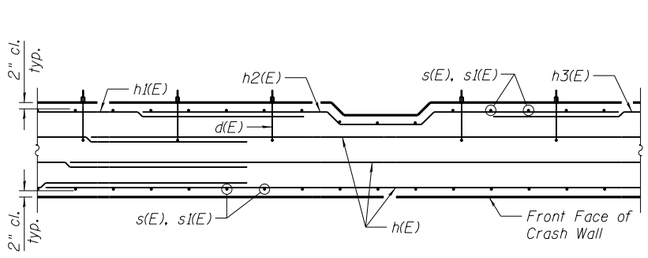
ELEVATION - CRASH WALL



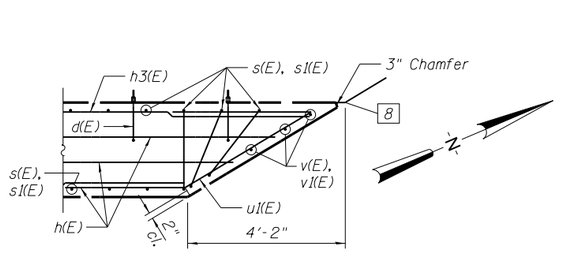
SECTION A-A THRU CRASH WALL



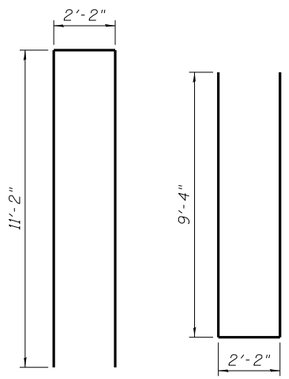
SECTION B-B



SECTION C-C

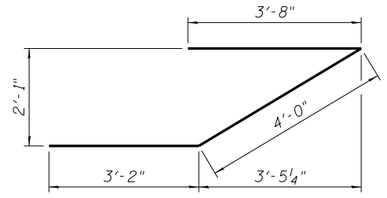


SECTION D-D

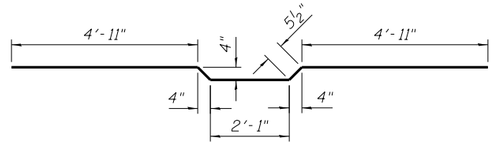


BAR s(E)

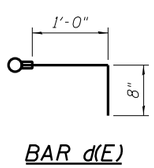
BAR s1(E)



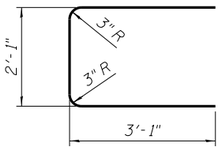
BAR u1(E)



BAR h2(E)



BAR d(E)



BAR u(E)

Notes:
1. Contractor shall coordinate details of crash wall with layout and design of MSE wall as determined by MSE supplier. Dimensions shown with an asterisk (*) may be adjusted to match MSE wall layout as shown on approved shop drawings.
2. Base of Crash Wall shall match top of MSE Leveling Pad.
3. Bottom 3'-6" of Crash Wall shall be placed after MSE Wall has been constructed to at least 10'-0" above Leveling Pad.
4. Top of Crash Wall shall be placed after settlement period has elapsed.

Note:
C.J. = Construction Joint
E.F. = Each Face
F.F. = Front Face
B.F. = Back Face

MINIMUM BAR LAP

#5 Bar = 2'-11" Horz.
#5 Bar = 2'-7" Vert.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d(E)	234	#4	1'-8"	
h(E)	69	#5	31'-6"	
h1(E)	19	#5	33'-0"	
h2(E)	19	#5	12'-10"	
h3(E)	38	#5	26'-3"	
s(E)	87	#5	24'-6"	
s1(E)	87	#5	20'-10"	
u(E)	19	#5	8'-3"	
u1(E)	19	#5	10'-10"	
v(E)	6	#5	11'-2"	
v1(E)	6	#5	9'-4"	
Reinforcement Bars, Epoxy Coated			Pound	9100
Concrete Structures			Cu. Yd.	143.5

DESIGNED	KMS	6/30/15
DRAWN	KMS	6/30/15
REVIEWED	RGC	6/27/20

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		CHECKED - RGC	REVISED -
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	PLOT DATE = 10/26/2022	CHECKED - RGC	REVISED -

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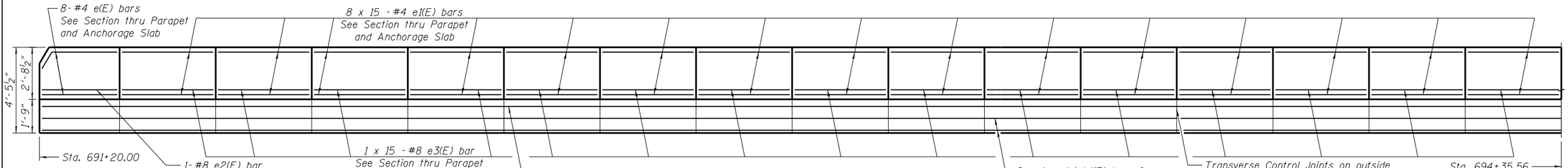
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

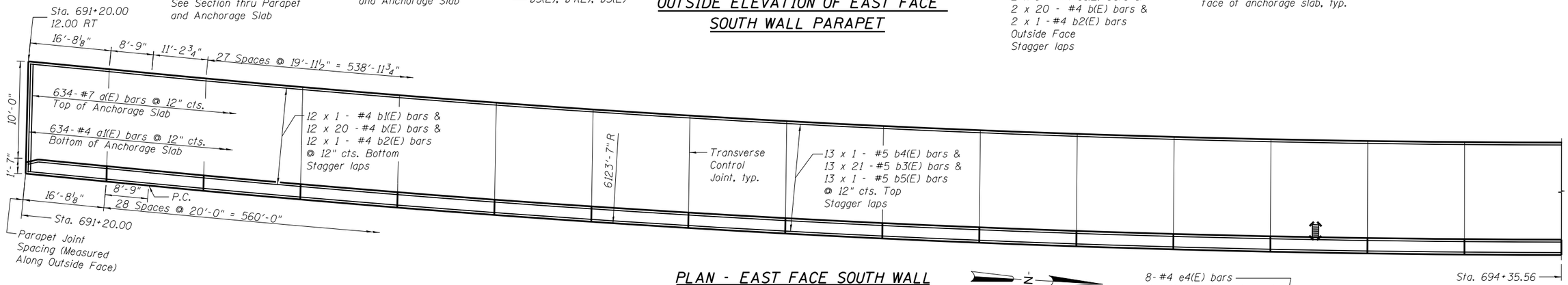
CRASH WALL DETAILS
IRON BRIDGE ROAD RETAINING WALL
SHEET NO. 7 OF 20 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	SANGAMON	368	186
		CONTRACT NO. 93671		
		ILLINOIS FED. AID PROJECT 6		

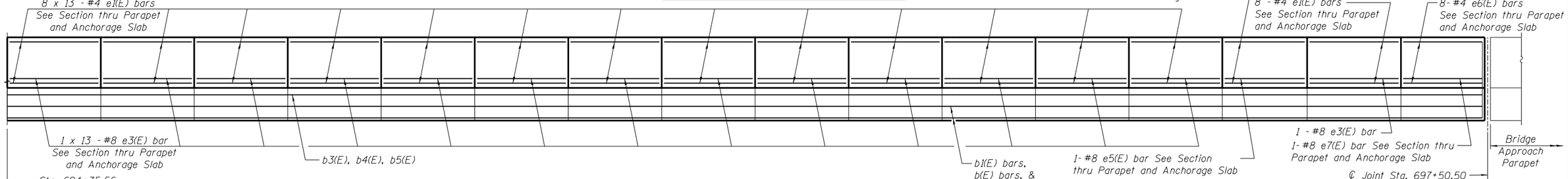
• 07-00164-04-FP, 07-00090-08-FP



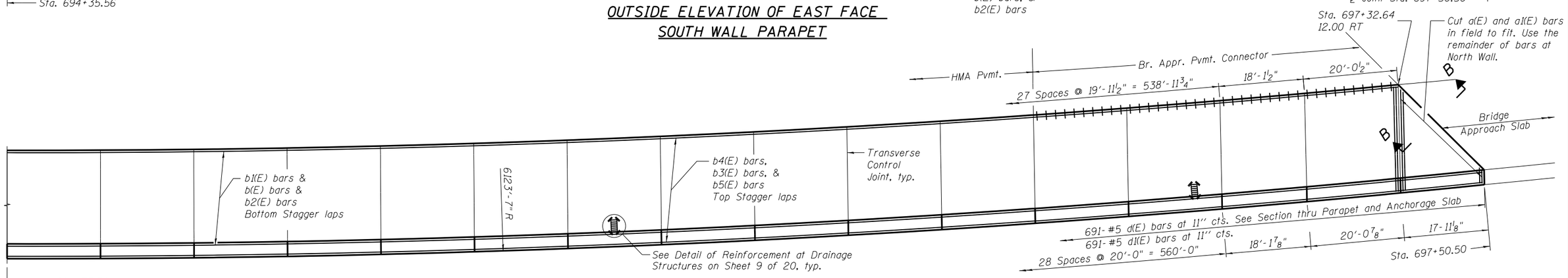
OUTSIDE ELEVATION OF EAST FACE SOUTH WALL PARAPET



PLAN - EAST FACE SOUTH WALL PARAPET AND ANCHORAGE SLAB



OUTSIDE ELEVATION OF EAST FACE SOUTH WALL PARAPET



MINIMUM BAR LAP

#4 Bar = 1'-10"
#5 Bar = 2'-3"

PLAN - EAST FACE SOUTH WALL PARAPET AND ANCHORAGE SLAB

Notes:
See Sheet 9 of 20 for South Wall Bill of Material.
See Sheet 11 of 20 for Section Thru Parapet and Anchorage Slab.

DESIGNED	KMS	6/30/15
DRAWN	KMS	6/30/15
REVIEWED	RGC	6/2/20

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FILE NAME =	USER NAME = Johns00944	DESIGNED - KMS	REVISED -
		CHECKED - RGC	REVISED -
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	PLOT DATE = 10/26/2022	CHECKED - RGC	REVISED -

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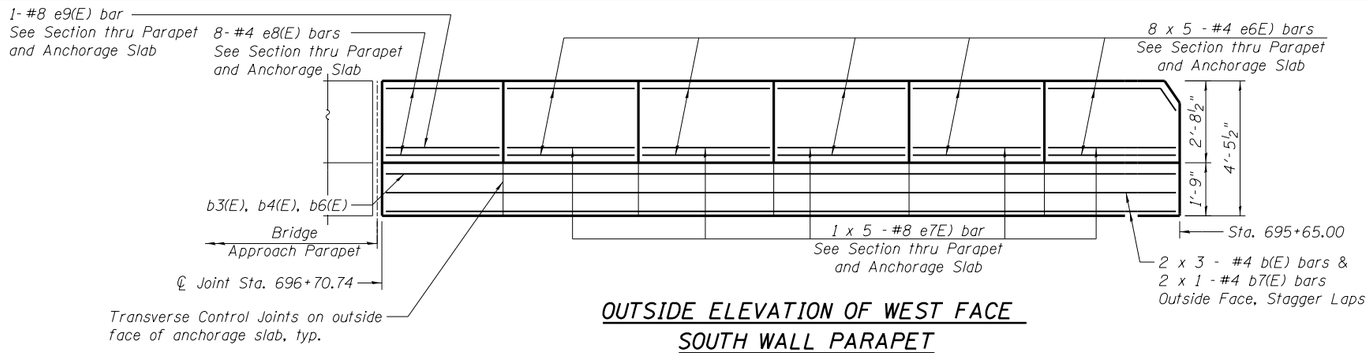
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

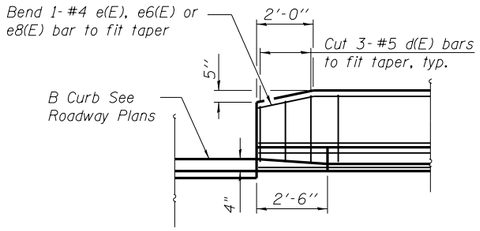
ANCHORAGE SLAB – SOUTH WALL (EAST)
IRON BRIDGE ROAD RETAINING WALL
SHEET NO. 8 OF 20 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	SANGAMON	368	187
		CONTRACT NO. 93671		
	ILLINOIS FED. AID PROJECT 6			

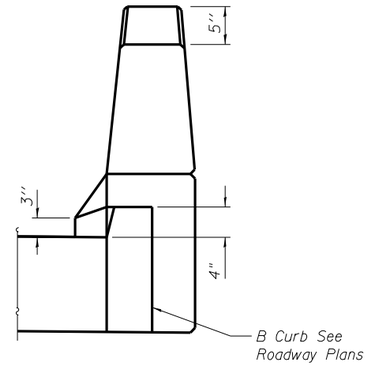
• 07-00164-04-FP, 07-00090-08-FP



OUTSIDE ELEVATION OF WEST FACE SOUTH WALL PARAPET

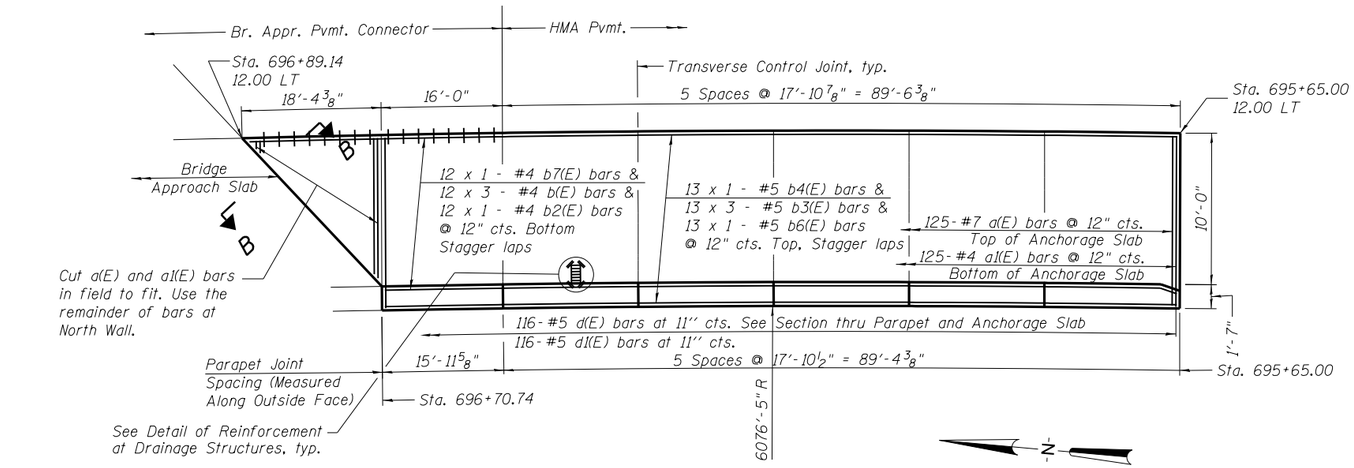


INSIDE VIEW

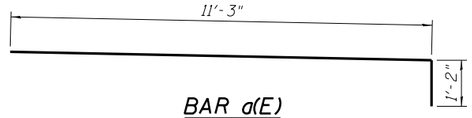


END VIEW

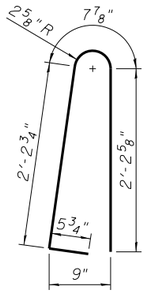
PARAPET END DETAIL



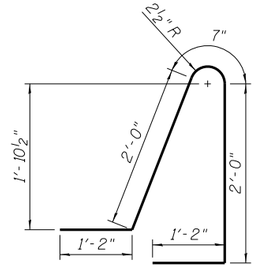
PLAN - WEST FACE SOUTH WALL PARAPET AND ANCHORAGE SLAB



BAR a(E)



BAR d(E)



BAR d1(E)

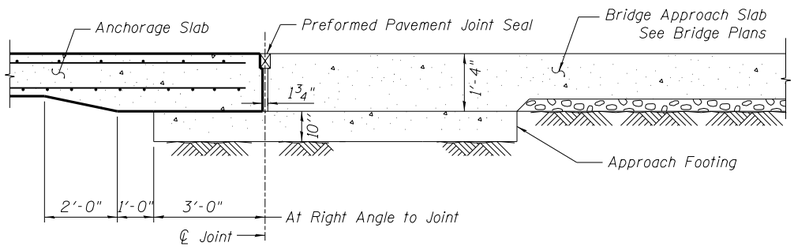
Note: See Sheet 11 of 20 for Section Thru Parapet and Anchorage Slab.

MINIMUM BAR LAP

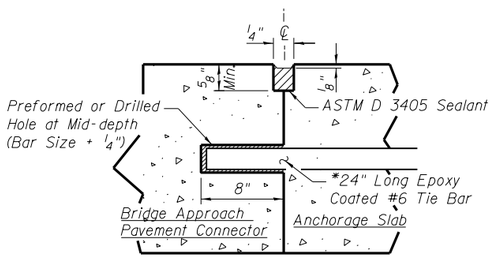
#4 Bar = 1'-10"
#5 Bar = 2'-3"

SOUTH WALL BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	759	#7	12'-5"	
a1(E)	759	#4	11'-3"	
a2(E)	32	#5	2'-0"	
b(E)	322	#4	32'-0"	
b1(E)	14	#4	11'-0"	
b2(E)	24	#4	20'-0"	
b3(E)	312	#5	31'-0"	
b4(E)	26	#5	20'-0"	
b5(E)	13	#5	11'-0"	
b6(E)	13	#5	19'-6"	
b7(E)	14	#4	15'-0"	
d(E)	807	#5	5'-7"	
d1(E)	807	#5	6'-11"	
e(E)	8	#4	16'-4"	
e1(E)	232	#4	19'-8"	
e2(E)	1	#8	16'-4"	
e3(E)	29	#8	19'-8"	
e4(E)	8	#4	17'-9"	
e5(E)	1	#8	17'-9"	
e6(E)	48	#4	17'-6"	
e7(E)	6	#8	17'-6"	
e8(E)	8	#4	15'-7"	
e9(E)	1	#8	15'-7"	
Reinforcement Bars, Epoxy Coated			Pound	59860
Concrete Structures			Cu. Yd.	294.8
Concrete Superstructure			Cu. Yd.	81.6



SECTION B-B

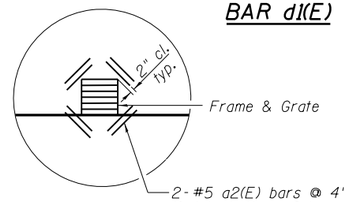


Note:
The Contractor may substitute, at his option, formed-in-place tie bars provided the bar length is increased to 2'-6" and the tie bar is centered across the joint.

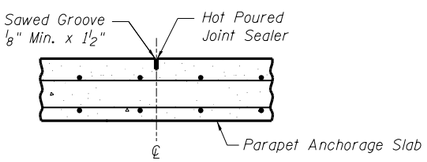
*Tie bars are included with the bridge approach pavement connector, see Roadway Plans.

LONGITUDINAL CONSTRUCTION JOINT GROUTED-IN-PLACE TIE BAR

See Art. 420.05(b) of Standard Specifications



DETAIL OF REINFORCEMENT AT DRAINAGE STRUCTURES



TRANSVERSE CONTROL JOINT

See Art. 420.05(c)(1) of Standard Specifications

DESIGNED	KMS	6/30/15	
DRAWN	KMS	6/30/15	
REVIEWED	RGC	6/27/20	

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	PLOT DATE = 10/26/2022	CHECKED - RGC	REVISED -

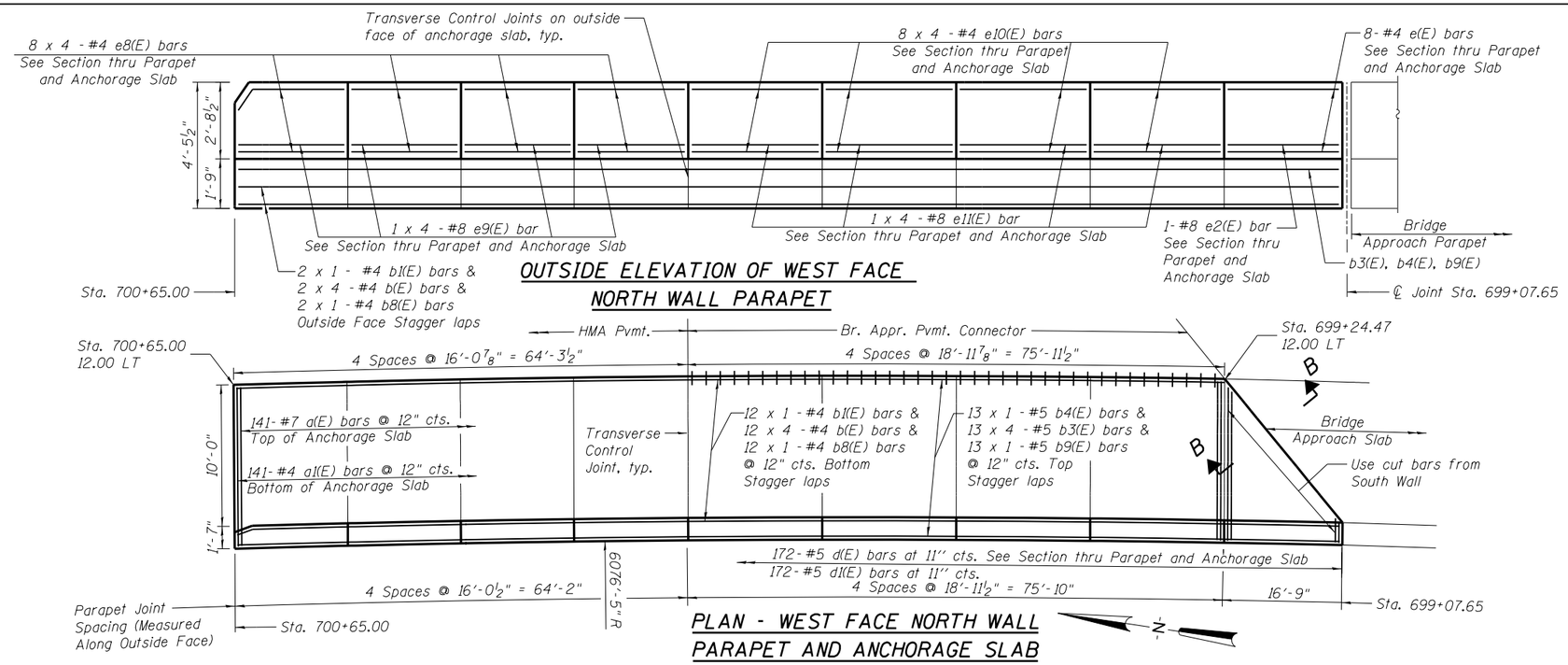
HANSON

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ANCHORAGE SLAB – SOUTH WALL (WEST)
IRON BRIDGE ROAD RETAINING WALL
SHEET NO. 9 OF 20 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	SANGAMON	368	188
		CONTRACT NO. 93671		
	ILLINOIS FED. AID PROJECT 6			

• 07-00164-04-FP, 07-00090-08-FP



Note: See Sheet 11 of 20 for Section Thru Parapet and Anchorage Slab.

MINIMUM BAR LAP

#4 Bar = 1'-10"
#5 Bar = 2'-3"

NORTH WALL BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d(E)	332	#7	12'-5"	
d1(E)	332	#4	11'-3"	
a2(E)	8	#5	2'-0"	
b(E)	140	#4	32'-0"	
b1(E)	28	#4	11'-0"	
b2(E)	12	#4	20'-0"	
b3(E)	130	#5	31'-0"	
b4(E)	26	#5	20'-0"	
b8(E)	13	#4	29'-0"	
b9(E)	14	#5	25'-0"	
b10(E)	13	#5	16'-0"	
d(E)	380	#5	5'-7"	
d1(E)	380	#5	6'-11"	
e(E)	32	#4	16'-4"	
e1(E)	56	#4	19'-8"	
e2(E)	4	#8	16'-4"	
e3(E)	7	#8	19'-8"	
e8(E)	32	#4	15'-7"	
e9(E)	4	#8	15'-7"	
e10(E)	32	#4	18'-7"	
e11(E)	4	#8	18'-7"	
Reinforcement Bars, Epoxy Coated		Pound	27550	
Concrete Structures		Cu. Yd.	138.4	
Concrete Superstructure		Cu. Yd.	38.3	

DESIGNED	KMS	6/30/15
DRAWN	KMS	6/30/15
REVIEWED	RGC	6/2/20

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	CHECKED - RGC	REVISED -	
PLOT SCALE = 0.1667 ' / in.	DRAWN - KMS	REVISED -	
PLOT DATE = 10/26/2022	CHECKED - RGC	REVISED -	

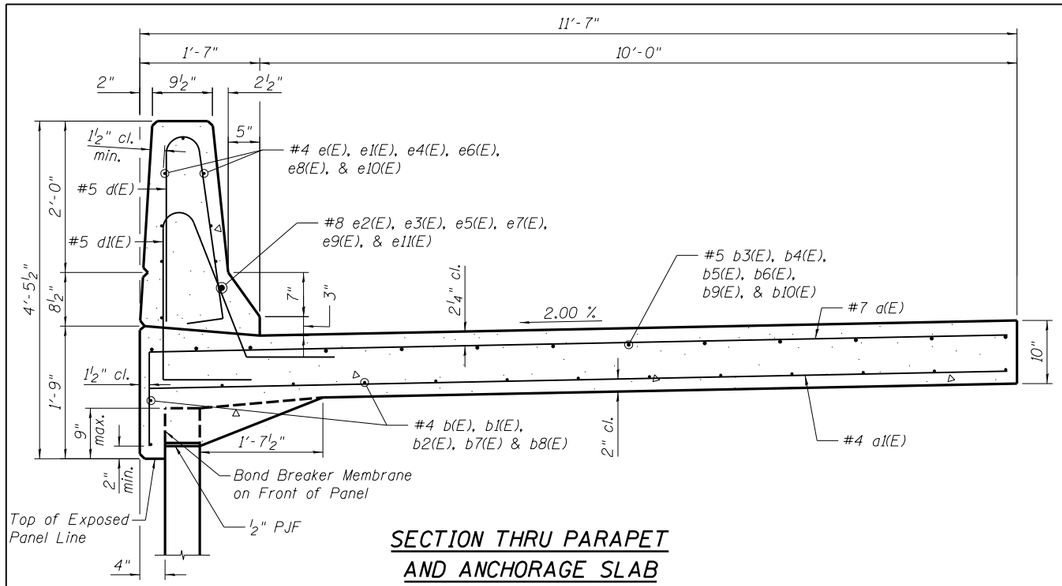
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ANCHORAGE SLAB – NORTH WALL
IRON BRIDGE ROAD RETAINING WALL

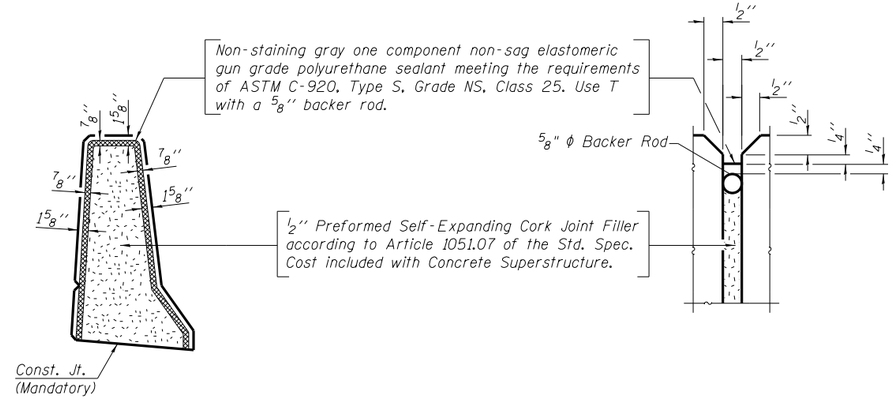
SHEET NO. 10 OF 20 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	SANGAMON	368	189
		CONTRACT NO. 93671		
	ILLINOIS FED. AID PROJECT 6			

• 07-00164-04-FP, 07-00090-08-FP



SECTION THRU PARAPET AND ANCHORAGE SLAB



PARAPET JOINT DETAILS

EAST FACE SOUTH WALL ANCHORAGE SLAB ELEVATIONS

	Iron Bridge Rd. Station	Edge of Pavement Offset	Edge of Pavement Elevation	Base of Parapet Elevation
End	691+20.00	12.00 Rt.	602.99	602.79
Joint	691+36.68	12.00 Rt.	603.72	603.52
Joint	691+56.63	12.00 Rt.	604.64	604.44
Joint	691+76.56	12.00 Rt.	605.61	605.41
Joint	691+96.48	12.00 Rt.	606.61	606.41
Joint	692+16.40	12.00 Rt.	607.60	607.40
Joint	692+36.33	12.00 Rt.	608.60	608.40
Joint	692+56.25	12.00 Rt.	609.60	609.40
Joint	692+76.17	12.00 Rt.	610.59	610.39
Joint	692+96.09	12.00 Rt.	611.59	611.39
Joint	693+16.02	12.00 Rt.	612.58	612.38
Joint	693+35.94	12.00 Rt.	613.58	613.38
Joint	693+55.86	12.00 Rt.	614.58	614.38
Joint	693+75.79	12.00 Rt.	615.57	615.37
Joint	693+95.71	12.00 Rt.	616.57	616.37
Joint	694+15.63	12.00 Rt.	617.56	617.36
Joint	694+35.56	12.00 Rt.	618.50	618.30
Joint	694+55.48	12.00 Rt.	619.40	619.20
Joint	694+75.40	12.00 Rt.	620.25	620.05
Joint	694+95.32	12.00 Rt.	621.06	620.86
Joint	695+15.25	12.00 Rt.	621.83	621.63
Joint	695+35.17	12.00 Rt.	622.55	622.35
Joint	695+55.09	12.00 Rt.	623.22	623.02
Joint	695+75.02	12.00 Rt.	623.85	623.65
Joint	695+94.94	12.00 Rt.	624.44	624.24
Joint	696+14.86	12.00 Rt.	624.98	624.78
Joint	696+34.78	12.00 Rt.	625.48	625.28
Joint	696+54.71	12.00 Rt.	625.93	625.73
Joint	696+74.63	12.00 Rt.	626.33	626.13
Joint	696+94.55	12.00 Rt.	626.69	626.49
Joint	697+12.64	12.00 Rt.	626.98	626.78
Br. Appr.	697+32.64	12.00 Rt.	627.26	627.06
End Parapet	697+50.50			627.26

WEST FACE SOUTH WALL ANCHORAGE SLAB ELEVATIONS

	Iron Bridge Rd. Station	Edge of Pavement Offset	Edge of Pavement Elevation	Base of Parapet Elevation
End	695+65.00	12.00 Lt.	623.54	623.34
Joint	695+82.94	12.00 Lt.	624.09	623.89
Joint	696+00.88	12.00 Lt.	624.61	624.41
Joint	696+18.82	12.00 Lt.	625.08	624.88
Joint	696+36.77	12.00 Lt.	625.52	625.32
Joint	696+54.71	12.00 Lt.	625.93	625.73
Joint, End Parapet	696+70.74	12.00 Lt.	626.26	626.06
Br. Appr.	696+89.14	12.00 Lt.	626.60	

WEST FACE NORTH WALL ANCHORAGE SLAB ELEVATIONS

	Iron Bridge Rd. Station	Edge of Pavement Offset	Edge of Pavement Elevation	Base of Parapet Elevation
End Parapet	699+07.65			627.54
Br. Appr.	699+24.47	12.00 Lt.	627.60	627.40
Joint	699+43.50	12.00 Lt.	627.41	627.21
Joint	699+62.53	12.00 Lt.	627.18	626.98
Joint	699+81.56	12.00 Lt.	626.90	626.70
Joint	700+00.59	12.00 Lt.	626.59	626.39
Joint	700+16.69	12.00 Lt.	626.29	626.09
Joint	700+32.79	12.00 Lt.	625.96	625.76
Joint	700+48.90	12.00 Lt.	625.60	625.40
End	700+65.00	12.00 Lt.	625.21	625.01

EAST FACE NORTH WALL ANCHORAGE SLAB ELEVATIONS

	Iron Bridge Rd. Station	Edge of Pavement Offset	Edge of Pavement Elevation	Base of Parapet Elevation
Br. Appr.	699+64.28	12.00 Rt.	627.15	
Joint, End Parapet	699+80.66	12.00 Rt.	626.92	626.72
Joint	700+00.59	12.00 Rt.	626.59	626.39
Joint	700+20.51	12.00 Rt.	626.21	626.01
Joint	700+40.43	12.00 Rt.	625.79	625.59
Joint	700+60.36	12.00 Rt.	625.33	625.13
Joint	700+80.28	12.00 Rt.	624.82	624.62
Joint	701+00.20	12.00 Rt.	624.27	624.07
Joint	701+20.13	12.00 Rt.	623.67	623.47
Joint	701+36.75	12.00 Rt.	623.13	622.93
Joint	701+53.38	12.00 Rt.	622.57	622.37
End	701+70.00	12.00 Rt.	621.97	621.77

Notes:
1. Stations and offsets are to the inside edge of anchorage slab.
2. Elevations are at the top of anchorage slab along joints or transition points as indicated.
3. Transverse control joints are at right angles to the parapet.

DESIGNED	KMS	6/30/15
DRAWN	KMS	6/30/15
REVIEWED	RGC	6/2/20

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	PLOT DATE = 10/26/2022	CHECKED - RGC	REVISED -

HANSON

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PARAPET & ANCHORAGE SLAB DETAILS
IRON BRIDGE ROAD RETAINING WALL
SHEET NO. 11 OF 20 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	SANGAMON	368	190
		CONTRACT NO. 93671		
	ILLINOIS FED. AID PROJECT 6			

• 07-00164-04-FP, 07-00090-08-FP

GROUND IMPROVEMENT PERFORMANCE REQUIREMENTS

Ground improvement performance requirements shall apply to the Iron Bridge Road pavement, including shoulders, between Sta. 691+20 and Sta. 702+00, excluding the area between the bridge abutments.

Within the limits shown on the plan view, allowable bearing pressure (F.S.=2.5) shall be equal to or greater than the equivalent uniform service bearing pressure shown. Design bearing pressure shall be interpolated between the values shown.

Aggregate column installation shall be mandatory within the allowable bearing pressure limits shown on the plan view. Columns may be installed beyond the mandatory limits as required to satisfy the other ground improvement performance requirements and the project schedule.

Minimum 12 inch thick aggregate drainage layer shall be required beneath the footprint of the Interurban Trail Underpass. Drainage layer and/or working platform in other areas shall be per the ACGI subcontractor's design.

Verification program shall include the settlement platforms and monitoring points shown in the plan view. Cost of these shall be included with AGGREGATE COLUMN GROUND IMPROVEMENT.

Minimum factor of safety for global slope stability shall be 1.5.

Settlement measured at the theoretical top of leveling pad shall not exceed 4.0 inches.

Settlement measured on the roadway after pavement construction shall not exceed 1.0 inch.

Settlement measured at the base of the bridge abutment after final driving of the piles shall not exceed 0.4 inches.

Differential settlement along the length of the M.S.E. wall shall not exceed 1.0 percent.

Differential settlement at right angles to the roadway centerline shall not exceed 0.5 percent after placement of the pavement.

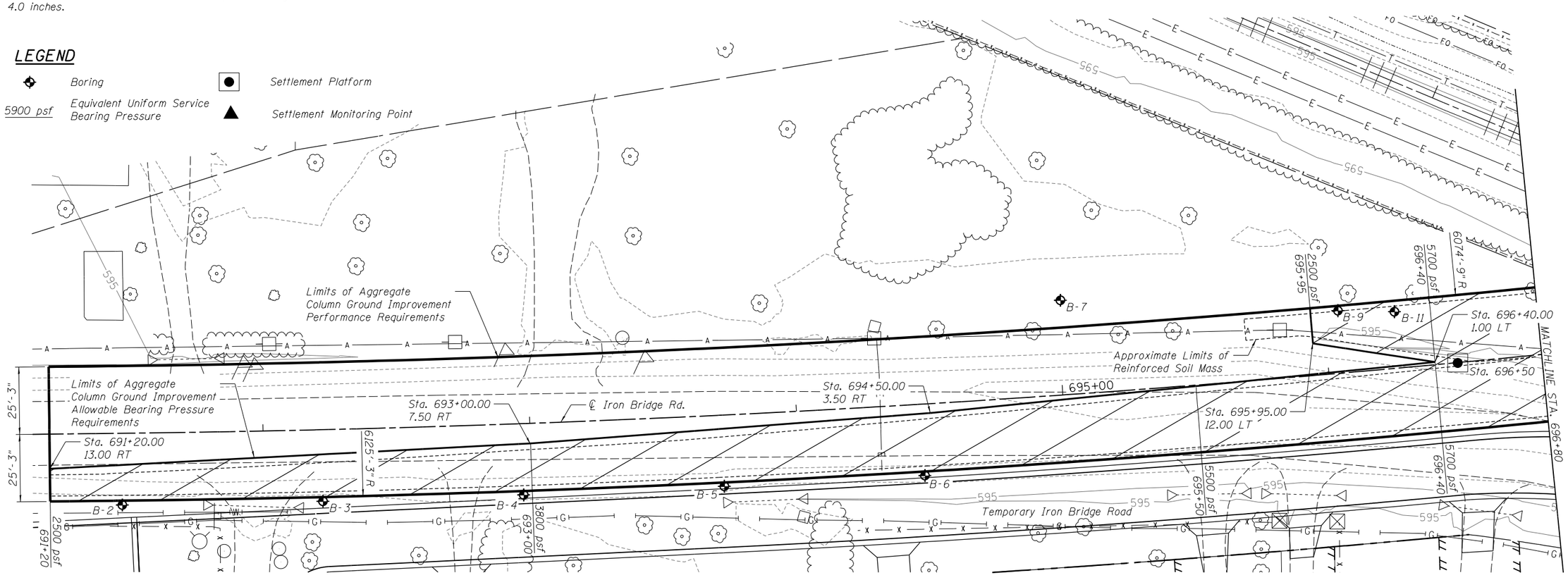
Contractor's verification program shall include monitoring points or other instrumentation to demonstrate compliance with the performance requirements shown on these plans and the construction sequencing requirements shown on sheets 28 and 30 of 34 of the bridge plans.

The assumed structure life for settlement computations shall be 75 years.

The Shop Drawings and construction procedures submittal shall indicate the sequence of construction within the limits of Aggregate Column Ground Improvement. The aggregate column installation shall be coordinated with utility removals, proposed utility installation, underpass construction, and bridge pile driving.

LEGEND

- Boring
- Settlement Platform
- 5900 psf — Equivalent Uniform Service Bearing Pressure
- Settlement Monitoring Point



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PLAN

DESIGNED	KMS	6/30/15
DRAWN	KMS	12/15/20
REVIEWED	RGC	12/15/20

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	PLOT DATE = 10/26/2022	CHECKED - RGC	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

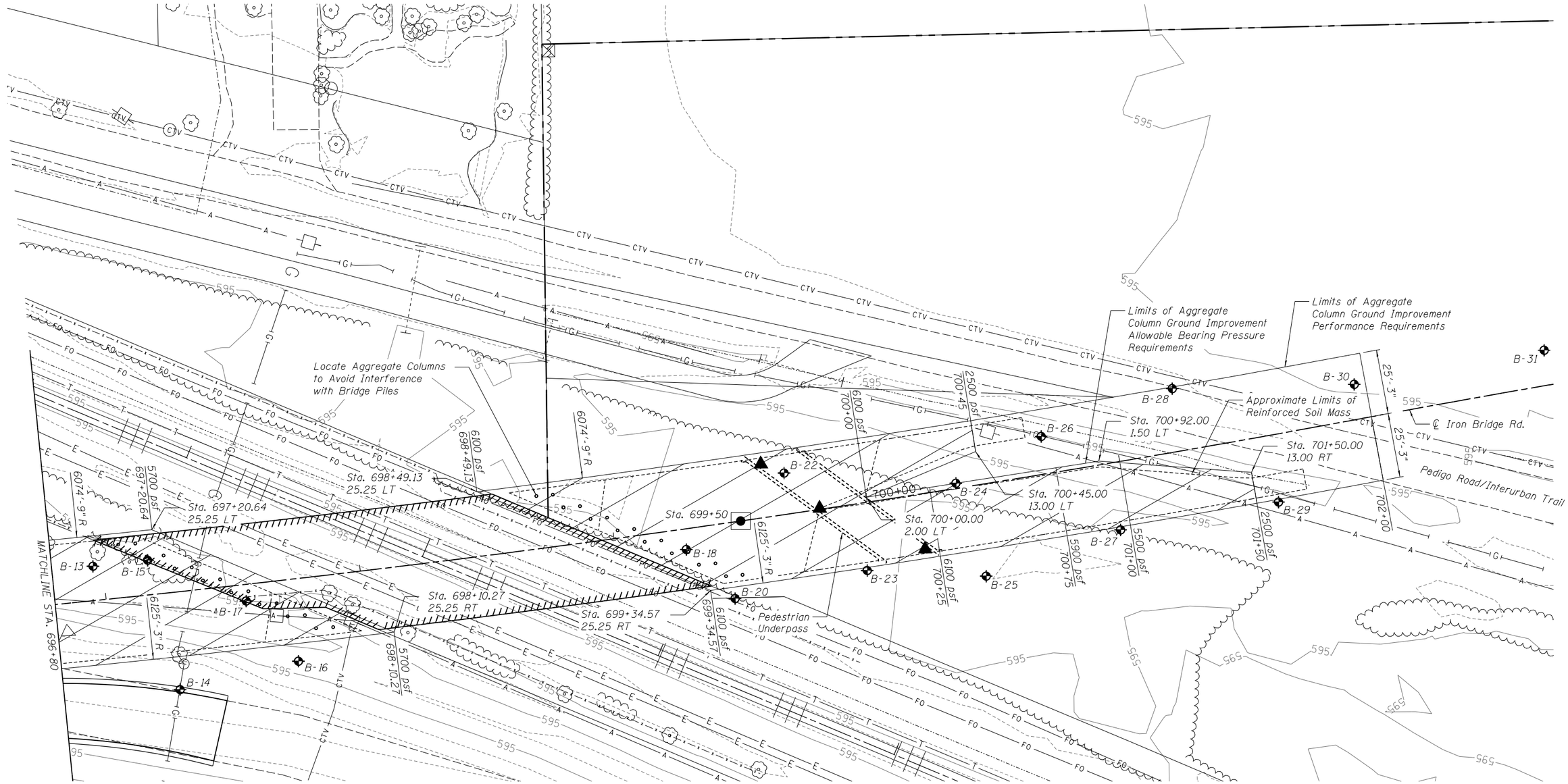
SOUTH WALL GROUND IMPROVEMENTS
IRON BRIDGE ROAD RETAINING WALL
SHEET NO. 12 OF 20 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	SANGAMON	368	191
		CONTRACT NO. 93671		
	ILLINOIS FED. AID PROJECT 6			

• 07-00164-04-FP, 07-00090-08-FP

LEGEND

- Boring
- 5900 psf — Equivalent Uniform Service Bearing Pressure
- Settlement Platform
- Settlement Monitoring Point



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DESIGNED	KMS	6/30/15
DRAWN	KMS	12/15/20
REVIEWED	RGC	12/15/20

HANSON

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NORTH WALL GROUND IMPROVEMENTS
IRON BRIDGE ROAD RETAINING WALL
SHEET NO. 13 OF 20 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	SANGAMON	368	192
		CONTRACT NO. 93671		
	ILLINOIS FED. AID PROJECT 6			

• 07-00164-04-FP, 07-00090-08-FP

B-7
Sta. 695+02, 35' LT

	N	Qu	w%	
595.49				
		1.47BS	28.7	Topsoil.
593.89				
593.49	6	2.13S	32.6	Brown & dark brown silty clay w/ trace sand - FILL.
Oh	4	0.31B	29.2	Yellowish-brown and gray very fine sandy silty clay - LOESS.
	5	1.86B	24.3	
DD				
	3	0.78B	26.8	
585.49				
	3	1.16BS	26.9	Brownish-gray and yellowish-brown very fine sandy clayey silt and sandy silty clay w/ trace small gravel - TILL.
	5	1.55SH	24.7	
580.49				

Bottom of hole = 15.0 feet

B-9
Sta. 696+05, 23' LT

	N	Qu	w%	
595.59				
		2.33BS	26.4	Topsoil.
594.89	7	2.72BS	31.3	Yellowish-brown and brown very fine sandy silty clay - LOESS.
592.59	5	0.66BS	26.9	Orange-brown and gray very fine sandy silt and sandy clayey silt - LOESS.
Oh				
	3	1.55BS	24.7	
588.59				Yellowish-brown and gray very fine sandy silty clay - LOESS.
DD	3	0.81B	26.6	
	2	0.58BS	29.9	
582.09				
	5	1.28S	24.2	Orange-brown and gray very fine sandy silty clay w/ trace coarse sand and small gravel - TILL.
	4	0.39S	22.4	
	36	5.62BS	10.0	
575.59				

Bottom of hole = 20.0 feet

B-11
Sta. 696+27, 21' LT

	N	Qu	w%	
595.50				
		2.13B	28.3	Topsoil.
594.70	8	2.52S	29.1	Orange-brown and brown very fine sandy silty clay - LOESS.
591.50				
Oh	3	0.78B	25.6	Yellowish-brown and gray very fine sandy silt w/ trace clay - LOESS.
589.50	3	1.55B	25.0	
DD				Orange-brown and gray very fine sandy silty clay and sandy clayey silt - LOESS.
	3	0.62BS	27.0	
584.50				
	3	0.58S	30.6	Brown, orange-brown and gray very fine sandy silty clay and sandy clayey silt w/ trace coarse sand and small gravel - TILL.
	6	1.47BS	21.8	
	3	0.31BS	22.1	
	23	5.04S	12.9	
	46	13.79S	10.3	
570.50				

Bottom of hole = 25.0 feet

B-13
Sta. 696+96, 13' LT

	N	Qu	w%	
595.42				
	5	1.36BSH	30.6	Topsoil & dark brown silty clay w/ trace sand.
592.42				
Oh	4	0.5P	27.3	Brownish-gray very fine sandy silty clay - LOESS.
DD				
	4	2.13B	23.2	
	3	0.70B	27.4	
585.42				
	4	1.36B	25.0	Orange. brown and gray very fine to fine sandy silty clay and sandy clayey silt w/ trace coarse sand and small gravel - TILL.
	3	0.58BSH	30.0	
	8	0.19BSH	20.7	
	30	3.49SH	11.7	
	55	3.49B	12.4	
570.42				

Bottom of hole = 25.0 feet

LEGEND

N Standard Penetration Test N (blows/ft)

Qu Unconfined Strength (tsf)

w% Natural Moisture Content (%)

▼ DD Water Surface Elevation Encountered in Boring
DD = during drilling

▽ Oh
Oh = at completion

DESIGNED	KMS	6/30/15
DRAWN	KMS	6/30/15
REVIEWED	RGC	6/2/20

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBSURFACE DATA PROFILE
IRON BRIDGE ROAD RETAINING WALL

SHEET NO. 14 OF 20 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	SANGAMON	368	193
		CONTRACT NO. 93671		
	ILLINOIS FED. AID PROJECT 6			

• 07-00164-04-FP, 07-00090-08-FP

B-15
Sta. 697+18, 14' LT

		N	Qu	w%	
595.23					
		4	1.67BSH	31.3	Topsoil & dark brown silty clay w/ trace sand.
592.23					
	Oh				
	DD	5	0.5P	28.8	Black, brown and gray very fine sandy silty clay w/ oxidation spots - LOESS.
		5	0.8P	28.7	
		2	0.74BSH	27.8	
		4	1.47B	24.7	
581.23					
		2	0.47BSH	32.6	Orange-brown, yellowish-brown, and gray very fine to fine sandy silty clay and sandy clayey silt w/ trace coarse sand, small gravel, and calcareous - TILL.
		6	1.75BSH	16.3	
		15	6.21SH	11.3	
		28		11.9	
570.23					

Bottom of hole = 25.0 feet

B-22
Sta. 699+70, 16' LT

		N	Qu	w%	
596.06					
		7	0.5P	29.4	Topsoil - black very fine sandy clayey silt.
593.06					
		6	0.78B	30.6	Yellowish-brown, orange-brown, and gray very fine sandy silt to sandy clayey silt w/ oxidation spots - LOESS.
	DD	4	0.50B	30.2	
		4	1.12B	23.8	
		4	0.93B	26.3	
583.06					
		5	1.16B	26.0	Orange-brown and gray very fine to fine sandy clayey silt to sandy silty clay w/ trace coarse sand and small to large gravel - TILL.
		3	0.62B	20.8	
		55	2.33S	14.1	
		50/5"	4.3P	10.9	
568.06					
		78	2.62S	18.4	Yellowish-brown fine sandy silt to silty fine sand - calcareous - TILL.
564.06					
		40	4.36S	15.7	Brown and gray weathered SHALE.
558.06					
		50/5"	1.40S	14.6	Gray SHALE.
556.06					

Bottom of hole = 40.0 feet

B-24
Sta. 700+35, 2' LT

		N	Qu	w%	
595.74					
594.94			1.5B	31.0	Gravel topsoil.
594.54					
	Oh	6	1.31B	30.7	Dark brown very fine sandy silty clay w/ trace gravel - FILL.
		7	0.78B	27.3	Yellow-brown & brown very fine sandy silty clay w/ very fine sandy silt seams and oxidized spots - LOESS.
589.74					
		6	1.85B	26.3	Orange-brown & gray very fine sandy silt w/ some clay - LOESS.
587.24	DD				
		4	0.44B	29.0	Dark brown & brownish-gray very fine sandy clayey silt w/ oxidized spots - LOESS.
		4	1.24BS	26.2	
582.24					
		5	1.85BS	23.5	Orange brown & gray very fine sandy silty clay w/ trace small gravel - TILL.
		WOH	0.39B	24.2	
577.24					
		63	2.13B	11.5	Orange brown & gray very fine sandy clayey silt w/ trace coarse sand, small gravel, & calcareous - TILL.
575.74					
		69	15.82S	10.3	Brown & gray very fine sandy clayey silt w/ trace coarse sand, small gravel, & calcareous - TILL.
570.74					

B-26
Sta. 700+71, 15' LT

		N	Qu	w%	
594.85					
594.05					Oil & chip.
	Oh	9	2.4BSP	30.7	Dark brown very fine sandy silty clay - LOESS.
591.35					
		4	0.97B	32.5	Yellow brown & gray very fine sandy clayey silt and orange brown & gray very fine sandy silt w/ oxidized spots - LOESS.
		3	0.78B	34.0	
	DD				
		3	0.97B	23.1	
584.85					
		3	1.09B	25.9	Yellow brown, brownish gray & gray very fine sandy clayey silt to very fine sandy silty clay w/ trace small gravel - TILL.
		3	1.31BS	24.7	
		3	0.2P	24.0	
576.35					
575.95		50/1"	4.5+P		Gray limestone - COBBLE.
					Gray very fine sandy silt w/ some clay, trace coarse sand & small gravel, calcareous - TILL.
		60/5"		7.0	
569.85					

Bottom of hole = 25.0 feet

LEGEND

N Standard Penetration Test N (blows/ft)
Qu Unconfined Strength (tsf)
w% Natural Moisture Content (%)
▼DD Water Surface Elevation Encountered in Boring
DD = during drilling
▽Oh Oh = at completion

DESIGNED	KMS	6/30/15
DRAWN	KMS	6/30/15
REVIEWED	RGC	6/2/20

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBSURFACE DATA PROFILE
IRON BRIDGE ROAD RETAINING WALL
SHEET NO. 15 OF 20 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	SANGAMON	368	194
		CONTRACT NO. 93671		
	ILLINOIS FED. AID PROJECT 6			

• 07-00164-04-FP, 07-00090-08-FP

B-28
Sta. 701+25, 25' LT

	N	Qu	w%	
595.40				Oil & chip.
594.10	6	2.0P	26.9	Black very fine sandy silty clay - LOESS.
Oh 591.90	4	1.32B	30.1	Yellow brown & gray very fine sandy clayey silt w/ oxidized spots - LOESS.
DD	3	1.36B	27.8	
	3	1.36B	23.9	
	3	0.93B	28.6	
582.40	4	1.31B	27.9	Orange brown & gray very fine sandy silty clay w/ trace small gravel - TILL.
	3	0.66B	22.9	
576.90	16	1.96S	20.6	Brown & gray very fine sandy - SHALE.
574.40				Gray clayey SHALE.
570.40	17	3.27BS	17.4	
				Bottom of hole = 25.0 feet

B-30
Sta. 701+96, 14' LT

	N	Qu	w%	
594.87				Topsoil.
593.67	4	1.75B	32.1	Orange-brown and gray very fine sandy silty clay - LOESS.
Oh	4	0.74B	31.9	
588.87 DD	5	1.16B	28.9	Yellowish-brown and gray very fine sandy silt - LOESS.
586.87	4	1.16B	27.2	Brownish-gray very fine sandy silty clay w/ trace small gravel - LOESS.
	5	1.36B	27.5	
581.87	5	0.97B	26.3	Yellowish-brown and gray very fine sandy silty clay - TILL.
	5	1.96B	23.4	
576.87	46	3.22S	18.1	Yellowish-brown and gray silty fine sand - weathered SANDSTONE.
569.87	70	4.36SP	18.6	
				Bottom of hole = 25.0 feet

B-31
Sta. 702+71, 14' LT

	N	Qu	w%	
594.72				Topsoil.
593.42	7	2.06B	31.5	Dark brown & brown very fine sandy silty clay - LOESS.
592.22 Oh	4	0.85B	30.0	Orange brown & gray very fine sandy clayey silt w/ oxidized spots - LOESS.
588.72 DD	4	2.13B	25.2	Brown & gray very fine sandy clayey silt w/ oxidized spots - LOESS.
	3	1.16B	25.8	
583.72	3	1.16B	28.4	Brown & gray very fine sandy silty clay - TILL.
	4	1.09S	25.1	
578.72	4	0.97B	24.4	Orange brown & gray very fine sandy clayey silt w/ gray silty clayey fine sand - TILL.
576.22	60	2.84SP	17.7	Brown & gray silty clayey fine sand - weathered SANDSTONE.
571.22	30	4.5P	16.5	Brown & gray clayey SHALE.
569.72				Bottom of hole = 25.0 feet

LEGEND

N Standard Penetration Test N (blows/ft)

Qu Unconfined Strength (tsf)

w% Natural Moisture Content (%)

Water Surface Elevation Encountered in Boring

DD DD = during drilling

Oh Oh = at completion

DESIGNED	KMS	6/30/15
DRAWN	KMS	6/30/15
REVIEWED	RGC	6/2/20

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HANSON

USER NAME = Johns00944	DESIGNED - KMS	REVISED -	
	CHECKED - RGC	REVISED -	
PLOT SCALE = 0.1667 ' / in.	DRAWN - KMS	REVISED -	
PLOT DATE = 10/26/2022	CHECKED - RGC	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBSURFACE DATA PROFILE
IRON BRIDGE ROAD RETAINING WALL

SHEET NO. 16 OF 20 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	SANGAMON	368	195
		CONTRACT NO. 93671		
	ILLINOIS FED. AID PROJECT 6			

• 07-00164-04-FP, 07-00090-08-FP

B-2
Sta. 691+47, 27' RT

	N	Qu	w%	
597.06				CA-6 Limestone - FILL.
596.56	15	3.49S	22.7	Dark brown, yellowish-brown and gray very fine clayey silt and sandy silty clay - LOESS.
	8	2.52B	28.4	
	4	1.05B	26.4	
	3	1.24B	24.3	
587.06				Bottom of hole = 10.0 feet

B-3
Sta. 692+22, 27' RT

	N	Qu	w%	
597.31				CA-6 Limestone - FILL.
596.98	12	3.3BS	26.0	Dark brown, yellowish-brown, and gray very fine sandy clayey silt and sandy silty clay - LOESS.
	7	2.13B	29.7	
Oh	5	1.5P	26.1	
DD				
	4	0.3P	25.6	
587.31				Bottom of hole = 10.0 feet

B-4
Sta. 692+97, 27' RT

	N	Qu	w%	
597.44				
596.94				Dark brown silty clay w/ trace sand w/ some gravel - FILL.
595.44	7	3.3P	25.3	Oil & Chip.
594.44				Dark brown very fine sandy clayey silt w/ small gravel - FILL.
	6	1.86BS	29.1	Yellowish-brown and gray very fine sandy silty clay - LOESS.
591.44 DD				
Oh	6	1.28S	25.8	Yellowish-brown very fine sandy silt - LOESS.
589.44				Brownish-gray very fine sandy clayey silt - LOESS.
587.44	3	1.12B	24.8	
				Bottom of hole = 10.0 feet

B-5
Sta. 693+72, 27' RT

	N	Qu	w%	
597.61				
597.41				CA-6 Limestone - FILL.
597.01				14.0
596.81	12	3.5P	27.2	Dark brown silty clay w/ trace sand & some gravel - FILL.
				Oil & chip.
	8	2.33B	29.3	Dark brown, yellowish brown, and gray very fine sandy silty clay and sandy clayey silt - LOESS.
Oh 591.61				
	5	1.36BS	24.5	Yellowish-brown and gray very fine sandy silt - LOESS.
DD 588.61				
	3	0.89B	26.0	Brown and gray very fine sandy silty clay w/ trace small gravel - TILL.
	2	1.40B	23.8	
	3	1.16B	24.6	
582.61				Bottom of hole = 15.0 feet

LEGEND

N Standard Penetration Test N (blows/ft)

Qu Unconfined Strength (tsf)

w% Natural Moisture Content (%)

Water Surface Elevation Encountered in Boring

▼ DD DD = during drilling

▽ Oh Oh = at completion

DESIGNED	KMS	6/30/15
DRAWN	KMS	6/30/15
REVIEWED	RGC	6/2/20

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HANSON

USER NAME = Johns00944	DESIGNED - KMS	REVISED -	
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PLOT DATE = 10/26/2022	CHECKED - RGC	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBSURFACE DATA PROFILE
IRON BRIDGE ROAD RETAINING WALL

SHEET NO. 17 OF 20 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	SANGAMON	368	196
		CONTRACT NO. 93671		
	ILLINOIS FED. AID PROJECT 6			

• 07-00164-04-FP, 07-00090-08-FP

B-6
Sta. 694+47, 27' RT

	N	Qu	w%	
597.45				CA-6 Limestone - FILL.
597.12				Dark brown silty clay w/ trace sand w/ some gravel - FILL.
596.55	11	3.3P	29.2	Black very fine sandy clayey silt w/ cinders and gravel - FILL.
594.45 Oh		1.67S	31.7	
	7	2.52BS	28.0	Yellowish-brown, brown, and gray very fine sandy silty clay and sandy clayey silt - LOESS.
DD	3	1.09B	29.9	
	5	2.13B	22.1	
	3	0.78BS	28.1	
	4	1.16BS	28.3	
582.45				Bottom of hole = 15.0 feet

B-14
Sta. 697+25, 38' RT

	N	Qu	w%	
597.84				Limestone CA-6 - FILL.
597.17	18	2.5P	15.8	Dark brown silty clay w/ trace sand & gravel - FILL.
594.84	8	2.52BSH	29.1	
Oh	3	0.81BSH	29.3	
DD	2	0.70B	30.9	
	4	1.09B	25.0	
584.84	4	1.12B	26.3	Orange-brown and gray very fine sandy silty clay w/ trace coarse sand and gravel - TILL.
	3	0.97BSH	26.8	
	4	0.89SH	22.8	
	52	4.5P	11.7	
572.84				Bottom of hole = 25.0 feet

B-17
Sta. 697+54, 6' RT

	N	Qu	w%	
594.54				Orange-brown and gray very fine sandy silty clay w/ oxidation spots - LOESS.
	6	1.55SH	28.9	
591.54 Oh				Yellowish-brown and gray very fine sandy silt - LOESS.
DD				
587.04				Yellowish-brown and gray very fine sandy silt w/ trace clay - LOESS.
		0.12B	28 27	
578.54		1.64SH	21	Orange-brown, yellowish-brown, and black very fine sandy silty clay w/ trace coarse sand and gravel - TILL.
		1.26SH	19	
		1.01SH	17	
	28	6.98B	10.6	
	46	4.5P	11.2	
569.54				Greenish-gray silty fine sand - TILL.
	50/5"	2.0P	15.2	
563.54				Gray SHALE.
	70		15.8	
	61	1.44SH	17.6	
	50/4"	1.0P	19.5	
	45	3.8P	12.7	
544.54				Bottom of hole = 50.0 feet

B-16
Sta. 697+72, 32' RT

	N	Qu	w%	
595.47				Dark brown silty clay w/ trace sand & gravel - FILL.
	5	1.55SH	25.8	
592.47				Yellowish-brown and gray very fine sandy silty clay w/ oxidation spots - LOESS.
Oh				
DD	6	1.16BSH	26.9	
589.47				Orange-brown and gray very fine sandy silt w/ trace clay - LOESS.
	4	1.40B	25.8	
587.47				Orange-brown and gray very fine sandy silty clay - LOESS.
	2	0.58SH	32.8	
	2	1.12BSH	27.2	
	3	1.86BSH	23.9	
579.47				Yellow-brown, orange-brown, and gray sandy silty clay w/ trace coarse sand and small gravel - TILL.
	4	1.24B	22.7	
	19	7.76B	13.2	
	57	4.5P	8.2	
570.47				Bottom of hole = 25.0 feet

LEGEND

N Standard Penetration Test N (blows/ft)
Qu Unconfined Strength (tsf)
w% Natural Moisture Content (%)
▼ DD Water Surface Elevation Encountered in Boring
DD = during drilling
▽ Oh Oh = at completion

DESIGNED	KMS	6/30/15
DRAWN	KMS	6/30/15
REVIEWED	RGC	6/2/20

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HANSON

USER NAME = Johns00944	DESIGNED - KMS	REVISED -
	CHECKED - RGC	REVISED -
PLOT SCALE = 0.1667 ' / in.	DRAWN - KMS	REVISED -
PLOT DATE = 10/26/2022	CHECKED - RGC	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBSURFACE DATA PROFILE
IRON BRIDGE ROAD RETAINING WALL
SHEET NO. 18 OF 20 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	*	SANGAMON	368	197
		CONTRACT NO. 93671		
	ILLINOIS FED. AID PROJECT 6			

* 07-00164-04-FP, 07-00090-08-FP

B-18
Sta. 699+27, 8' RT

	N	Qu	w%	
595.44				TOPSOIL - black very fine sandy clayey silt.
	4	1.5P	31.0	
	Oh			
590.94	DD			Yellowish-brown and gray very fine sandy clayey silt - LOESS.
587.94		0.50SH	30	Brown and gray very fine sandy silt w/ trace clay - LOESS.
		1.41SH	24	
		1.55SH	22	
		0.33SH	24	
579.44			23	Yellowish-brown and gray fine sandy clayey silt w/ trace coarse sand and small gravel - TILL.
	22	4.65S	14.7	
	50/6"	3.30S	9.3	
567.44	50/3"		20.9	Greenish-gray silty very fine to fine sand - TILL.
562.44	70	1.2P	11.4	Gray SHALE.
	50/5"	1.0P	19.5	
	50/4"	4.0P	10.9	
545.44	50/5"		10.6	

Bottom of hole = 50.0 feet

B-20
Sta. 699+43, 30' RT

	N	Qu	w%	
595.83	5	0.8P	28.1	TOPSOIL - black very fine sandy clayey silt.
592.83	Oh			
	7	1.55B	30.2	Orange-brown and gray very fine sandy silty clay - LOESS.
	5	0.93B	29.0	
	DD			
	4	0.97B	22.5	
	3	0.58B	25.7	
582.83	2	1.36S	26.2	Orange-brown and gray very fine sandy silty clay and sandy clayey silt w/ trace coarse sand and small gravel - TILL.
	1	0.58B	18.7	
	21	2.13S	12.1	
	50/5"		13.0	
567.83	50/5"		14.1	Greenish-brown very fine silty sand - TILL.
562.83	50/5"	1.51S	18.8	Gray clayey SHALE.
556.90	50/5"	6.21S	14.4	

Bottom of hole = 40.0 feet

B-23
Sta. 699+96, 16' RT

	N	Qu	w%	
597.13	8	4.15B	22.1	TOPSOIL - dark brown very fine sandy clayey silt.
594.13	Oh			
	6	1.94S	29.6	Orange brown and gray very fine sandy silty clay and sandy clayey silt w/ oxidation spots - LOESS.
	DD			
	4	0.89B	36.1	
	5	2.06B	24.0	
586.13	4	0.78B	27.4	Orange, brown, and gray very fine sandy silty clay w/ trace coarse sand and small gravel - TILL.
	4	1.16S	25.2	
	6	1.47B	21.5	
	7	0.58B	22.6	
572.13	50/4"		6.5	

Bottom of hole = 25.0 feet

B-25
Sta. 700+42, 36' RT

	N	Qu	w%	
596.64	7	4.4P	20.4	TOPSOIL - dark brown very fine sandy silt w/ some clay.
593.64	8	1.75B	27.6	Orange-brown, yellowish-brown and gray very fine sandy silty clay and sandy clayey silt w/ oxidation spots - LOESS.
	Oh			
	5	0.97B	26.6	
	DD			
	4	1.7P	24.4	
	6	0.97B	25.4	
583.64	5	1.63S	24.5	Orange-brown and gray very fine to fine sandy silty clay w/ trace coarse sand and small gravel - TILL.
	8	1.40B	18.7	
	16	3.92S	11.1	
571.64	50/5"	4.5P	9.6	

Bottom of hole = 25.0 feet

LEGEND

N	Standard Penetration Test N (blows/ft)
Qu	Unconfined Strength (tsf)
w%	Natural Moisture Content (%)
▼ DD	Water Surface Elevation Encountered in Boring DD = during drilling
▽ Oh	Oh = at completion

DESIGNED	KMS	6/30/15
DRAWN	KMS	6/30/15
REVIEWED	RGC	6/27/20

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HANSON

USER NAME = Johns00944	DESIGNED - KMS	REVISED -	
	CHECKED - RGC	REVISED -	
PLOT SCALE = 0.1667 ' / in.	DRAWN - KMS	REVISED -	
PLOT DATE = 10/26/2022	CHECKED - RGC	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBSURFACE DATA PROFILE
IRON BRIDGE ROAD RETAINING WALL
SHEET NO. 19 OF 20 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	SANGAMON	368	198
		CONTRACT NO. 93671		
	ILLINOIS FED. AID PROJECT 6			

• 07-00164-04-FP, 07-00090-08-FP

B-27
Sta. 700+71, 15' RT

		DD	N	Qu	w%	
595.47		▼				
		Oh ▽				
			3		33.7	Dark brown very fine sandy silty clay w/ small gravel and roots - FILL.
592.47						
			5	0.27B	29.1	Orange-brown and gray very fine sandy silt w/ trace clay - LOESS.
			5	1.44SH	26.7	
587.47						
			3	0.50B	28.0	Orange-brown and gray very fine sandy silty clay w/ trace coarse sand and small gravel - TILL.
			3	0.74SH	30.7	
			3	0.58B	32.0	
			4	0.27B	25.9	
			45	3.69SH	11.2	
570.47			50/5"	3.5P	10.4	
						Bottom of hole = 25.0 feet

B-29
Sta. 701+58, 26' RT

		DD	N	Qu	w%	
594.16						
593.86						Oil & chip & 2" brown CA-6 - FILL.
			9	2.06B	27.4	Dark brown very fine sandy silty clay - LOESS.
591.16		Oh ▽				
		▼	3	1.09B	31.4	Orange & brown very fine sandy silty clay - LOESS.
			4	1.05B	31.0	
			4	1.47B	24.4	
584.16						
			3	1.24B	27.2	Orange & brown very fine sandy silty clay w/ trace small gravel & oxidized spots - TILL.
			4	1.75B	28.1	
			6	2.33B	19.7	
576.16						
			21	4.58S	12.9	Brown & yellow brown very fine sandy clayey silt & very fine sandy silt - TILL.
573.16						Yellow brown very fine to fine sandy silt - TILL.
			41	4.5P	16.2	
569.16						
						Bottom of hole = 25.0 feet

LEGEND

N Standard Penetration Test N (blows/ft)

Qu Unconfined Strength (tsf)

w% Natural Moisture Content (%)

▼ DD Water Surface Elevation Encountered in Boring
DD = during drilling

▽ Oh
Oh = at completion

DESIGNED	KMS	6/30/15
DRAWN	KMS	6/30/15
REVIEWED	RGC	6/2/20

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HANSON

USER NAME = Johns00944	DESIGNED - KMS	REVISED -
	CHECKED - RGC	REVISED -
PLOT SCALE = 0.1667 ' / in.	DRAWN - KMS	REVISED -
PLOT DATE = 10/26/2022	CHECKED - RGC	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBSURFACE DATA PROFILE
IRON BRIDGE ROAD RETAINING WALL
SHEET NO. 20 OF 20 SHEETS

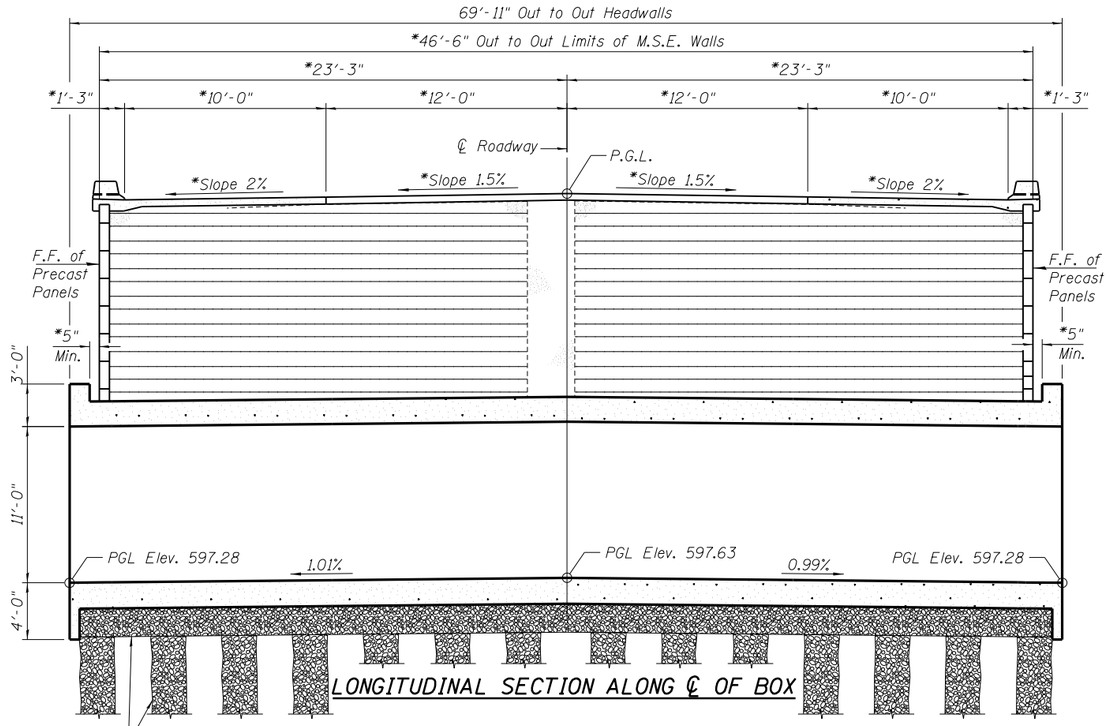
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	SANGAMON	368	199
		CONTRACT NO. 93671		
	ILLINOIS FED. AID PROJECT 6			

• 07-00164-04-FP, 07-00090-08-FP

B.M. 359 - Chsld. "x" on South Cap Bolt FH - North Side of Woodside Road., Approx. 300' West of Pedigo Lane., 6' East of Private Drive., South of Two Grain Silos. Elev = 595.21
B.M. H3 - Spike Nail in South Face of PP - North Side Woodside Road - ± 325' East of Driveway to House #1329 Woodside Road - Between Iron Bridge Road and Carole Drive. Elev = 590.49

Existing Structure: None

*Indicates Dimensions that are at Right Angles to ℄ of Roadway

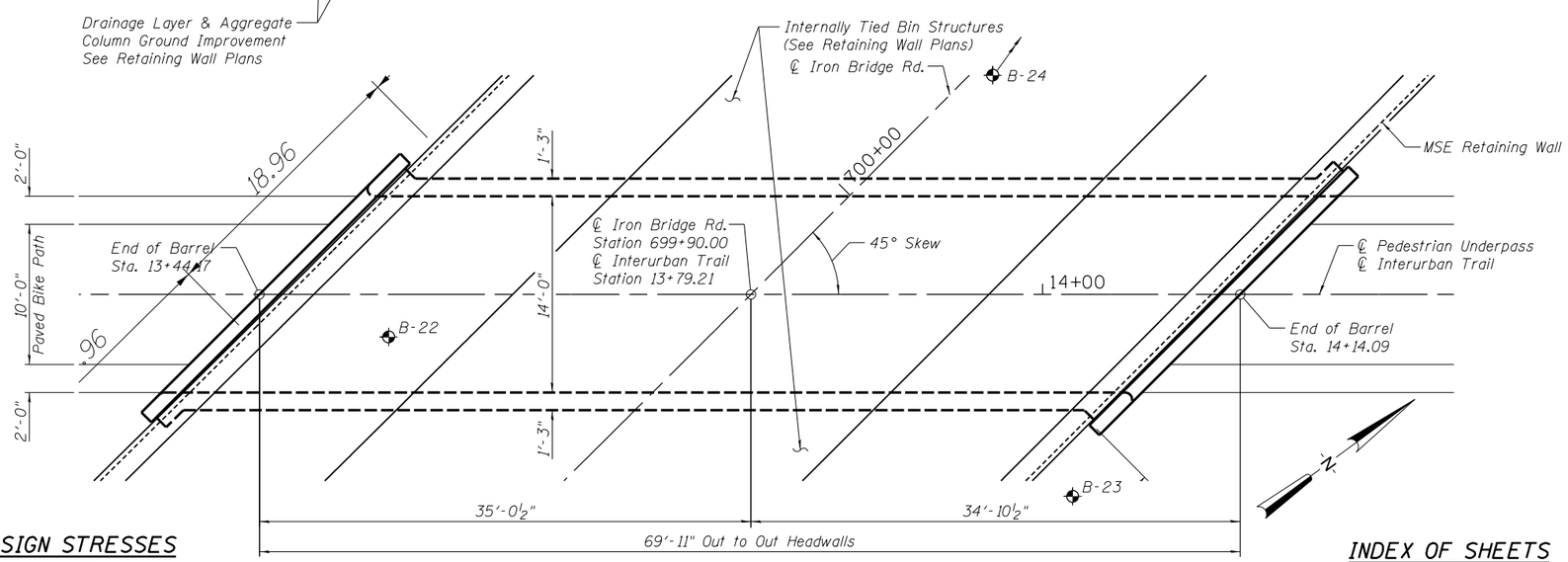


LONGITUDINAL SECTION ALONG ℄ OF BOX

CURVE DATA

(Iron Bridge Road)

P.I. STA = 696+71.58
Δ = 9°-51'-34"
D = 0°-56'-21"
R = 6,100.00'
T = 526.14'
L = 1,049.69'
E = 22.65'
S.E. = N.C.
P.C. STA = 691+45.43
P.T. STA = 701+95.12



PLAN

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)

LOADING HL-93

Allow 50#/sq. ft. for future wearing surface.

DESIGN SPECIFICATIONS

BRIDGE

2014 AASHTO LRFD Bridge Design Specifications, 7th Edition

GENERAL NOTES

The Top and Sides of the Pedestrian Underpass shall be waterproofed according to Article 503.18 of the Standard Specifications for Road and Bridge construction.

Nonmetallic Water Seal, Waterproofing, shall be included with the cost for 'Concrete Box Culverts'.

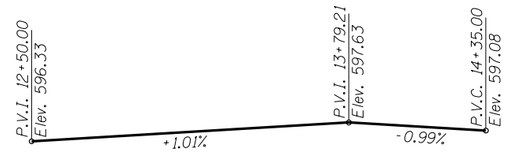
Bars indicated thus 12 x 4 - #5 etc. Indicates 12 lines of bars with 4 lengths per line.

Precast Alternative will not be allowed.

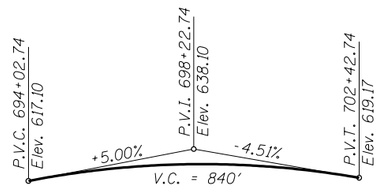
The top of the bottom slab shall be given a brushed final finish similar to that specified in Article 424.06 of the Standard Specifications. Cost shall be included with "Concrete Box Culverts".

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Structure Excavation	Cu. Yd.	40
Concrete Box Culverts	Cu. Yd.	242.4
Reinforcement Bars	Pounds	39140



PROPOSED PROFILE GRADE - INTERURBAN TRAIL

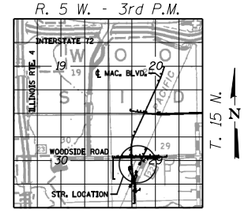


PROPOSED PROFILE GRADE - IRON BRIDGE ROAD

LICENSED STRUCTURAL ENGINEER
ROBERT CHANTOME
081-006048
STATE OF ILLINOIS

10/27/2022
Expires November 30, 2022

R. 5 W. - 3rd P.M.



LOCATION SKETCH

INDEX OF SHEETS

I certify that to the best of my knowledge, information and belief, this culvert design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current "AASHTO LRFD Specifications".

DESIGNED	KMS	10/27/15
DRAWN	EJM	10/27/15
REVIEWED	RGC	6/2/20

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USER NAME = Johns00944	DESIGNED - KMS	REVISED -	
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PLOT DATE = 10/26/2022	CHECKED - RGC	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN & ELEVATION
INTERURBAN TRAIL UNDERPASS
SHEET NO. 1 OF 4 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	SANGAMON	368	200
		CONTRACT NO. 93671		
	ILLINOIS FED. AID PROJECT 6			

• 07-00164-04-FP, 07-00090-08-FP