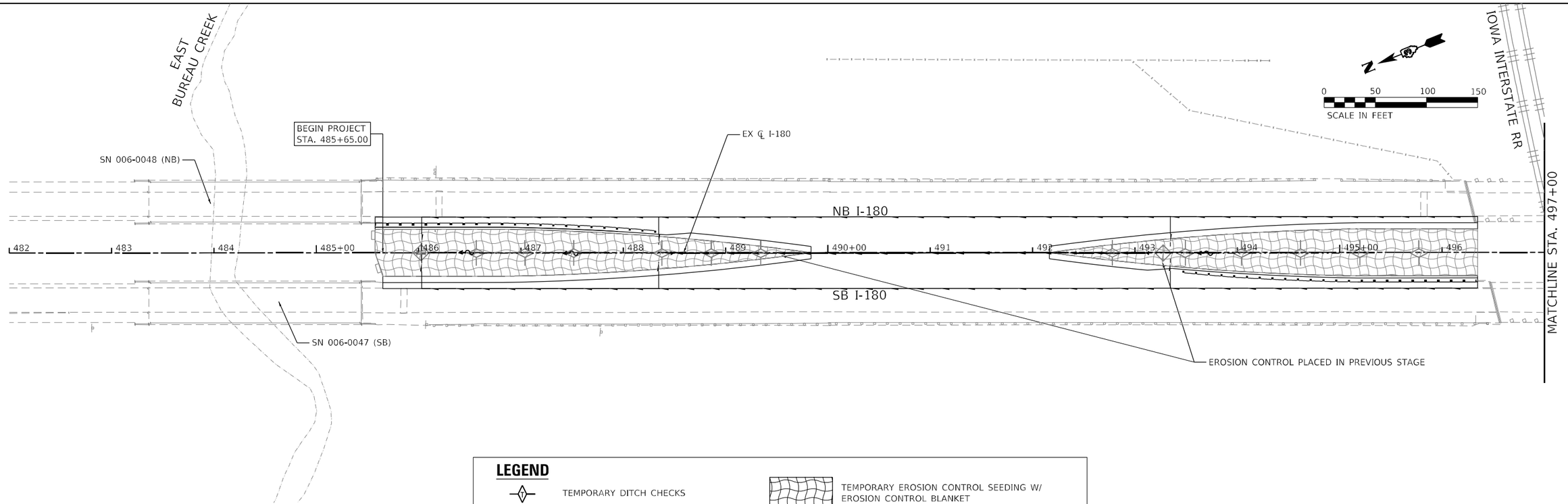
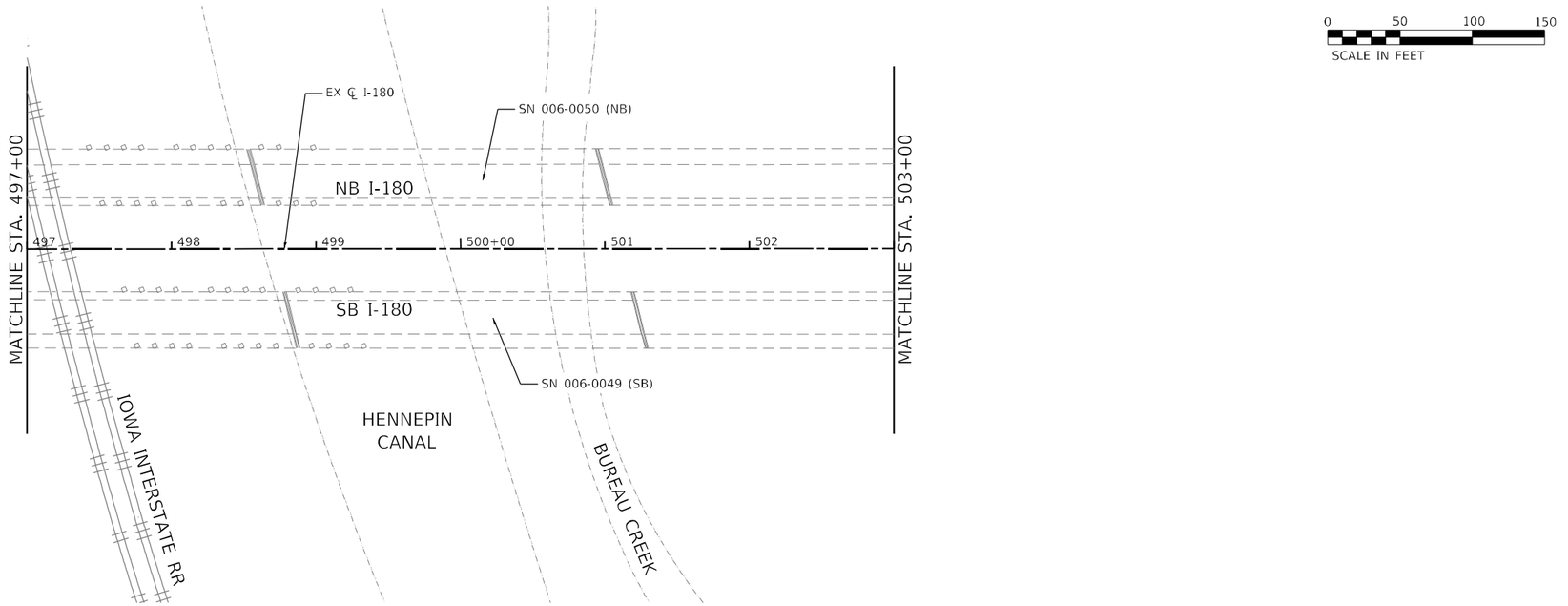


LEGEND

- TEMPORARY DITCH CHECKS
- PERIMETER EROSION BARRIER
- INLET AND PIPE PROTECTION
- TEMPORARY EROSION CONTROL SEEDING W/ EROSION CONTROL BLANKET
- TEMPORARY EROSION CONTROL SEEDING W/ HEAVY DUTY EROSION CONTROL BLANKET



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Civil Engineering Design

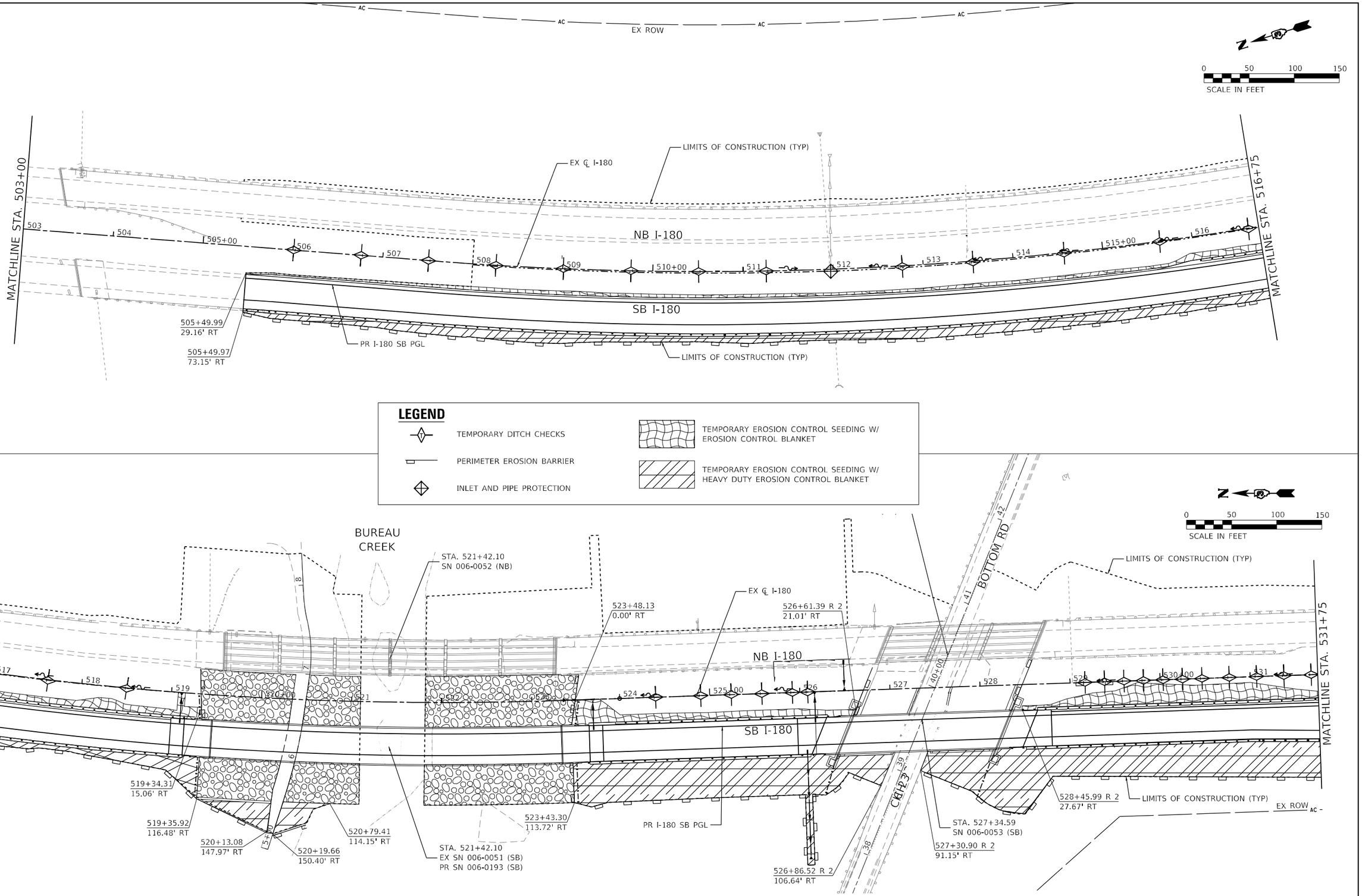
USER NAME = RGall	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 1/12/2024	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FAI ROUTE 180 (I–180)
STAGE 2 EROSION CONTROL PLAN

SCALE: 1" = 50' | SHEET 1 OF 3 SHEETS | STA. 485+65 TO STA. 503+00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
180	[(06-2B-1) & (06-2HB-1)]BR	BUREAU	327	101
		CONTRACT NO. 66K66		
	ILLINOIS FED. AID PROJECT			



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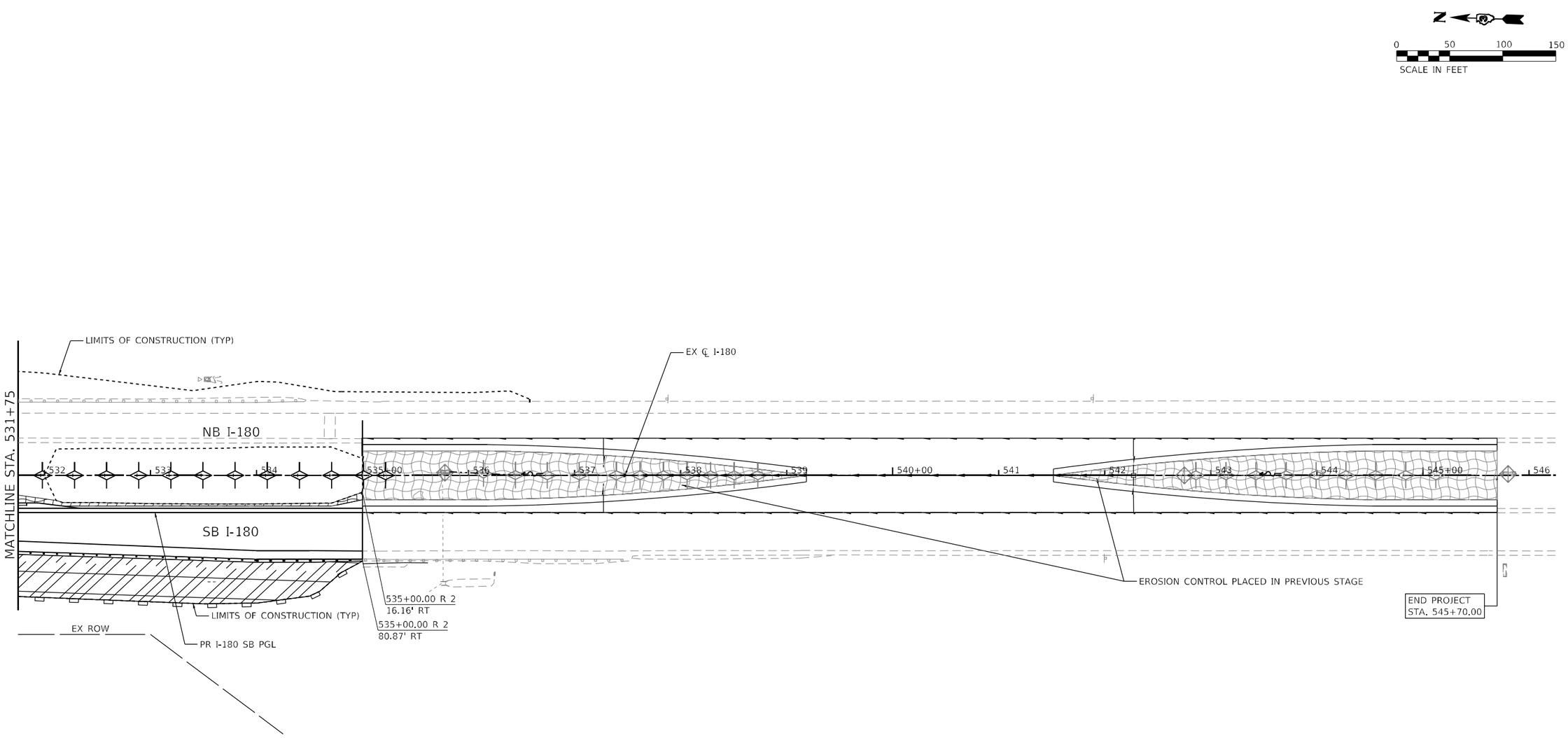
PLOT DATE = 1/12/2024	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FAI ROUTE 180 (I–180)
STAGE 2 EROSION CONTROL PLAN

SCALE: 1" = 50' | SHEET 2 OF 3 SHEETS | STA. 503+00 | TO STA. 531+75

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
180	[(06-2B-1) & (06-2HB-1)]BR	BUREAU	327	102
		CONTRACT NO. 66K66		
	ILLINOIS FED. AID PROJECT			



LEGEND

- TEMPORARY DITCH CHECKS
- PERIMETER EROSION BARRIER
- INLET AND PIPE PROTECTION
- TEMPORARY EROSION CONTROL SEEDING W/ EROSION CONTROL BLANKET
- TEMPORARY EROSION CONTROL SEEDING W/ HEAVY DUTY EROSION CONTROL BLANKET

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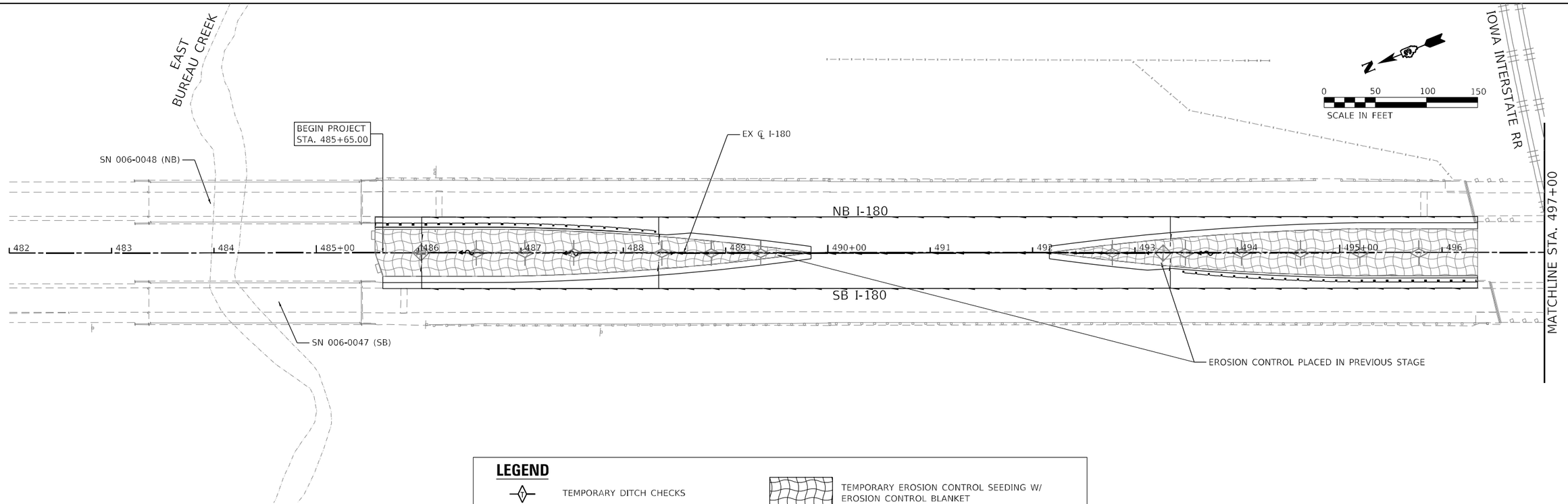
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FAI ROUTE 180 (I–180)
STAGE 2 EROSION CONTROL PLAN

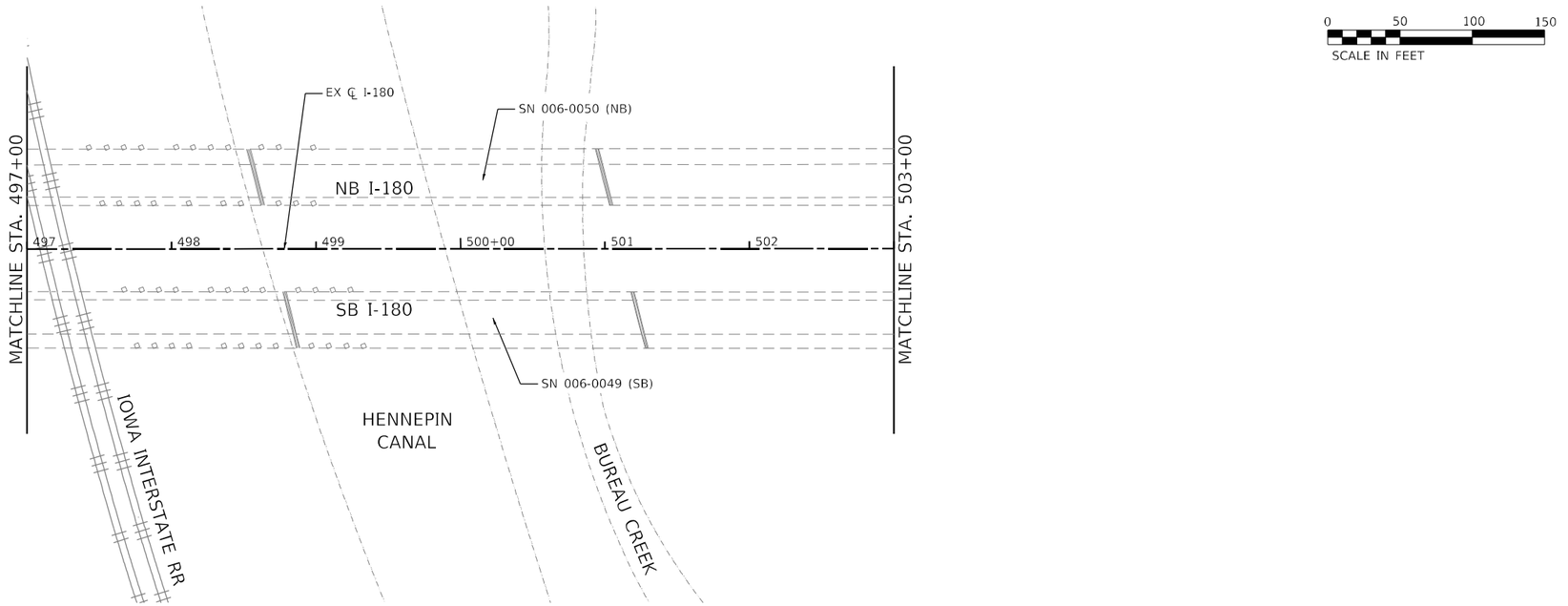
SCALE: 1" = 50' | SHEET 3 OF 3 SHEETS | STA. 531+75 | TO STA. 545+70

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
180	[(06-2B-1) & (06-2HB-1)]BR	BUREAU	327	103
		CONTRACT NO. 66K66		
	ILLINOIS	FED. AID PROJECT		



LEGEND

- TEMPORARY DITCH CHECKS
- PERIMETER EROSION BARRIER
- INLET AND PIPE PROTECTION
- TEMPORARY EROSION CONTROL SEEDING W/ EROSION CONTROL BLANKET
- TEMPORARY EROSION CONTROL SEEDING W/ HEAVY DUTY EROSION CONTROL BLANKET



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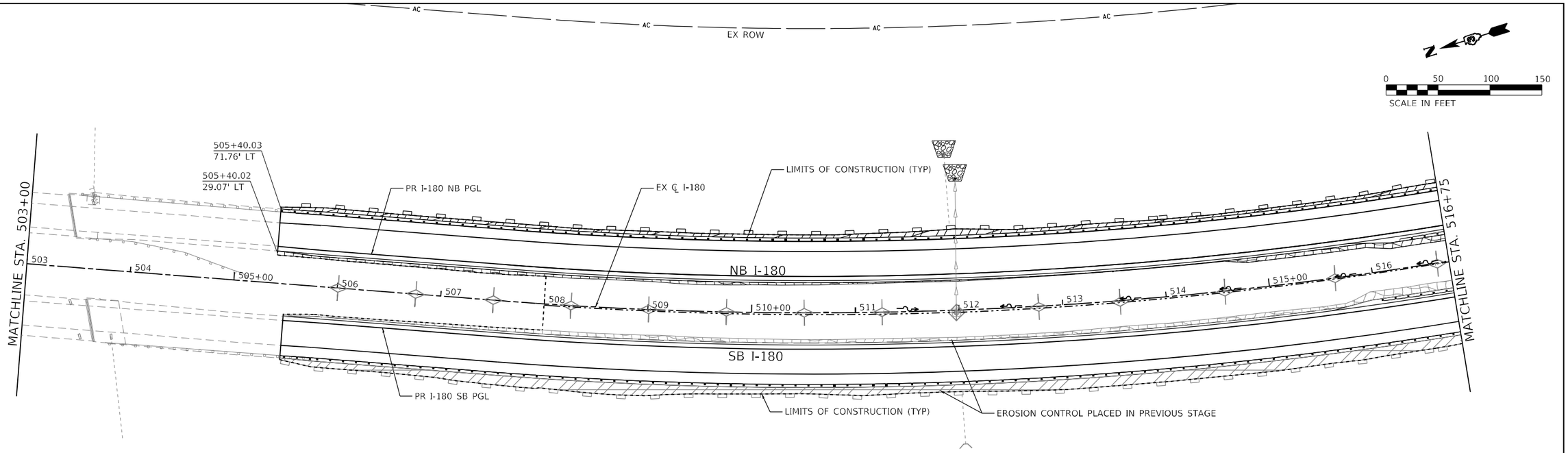
PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 1/12/2024	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FAI ROUTE 180 (I–180)
STAGE 3 EROSION CONTROL PLAN

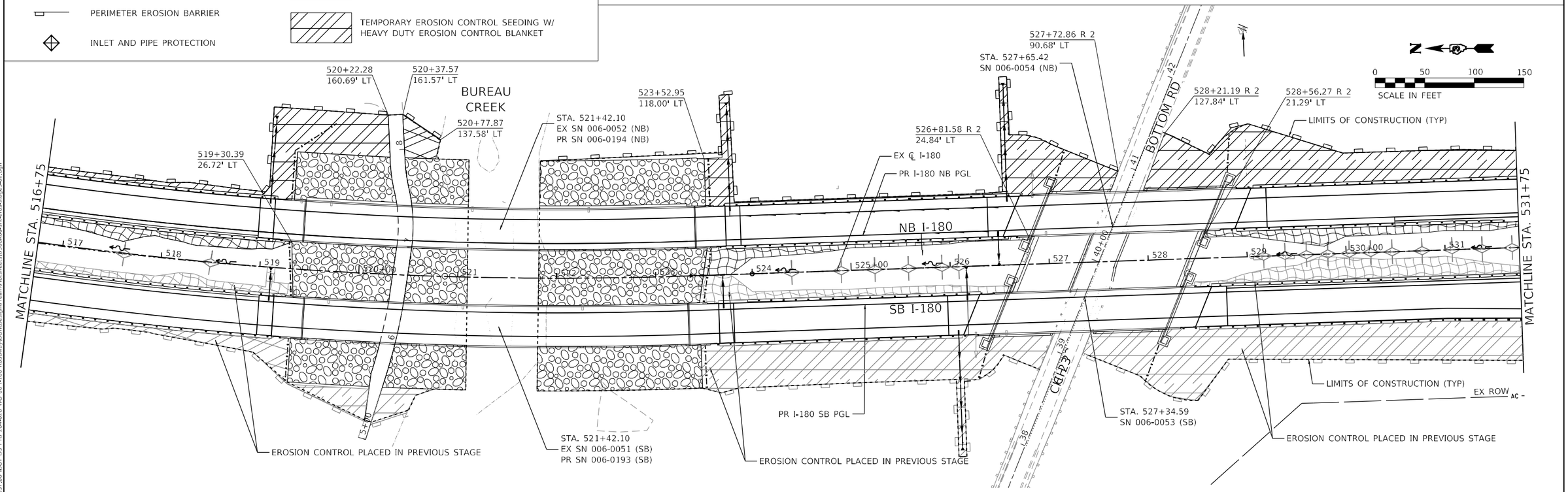
SCALE: 1" = 50' | SHEET 1 OF 3 SHEETS | STA. 485+65 TO STA. 503+00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
180	(06-2B-1) & (06-2HB-1)JBR	BUREAU	327	104
		CONTRACT NO. 66K66		
	ILLINOIS FED. AID PROJECT			



LEGEND

- TEMPORARY DITCH CHECKS
- PERIMETER EROSION BARRIER
- INLET AND PIPE PROTECTION
- TEMPORARY EROSION CONTROL SEEDING W/ EROSION CONTROL BLANKET
- TEMPORARY EROSION CONTROL SEEDING W/ HEAVY DUTY EROSION CONTROL BLANKET



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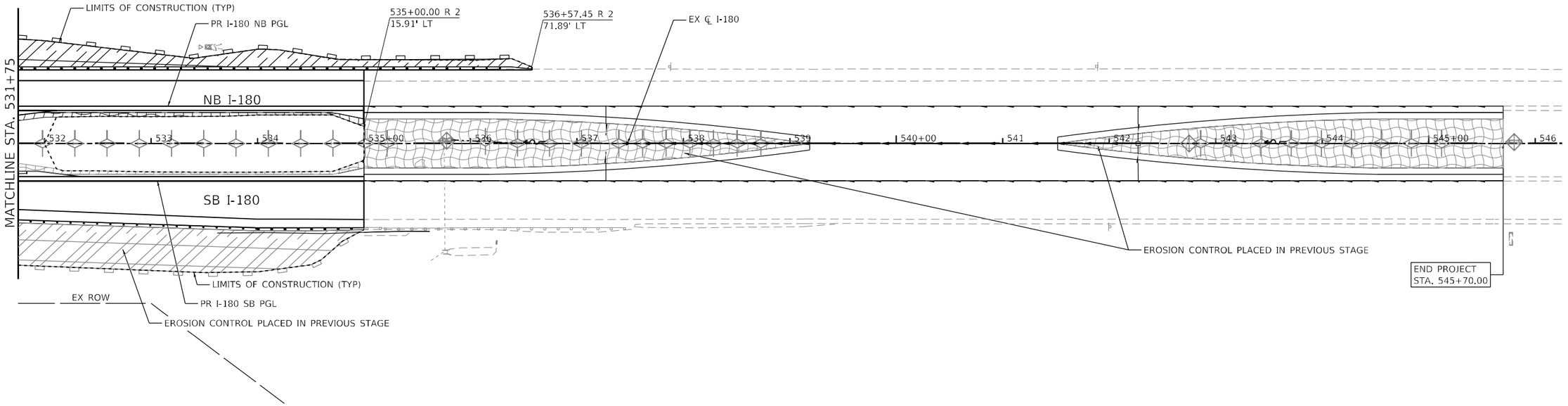
	PLOT DATE = 1/12/2024	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FAI ROUTE 180 (I–180)
STAGE 3 EROSION CONTROL PLAN

SCALE: 1" = 50' | SHEET 2 OF 3 SHEETS | STA. 503+00 | TO STA. 531+75

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
180	[(06-2B-1) & (06-2HB-1)]BR	BUREAU	327	105
		CONTRACT NO. 66K66		
		ILLINOIS	FED. AID PROJECT	



LEGEND

- TEMPORARY DITCH CHECKS
- PERIMETER EROSION BARRIER
- INLET AND PIPE PROTECTION
- TEMPORARY EROSION CONTROL SEEDING W/ EROSION CONTROL BLANKET
- TEMPORARY EROSION CONTROL SEEDING W/ HEAVY DUTY EROSION CONTROL BLANKET

MODEL: Default
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Civil Engineering Design

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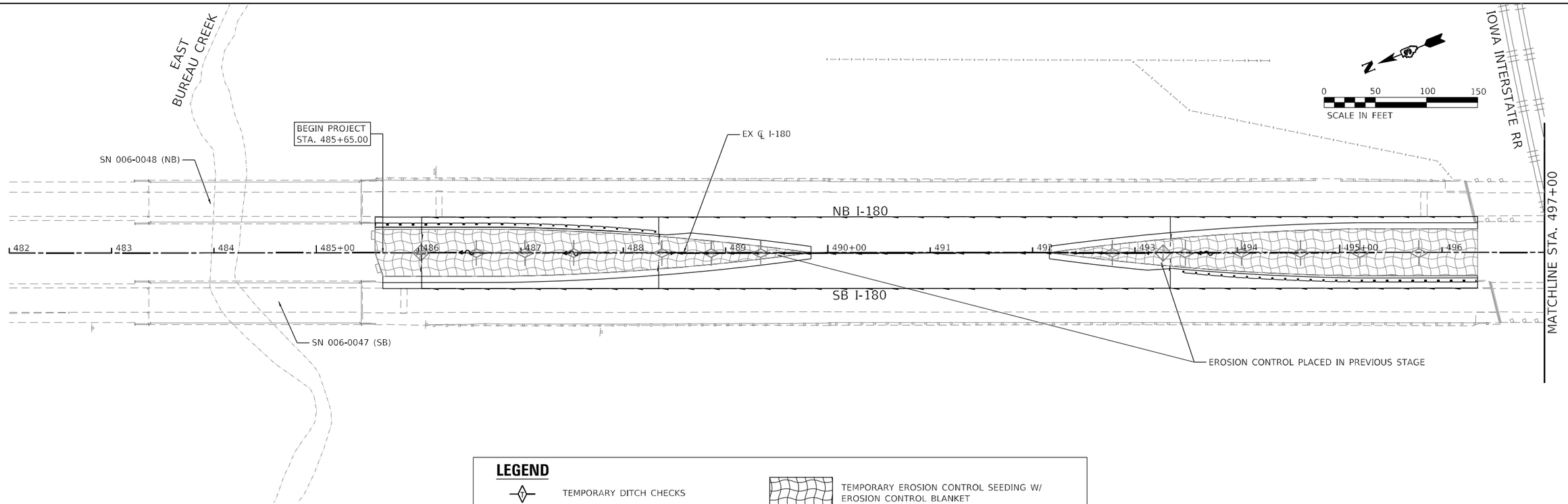
PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 1/12/2024	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FAI ROUTE 180 (I–180)
STAGE 3 EROSION CONTROL PLAN

SCALE: 1" = 50' | SHEET 3 OF 3 SHEETS | STA. 531+75 | TO STA. 545+70

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
180	[(06-2B-1) & (06-2HB-1)]BR	BUREAU	327	106
		CONTRACT NO. 66K66		
	ILLINOIS	FED. AID PROJECT		



LEGEND

- TEMPORARY DITCH CHECKS
- PERIMETER EROSION BARRIER
- INLET AND PIPE PROTECTION
- TEMPORARY EROSION CONTROL SEEDING W/ EROSION CONTROL BLANKET
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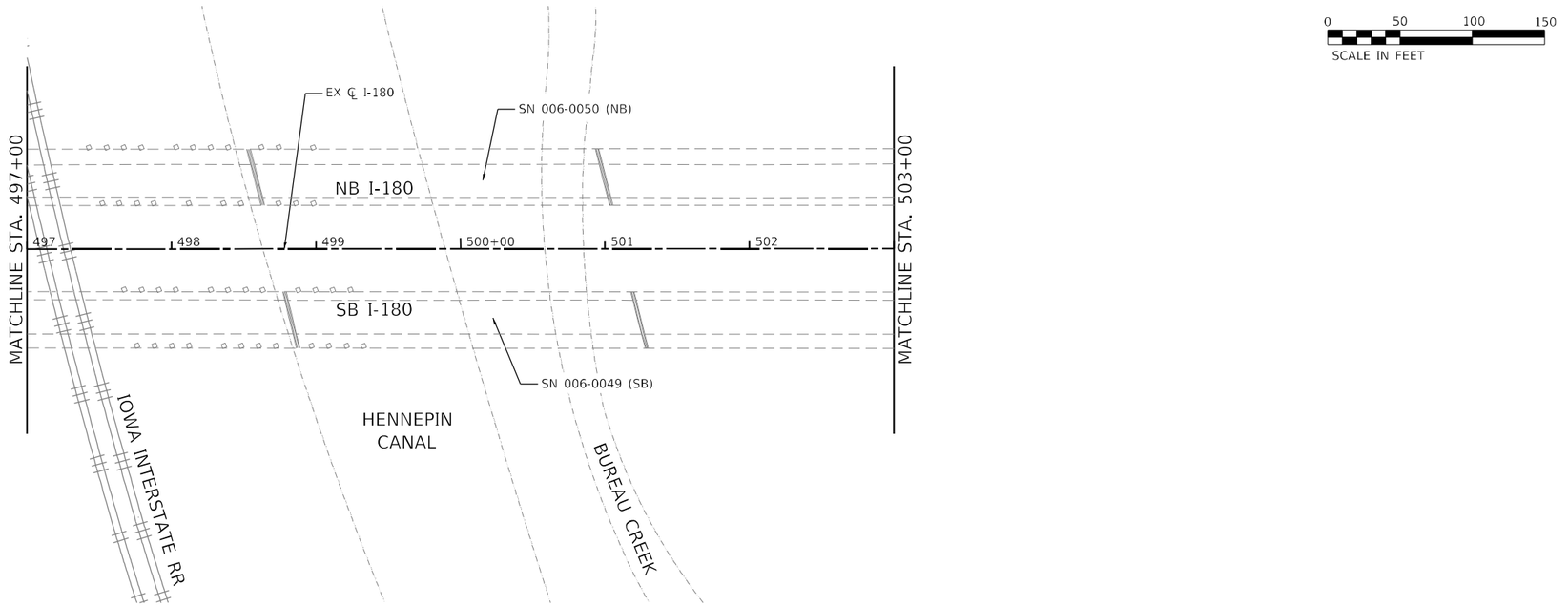

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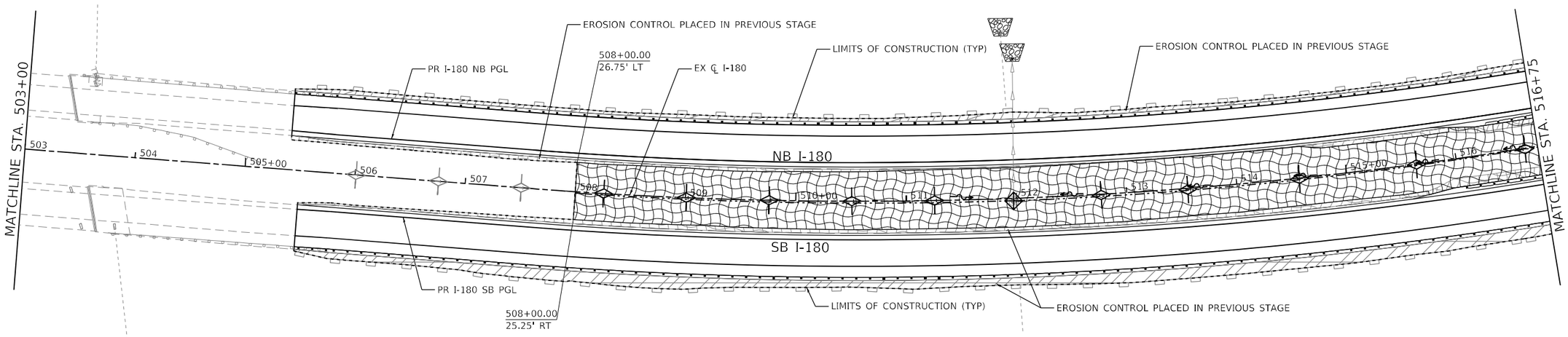
	DRAWN -	REVISED -
PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 1/12/2024	DATE -	REVISED -

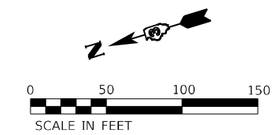
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FAI ROUTE 180 (I–180)
POST STAGE EROSION CONTROL PLAN

SCALE: 1" = 50' | SHEET 1 OF 3 SHEETS | STA. 485+65 | TO STA. 503+00

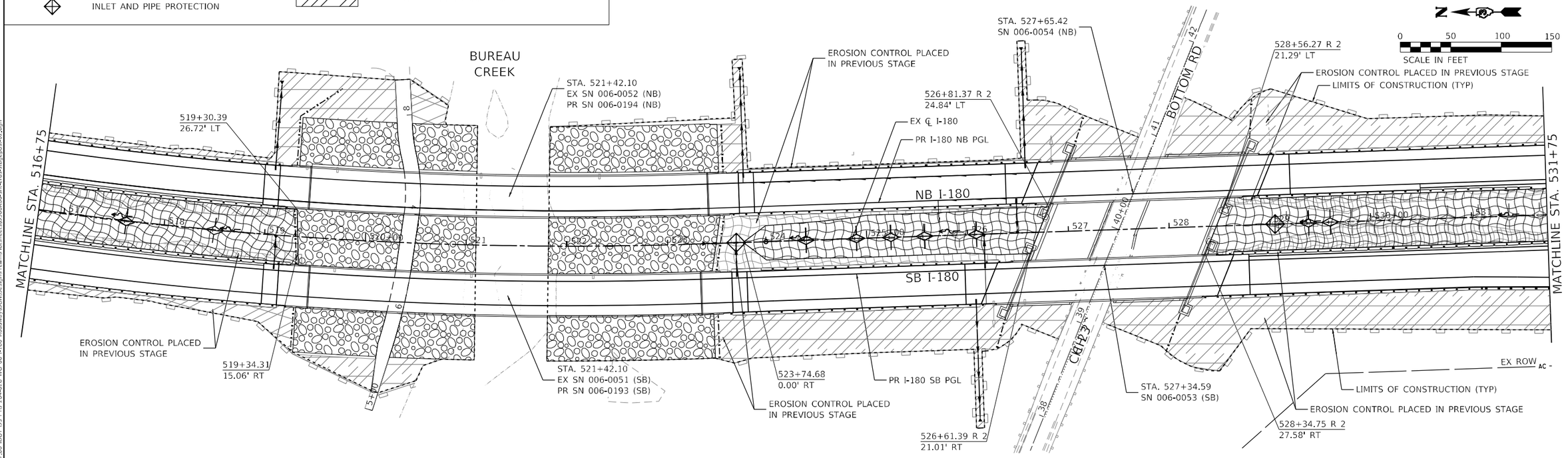
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
180	[(06-2B-1) & (06-2HB-1)]BR	BUREAU	327	107
		CONTRACT NO. 66K66		
	ILLINOIS FED. AID PROJECT			





LEGEND

- TEMPORARY DITCH CHECKS
- PERIMETER EROSION BARRIER
- INLET AND PIPE PROTECTION
- TEMPORARY EROSION CONTROL SEEDING W/ EROSION CONTROL BLANKET
- TEMPORARY EROSION CONTROL SEEDING W/ HEAVY DUTY EROSION CONTROL BLANKET



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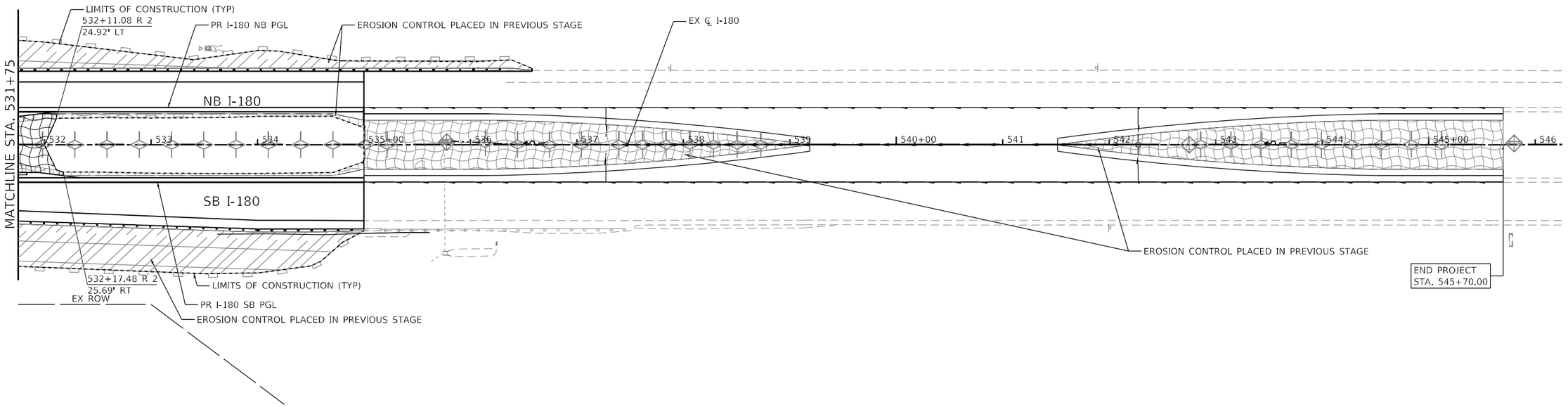
PLOT DATE = 1/12/2024	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FAI ROUTE 180 (I–180)
POST STAGE EROSION CONTROL PLAN

SCALE: 1" = 50' | SHEET 2 OF 3 SHEETS | STA. 503+00 TO STA. 531+75

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
180	[(06-2B-1) & (06-2HB-1)]BR	BUREAU	327	108
		CONTRACT NO. 66K66		
	ILLINOIS FED. AID PROJECT			



LEGEND

- TEMPORARY DITCH CHECKS
- PERIMETER EROSION BARRIER
- INLET AND PIPE PROTECTION
- TEMPORARY EROSION CONTROL SEEDING W/ EROSION CONTROL BLANKET
- TEMPORARY EROSION CONTROL SEEDING W/ HEAVY DUTY EROSION CONTROL BLANKET

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EFK•Moen
Civil Engineering Design

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PLOT DATE = 1/12/2024	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FAI ROUTE 180 (I–180)
POST STAGE EROSION CONTROL PLAN

SCALE: 1" = 50' | SHEET 3 OF 3 SHEETS | STA. 531+75 | TO STA. 545+70

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
180	[(06-2B-1) & (06-2HB-1)]BR	BUREAU	327	109
		CONTRACT NO. 66K66		
	ILLINOIS FED. AID PROJECT			

EXISTING PIPE SCHEDULE

PIPE NUMBER	STRUCTURE TYPE	STA	STA	O/S	PIPE CULVERT REMOVAL	CONTROLLED LOW-STRENGTH MATERIAL	REMOVE AND REINSTALL CONCRETE HEADWALL FOR PIPE DRAIN	CONCRETE HEADWALL REMOVAL	STORM SEWERS TO BE CLEANED 24"	NOTE
					FOOT	CU YD	EACH	EACH	FOOT	
EX-01	PIPE CULVERT	486+02		LT						24" RCP
EX-02	PIPE CULVERT	486+00	485+80	LT						24" CMP
EX-03	PIPE CULVERT	503+86	504+05	RT						18" RCP
EX-04	PIPE CULVERT	503+59	503+55	LT						18" CMP
EX-05	PIPE UNDERDRAIN	508+99		LT			1			
EX-06	PIPE UNDERDRAIN	509+03		RT			1			
EX-07	PIPE CULVERT	511+90	511+90	LT/RT						36" RCP
EX-08	STORM SEWER	511+98	512+01	LT					127	24" RCP
EX-09	PIPE UNDERDRAIN	513+46		RT			1			
EX-10	PIPE UNDERDRAIN	513+49		LT			1			
EX-11	PIPE CULVERT	519+38	519+32	LT		2.5				12" CMP
EX-12	PIPE CULVERT	523+14	523+70	LT/RT	54					12" RCP
EX-13	PIPE UNDERDRAIN	523+40		RT			1			
EX-14	STORM SEWER	526+24	526+21	RT		2.8				12" RCP
EX-15	STORM SEWER	526+85	526+89	LT		2.9				12" CMP
EX-16	PIPE UNDERDRAIN	528+42		RT			1			
EX-17	STORM SEWER	529+02		LT	25				227	24" RCP / 24" CMP
EX-18	PIPE UNDERDRAIN	532+13		RT						
EX-19	PIPE CULVERT	531+77	532+93	LT/RT						84" RCP
EX-20	PIPE CULVERT	535+75	535+76	RT						24" RCP
EX-21	PIPE UNDERDRAIN	535+95		LT				1		
EX-22	PIPE UNDERDRAIN	536+22		RT				1		
EX-23	PIPE UNDERDRAIN	536+25		RT						
EX-24	PIPE UNDERDRAIN	540+69		LT						
EX-25	PIPE UNDERDRAIN	540+70		LT				1		
EX-26	PIPE UNDERDRAIN	540+77		RT				1		
EX-27	PIPE UNDERDRAIN	540+78		RT						
EX-28	PIPE CULVERT	545+77		RT						24" RCP
				TOTAL	79	8.2	6	4	354	

EXISTING DRAINAGE STRUCTURES SCHEDULE

STRUCTURE NUMBER	STRUCTURE TYPE	STA	OFF	DRAINAGE STRUCTURES TO BE CLEANED	INLETS TO BE ADJUSTED	REMOVING INLETS	REMOVE EXISTING FLARED END SECTION	PAVED DITCH REMOVAL	STONE RIPRAP, CLASS A4	FILTER FABRIC	NOTE
				EACH	EACH	EACH	EACH	FOOT	SQ YD	SQ YD	
EX-01	INLET	486+02	0'								
EX-02	INLET	486+00	77' LT								
EX-03	END SECTION	485+80	129' LT								
EX-04	INLET	503+86	63' RT								
EX-05	INLET	503+59	65' LT								
EX-06	END SECTION	511+90	131' RT								
EX-07	END SECTION	511+90	154' LT						30.8	30.8	
EX-08	INLET	512+98	1' RT	1	1						
EX-09	END SECTION	512+01	125' LT				1				
EX-10	INLET	519+38	70' LT			1					
EX-11	END SECTION	519+32	157' LT				1				
EX-12	END SECTION	523+14	3' LT				1				
EX-13	INLET	523+72	2' RT			1					
EX-14	INLET	526+24	69' RT			1					
EX-15	END SECTION	526+20	165' RT				1				
EX-16	INLET	526+85	70' LT			1					
EX-17	END SECTION	526+89	173' T				1				
EX-18	INLET	529+05	0'	1							
EX-19	END SECTION	529+02	186' LT				1	10			
EX-20	INLET	533+55	91' LT								
EX-21	INLET	535+78	2' LT								
EX-22	INLET	535+76	102' RT								
EX-23	INLET	545+81	2' LT								
EX-24	OUTLET	54+57	89' RT								
			TOTAL	2	1	4	6	10	31	31	

PROPOSED PIPE SCHEDULE

STRUC NO	BEGIN STA	END STA	O/S	O/S	US STR	US INV	DS STR	DS INV	SLOPE	PIPE CULVERTS, CLASS D, TYPE 1 24"	SLOTTED DRAIN 24" WITH VARIABLE SLOT	STORM SEWERS, CLASS A, TYPE 1 12"	PIPE DRAINS 12"	CONCRETE THRUST BLOCKS	NOTE
										FOOT	FOOT	FOOT	FOOT	EACH	
P01	488+50.00	489+83.39	0' LT/RT	0' LT/RT	P02	497.92	S01	496.37	1.2%	134					
P02	489+83.39	492+16.41	0' LT/RT	0' LT/RT	P03	500.74	P01	497.92	1.2%		233				
P03	492+16.41	493+10.00	0' LT/RT	0' LT/RT	S02	501.85	P02	500.74	1.2%	94					
P04	519+05.82	519+05.89	69' LT	150' LT	S04	498.41	S05	475.10	-				80	1	
P05	519+11.43	519+11.43	29' RT	0' RT	S06	498.97	S07	497.91	-				25		
P06	523+38.25	523+67.53	0' LT/RT	0' LT/RT	S09	508.40	S08	505.97	8.7%			28			
P07	523+67.53	523+67.53	29' LT	0' LT/RT	S10	512.41	S09	509.76	-				27		
P08	523+77.21	523+77.21	69' LT	170' LT	S11	511.61	S12	472.93	-				101	1	
P09	526+06.35	526+06.35	69' RT	185' RT	S13	519.51	S14	483.93	-				113	1	
P10	526+16.35	526+16.35	29' RT	0' LT/RT	S15	519.84	S16	519.38	-				25		
P11	526+49.51	516+49.51	29' LT	0' LT/RT	S17	520.31	S18	520.05	-				25		
P12	526+59.51	526+59.51	69' LT	180' LT	S19	520.49	S20	479.60	-				112	1	
P13	529+01.87	529+01.87	150' LT	185' LT	EX17	-	S21	476.30	-	25					REPAIR EX PIPE
P14	537+49.56	539+18.49	0' LT/RT	0' LT/RT	P15	556.56	S22	551.51	3.0%	169					
P15	539+18.49	541+51.50	0' LT/RT	0' LT/RT	P16	563.59	P14	556.56	3.0%		233				
P16	541+51.50	542+27.00	0' LT/RT	0' LT/RT	S23	565.80	P15	563.59	3.0%	74					
									TOTAL	496	466	28	508	4	

PROPOSED UNDERDRAIN SCHEDULE

UNDER DRAIN NO	STA	O/S	STA	O/S	CONCRETE HEADWALLS FOR PIPE DRAINS	PIPE UNDERDRAINS 4" (SPECIAL)	PIPE UNDERDRAINS, TYPE 3	NOTE
					EACH	FOOT	FOOT	
U01	486+03.00	35' LT	488+34.90	35' LT		34	232	CONNECT TO EX-01
U02	488+34.90	35' LT	493+34.90	35' LT	1	28	500	
U03	493+34.90	35' LT	496+34.90	35' LT	1	30	300	
U04	486+03.00	35' RT	488+34.90	35' RT		34	232	CONNECT TO EX-01
U05	488+34.90	35' RT	493+34.90	35' RT	1	28	500	
U06	493+34.90	35' RT	496+34.90	35' RT	1	30	300	
U07	523+76.94	59' LT	526+67.71	59' LT		8	291	CONNECT TO S11
U08	525+72.00	35' LT	526+57.38	35' LT	1	25	85	
U09	535+00.00	35' LT	537+27.00	35' LT	1	20	227	
U10	537+27.00	35' LT	542+27.00	35' LT	1	27	500	
U11	542+27.00	35' LT	545+70.00	35' LT		33	343	CONNECT TO S23
U12	535+00.00	35' RT	537+27.00	35' RT	1	20	227	
U13	537+27.00	35' RT	542+27.00	35' RT	1	27	500	
U14	542+27.00	35' RT	545+70.00	35' RT		33	343	CONNECT TO S23
				TOTAL	9	377	4580	

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FAI ROUTE 180 (I–180)
DRAINAGE SCHEDULES

SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
180	[(06-2B-1) & (06-2HB-1)]BR	BUREAU	327	111
		CONTRACT NO. 66K66		
	ILLINOIS FED. AID PROJECT			

PROPOSED DRAINAGE STRUCTURES SCHEDULE

STRUC NO	STA	O/S	RIM	INV.	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 12"	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 24"	FLUSH INLET BOX FOR MEDIAN, STANDARD 542546	SLOPED METAL END SECTION WITH GRATE, STANDARD 542411, 24", 1:6	METAL FLARED END SECTIONS 12"	METAL FLARED END SECTIONS 24"	TYPE F INLET BOX, STANDARD 610001	TYPE G INLET BOX, STANDARD 610001	CONCRETE SHOULDER CURB (SEE NOTE 1)	STONE RIPRAP, CLASS A4	FILTER FABRIC	PAVED DITCH SPECIAL	NOTE
					EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	FOOT	SQ YD	SQ YD	FOOT	
S01	488+50.00	0' LT/RT	-	496.37				1									
S02	493+10.00	0' LT/RT	-	501.85				1									
S03	512+00.00	124' LT	-	472.65		1								30.8	30.8		
S04	519+05.82	69' LT	501.06	498.41							1		10				
S05	519+05.82	150' LT	-	-					1								
S06	519+11.43	29' RT	501.63	498.97								1	10				
S07	519+11.43	0' RT	-	-					1								
S08	523+38.25	0' LT/RT	-	505.97	1												
S09	523+67.53	0' LT/RT	511.85	508.40 N, 509.76 W			1										
S10	523+67.53	29' RT	515.08	512.41								1	10				
S11	523+77.21	69' LT	514.32	511.61							1		10				
S12	523+77.21	170' LT	-	472.93					1								
S13	526+06.35	69' RT	522.18	519.51							1		10				
S14	526+06.35	185' RT	-	-					1								
S15	526+16.35	29' RT	522.51	519.84								1	10				
S16	526+16.35	0' LT/RT	-	-					1								
S17	526+49.51	29' LT	522.98	520.31								1	10				
S18	526+49.51	0' LT/RT	-	-					1								
S19	526+59.51	69' LT	523.16	520.49							1		10				
S20	526+59.51	180' LT	-	-					1								
S21	529+01.86	186' LT	-	476.30						1						10	
S22	537+50.00	0' LT/RT	-	551.51				1									
S23	542+27.13	0' LT/RT	568.55	565.80			1										
EXISTING DRAINAGE (SEE EXISTING DRAINAGE STRUCTURES SCHEDULE)														31	31		
				TOTAL	1	1	2	3	7	1	4	4	80	62	62	10	

NOTE: ALL RIM ELEVATIONS FOR SHOULDER INLETS ARE SHOWN AT THE BACK OF SHOULDER UNLESS NOTED OTHERWISE.

NOTES:

1. CONCRETE SHOULDER CURB AS SHOWN ON HIGHWAY STANDARD 610001 SHALL BEGIN AT THE LIMITS OF CURB ON BRIDGE APPROACHES AND EXTEND TO THE END OF THE OPENING OF THE TYPE F AND TYPE G INLET BOXES. SEE SHOULDER INLET DETAIL ON DETAIL SHEETS. SEE STRUCTURE PLANS FOR DETAILS OF CURB ON BRIDGE APPROACHES.

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Civil Engineering Design

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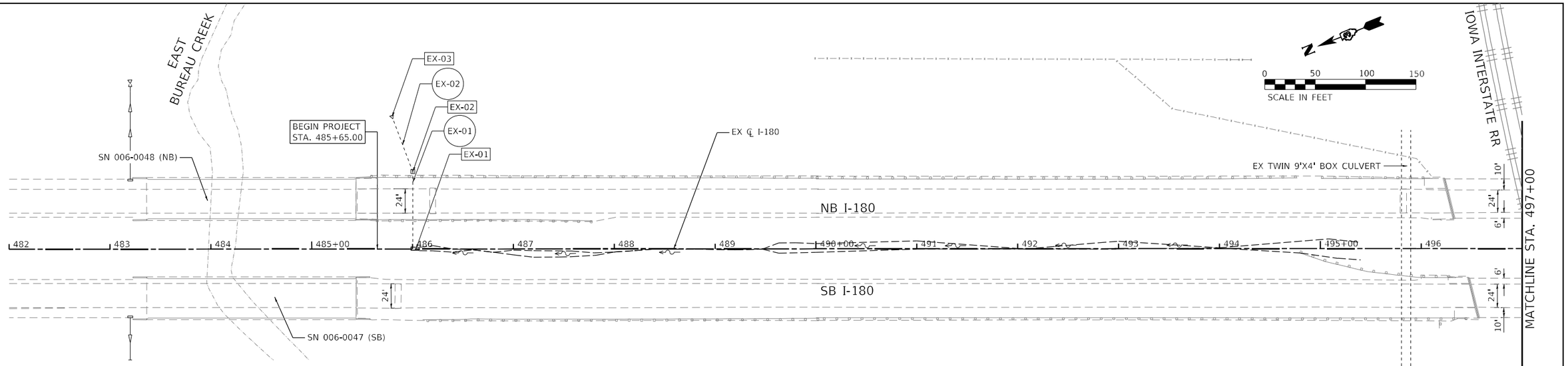
PLOT DATE = 1/12/2024	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FAI ROUTE 180 (I–180)
DRAINAGE SCHEDULES

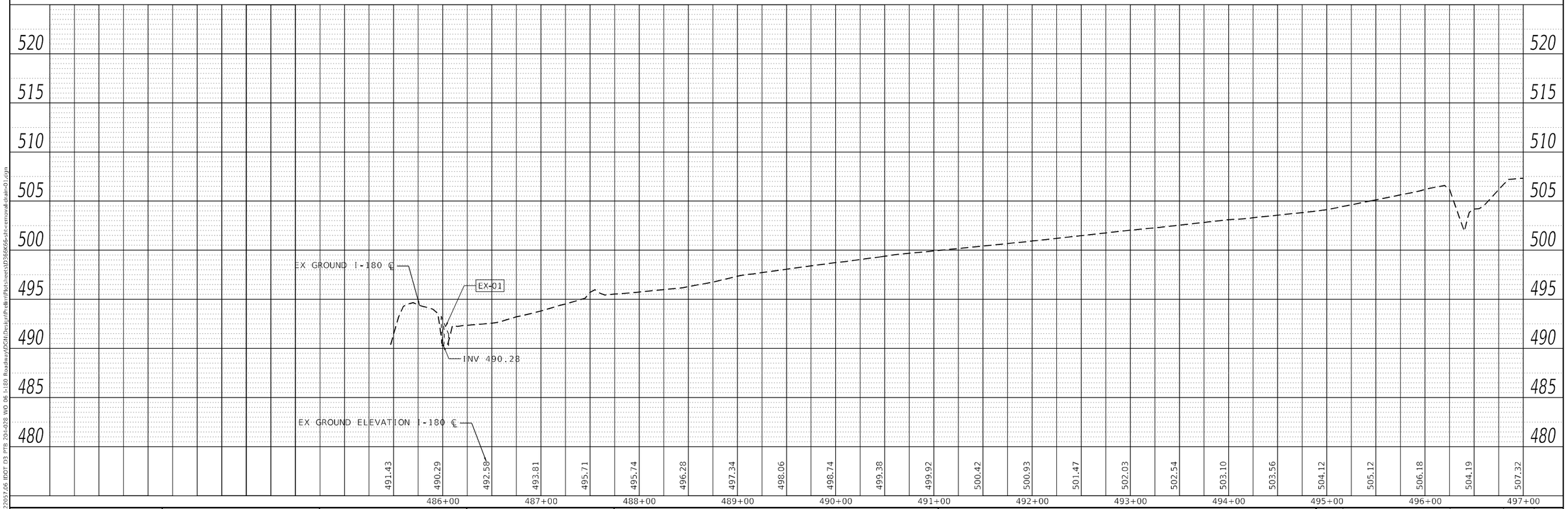
SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
180	[(06-2B-1) & (06-2HB-1)]BR	BUREAU	327	112
		CONTRACT NO. 66K66		
	ILLINOIS FED. AID PROJECT			



LEGEND

R	STRUCTURE TO BE REMOVED	EX-X	EXISTING DRAINAGE STRUCTURE
ADJ	STRUCTURE TO BE ADJUSTED	EX-X	EXISTING DRAINAGE PIPE
CLN	STRUCTURE TO BE CLEANED		DRAINAGE PIPE REMOVAL
ABAN	DRAINAGE PIPE TO BE FILLED		



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PLOT DATE = 1/12/2024	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

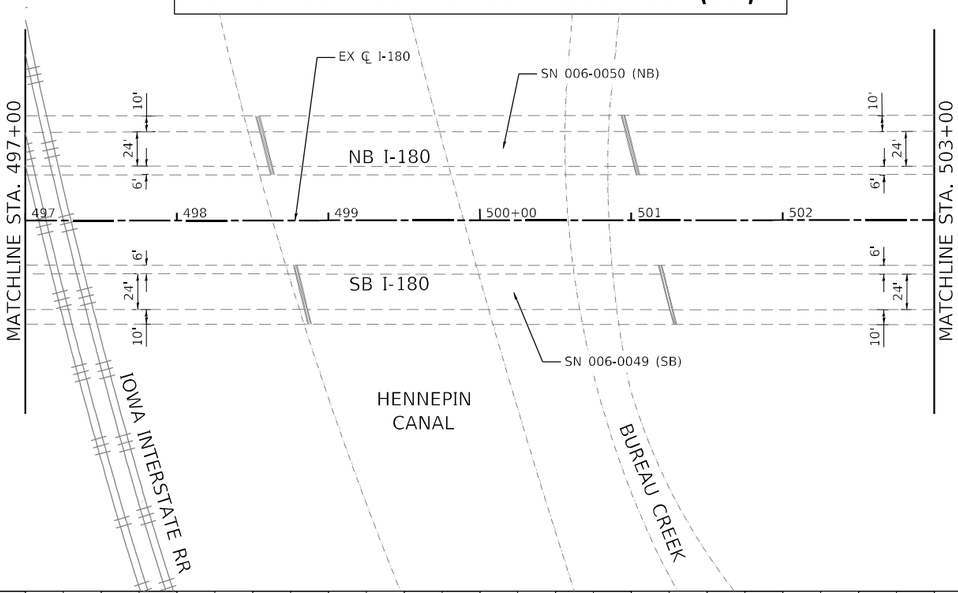
FAI ROUTE 180 (I–180)
DRAINAGE REMOVAL PLAN

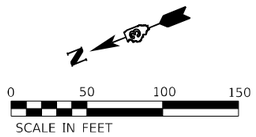
SCALE: 1" = 50' | SHEET 1 OF 5 SHEETS | STA. | TO STA. 497+00

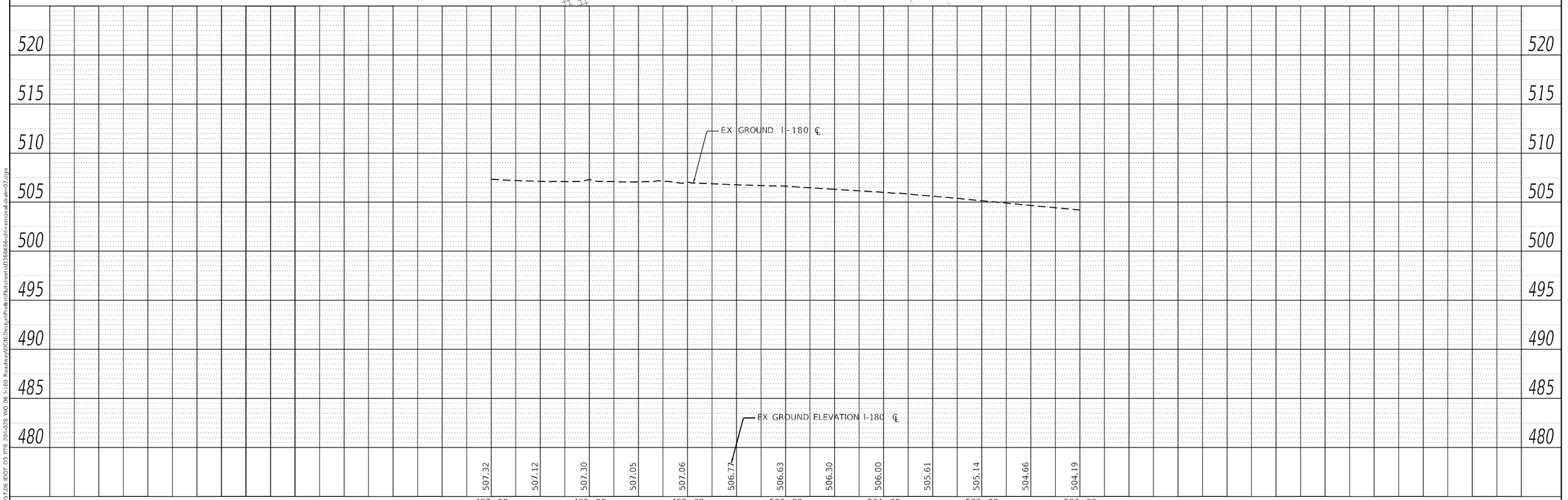
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
180	[(06-2B-1) & (06-2HB-1)]BR	BUREAU	327	113
		CONTRACT NO. 66K66		
	ILLINOIS FED. AID PROJECT			

OMISSION

STA 496+35 TO STA 505+40 (NB)
STA 496+35 TO STA 505+50 (SB)







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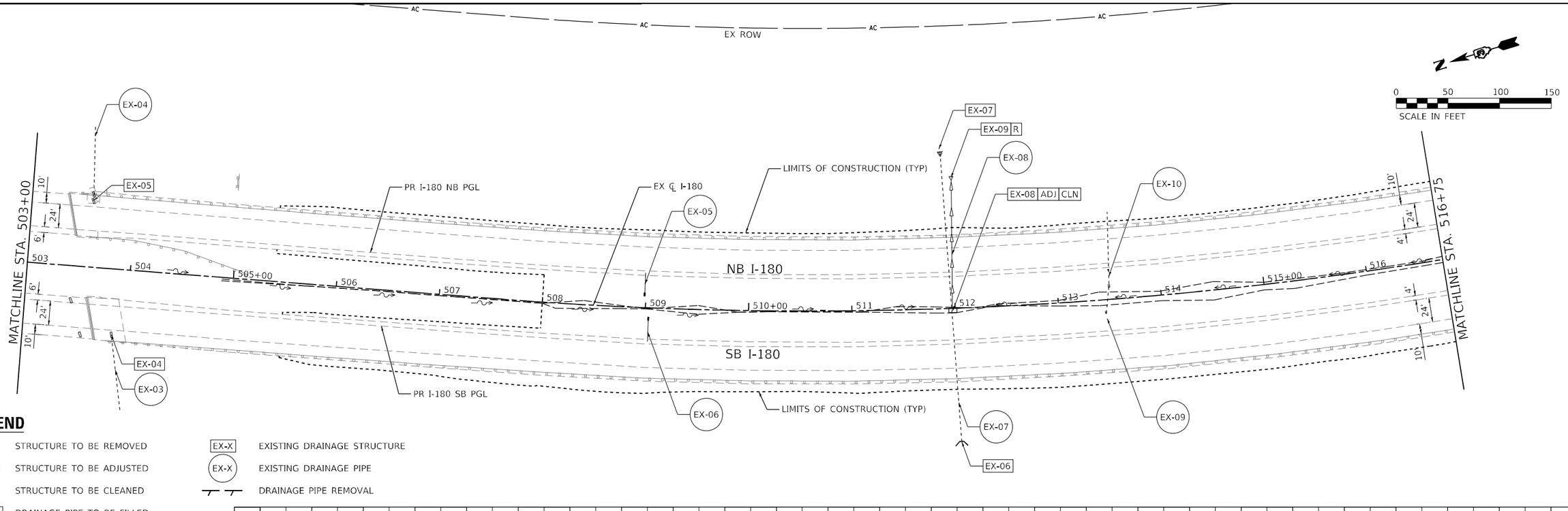
PLOT DATE = 1/12/2024	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FAI ROUTE 180 (I-180)
DRAINAGE REMOVAL PLAN

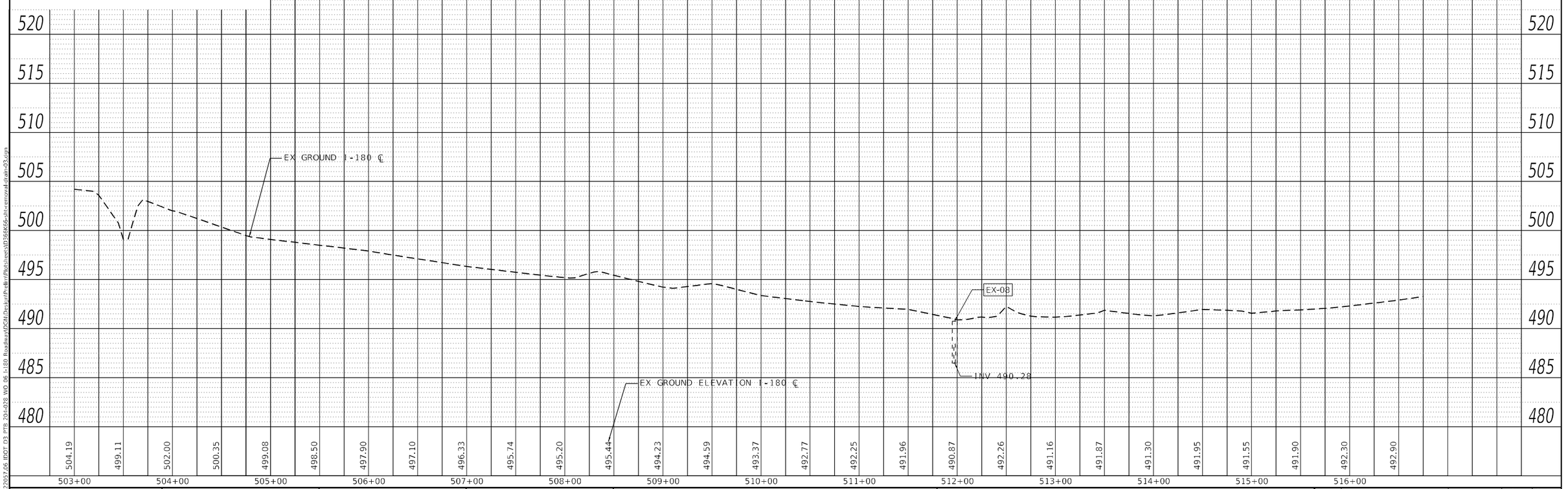
SCALE: 1" = 50' | SHEET 2 OF 5 SHEETS | STA. 497+00 | TO STA. 503+00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
180	[(06-2B-1) & (06-2HB-1)]BR	BUREAU	327	114
		CONTRACT NO. 66K66		
	ILLINOIS FED. AID PROJECT			



LEGEND

R	STRUCTURE TO BE REMOVED	EX-X	EXISTING DRAINAGE STRUCTURE
ADJ	STRUCTURE TO BE ADJUSTED	EX-X	EXISTING DRAINAGE PIPE
CLN	STRUCTURE TO BE CLEANED		DRAINAGE PIPE REMOVAL
ABAN	DRAINAGE PIPE TO BE FILLED		



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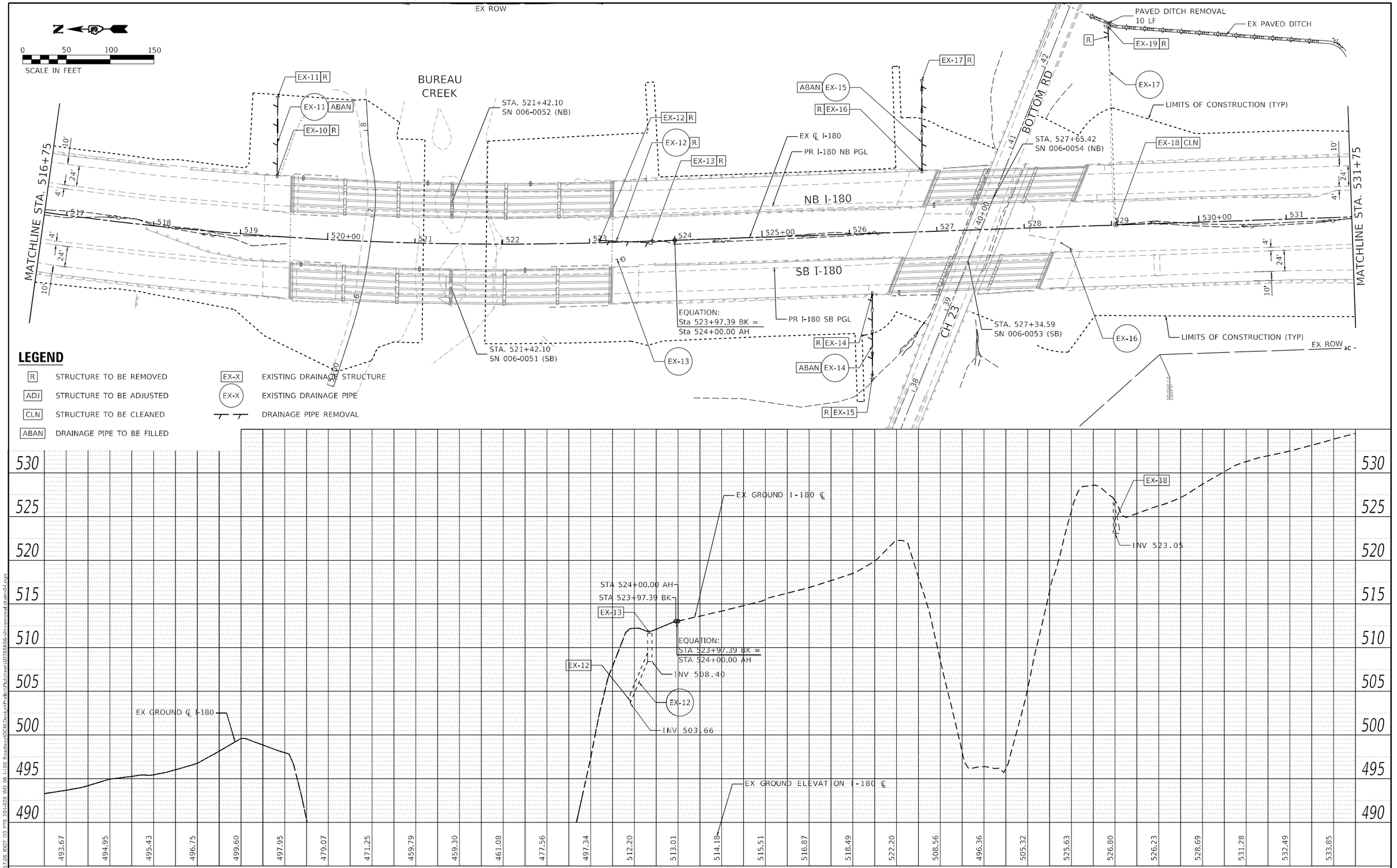
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FAI ROUTE 180 (I–180)
DRAINAGE REMOVAL PLAN

SCALE: 1" = 50' | SHEET 3 OF 5 SHEETS | STA. 503+00 | TO STA. 516+75

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
180	[(06-2B-1) & (06-2HB-1)]BR	BUREAU	327	115
		CONTRACT NO. 66K66		
	ILLINOIS FED. AID PROJECT			



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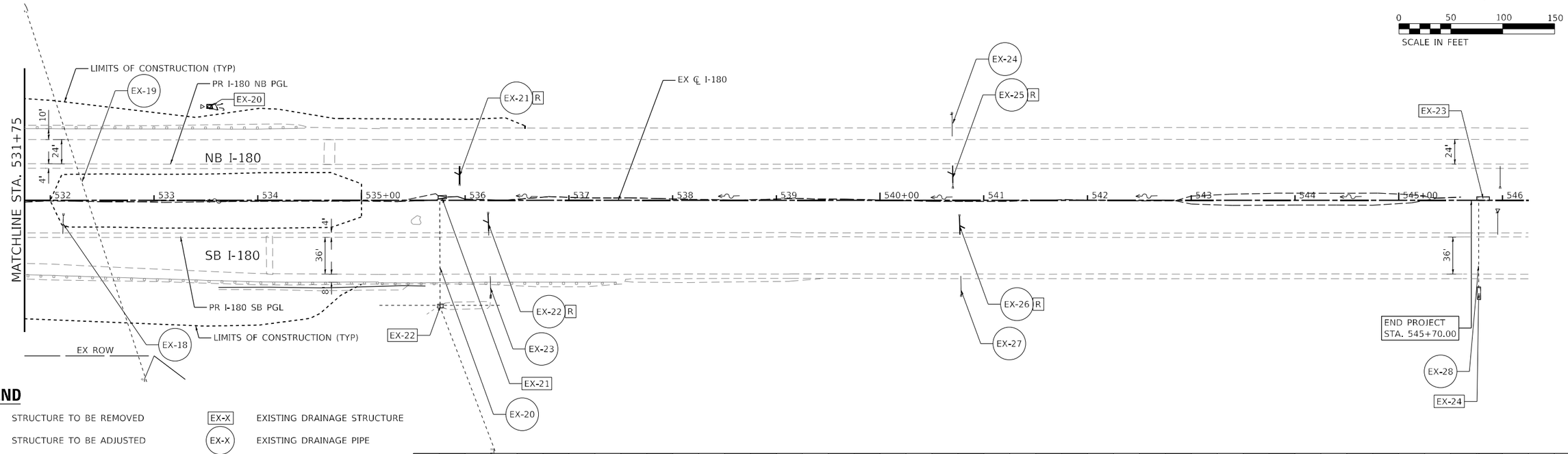
Civil Engineering Design

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FAI ROUTE 180 (I–180)
DRAINAGE REMOVAL PLAN

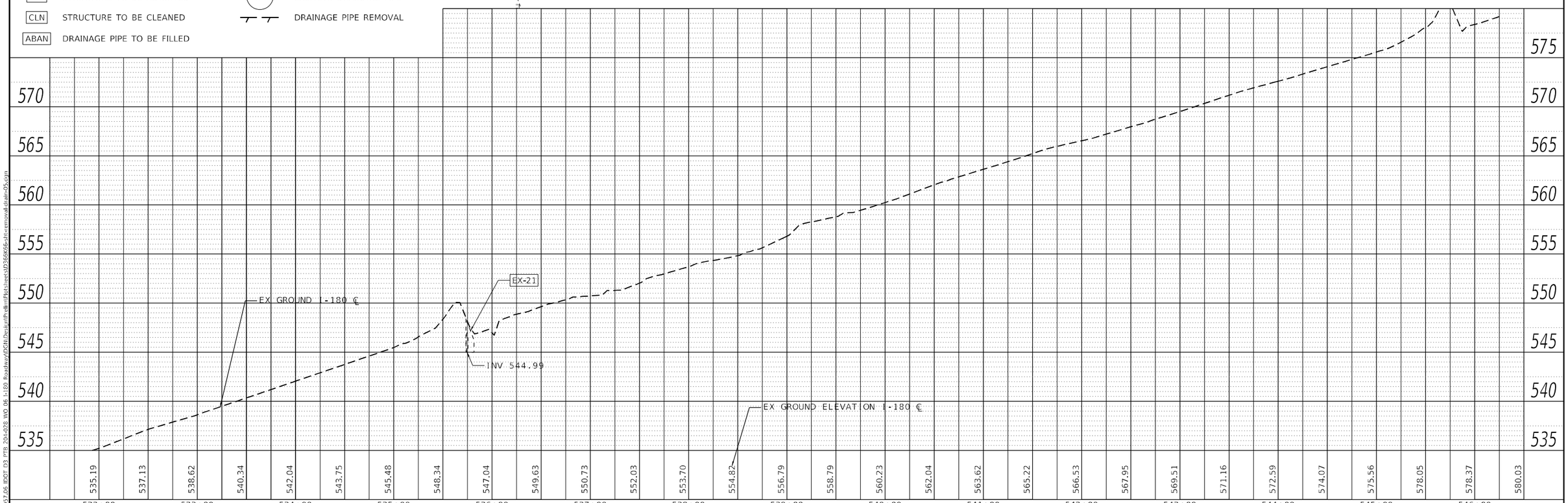
SCALE: 1" = 50' | SHEET 4 OF 5 SHEETS | STA. 516+75 | TO STA. 531+75

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
180	[(06-2B-1) & (06-2HB-1)]BR	BUREAU	327	116
		CONTRACT NO. 66K66		
	ILLINOIS FED. AID PROJECT			



LEGEND

R	STRUCTURE TO BE REMOVED	EX-X	EXISTING DRAINAGE STRUCTURE
ADJ	STRUCTURE TO BE ADJUSTED	EX-X	EXISTING DRAINAGE PIPE
CLN	STRUCTURE TO BE CLEANED		DRAINAGE PIPE REMOVAL
ABAN	DRAINAGE PIPE TO BE FILLED		



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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FAI ROUTE 180 (I–180)
DRAINAGE REMOVAL PLAN

SCALE: 1" = 50' | SHEET 5 OF 5 SHEETS | STA. 531+75 | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
180	[(06-2B-1) & (06-2HB-1)]BR	BUREAU	327	117
		CONTRACT NO. 66K66		
		ILLINOIS	FED. AID PROJECT	

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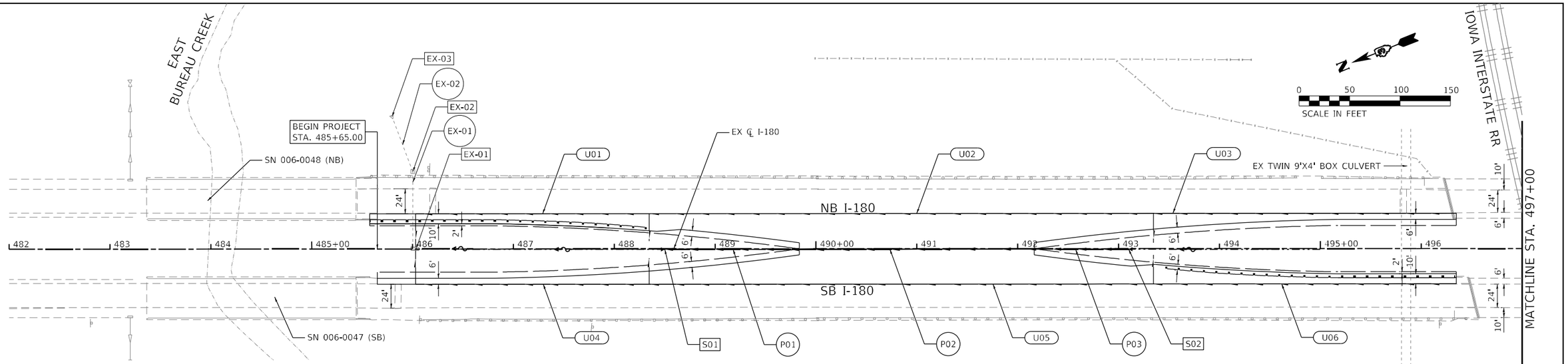

LEGEND

EX-X	EX DRAINAGE STRUCTURE	UXX	PR PIPE UNDERDRAIN		EX PIPE CULVERT		PR FLOW ARROW
EX-X	EX DRAINAGE PIPE		EX DITCH		PR PIPE CULVERT / DRAIN		
SXX	PR DRAINAGE STRUCTURE		PR DITCH		PR PIPE UNDERDRAIN		
PXX	PR DRAINAGE PIPE		EX STORM SEWER		EX FLOW ARROW		

NOTES

1. FOR REMOVAL EXISTING DRAINAGE ITEMS, SEE DRAINGE REMOVAL PLANS.

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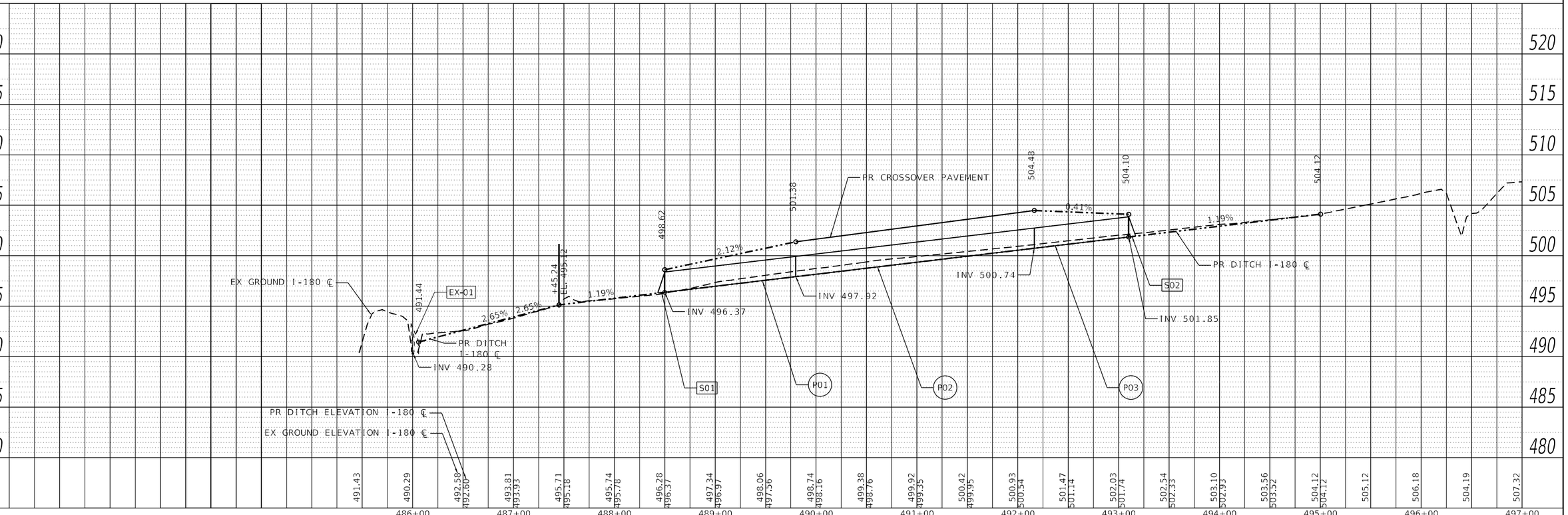

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FAI ROUTE 180 (I–180)
DRAINAGE & UTILITY PLAN

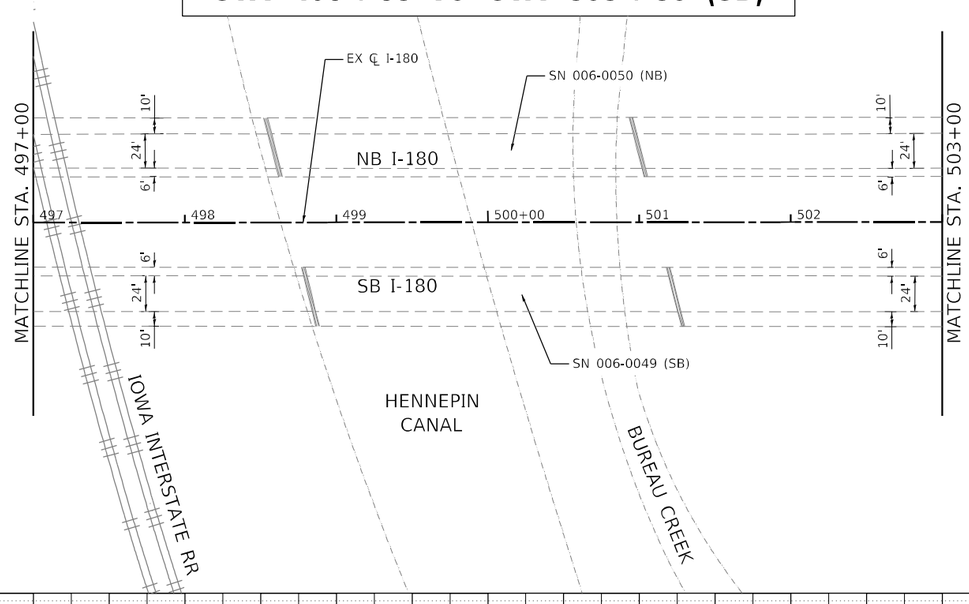
SCALE: 1" = 50' | SHEET 1 OF 5 SHEETS | STA. | TO STA. 497+00

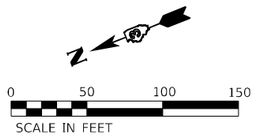
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
180	[(06-2B-1) & (06-2HB-1)]BR	BUREAU	327	118
		CONTRACT NO. 66K66		
	ILLINOIS FED. AID PROJECT			

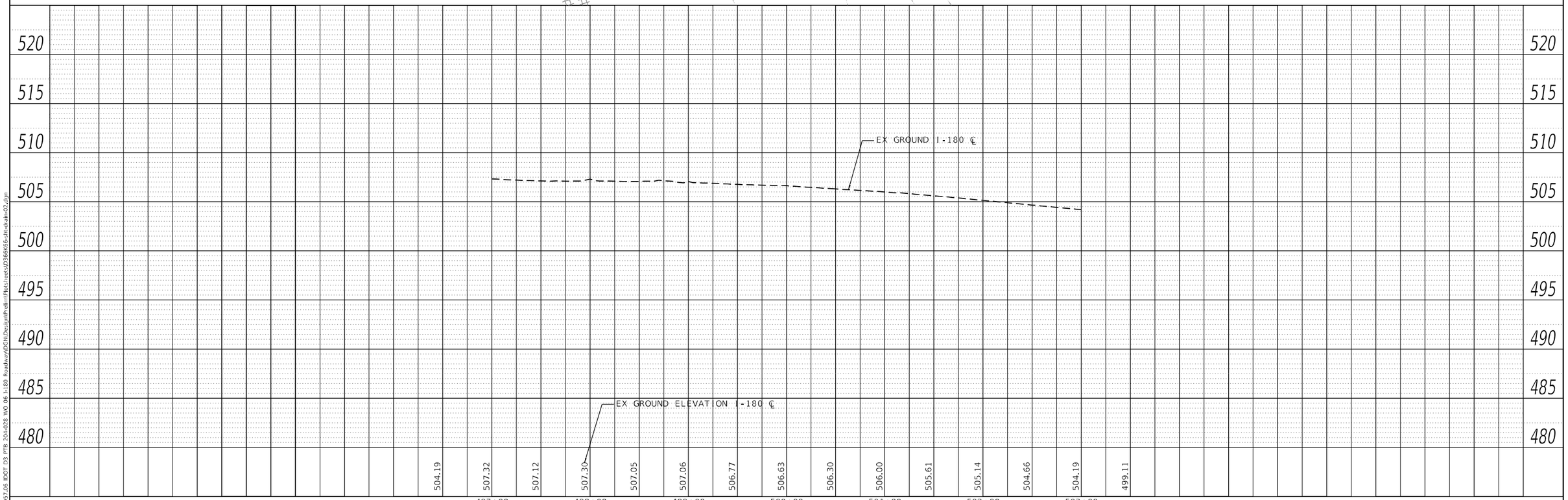
OMISSION

STA 496+35 TO STA 505+40 (NB)

STA 496+35 TO STA 505+50 (SB)







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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FAI ROUTE 180 (I-180)
DRAINAGE & UTILITY PLAN

SCALE: 1" = 50' | SHEET 2 OF 5 SHEETS | STA. 497+00 | TO STA. 503+00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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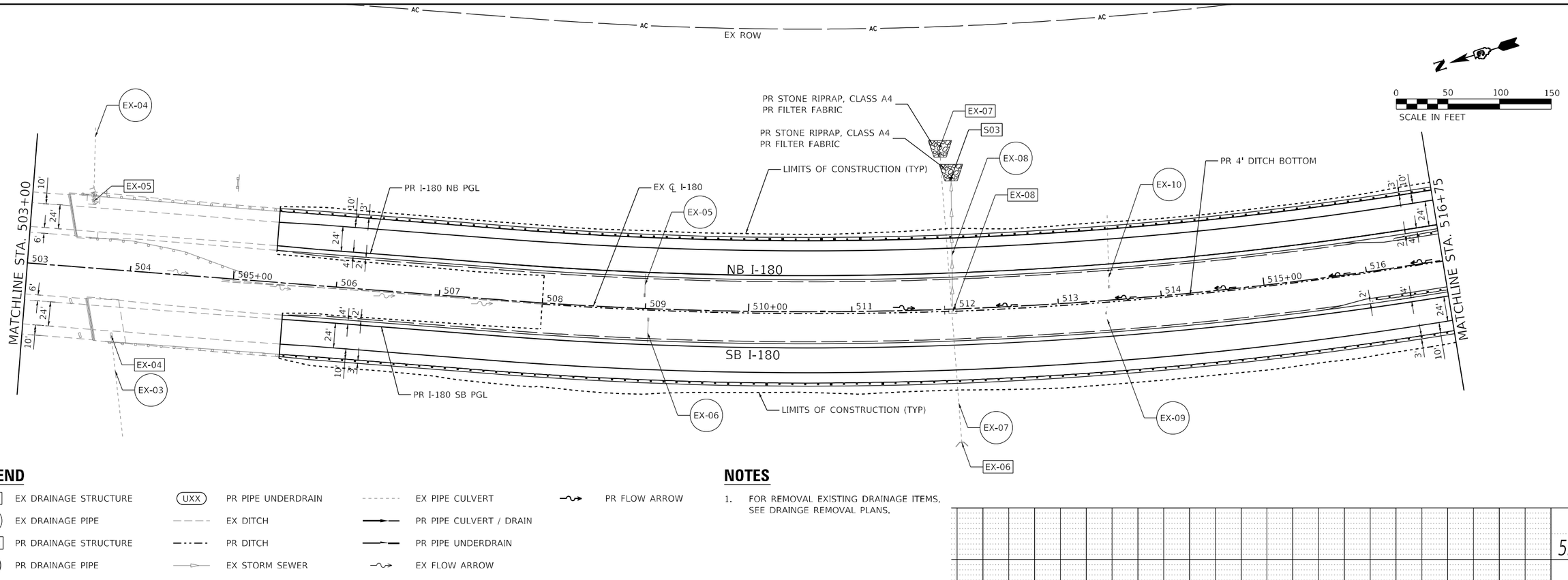
		CONTRACT NO. 66K66		
	ILLINOIS FED. AID PROJECT			

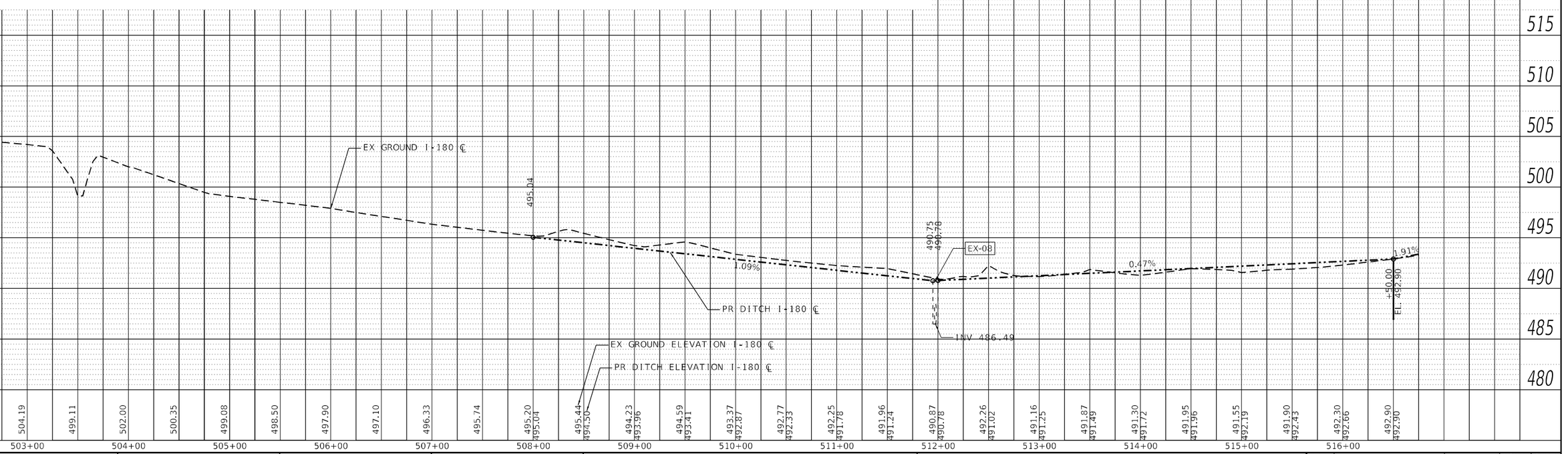


LEGEND

EX-X	EX DRAINAGE STRUCTURE	UXX	PR PIPE UNDERDRAIN		EX PIPE CULVERT		PR FLOW ARROW
EX-X	EX DRAINAGE PIPE		EX DITCH		PR PIPE CULVERT / DRAIN		
SXX	PR DRAINAGE STRUCTURE		PR DITCH		PR PIPE UNDERDRAIN		
PXX	PR DRAINAGE PIPE		EX STORM SEWER		EX FLOW ARROW		

NOTES

1. FOR REMOVAL EXISTING DRAINAGE ITEMS, SEE DRAINGE REMOVAL PLANS.



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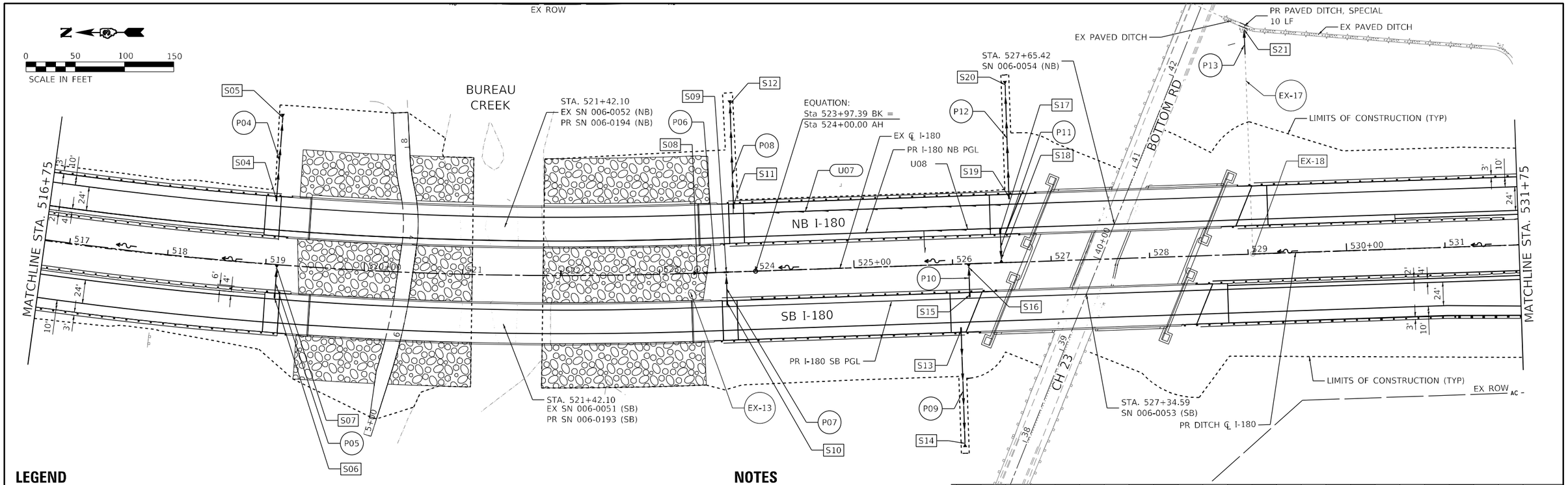
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FAI ROUTE 180 (I-180)
DRAINAGE & UTILITY PLAN

SCALE: 1" = 50' | SHEET 3 OF 5 SHEETS | STA. 503+00 | TO STA. 516+75

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
180	[(06-2B-1) & (06-2HB-1)]BR	BUREAU	327	120
		CONTRACT NO. 66K66		
	ILLINOIS FED. AID PROJECT			

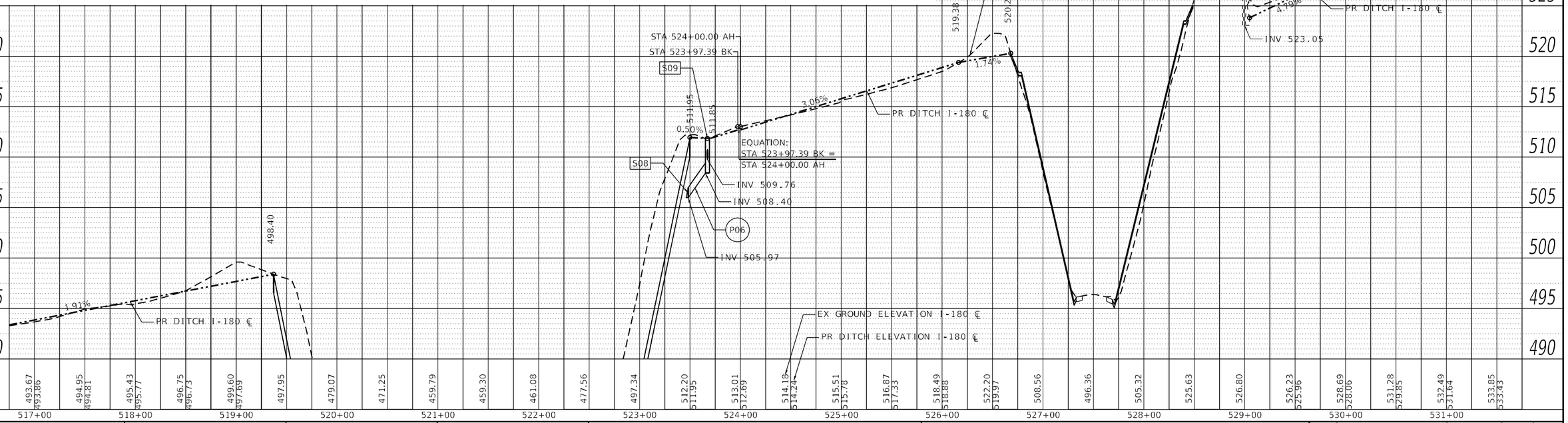


LEGEND

EX-X	EX DRAINAGE STRUCTURE	UXX	PR PIPE UNDERDRAIN	EX PIPE CULVERT	PR FLOW ARROW
EX-X	EX DRAINAGE PIPE		EX DITCH	PR PIPE CULVERT / DRAIN	
SXX	PR DRAINAGE STRUCTURE		PR DITCH	PR PIPE UNDERDRAIN	
PXX	PR DRAINAGE PIPE		EX STORM SEWER	EX FLOW ARROW	

NOTES

1. FOR REMOVAL EXISTING DRAINAGE ITEMS, SEE DRAINGE REMOVAL PLANS.



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	DRAWN -	REVISED -	
PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 1/12/2024	DATE -	REVISED -	

EFK•Moen
Civil Engineering Design

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FAI ROUTE 180 (I-180)
DRAINAGE & UTILITY PLAN

SCALE: 1" = 50' | SHEET 4 OF 5 SHEETS | STA. 516+75 | TO STA. 531+75

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
180	[(06-2B-1) & (06-2HB-1)]BR	BUREAU	327	121
		CONTRACT NO. 66K66		
	ILLINOIS FED. AID PROJECT			

PLAN / PROFILE — SURVEYED, PLOTTED, ALIGNMENT CHECKED, R.O. WAY CHECKED, CADD FILE NAME, NOTE BOOK, NO., BY, DATE

MODEL: Default
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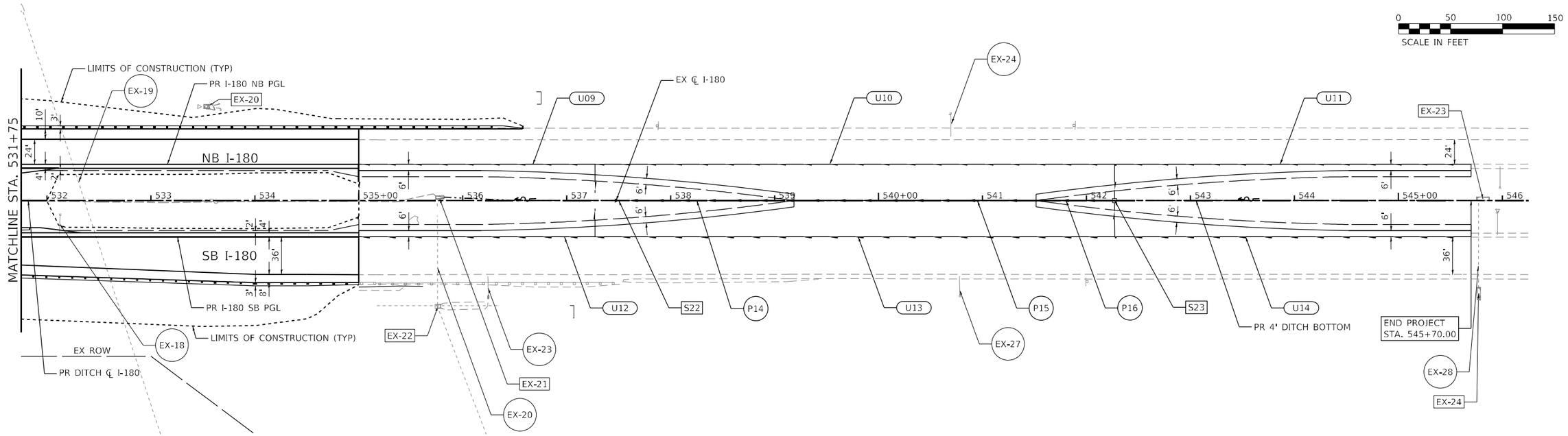
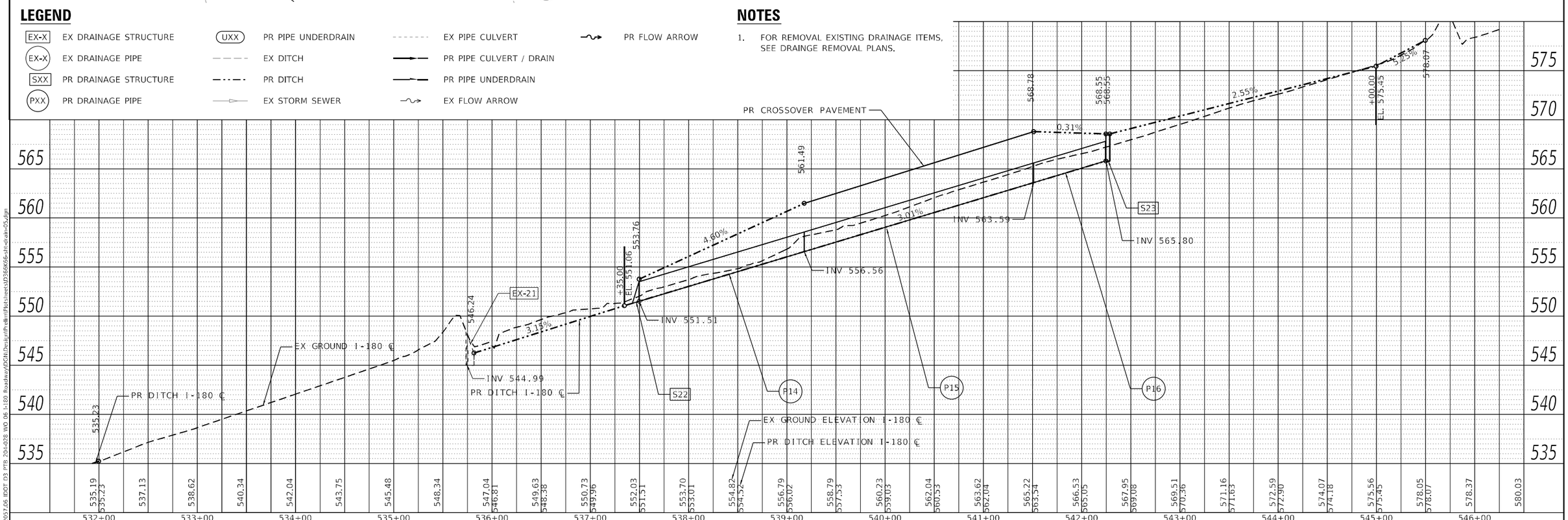


LEGEND

EX-X	EX DRAINAGE STRUCTURE	UXX	PR PIPE UNDERDRAIN	EX PIPE CULVERT	PR FLOW ARROW
EX-X	EX DRAINAGE PIPE		EX DITCH	PR PIPE CULVERT / DRAIN	
SXX	PR DRAINAGE STRUCTURE		PR DITCH	PR PIPE UNDERDRAIN	
PXX	PR DRAINAGE PIPE		EX STORM SEWER	EX FLOW ARROW	

NOTES

1. FOR REMOVAL EXISTING DRAINAGE ITEMS, SEE DRAINGE REMOVAL PLANS.



USER NAME = RGall	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 1/12/2024	DATE -	REVISED -	

EFK•Moen
Civil Engineering Design

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FAI ROUTE 180 (I-180)
DRAINAGE & UTILITY PLAN

SCALE: 1" = 50' | SHEET 5 OF 5 SHEETS | STA. 531+75 | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
180	[(06-2B-1) & (06-2HB-1)]BR	BUREAU	327	122
		CONTRACT NO. 66K66		
		ILLINOIS	FED. AID PROJECT	

PLAN — SURVEYED | PLOTTED | DESIGNED | CHECKED | QUANT. CHECKED | R.O.W. CHECKED | QA/QC | DATE | BY | NOTE BOOK | NO. | CADD FILE NAME | 8½"

PROFILE — SURVEYED | PLOTTED | DESIGNED | CHECKED | QUANT. CHECKED | R.O.W. CHECKED | QA/QC | DATE | BY | NOTE BOOK | NO. | CADD FILE NAME | STRUCTURE NOTATNS CHKD

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EXISTING SIGNING SCHEDULE

SIGN NUMBER	EXISTING STATION	EXISTING OFFSET	RELOCATE STATION	RELOCATE OFFSET	RELOCATE MOUNTING TYPE	DESIGNATION	DESCRIPTION	STG 1	STG 2	STG 3	PANEL WIDTH	PANEL HEIGHT	PANEL AREA	REMOVE SIGN PANEL - TYPE 1	RELOCATE SIGN PANEL - TYPE 1	REMOVE SIGN PANEL - TYPE 3	RELOCATE SIGN PANEL - TYPE 3	REMOVE GROUND MOUNTED SIGN SUPPORT	REMOVE CONCRETE FOUNDATION - GROUND MOUNT
											INCH	INCH	SQ FT	SQ FT	SQ FT	SQ FT	SQ FT	EACH	EACH
EX-01						D10-2	REFERENCE LOCATION	-	-	-	12	36	3.0						
EX-02						E5-1a	EXIT GORE (WITH EXIT NUMBER)	-	-	-	78	60	32.5						
EX-03						W4-1	MERGING TRAFFIC	-	-	-	48	48	16.0						
EX-04						D10-2	REFERENCE LOCATION	-	-	-	12	36	3.0						
EX-05						W13-3	ADVISORY RAMP SPEED	-	-	-	36	48	12.0						
EX-06						CUSTOM	EXIT 7 PRINCETON	-	-	-	150	138	143.8						
EX-07						R2-4a	COMBINED SPEED LIMIT	COVER	COVER	COVER	48	96	32.0						
EX-08						D9-2	HOSPITAL	-	-	-	30	30	6.3						
EX-09						CUSTOM	NEXT EXIT	-	-	-	30	24	5.0						
EX-10						M3-3	CARDINAL DIRECTION	-	-	-	36	18	4.5						
EX-11						M1-1	INTERSTATE ROUTE SIGN (3 DIGITS)	-	-	-	45	36	11.3						
EX-12	496+18	75.0' RT	496+18	21.8' LT	GROUND	I1-I106	HENNEPIN CANAL	-	REMOVE	-	36	24	6.0	6.0					
EX-13	503+71	73.8' LT	503+71	22.3' RT	GROUND	I1-I106	HENNEPIN CANAL	-	-	REMOVE	36	24	6.0	6.0					
EX-14	504+98	93.2' LT	504+98	16.5' RT	GROUND	CUSTOM	EXIT 7 PRINCETON 1/2 MILE	-	-	RELOCATE	150	138	143.8			287.5	143.8	2	2
EX-15	517+90	88.5' RT	517+90	15.5' LT	GROUND	CUSTOM	TO IL 29 PEORIA EXIT 2 MILES	-	RELOCATE	REMOVE	144	114	114.0			228.0	114.0	2	2
EX-16	523+68	71.3' LT	523+68	22.5' RT	GROUND	D10-2	REFERENCE LOCATION	-	-	RELOCATE	12	36	3.0	6.0	3.0				
EX-17	523+68	71.3' RT	523+68	23.1' LT	GROUND	D10-2	REFERENCE LOCATION	-	RELOCATE	REMOVE	12	36	3.0	6.0	3.0				
EX-18	524+90	77.6' LT	524+90	16.3' RT	GROUND	CUSTOM	EXIT 7 PRINCETON 1 MILE	-	-	RELOCATE	150	138	143.8			287.5	143.8	2	2
EX-19						R3-4	MOVEMENT PROHIBITION	-	-	-	36	36	9.0						
EX-20						R3-I101	EXCEPT AUTHORIZED VEHICLES	-	-	-	36	24	6.0						
EX-21						CUSTOM	HENNEPIN KEEP LEFT OVERHEAD SIGN	-	-	-	144	114	114.0						
EX-22						CUSTOM	TO IL 29 SOUTH PEORIA OVERHEAD SIGN	-	-	-	144	114	114.0						
EX-23						D10-2	REFERENCE LOCATION	-	-	-	12	36	3.0						
EX-24						D10-2	REFERENCE LOCATION	-	-	-	12	36	3.0						
													TOTAL	24	6	803	402	6	6

PROPOSED SIGNING SCHEDULE

SIGN NUMBER	PROPOSED STATION	PROPOSED OFFSET	PROPOSED MOUNTING TYPE	DESIGNATION	DESCRIPTION	PANEL WIDTH	PANEL HEIGHT	PANEL AREA	SIGN PANEL - TYPE 1	SIGN PANEL - TYPE 3	STRUCTURAL STEEL SIGN SUPPORT - BREAKAWAY					CONCRETE FOUNDATIONS	TELESCOPING STEEL SIGN SUPPORT	WOOD SIGN SUPPORT
											MEMBER TYPE	P1	P2	STUB POST WEIGHT	PAY WEIGHT			
						INCH	INCH	SQ FT	SQ FT	SQ FT		FOOT	FOOT	LBS	LBS	CU YD	FOOT	FOOT
PR-01	488+00	17.0' RT	GROUND	R3-4	MOVEMENT PROHIBITION	36	36	9.0	9.0									17.7
PR-02	488+00	17.0' RT	GROUND	R3-I101	EXCEPT AUTHORIZED VEHICLES	36	24	6.0	6.0									
PR-03	494+00	17.0' LT	GROUND	R3-4	MOVEMENT PROHIBITION	36	36	9.0	9.0									17.6
PR-04	494+00	17.0' LT	GROUND	R3-I101	EXCEPT AUTHORIZED VEHICLES	36	24	6.0	6.0									
PR-05	496+15	75.0' RT	GROUND	I1 I106	HENNEPIN CANAL	36	24	6.0	6.0									15.0
PR-06	503+75	75.0' LT	GROUND	I1-I106	HENNEPIN CANAL	36	24	6.0	6.0									15.0
PR-07	505+00	89.0' LT	GROUND	CUSTOM	EXIT 7 PRINCETON 1/2 MILE	150	138	143.8		143.8	W14X38	23.3	25.2	266	2107.1	4.2		
PR-08	518+00	83.75' RT	GROUND	CUSTOM	TO IL 29 PEORIA EXIT 2 MILES	114	144	114.0		114.0	W10X26	20.7	23.0	156	1291.4	2.5		
PR-09	523+70	75.0' LT	GROUND	D10-2	REFERENCE LOCATION	12	36	3.0	3.0								15.0	
PR-10	523+70	75.0' RT	GROUND	D10-2	REFERENCE LOCATION	12	36	3.0	3.0								15.0	
PR-11	525+00	74.25' LT	GROUND	CUSTOM	EXIT 7 PRINCETON 1 MILE	150	138	143.8		143.8	W14X30	19.2	22.8	180	1439.7	3.8		
PR-12	537+35	17'0' RT	GROUND	R3-4	MOVEMENT PROHIBITION	36	36	9.0	9.0									17.8
PR-13	537+35	17'0' RT	GROUND	R3-I101	EXCEPT AUTHORIZED VEHICLES	36	24	6.0	6.0									
PR-14	543+35	17.0' LT	GROUND	R3-4	MOVEMENT PROHIBITION	36	36	9.0	9.0									17.7
PR-15	543+35	17.0' LT	GROUND	R3-I101	EXCEPT AUTHORIZED VEHICLES	36	24	6.0	6.0									
								TOTAL	78	402					4839	11	30	101

NOTES:

1. ALL NEW SIGNS SHALL HAVE SIGN FACE MATERIAL IN ACCORDANCE WITH THE DEPARTMENT'S FABRICATION OF HIGHWAY SIGN POLICY PER SECTION 1091 OF THE STANDARD SPECIFICATIONS.

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Civil Engineering Design

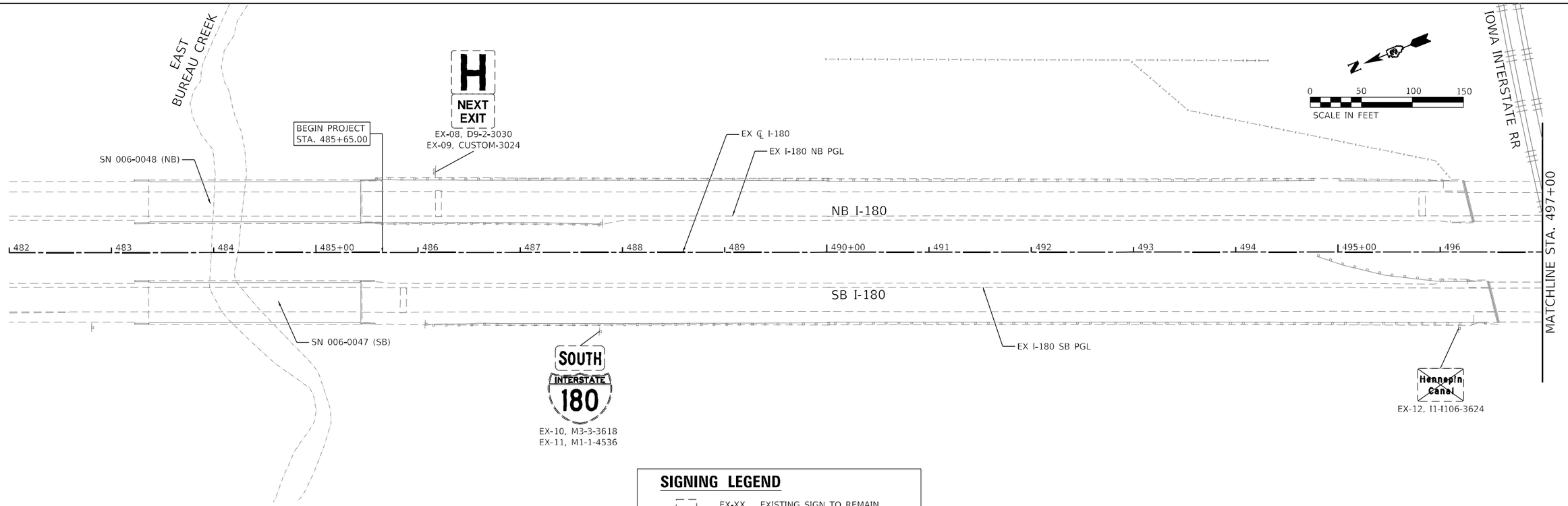
USER NAME = RGall	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 1/12/2024	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FAI ROUTE 180 (I–180)
SIGNING SCHEDULES

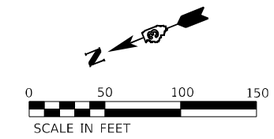
SCALE: | SHEET OF SHEETS | STA. | TO STA.

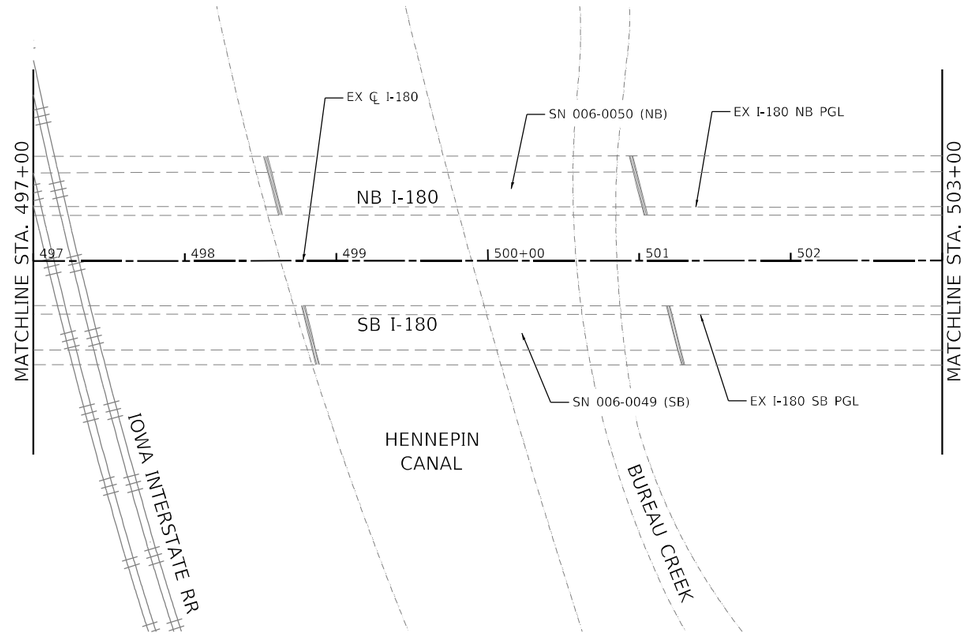
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
180	[(06-2B-1) & (06-2HB-1)]BR	BUREAU	327	123
		CONTRACT NO. 66K66		
	ILLINOIS	FED. AID PROJECT		



SIGNING LEGEND

[EX-XX]	EX-XX	EXISTING SIGN TO REMAIN
⊠	EX-XX	REMOVED SIGN
▭	PR-XX	PROPOSED SIGN





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EFK♦Moen
Civil Engineering Design

USER NAME = RGall	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 1/12/2024	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

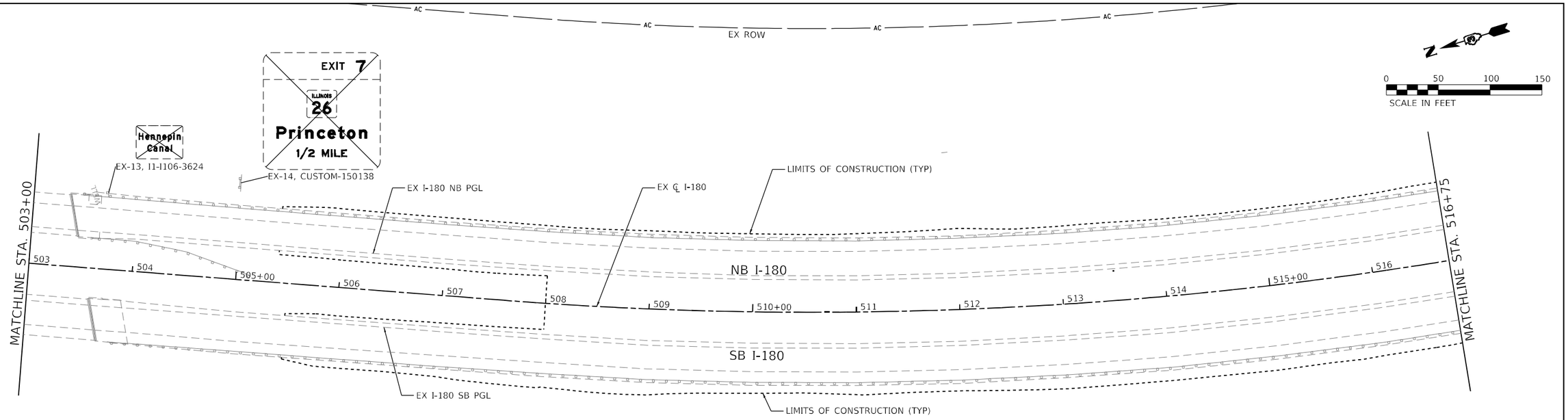
FAI ROUTE 180 (I–180)
EXISTING SIGNING PLAN

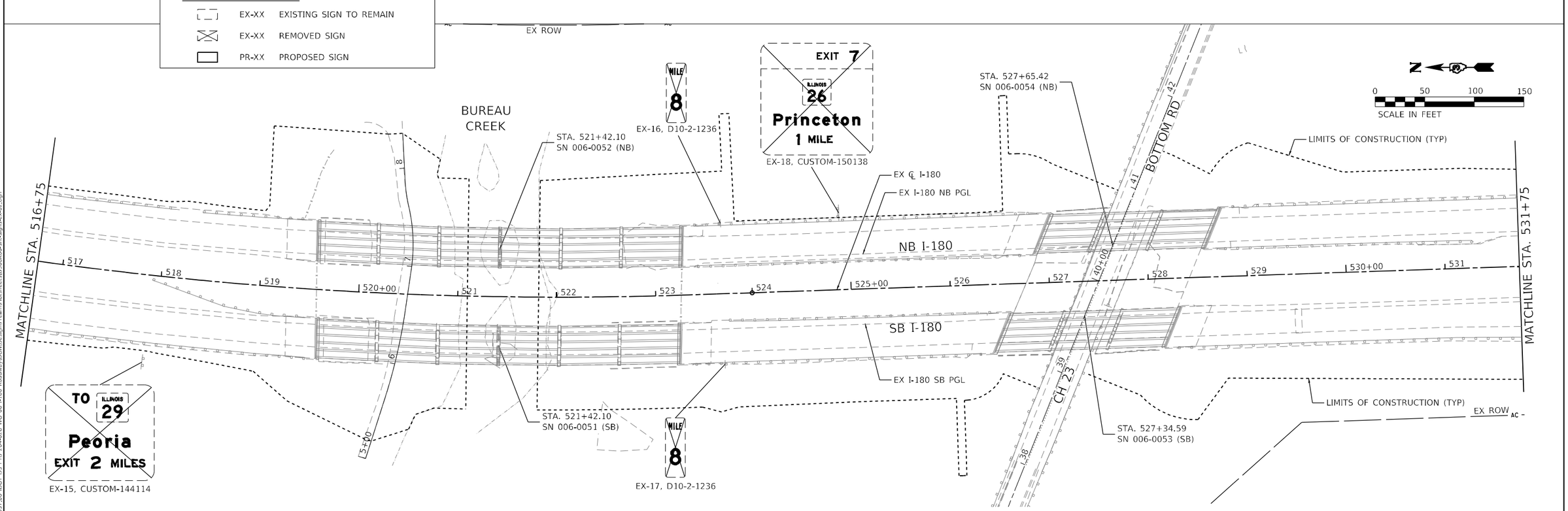
SCALE: 1" = 50' | SHEET 1 OF 3 SHEETS | STA. 485+65 | TO STA. 503+00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
180	(06-2B-1) & (06-2HB-1)JBR	BUREAU	327	124
		CONTRACT NO. 66K66		
	ILLINOIS	FED. AID PROJECT		

SIGNING LEGEND

[ ]	EX-XX	EXISTING SIGN TO REMAIN
⊠	EX-XX	REMOVED SIGN
▭	PR-XX	PROPOSED SIGN





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EFK•Moen
Civil Engineering Design

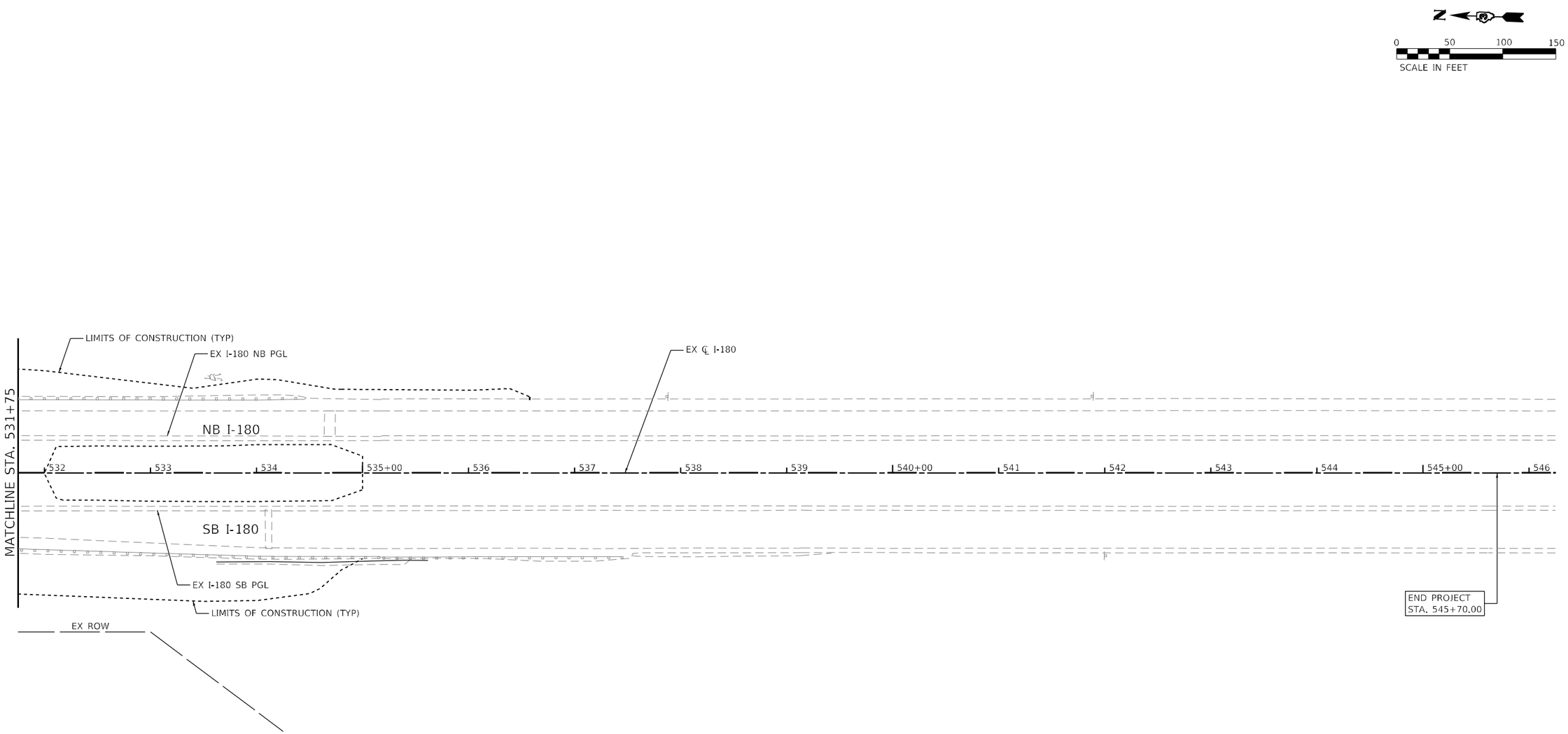
USER NAME = RGall	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 1/12/2024	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FAI ROUTE 180 (I–180)
EXISTING SIGNING PLAN

SCALE: 1" = 50' | SHEET 2 OF 3 SHEETS | STA. 503+00 | TO STA. 531+75

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
180	[(06-2B-1) & (06-2HB-1)]BR	BUREAU	327	125
		CONTRACT NO. 66K66		
		ILLINOIS	FED. AID PROJECT	



SIGNING LEGEND

[ ]	EX-XX	EXISTING SIGN TO REMAIN
⊠	EX-XX	REMOVED SIGN
▭	PR-XX	PROPOSED SIGN

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EFK•Moen
Civil Engineering Design

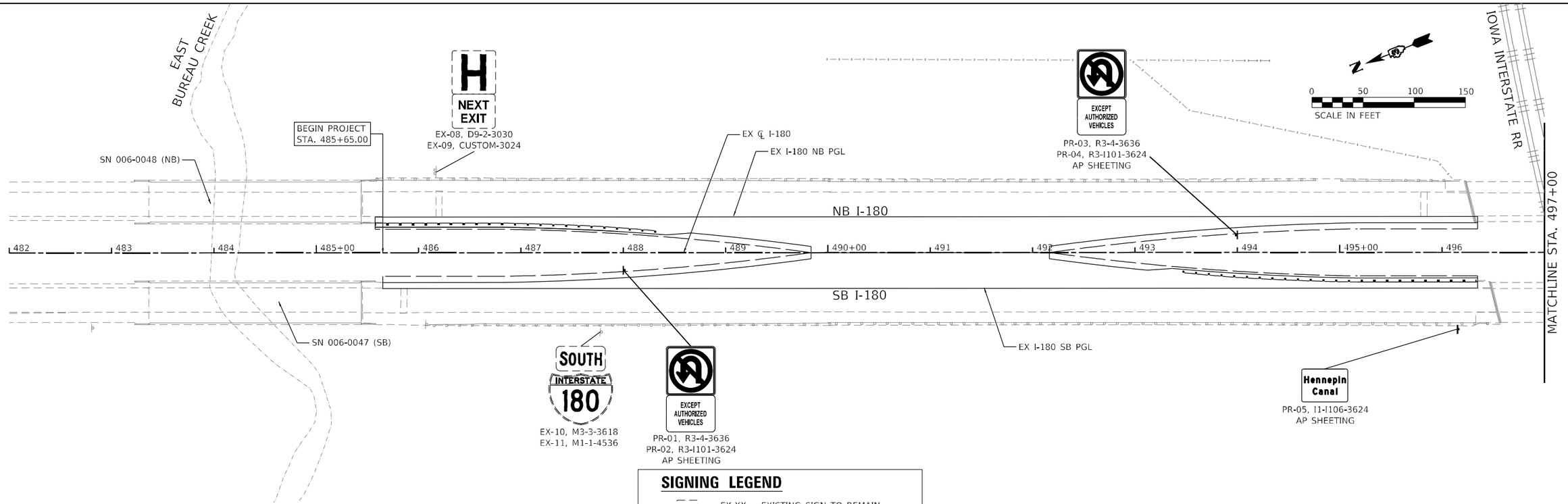
USER NAME = RGall	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 1/12/2024	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FAI ROUTE 180 (I–180)
EXISTING SIGNING PLAN

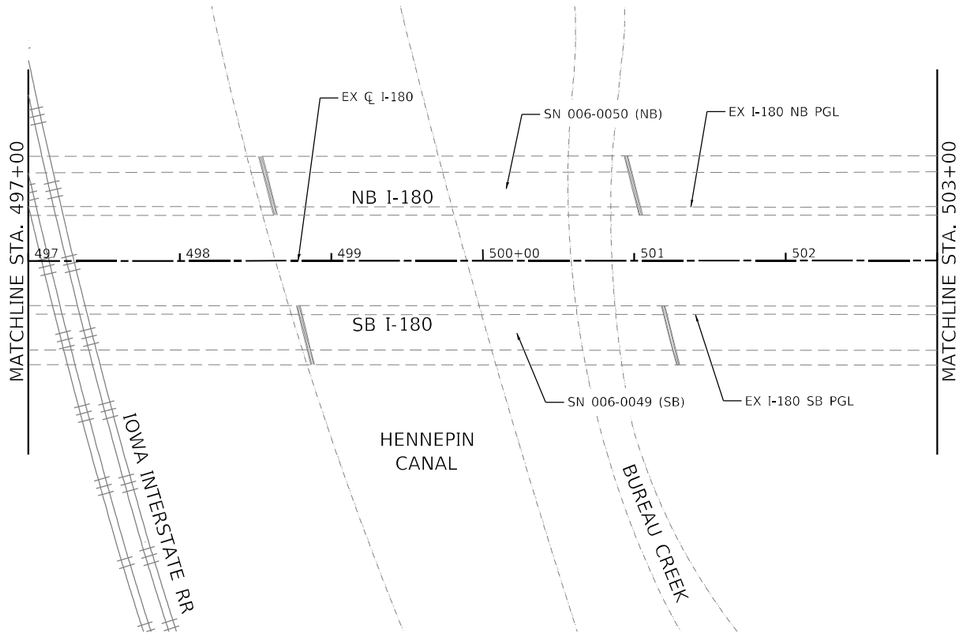
SCALE: 1" = 50' | SHEET 3 OF 3 SHEETS | STA. 531+75 | TO STA. 545+70

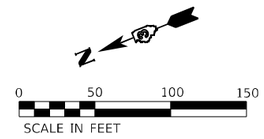
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
180	[(06-2B-1) & (06-2HB-1)]BR	BUREAU	327	126
		CONTRACT NO. 66K66		
	ILLINOIS	FED. AID PROJECT		



SIGNING LEGEND

[_]	EX-XX	EXISTING SIGN TO REMAIN
⊠	EX-XX	REMOVED SIGN
▭	PR-XX	PROPOSED SIGN





EFK♦Moen
Civil Engineering Design

USER NAME = RGall	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 1/12/2024	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

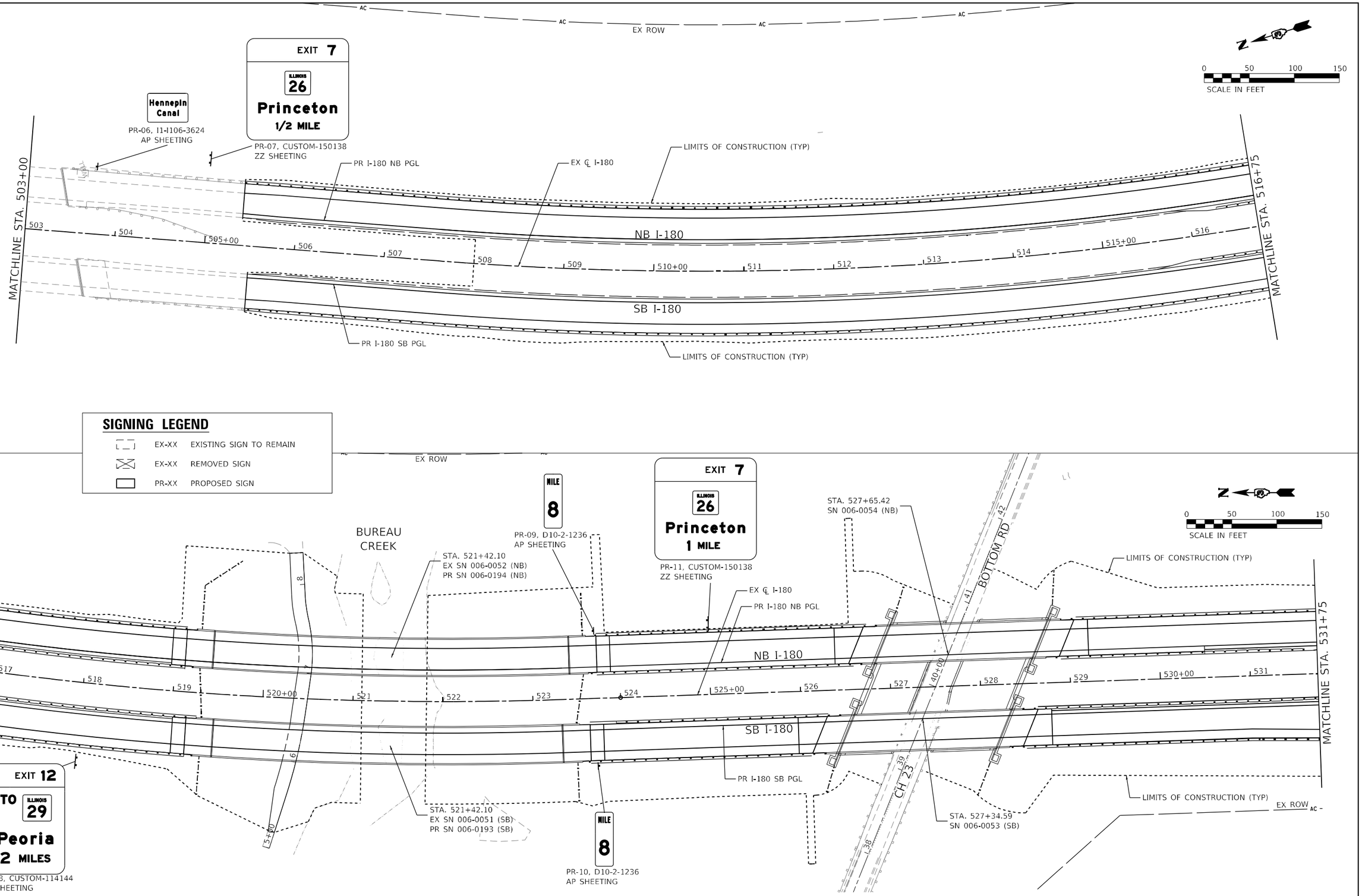
FAI ROUTE 180 (I–180)
PROPOSED SIGNING PLAN

SCALE: 1" = 50' | SHEET 1 OF 3 SHEETS | STA. 485+65 | TO STA. 503+00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
180	(06-2B-1) & (06-2HB-1)JBR	BUREAU	327	127
		CONTRACT NO. 66K66		
	ILLINOIS FED. AID PROJECT			

SIGNING LEGEND

[ ]	EX-XX	EXISTING SIGN TO REMAIN
⊠	EX-XX	REMOVED SIGN
▭	PR-XX	PROPOSED SIGN



EFK•Moen Civil Engineering Design	USER NAME = RGall	DESIGNED -	REVISED -
		DRAWN -	REVISED -
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	PLOT DATE = 1/12/2024	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FAI ROUTE 180 (I–180)
PROPOSED SIGNING PLAN

SCALE: 1" = 50' | SHEET 2 OF 3 SHEETS | STA. 503+00 | TO STA. 531+75

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
180	[(06-2B-1) & (06-2HB-1)]BR	BUREAU	327	128
		CONTRACT NO. 66K66		
		ILLINOIS FED. AID PROJECT		

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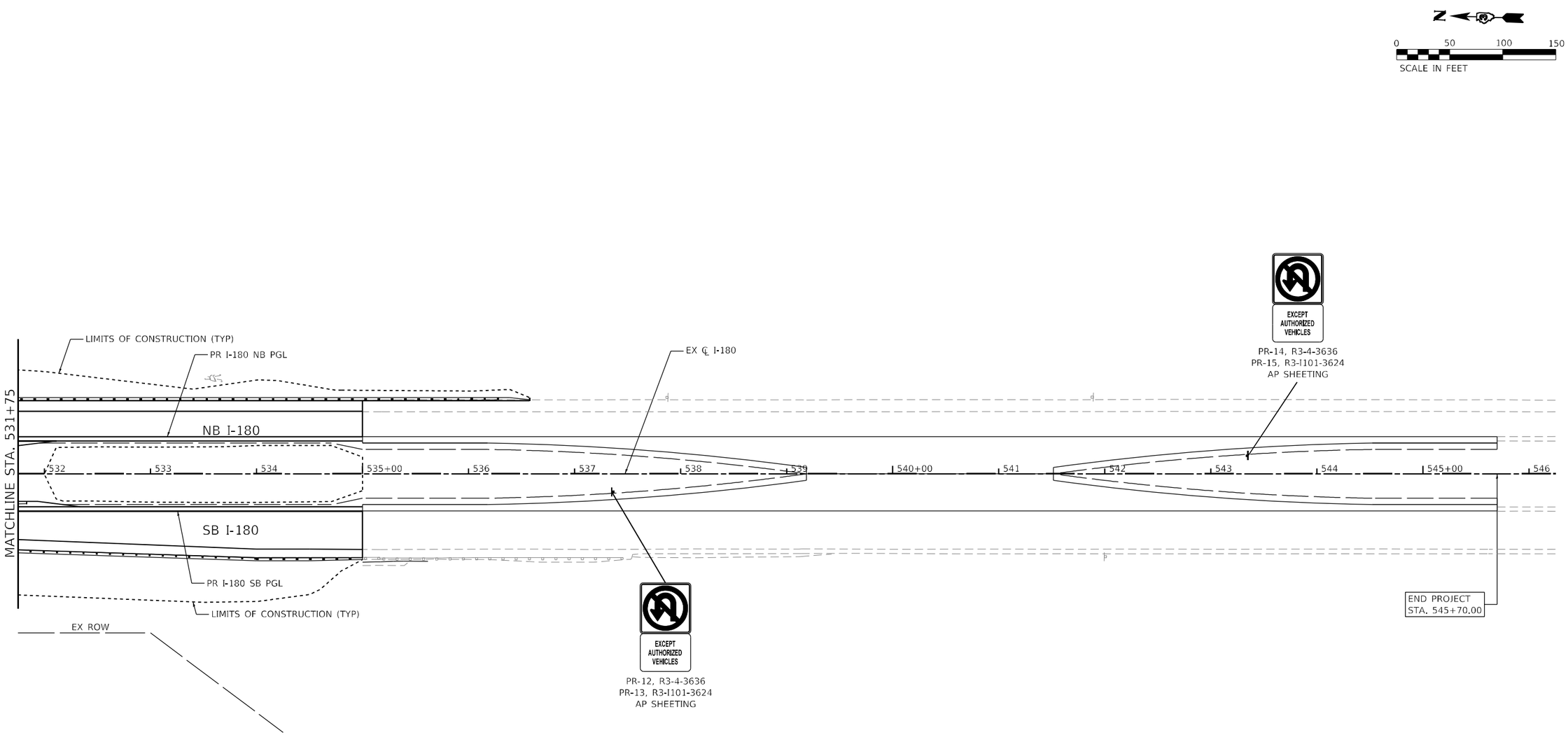

SIGNING LEGEND

EX-XX EXISTING SIGN TO REMAIN

EX-XX REMOVED SIGN

PR-XX PROPOSED SIGN

MODEL: Default
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EFK♦Moen
Civil Engineering Design

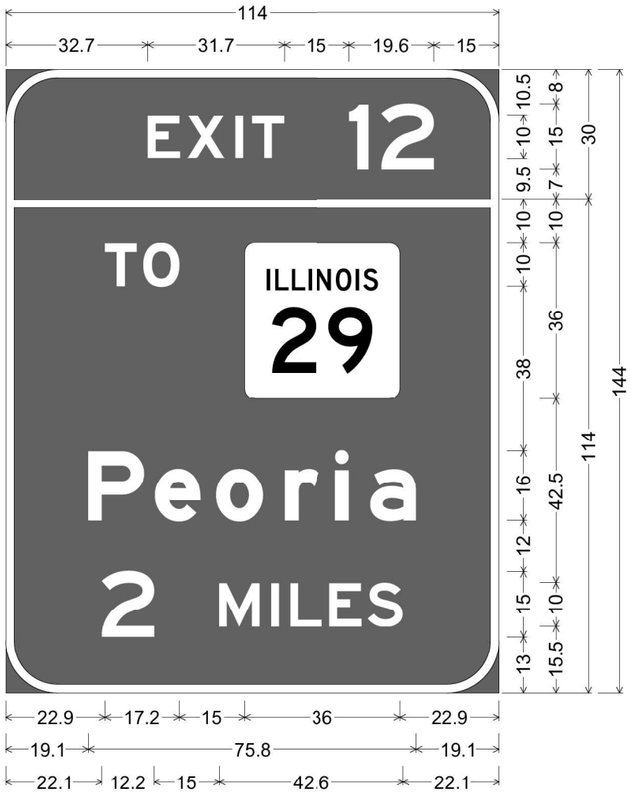
USER NAME = RGall	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 1/12/2024	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FAI ROUTE 180 (I–180)
PROPOSED SIGNING PLAN

SCALE: 1" = 50' | SHEET 3 OF 3 SHEETS | STA. 531+75 | TO STA. 545+70

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
180	[(06-2B-1) & (06-2HB-1)]BR	BUREAU	327	129
		CONTRACT NO. 66K66		
	ILLINOIS	FED. AID PROJECT		



12.0" Radius, 2.0" Border, White on Green;
"EXIT", E 2K 120% spacing; " 12", E 2K;

12.0" Radius, 2.0" Border, White on Green;
"TO", E Mod 2K; "Peoria", E Mod 2K;
"2 MILES", E 2K;

Table of widths and spaces

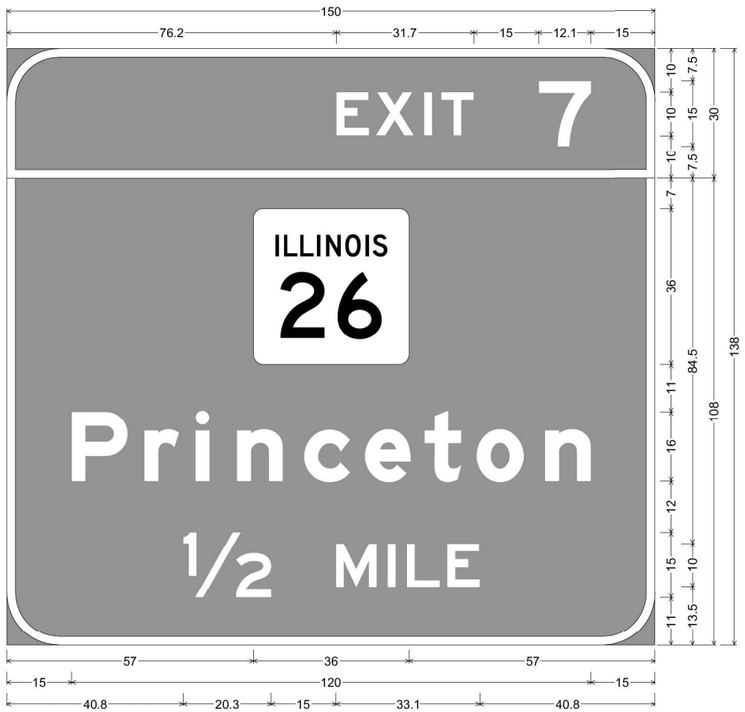
32.7	E 7.5	1.7	X 8.7	2.4	I 1.8	2.1	T 7.5	15.0	1 4.5	3.0	2 12.1	15.0

22.9	T 7.4	1.4	O 8.4	15.0	29 36.0	22.9

19.1	P 12.9	2.4	e 10.6	3.5	o 10.9	5.0	r 8.0	3.8	i 3.2	5.0	a 10.5	19.1

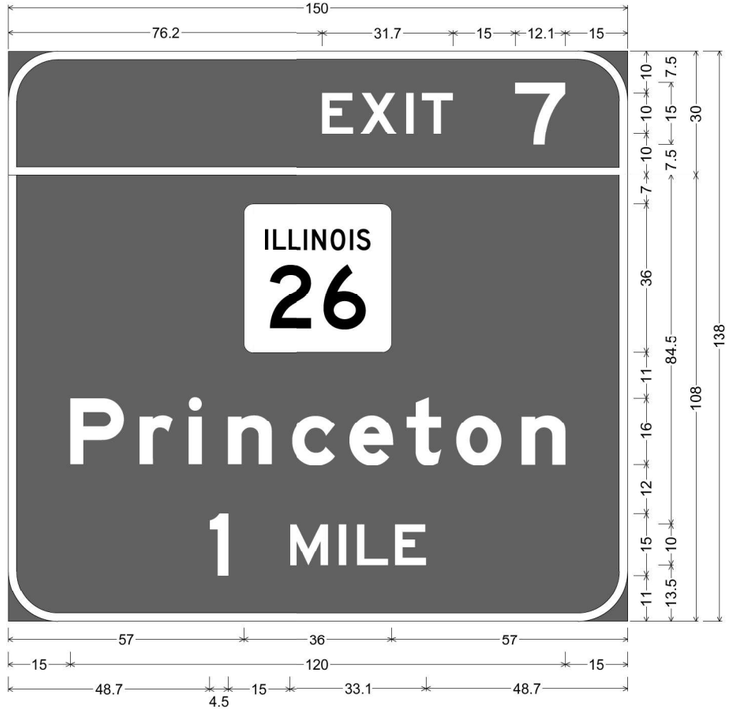
22.1	2 12.2	15.0	M 9.4	2.6	I 1.8	2.6	L 7.5	1.7	E 7.5	1.4	S 8.1	22.1

PR-08, CUSTOM-114144
STA. 518+00



12.0" Radius, 2.0" Border, White on Green;
"EXIT 7" E 2K 120% spacing;
12.0" Radius, 2.0" Border, White on Green;
"Princeton" E Mod 2K; "1/2 MILE" E 2K;

PR-07, CUSTOM-150138
STA. 505+00



12.0" Radius, 2.0" Border, White on Green;
"EXIT 7", E 2K 120% spacing;

12.0" Radius, 2.0" Border, White on Green;
"Princeton", E Mod 2K; "1 MILE", E 2K;

PR-11, CUSTOM-150138
STA. 525+00

EFK♦Moen
Civil Engineering Design

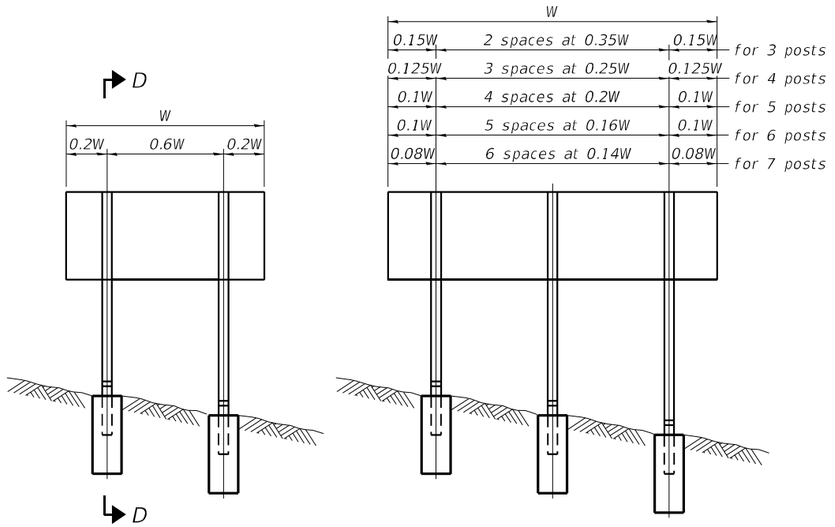
USER NAME = RGall	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 1/12/2024	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

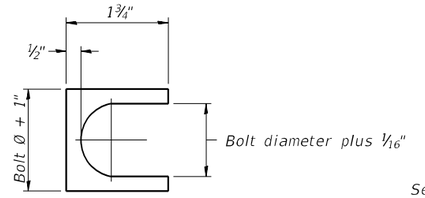
FAI ROUTE 180 (I-180)
SIGNING PLAN DETAILS

SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
180	[(06-2B-1) & (06-2HB-1)]BR	BUREAU	327	130
		CONTRACT NO. 66K66		
		ILLINOIS FED. AID PROJECT		

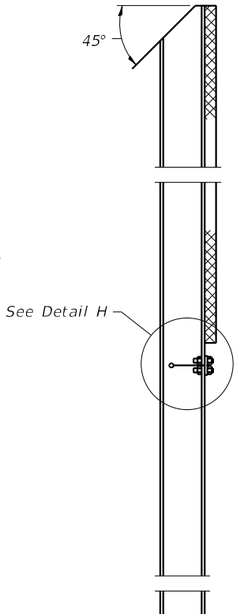


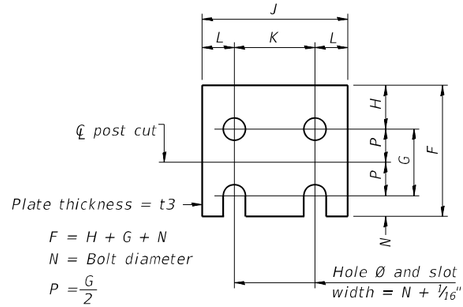
ELEVATION



SHIM DETAIL

Furnish two 0.01" thick and two 0.03" thick stainless steel or brass (ASTM B36) shims per post.

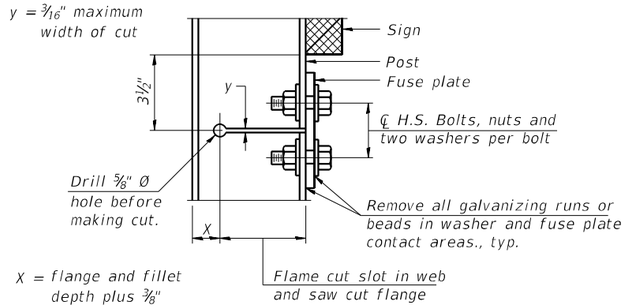




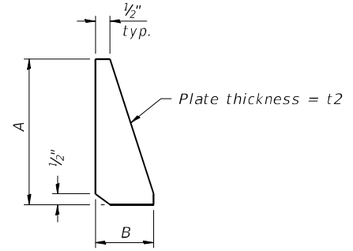
FUSE PLATE DETAIL

(Install with notches down.)

FUSE PLATE DATA		
N = Bolt Diameter	G	H
½"	2"	1⅛"
⅝"	2¼"	1¼"
¾"	2½"	1⅜"
⅞"	2¾"	1½"
1"	3"	1⅝"
1⅛"	3¼"	1¾"
1¼"	3½"	1⅞"

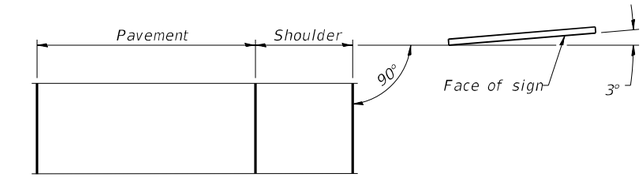


DETAIL H

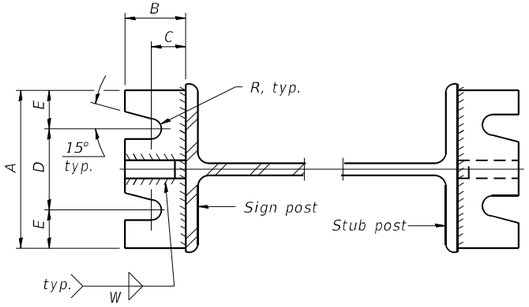


STIFFENER PLATE DETAIL

Diameter

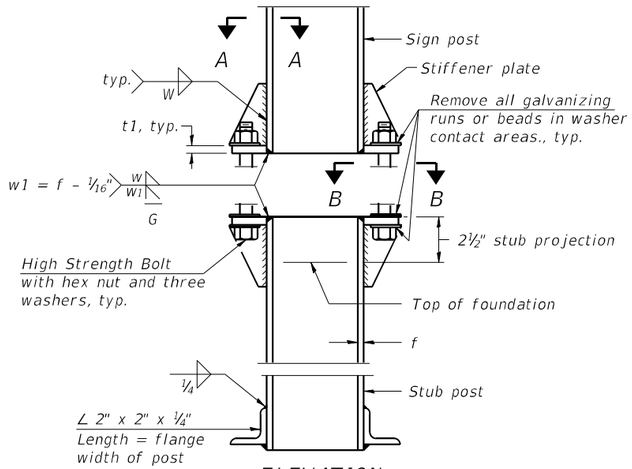


LOCATION SKETCH

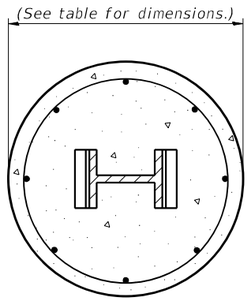


SECTION A-A

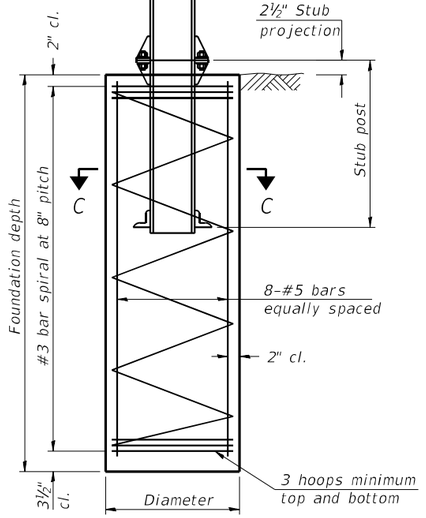
SECTION B-B



ELEVATION
SIGN POST & STUB POST



SECTION C-C



SECTION D-D

GENERAL NOTES

Posts shall be plumbed by using shims with post-to-stub post connection bolts snug tight only. Final tightening of all High Strength Bolts shall be in accordance with Article 727.05 and threads at the junction of the bolt and nut shall be burred or center punched to prevent the nut from loosening.

LOADING: 80 m.p.h. wind with 30% gust factor, normal to sign.

DESIGN STRESSES:
Structural steel - 20,000 p.s.i.
Reinforcing steel - 20,000 p.s.i.
Concrete - 1,400 p.s.i.
Footing soil pressure - 2,000 p.s.f.

After fabrication, the post, fuse plate and upper 6", min. of the stub post shall be hot-dip galvanized in accordance with AASHTO M111. All bolts, nuts and washers shall be hot-dip galvanized in accordance with AASHTO M232.

Work this sheet with Base Sheet BAW-A-2.

BAW-A-1 2-17-2017

EFK•Moen Civil Engineering Design

USER NAME = RGall	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 1/12/2024	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BREAK-AWAY WIDE FLANGE STEEL SIGN POST DETAILS

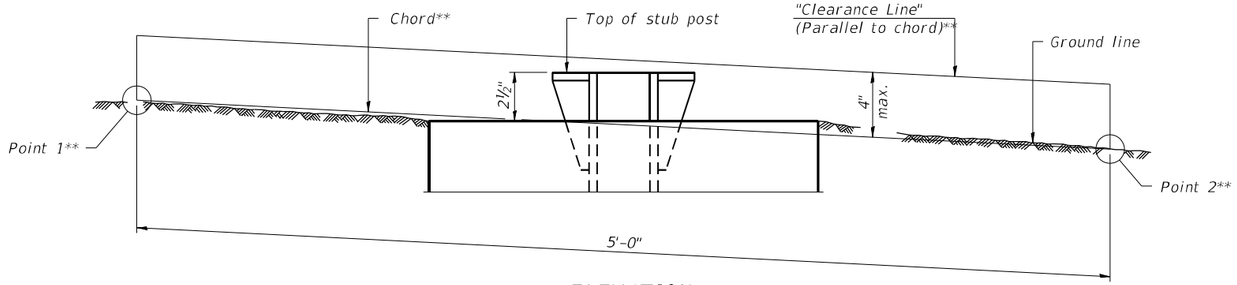
SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
180	[(06-2B-1) & (06-2HB-1)]BR	BUREAU	327	131
		CONTRACT NO. 66K66		
	ILLINOIS	FED. AID PROJECT		

POST	CONCRETE FOUNDATION TABLE								POST TO STUB POST CONNECTION DATA										FUSE PLATE DATA			
	Foundation			Reinforcement				Stub Post														
	Diameter	* Minimum Depth	Concrete (1) cu. yds.)	Vertical Bars Length	Bar Spirals Diameter	Bar Spirals Length	lbs. (2)	Length	Bolt Size	A	B	C	D	E	t1	t2	R	W	J	K	L	t3
W6x9	2'-0"	6'-0"	0.70	5'-9"	1'-8½"	79'-0"	78	2'-3"	⅝" x 3¼"	6"	2¼"	1¼"	3½"	1¼"	¾"	½"	11/32"	¼"	4"	2¼"	⅞"	¼"
W6x15	2'-0"	6'-0"	0.70	5'-9"	1'-8½"	79'-0"	78	2'-6"	⅝" x 3¼"	6"	2¼"	1¼"	3½"	1¼"	¾"	½"	11/32"	¼"	6"	3½"	1¼"	⅜"
W8x18	2'-0"	6'-0"	0.70	5'-9"	1'-8½"	79'-0"	78	2'-6"	¾" x 3¾"	6"	2½"	1⅜"	3¼"	1⅜"	1"	½"	13/32"	5/16"	5¼"	2¾"	1¼"	⅜"
W10x22	2'-6"	6'-6"	1.18	6'-3"	2'-2½"	105'-0"	92	3'-0"	¾" x 3¾"	6"	2½"	1⅜"	3¼"	1⅜"	1"	½"	13/32"	5/16"	5¾"	2¾"	1½"	½"
W10x26	2'-6"	7'-0"	1.27	6'-9"	2'-2½"	112'-0"	98	3'-0"	⅞" x 4"	7"	2¾"	1½"	4"	1½"	1"	¾"	15/32"	⅜"	5¾"	2¾"	1½"	⅝"
W12x26	2'-6"	7'-9"	1.41	7'-6"	2'-2½"	119'-0"	107	3'-0"	⅞" x 4"	7"	2¾"	1½"	4"	1½"	1"	¾"	15/32"	⅜"	6½"	3½"	1½"	⅝"
W14x30	3'-0"	7'-3"	1.90	7'-0"	2'-8½"	145'-0"	113	3'-0"	⅞" x 4"	7"	2¾"	1½"	4"	1½"	1"	¾"	15/32"	⅜"	6¾"	3½"	1⅝"	½"
W14x38	3'-0"	8'-0"	2.09	7'-9"	2'-8½"	153'-0"	122	3'-6"	1" x 4½"	7½"	3"	1¾"	4"	1¾"	1¼"	¾"	17/32"	⅜"	6¾"	3½"	1⅝"	½"
W16x45	3'-0"	8'-6"	2.23	8'-3"	2'-8½"	162'-0"	130	3'-6"	1" x 4½"	7½"	3"	1¾"	4"	1¾"	1¼"	¾"	17/32"	⅜"	7"	3½"	1¾"	½"

*Dimensional changes required for varying site conditions shall be approved by the Engineer.

POST	FUSE PLATE BOLT SIZE — Sign Height																				
	4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"	15'-0"	16'-0"	17'-0"	18'-0"	19'-0"	20'-0"	21'-0"	22'-0"	23'-0"	24'-0"
W6x9	½" x 1½"	½" x 1½"	½" x 1½"	½" x 1½"	——	——	——	——	——	——	——	——	——	——	——	——	——	——	——	——	——
W6x15	½" x 1¾"	½" x 1¾"	½" x 1¾"	⅝" x 2"	⅝" x 2"	¾" x 2"	¾" x 2"	¾" x 2"	¾" x 2"	——	——	——	——	——	——	——	——	——	——	——	——
W8x18	½" x 1¾"	½" x 1¾"	½" x 1¾"	½" x 1¾"	⅝" x 2"	⅝" x 2"	¾" x 2"	¾" x 2"	¾" x 2"	¾" x 2"	——	——	——	——	——	——	——	——	——	——	——
W10x22	½" x 2"	½" x 2"	½" x 2"	½" x 2"	½" x 2"	⅝" x 2"	⅝" x 2"	¾" x 2¼"	¾" x 2¼"	¾" x 2¼"	¾" x 2¼"	¾" x 2¼"	¾" x 2¼"	——	——	——	——	——	——	——	——
W10x26	½" x 2"	½" x 2"	½" x 2"	½" x 2"	½" x 2"	⅝" x 2¼"	⅝" x 2¼"	¾" x 2½"	¾" x 2½"	¾" x 2½"	¾" x 2½"	¾" x 2½"	¾" x 2½"	¾" x 2½"	——	——	——	——	——	——	——
W12x26	½" x 2"	½" x 2"	½" x 2"	½" x 2"	½" x 2"	⅝" x 2¼"	⅝" x 2¼"	¾" x 2½"	¾" x 2½"	¾" x 2½"	¾" x 2½"	¾" x 2½"	¾" x 2½"	¾" x 2½"	¾" x 2½"	——	——	——	——	——	——
W14x30	½" x 2"	½" x 2"	½" x 2"	½" x 2"	½" x 2"	⅝" x 2"	⅝" x 2"	¾" x 2¼"	¾" x 2¼"	¾" x 2¼"	¾" x 2¼"	¾" x 2¼"	¾" x 2¼"	¾" x 2¼"	¾" x 2¼"	¾" x 2¼"	——	——	——	——	——
W14x38	½" x 2"	½" x 2"	½" x 2"	½" x 2"	½" x 2"	⅝" x 2¼"	⅝" x 2¼"	¾" x 2½"	¾" x 2½"	¾" x 2½"	¾" x 2½"	⅞" x 2½"	⅞" x 2½"	1" x 2¾"	1" x 2¾"	1" x 2¾"	1" x 2¾"	1" x 2¾"	1" x 2¾"	1" x 2¾"	1" x 2¾"
W16x45	——	½" x 2"	½" x 2"	½" x 2"	½" x 2"	½" x 2"	½" x 2"	⅝" x 2¼"	⅝" x 2¼"	⅝" x 2¼"	¾" x 2½"	¾" x 2½"	⅞" x 2½"	⅞" x 2½"	⅞" x 2½"	1" x 2¾"	1" x 2¾"	1" x 2¾"	1" x 2¾"	1" x 2¾"	1" x 2¾"



ELEVATION
GROUND LINE & STUB POST

** For all "Point 1" and "Point 2" locations, "Clearance Line" must be at or above top of stub post.

(1) Quantity includes all concrete necessary for one foundation.

(2) Includes reinforcement bars and spiral hooping for one foundation.

BAW-A-2 2-17-2017

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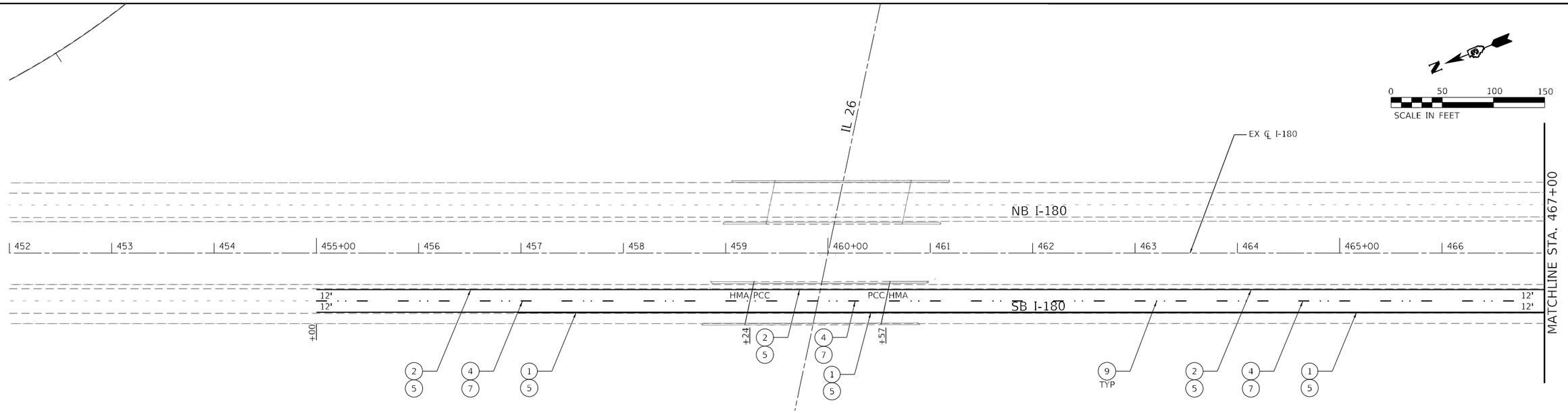
USER NAME = RGall	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 1/12/2024	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BREAK–AWAY WIDE FLANGE
STEEL SIGN POST TABLES

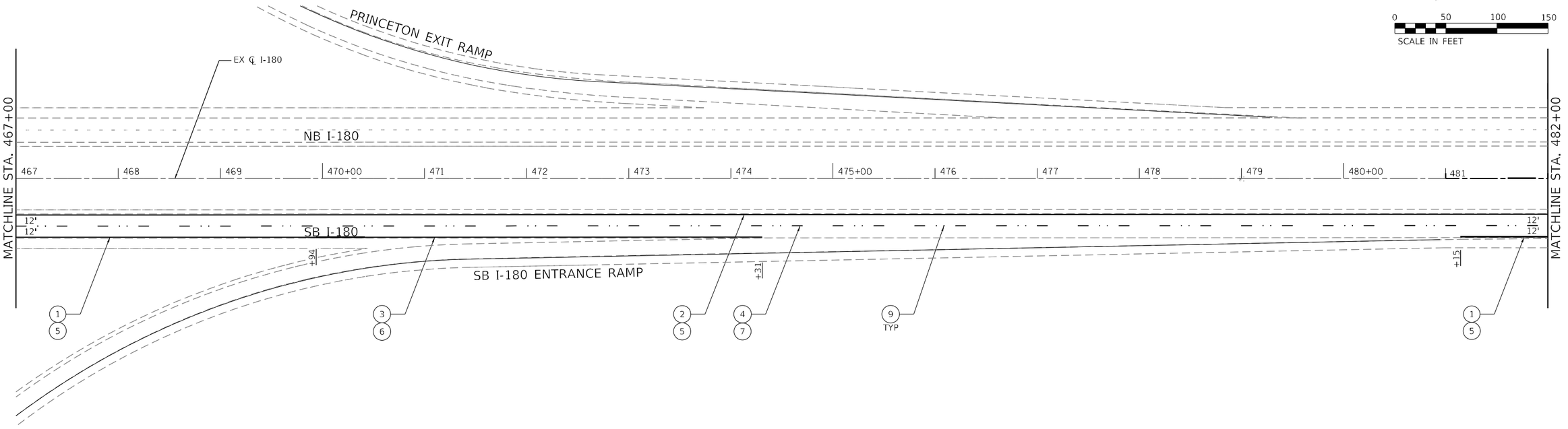
SCALE: SHEET OF SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
180	(06-2B-1) & (06-2HB-1)JBR	BUREAU	327	132
		CONTRACT NO. 66K66		
	ILLINOIS FED. AID PROJECT			



PAVEMENT MARKING LEGEND

(1)	EPOXY PAVEMENT MARKING - LINE 4" (WHITE)	(6)	GROOVING FOR RECESSED PAVEMENT MARKING, 9"
(2)	EPOXY PAVEMENT MARKING - LINE 4" (YELLOW)	(7)	GROOVING FOR RECESSED PAVEMENT MARKING, 10"
(3)	EPOXY PAVEMENT MARKING - LINE 8" (WHITE)	(8)	RAISED REFLECTIVE PAVEMENT MARKER (2 PER 80' C-C SPACING, TYP. CRYSTAL)
(4)	PREFORMED PLASTIC PAVEMENT MARKING, TYPE D - LINE 9" (CONTRAST, 10' - DASH, 30' - SKIP, WHITE)	(9)	RAISED REFLECTIVE PAVEMENT MARKER, REFLECTOR REPLACEMENT
(5)	GROOVING FOR RECESSED PAVEMENT MARKING, 5"	(10)	SHOULDER RUMBLE STRIPS, 16 INCH



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EFK♦Moen
Civil Engineering Design

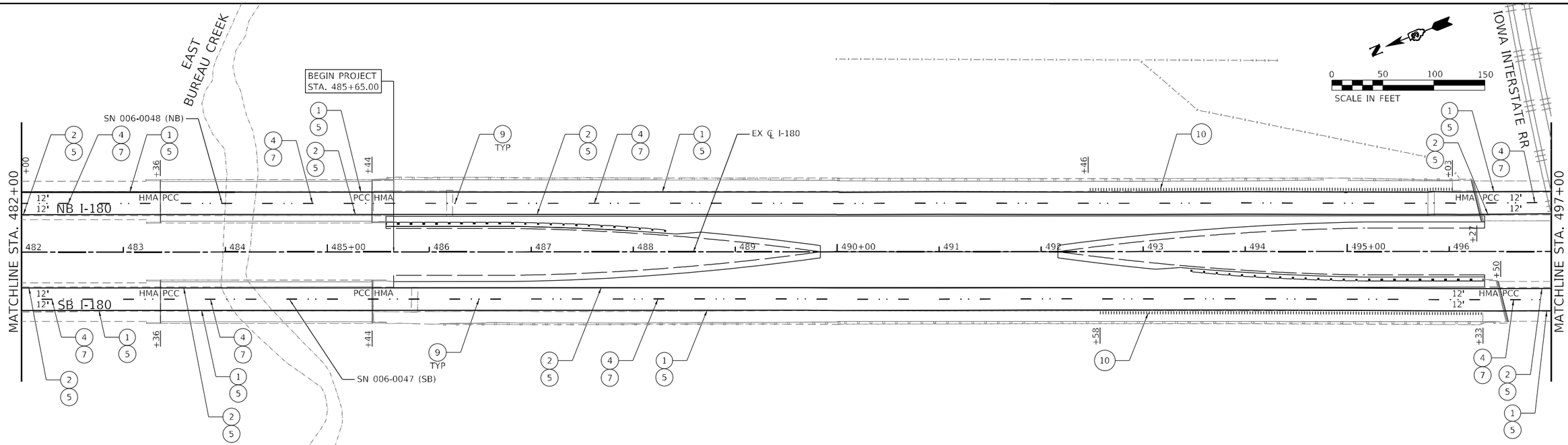
USER NAME = RGall	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 1/12/2024	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FAI ROUTE 180 (I-180)
PAVEMENT MARKING PLAN

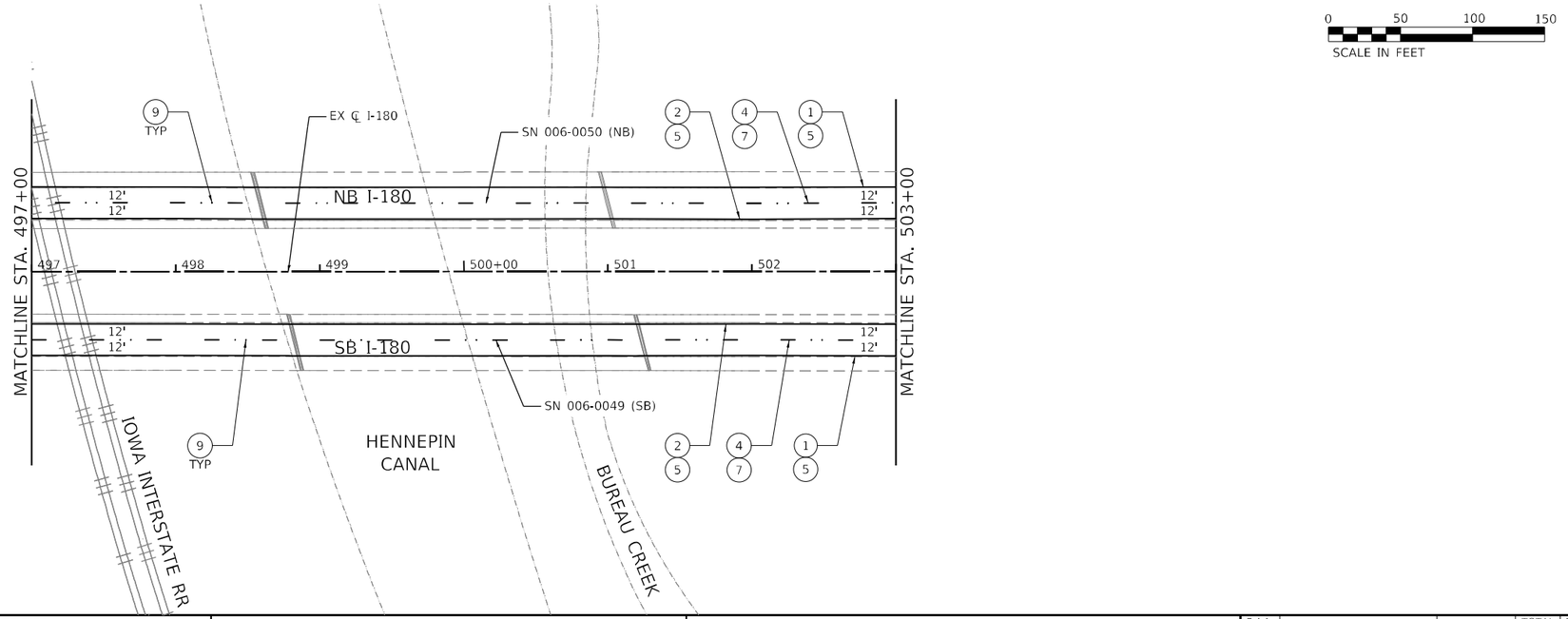
SCALE: 1" = 50' | SHEET 1 OF 5 SHEETS | STA. 455+00 | TO STA. 482+00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
180	[(06-2B-1) & (06-2HB-1)]BR	BUREAU	327	133
		CONTRACT NO. 66K66		
	ILLINOIS FED. AID PROJECT			



PAVEMENT MARKING LEGEND

1. EPOXY PAVEMENT MARKING - LINE 4" (WHITE)
2. EPOXY PAVEMENT MARKING - LINE 4" (YELLOW)
3. EPOXY PAVEMENT MARKING - LINE 8" (WHITE)
4. PREFORMED PLASTIC PAVEMENT MARKING, TYPE D - LINE 9" (CONTRAST, 10' - DASH, 30' - SKIP, WHITE)
5. GROOVING FOR RECESSED PAVEMENT MARKING, 5"
6. GROOVING FOR RECESSED PAVEMENT MARKING, 9"
7. GROOVING FOR RECESSED PAVEMENT MARKING, 10"
8. RAISED REFLECTIVE PAVEMENT MARKER (2 PER 80' C-C SPACING, TYP. CRYSTAL)
9. RAISED REFLECTIVE PAVEMENT MARKER, REFLECTOR REPLACEMENT
10. SHOULDER RUMBLE STRIPS, 16 INCH



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EFK♦Moen
Civil Engineering Design

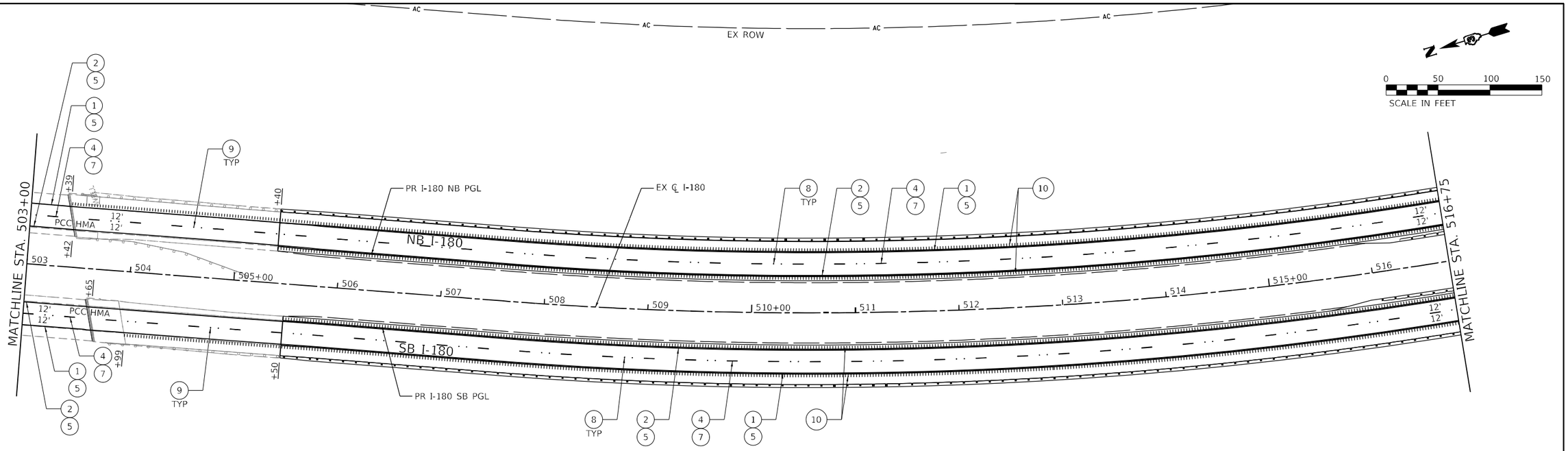
USER NAME = RGall	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 1/12/2024	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FAI ROUTE 180 (I-180)
PAVEMENT MARKING PLAN

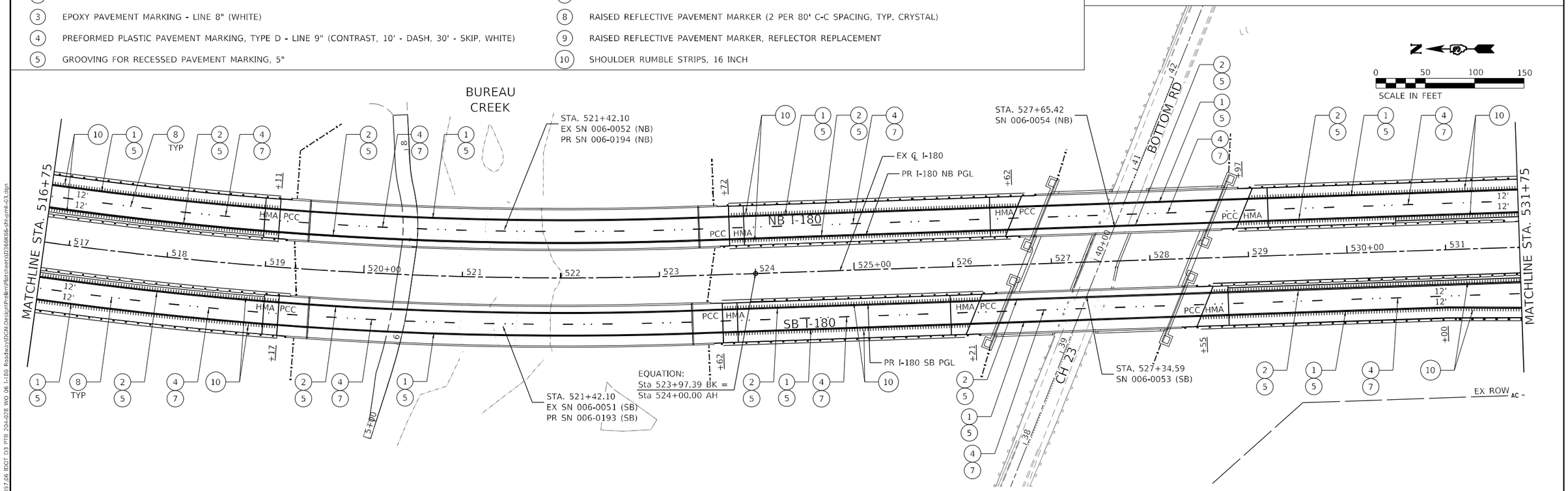
SCALE: 1" = 50' | SHEET 2 OF 5 SHEETS | STA. 482+00 | TO STA. 503+00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
180	(06-2B-1) & (06-2HB-1)BR	BUREAU	327	134
		CONTRACT NO. 66K66		
	ILLINOIS FED. AID PROJECT			



PAVEMENT MARKING LEGEND

1. EPOXY PAVEMENT MARKING - LINE 4" (WHITE)
2. EPOXY PAVEMENT MARKING - LINE 4" (YELLOW)
3. EPOXY PAVEMENT MARKING - LINE 8" (WHITE)
4. PREFORMED PLASTIC PAVEMENT MARKING, TYPE D - LINE 9" (CONTRAST, 10' - DASH, 30' - SKIP, WHITE)
5. GROOVING FOR RECESSED PAVEMENT MARKING, 5"
6. GROOVING FOR RECESSED PAVEMENT MARKING, 9"
7. GROOVING FOR RECESSED PAVEMENT MARKING, 10"
8. RAISED REFLECTIVE PAVEMENT MARKER (2 PER 80' C-C SPACING, TYP. CRYSTAL)
9. RAISED REFLECTIVE PAVEMENT MARKER, REFLECTOR REPLACEMENT
10. SHOULDER RUMBLE STRIPS, 16 INCH



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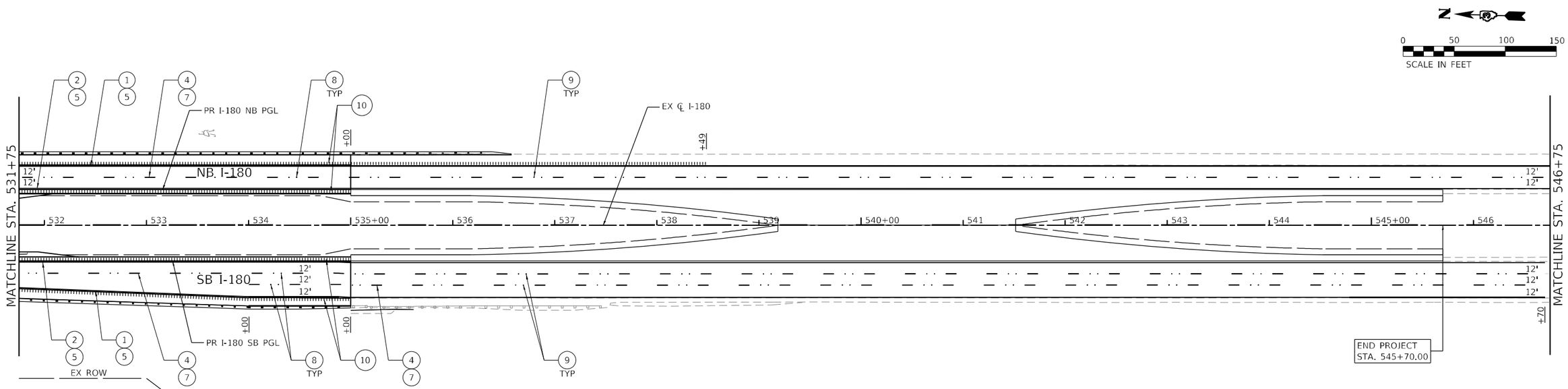
EFK♦Moen Civil Engineering Design	USER NAME = RGall	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 1/12/2024	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FAI ROUTE 180 (I–180)
PAVEMENT MARKING PLAN

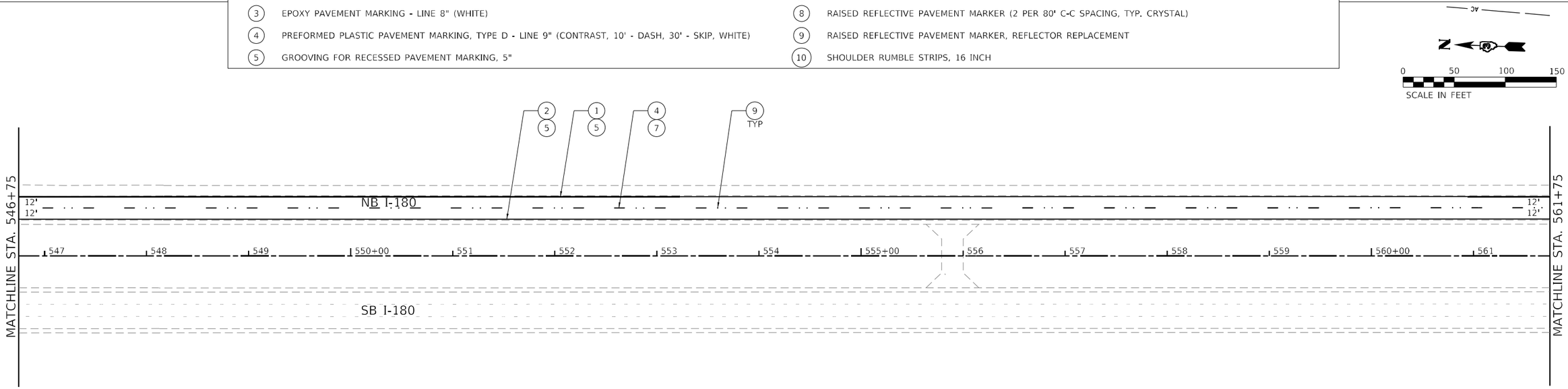
SCALE: 1" = 50' | SHEET 3 OF 5 SHEETS | STA. 503+00 | TO STA. 531+75

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
180	[(06-2B-1) & (06-2HB-1)]BR	BUREAU	327	135
		CONTRACT NO. 66K66		
		ILLINOIS	FED. AID PROJECT	



PAVEMENT MARKING LEGEND

1. EPOXY PAVEMENT MARKING - LINE 4" (WHITE)
2. EPOXY PAVEMENT MARKING - LINE 4" (YELLOW)
3. EPOXY PAVEMENT MARKING - LINE 8" (WHITE)
4. PREFORMED PLASTIC PAVEMENT MARKING, TYPE D - LINE 9" (CONTRAST, 10' - DASH, 30' - SKIP, WHITE)
5. GROOVING FOR RECESSED PAVEMENT MARKING, 5"
6. GROOVING FOR RECESSED PAVEMENT MARKING, 9"
7. GROOVING FOR RECESSED PAVEMENT MARKING, 10"
8. RAISED REFLECTIVE PAVEMENT MARKER (2 PER 80' C-C SPACING, TYP. CRYSTAL)
9. RAISED REFLECTIVE PAVEMENT MARKER, REFLECTOR REPLACEMENT
10. SHOULDER RUMBLE STRIPS, 16 INCH



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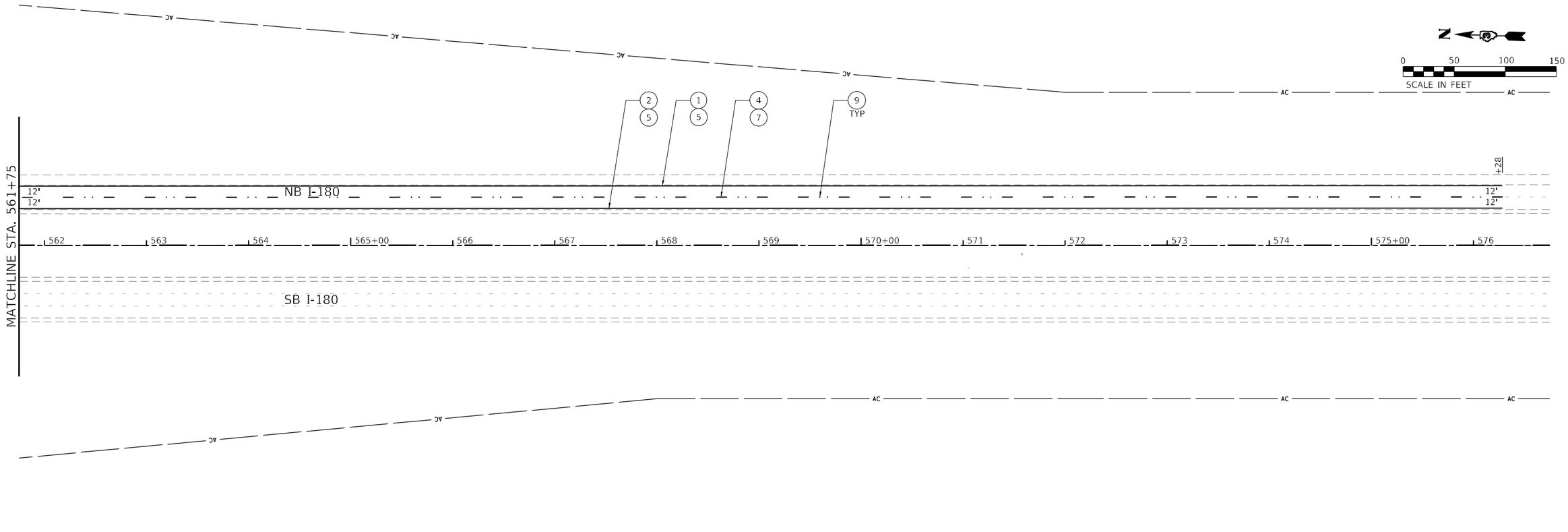
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FAI ROUTE 180 (I–180)
PAVEMENT MARKING PLAN

SCALE: 1" = 50' | SHEET 4 OF 5 SHEETS | STA. 531+75 | TO STA. 561+75

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
180	[(06-2B-1) & (06-2HB-1)]BR	BUREAU	327	136
		CONTRACT NO. 66K66		
	ILLINOIS FED. AID PROJECT			



PAVEMENT MARKING LEGEND

①	EPOXY PAVEMENT MARKING - LINE 4" (WHITE)	⑥	GROOVING FOR RECESSED PAVEMENT MARKING, 9"
②	EPOXY PAVEMENT MARKING - LINE 4" (YELLOW)	⑦	GROOVING FOR RECESSED PAVEMENT MARKING, 10"
③	EPOXY PAVEMENT MARKING - LINE 8" (WHITE)	⑧	RAISED REFLECTIVE PAVEMENT MARKER (2 PER 80' C-C SPACING, TYP. CRYSTAL)
④	PREFORMED PLASTIC PAVEMENT MARKING, TYPE D - LINE 9" (CONTRAST, 10' - DASH, 30' - SKIP, WHITE)	⑨	RAISED REFLECTIVE PAVEMENT MARKER, REFLECTOR REPLACEMENT
⑤	GROOVING FOR RECESSED PAVEMENT MARKING, 5"	⑩	SHOULDER RUMBLE STRIPS, 16 INCH

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	DRAWN -	REVISED -
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PLOT DATE = 1/12/2024	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

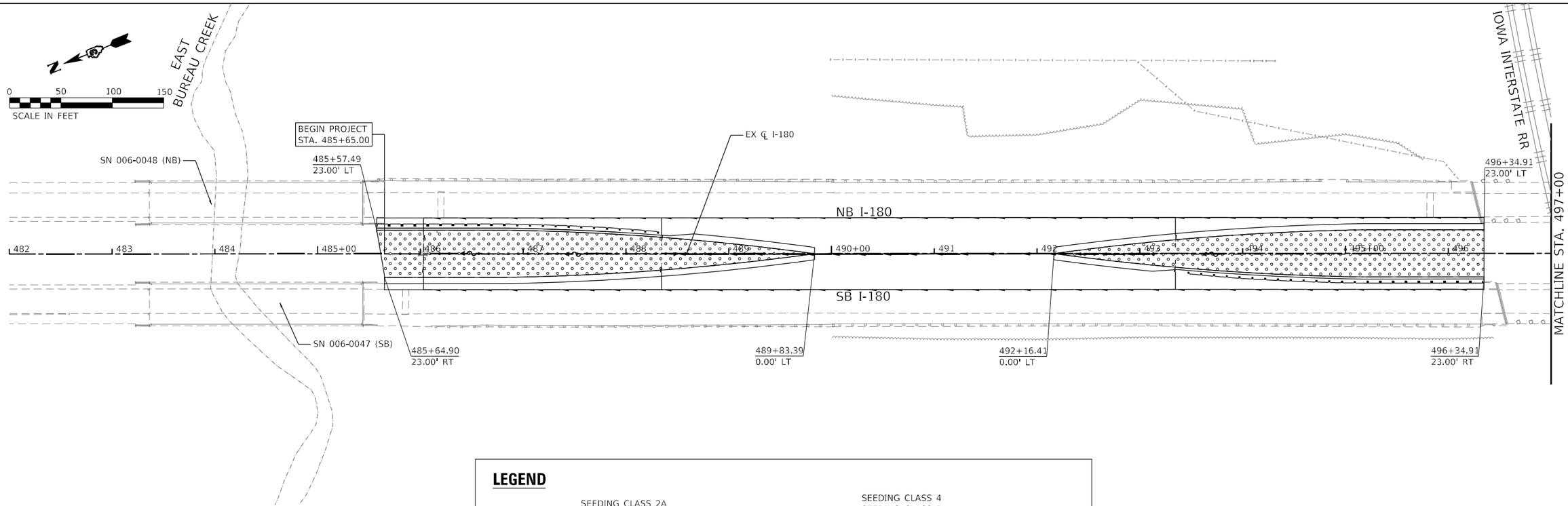
FAI ROUTE 180 (I–180)
PAVEMENT MARKING PLAN

SCALE: 1" = 50' | SHEET 5 OF 5 SHEETS | STA. 561+75 TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
180	[(06-2B-1) & (06-2HB-1)]BR	BUREAU	327	137

CONTRACT NO. 66K66

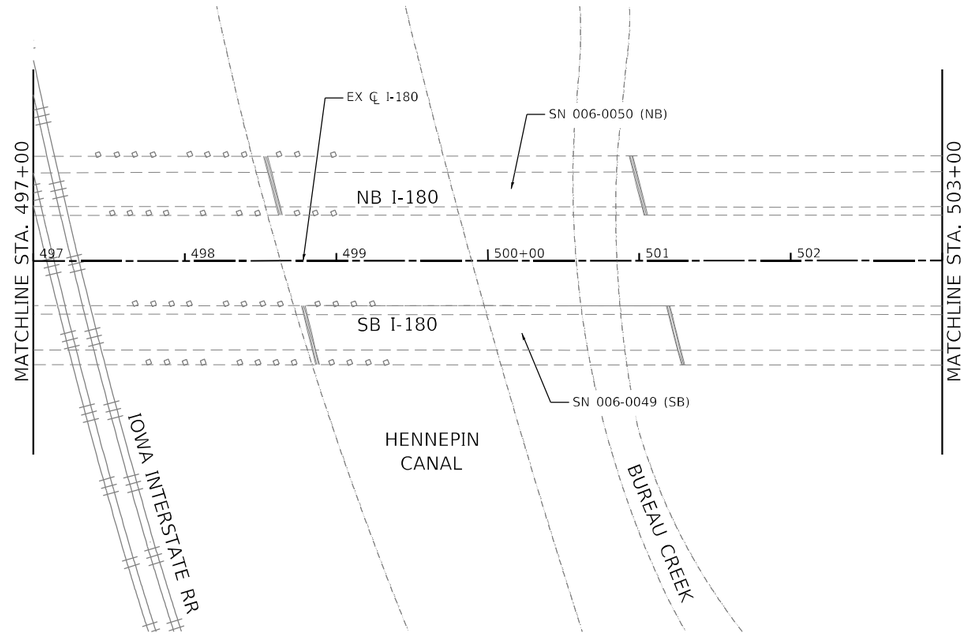
ILLINOIS | FED. AID PROJECT

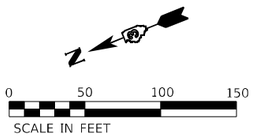


LEGEND

SEEDING CLASS 2A
NITROGEN FERTILIZER NUTRIENT
PHOSPHORUS FERTILIZER NUTRIENT
POTASSIUM FERTILIZER NUTRIENT

SEEDING CLASS 4
SEEDING CLASS 5
NITROGEN FERTILIZER NUTRIENT
PHOSPHORUS FERTILIZER NUTRIENT
POTASSIUM FERTILIZER NUTRIENT





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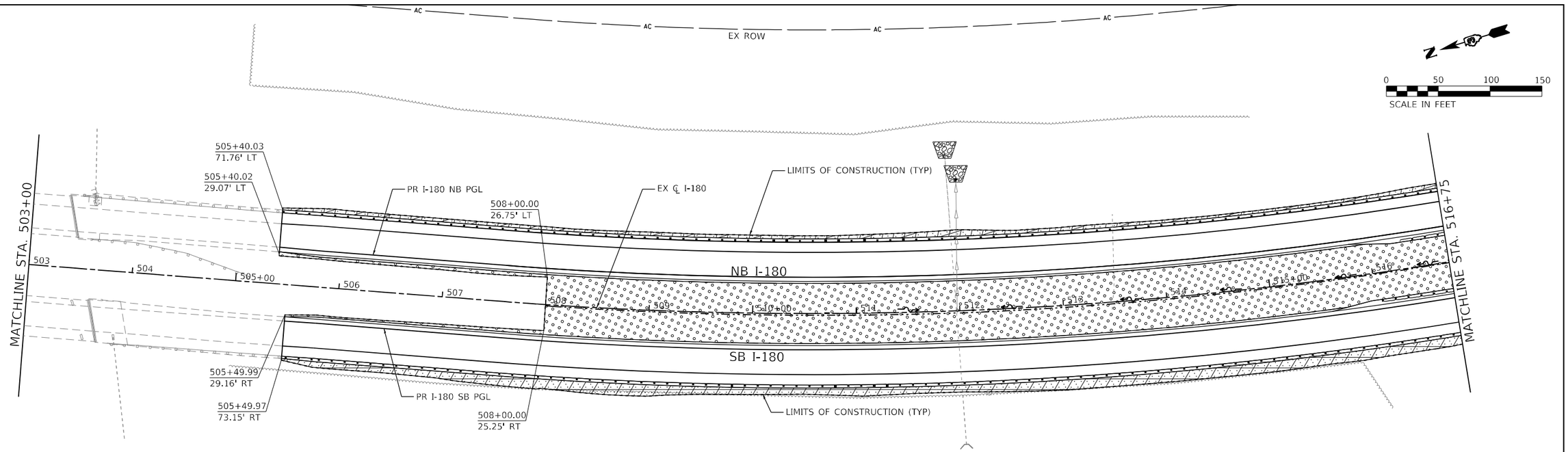
PLOT DATE = 1/12/2024	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FAI ROUTE 180 (I–180)
LANDSCAPING PLAN

SCALE: 1" = 50' | SHEET 1 OF 3 SHEETS | STA. 485+65 | TO STA. 503+00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
180	[(06-2B-1) & (06-2HB-1)]BR	BUREAU	327	138
		CONTRACT NO. 66K66		
	ILLINOIS	FED. AID PROJECT		



LEGEND

SEEDING CLASS 2A
NITROGEN FERTILIZER NUTRIENT
PHOSPHORUS FERTILIZER NUTRIENT
POTASSIUM FERTILIZER NUTRIENT

SEEDING CLASS 4
SEEDING CLASS 5
NITROGEN FERTILIZER NUTRIENT
PHOSPHORUS FERTILIZER NUTRIENT
POTASSIUM FERTILIZER NUTRIENT

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PLOT DATE = 1/12/2024	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FAI ROUTE 180 (I–180)
LANDSCAPING PLAN

SCALE: 1" = 50' | SHEET 2 OF 3 SHEETS | STA. 503+00 TO STA. 531+75

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
180	[(06-2B-1) & (06-2HB-1)]BR	BUREAU	327	139
		CONTRACT NO. 66K66		
	ILLINOIS FED. AID PROJECT			

N

0 50 100 150

SCALE IN FEET

EX ROW

AC

LIMITS OF CONSTRUCTION (TYP)

PR I-180 NB PGL

535+00.00 R 2
15.91' LT

536+57.45 R 2
71.89' LT

EX ℄ I-180

539+18.49 R 2
0.00' RT

541+51.50 R 2
0.00' RT

545+70.00 R 2
23.00' LT

NB I-180

MATCHLINE STA. 531+75

532 533 534 535+00 536 537 538 539 540+00 541 542 543 544 545+00 546

SB I-180

545+70.00 R 2
23.00' RT

END PROJECT
STA. 545+70.00

535+00.00 R 2
16.16' RT

535+00.00 R 2
80.87' RT

LIMITS OF CONSTRUCTION (TYP)

PR I-180 SB PGL

EX ROW

LEGEND

SEEDING CLASS 2A
NITROGEN FERTILIZER NUTRIENT
PHOSPHORUS FERTILIZER NUTRIENT
POTASSIUM FERTILIZER NUTRIENT

SEEDING CLASS 4
SEEDING CLASS 5
NITROGEN FERTILIZER NUTRIENT
PHOSPHORUS FERTILIZER NUTRIENT
POTASSIUM FERTILIZER NUTRIENT

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FAI ROUTE 180 (I–180)
LANDSCAPING PLAN

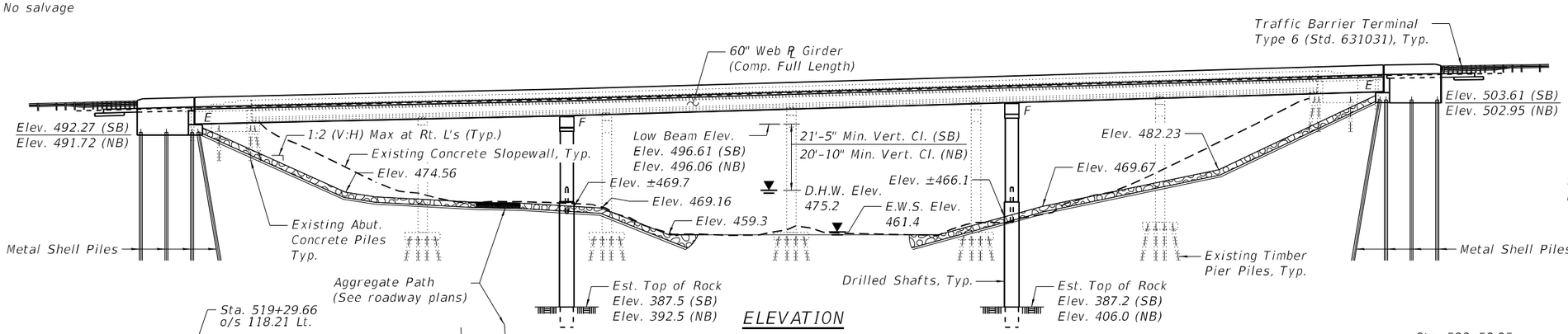
SCALE: 1" = 50' | SHEET 3 OF 3 SHEETS | STA. 531+75 | TO STA. 545+70

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
180	[(06-2B-1) & (06-2HB-1)]BR	BUREAU	327	140
		CONTRACT NO. 66K66		
	ILLINOIS	FED. AID PROJECT		

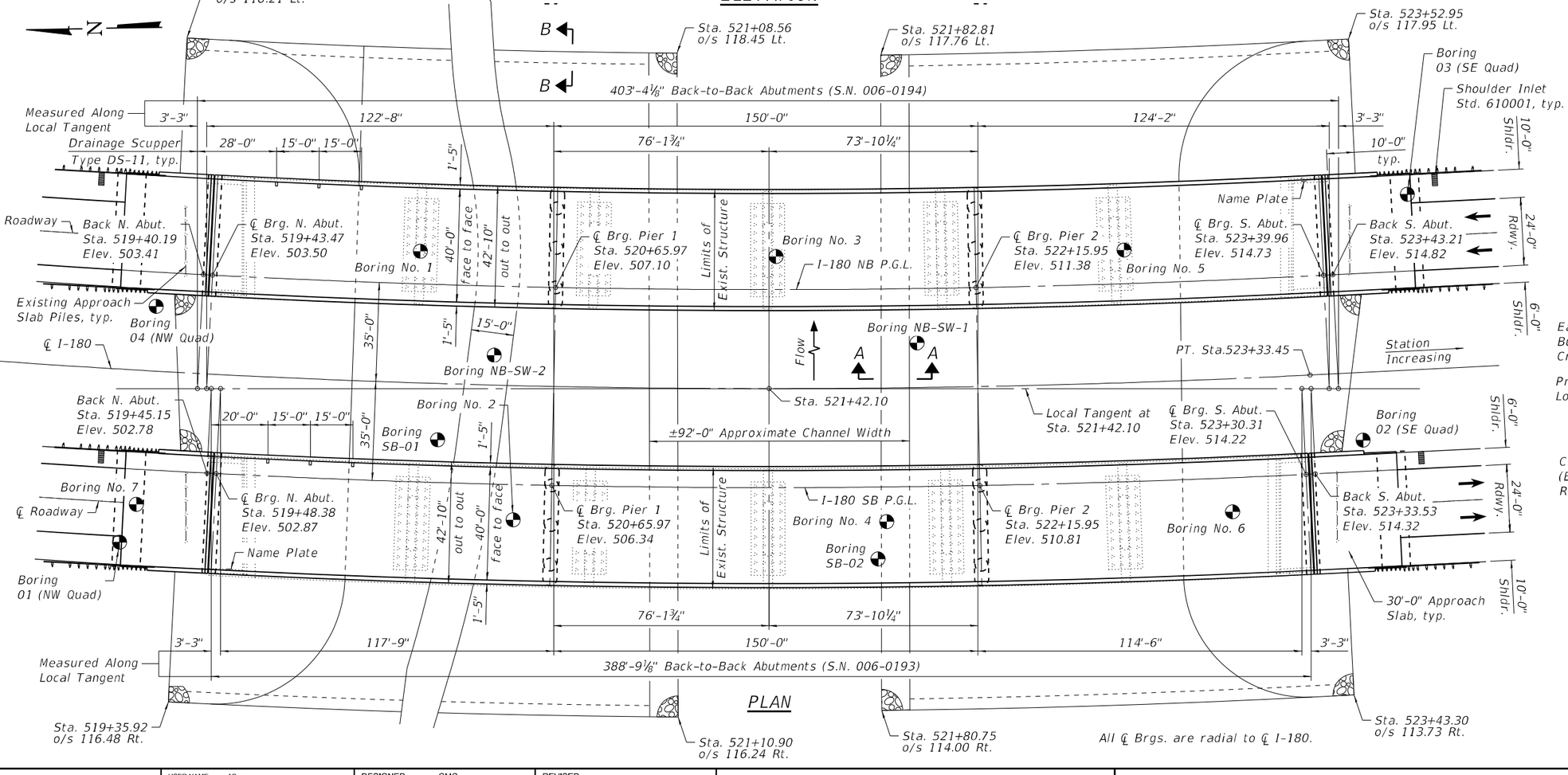
Benchmark: Chiseled "□" in corner of northwest bridge wingwall of existing S.N. 006-0053, Sta. 526+40.41, Offset 70.03' Rt., Elev. 526.13 (NAVD 88).

Existing Structure: S.N. 006-0051 (SB) and S.N. 006-0052 (NB) was built in 1967 as F.A.I. Route I-180, Section 06-2B-1 at Station 521+42.00. The existing 6-span dual structures are located along a horizontally curved alignment and measure 371'-6" from back to back of abutments along the local tangent and 42'-6" from out to out deck. The superstructure consists of 48" PPC I-Beams supporting a 7 1/2" reinforced concrete deck. The substructure consists of concrete stub abutments on concrete piles and concrete solid wall, hammer head piers on timber piles. These structures are to be removed and replaced. Traffic will be maintained utilizing crossover lanes.

No salvage



ELEVATION



PLAN

LOADING HL-93

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

DESIGN SPECIFICATIONS

2020 AASHTO LRFD Bridge Design Specifications, 9th Edition

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
f'c = 4,000 psi (Superstructure & Drilled Shafts)
fy = 60,000 psi (Reinforcement)
fy = 50,000 psi (M270 Grade 50W)

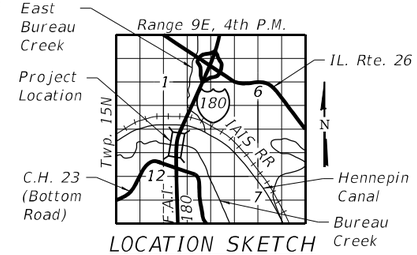
SEISMIC DATA

Seismic Performance Category (SPZ) = 1
Design Spectral Acceleration at 1.0 sec. (SD1) = 0.098g
Design Spectral Acceleration at 0.2 sec. (SDS) = 0.158g
Soil Site Class = D

APPROVED
For Structural Adequacy Only
Engineer of Bridges & Structures

LICENSED STRUCTURAL ENGINEER
ALEX C BENZ
081-007814
STATE OF ILLINOIS

Signed: Alex C. Benz
Date: 2/12/2024
License Expires: 11/30/2024



LOCATION SKETCH

GENERAL PLAN & ELEVATION
I-180 OVER BUREAU CREEK
F.A.I. 180-SEC. (06-2B-1)ES
BUREAU COUNTY
STATION 521+42.10
STRUCTURE NO. 006-0193 (SB)
STRUCTURE NO. 006-0194 (NB)

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Civil Engineering Design

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	CHECKED - ACB	REVISED -
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PLOT DATE = 2/12/2024	CHECKED - ACB	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN & ELEVATION
STRUCTURE NO. 006-0193 (SB) & 006-0194 (NB)
SHEET 1 OF 80 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
180	(06-2B-1)ES	BUREAU	327	141
		CONTRACT NO. 66K66		
	ILLINOIS	FED. AID PROJECT		

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GENERAL NOTES

Fasteners shall be ASTM F 3125 Grade A325 Type 1, mechanically galvanized bolts in painted areas. Fasteners shall be ASTM F3125 Grade A325 Type 3 weathering steel bolts in unpainted areas. Bolts ⅞ in. diameter, holes $^{15}/_{16}$ in. diameter, unless otherwise noted.

Calculated weight of Structural Steel = 1,551,200 lb (Grade 50W)

All structural steel shall be AASHTO M270 Grade 50W (except expansion joints and expansion bearings which shall be AASHTO M270 Grade 50.

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

Reinforcement bars designated (E) shall be epoxy coated.

Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of ⅛ in. (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimming the bearings.

A film forming Concrete Sealer shall be applied to the designated areas of the abutments.

Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.

All structural steel and exposed surfaces and bearings within a distance of 10 ft. each way from the deck joints shall be painted using the Inorganic Zinc-Rich/ Waterborne Acrylic paint system as specified in Section 506 of the Standard Specifications.

All steel within 10 feet of the piers shall be painted.

Deck slab repairs may be required on the Stage 1 Traffic existing bridge (SN 006-0052) before shifting traffic to it. See Roadway Plans for more information and quantities.

STA. 521+42.10
BUILT BY
STATE OF ILLINOIS
F.A.I. Rte. 180 Sec. (06-2B-1)ES
LOADING HL-93
STR. NO. 006-0193

STA. 521+42.10
BUILT BY
STATE OF ILLINOIS
F.A.I. Rte. 180 Sec. (06-2B-1)ES
LOADING HL-93
STR. NO. 006-0194

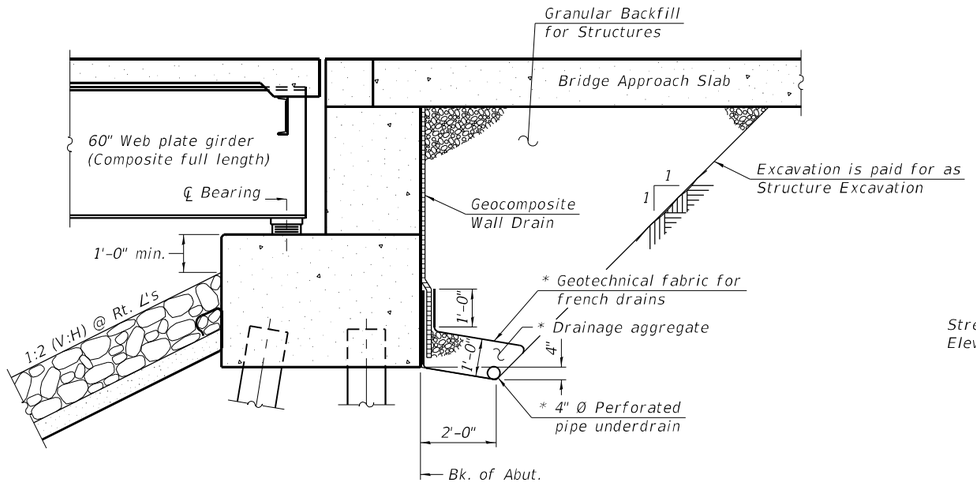
NAME PLATE

See Std. 515001

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Stone Riprap, Class A5	Sq. Yd.		8,979	8,979
Filter Fabric	Sq. Yd.		8,979	8,979
Removal Of Existing Structures	Each			2
Structure Excavation	Cu. Yd.		1,007	1,007
Concrete Structures	Cu. Yd.		817.8	817.8
Concrete Superstructure	Cu. Yd.	1,127.6		1,127.6
Protective Coat	Sq. Yd.	4,801		4,801
Concrete Superstructure (Approach Slab)	Cu. Yd.	229.2		229.2
Furnishing And Erecting Structural Steel	L. Sum.	0.5		0.5
Stud Shear Connectors	Each	17,612		17,612
Reinforcement Bars	Pound		265,500	265,500
Reinforcement Bars, Epoxy Coated	Pound	391,280	118,110	509,390
Bar Splicers	Each		208	208
Mechanical Splicers	Each		816	816
Furnishing Metal Shell Piles 14" X 0.312"	Foot		2,496	2,496
Driving Piles	Foot		2,496	2,496
Test Pile Metal Shells	Each		4	4
Pile Shoes	Each		52	52
Name Plates	Each	2		2
Drilled Shaft In Soil	Cu. Yd.		801.0	801.0
Drilled Shaft In Rock	Cu. Yd.		174.8	174.8
Preformed Joint Strip Seal	Foot	168		168
Elastomeric Bearing Assembly, Type I	Each	24		24
Anchor Bolts, 3/4"	Each	48		48
Anchor Bolts, 1 1/4"	Each	48		48
Granular Backfill For Structures	Cu. Yd.		378	378
Concrete Sealer	Sq. Ft.		2,401	2,401
Geocomposite Wall Drain	Sq. Yd.		324	324
Pipe Underdrains For Structures 4"	Foot		300	300
Crosshole Sonic Logging Access Ducts	Foot		1,153	1,153
Crosshole Sonic Logging Testing	Each		12	12
Bridge Deck Grooving (Longitudinal)	Sq. Yd.	2,407		2,407
Bar Terminators	Each	120		120
Drainage Scuppers, DS-11	Each	6		6
Diamond Grinding (Bridge Section)	Sq. Yd.	3,849		3,849

INDEX OF SHEETS



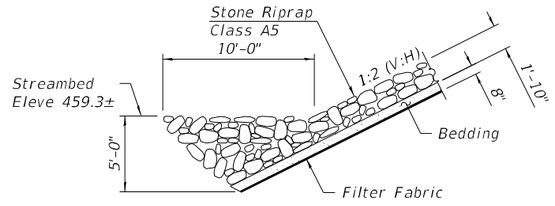
SECTION THRU PILE SUPPORTED STUB ABUTMENT

(Horiz. dim. at Rt. ℄'s)

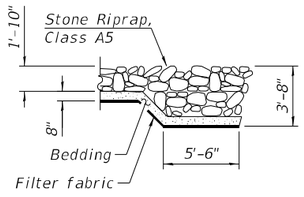
* Included in the cost of Pipe Underdrains for Structures.

Note:

All drainage system components shall extend parallel to the abutment back wall until they intersect the wingwalls or 2'-0" from the end of the wingwalls when the wings are parallel to the abutment. The pipe shall extend under the wingwall, if necessary, until intersecting the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).



SECTION A-A



SECTION B-B

WATERWAY INFORMATION

Drainage Area = 371 mi^2

Exist. Low Grade Elev. 497.63 at Sta. 519+55
Prop. Low Grade Elev. 496.13 at Sta. 519+44

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Nat. H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
	10	17400	1913	1964	473.7	2.1	2.0	475.8	475.7
Design	50	27200	2262	2346	475.2	2.3	2.2	477.5	477.4
Base	100	31400	2382	2478	475.7	2.4	2.3	478.1	478.0
Scour Check	200	35500	2494	2601	476.2	2.6	2.5	478.8	478.7
Max. Calc.	500	40900	2631	2752	476.7	2.8	2.7	479.5	479.4

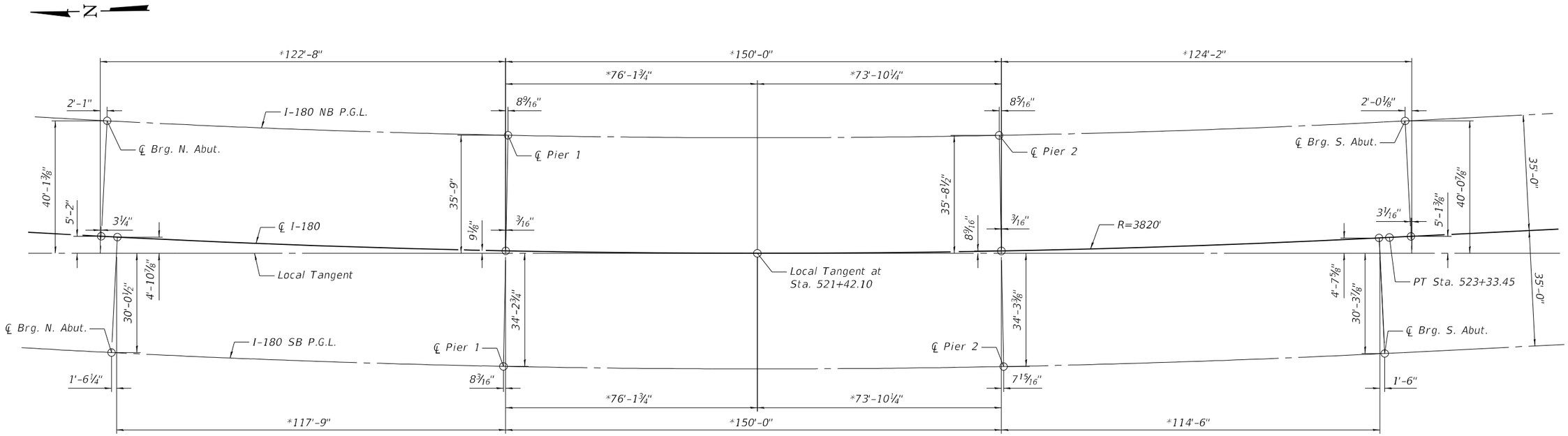
10 year velocity through existing bridge = 4.9 fps
10 year velocity through prop. bridge = 4.9 fps

DESIGN SCOUR ELEVATION TABLE (SB)

Event / Limit State	Design Scour Elevations (ft.) N. Abut.	Pier 1	Pier 2	S. Abut.	Item 113
Q100	492.3	429.3	429.3	503.6	5
Q200	492.3	427.7	427.7	503.6	
Design	492.3	429.3	429.3	503.6	
Check	492.3	427.7	427.7	503.6	

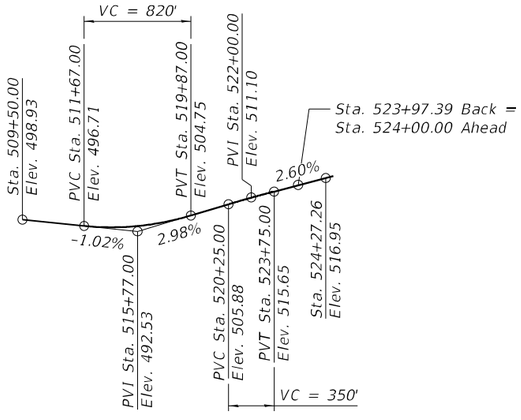
DESIGN SCOUR ELEVATION TABLE (NB)

Event / Limit State	Design Scour Elevations (ft.) N. Abut.	Pier 1	Pier 2	S. Abut.	Item 113
Q100	491.7	429.3	429.3	503.0	5
Q200	491.7	427.7	427.7	503.0	
Design	491.7	429.3	429.3	503.0	
Check	491.7	427.7	427.7	503.0	



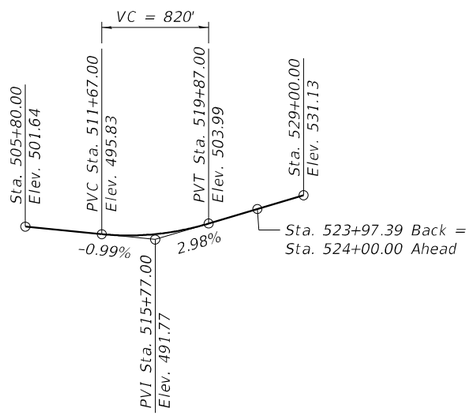
OFFSET SKETCH

(All ℄ Brgs. are radial to ℄ I-180)
* Measured along local tangent



PROFILE GRADE

(Along I-180 NB P.G.L; 35' Lt. ℄ I-180)
Up to ¼ inch to be ground off the bridge deck and the bridge approach slab. The Profile Grade shows the final grade after grinding.



PROFILE GRADE

(Along I-180 SB P.G.L; 35' Rt. ℄ I-180)
Up to ¼ inch to be ground off the bridge deck and the bridge approach slab. The Profile Grade shows the final grade after grinding.

CURVE DATA

(Along ℄ I-180)
P.I. Sta. = 515+57.72
Δ = 23°36'35" (Lt.)
D = 1°30'00"
R = 3820.00'
T = 798.38'
L = 1,574.10
E = 82.54'
P.C. Sta. = 507+59.35
P.T. Sta. = 523+33.45

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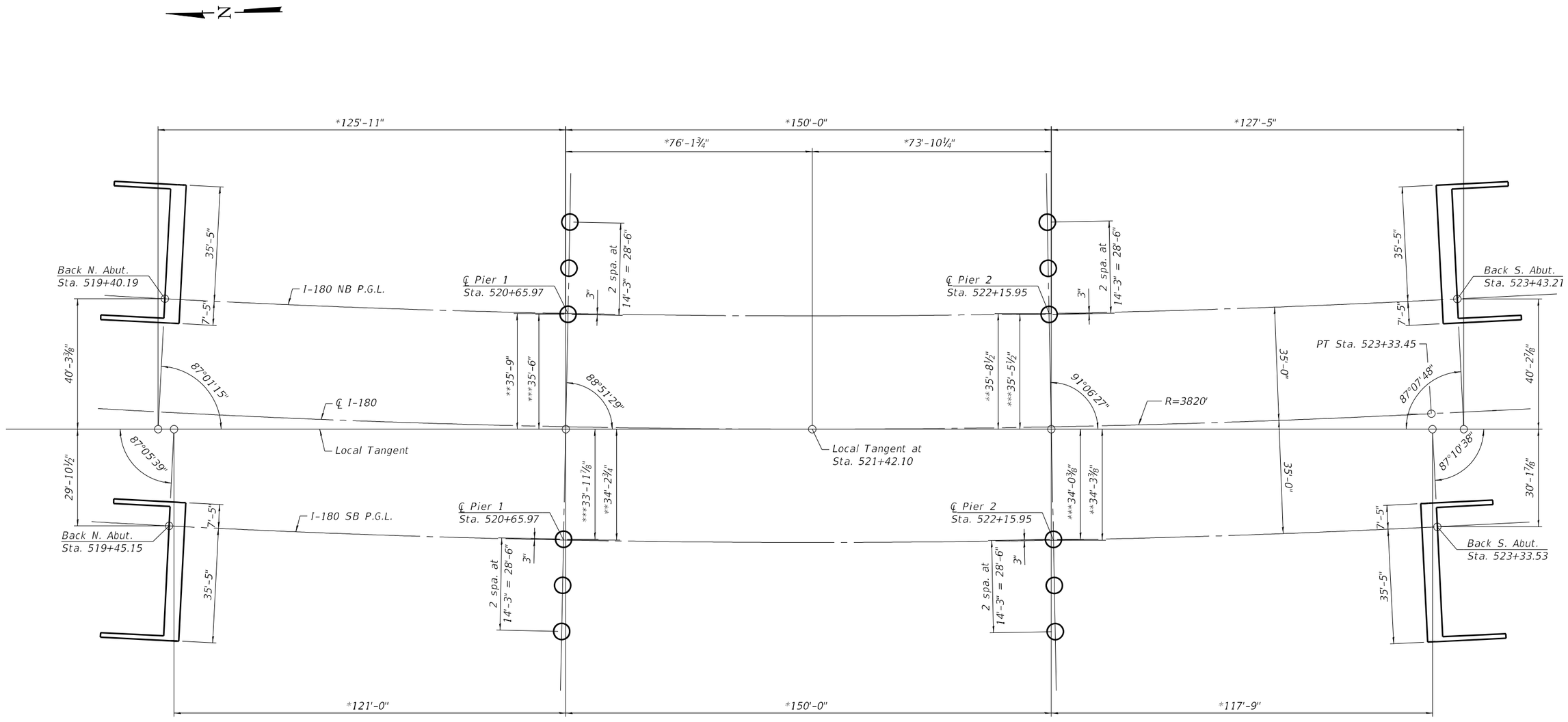
	CHECKED - ACB	REVISED -
PLOT SCALE =	DRAWN - CMC	REVISED -
PLOT DATE = 2/12/2024	CHECKED - ACB	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OFFSET SKETCH
STRUCTURE NO. 006-0193 (SB) & 006-0194 (NB)
SHEET 3 OF 80 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
180	(06-2B-1)ES	BUREAU	327	143
		CONTRACT NO. 66K66		
	ILLINOIS	FED. AID PROJECT		



FOOTING LAYOUT

(All ℄ Brgs. are radial to ℄ I-180)
* Measured along local tangent
** Measured from local tangent to PGL
*** Measured from local tangent to drilled shaft

MODEL: Default
FILE NAME: \\SERVER18\Projects\SS4\22057.08 IDOT D3 PTB 204-028 WO 08 I-180 over Bureau Creek\DGN\Bridge\Final\Plotsheets\006-0193&0194-66K66-004-Footing Layout.dgn
2/12/2024 10:34:47 AM

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Civil Engineering Design

USER NAME = ABenz	DESIGNED - CMC	REVISED -	
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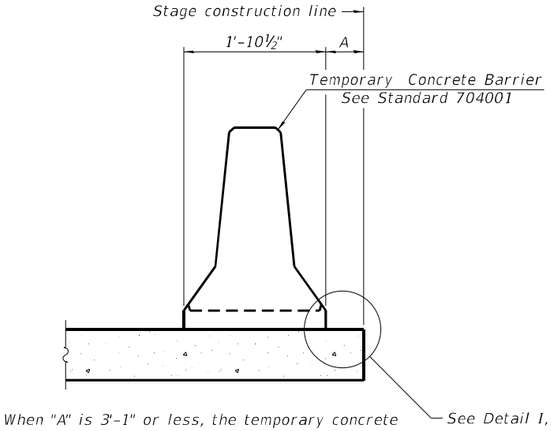
PLOT SCALE =	DRAWN - CMC	REVISED -	
PLOT DATE = 2/12/2024	CHECKED - ACB	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

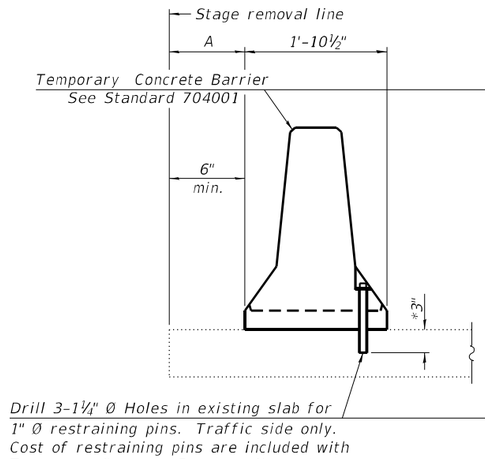
FOOTING LAYOUT
STRUCTURE NO. 006-0193 (SB) & 006-0194 (NB)
SHEET 4 OF 80 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
180	(06-2B-1)ES	BUREAU	327	144
		CONTRACT NO. 66K66		
	ILLINOIS	FED. AID PROJECT		



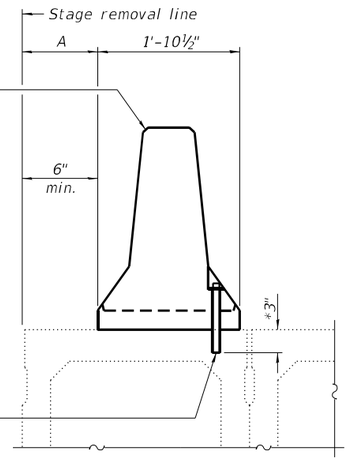
When "A" is 3'-1" or less, the temporary concrete barrier shall be restrained to the new slab according to Detail I, II or III. No restraint is required when "A" is greater than 3'-1".

NEW SLAB OR NEW DECK BEAM



Drill 3-1¼" Ø Holes in existing slab for 1" Ø restraining pins. Traffic side only. Cost of restraining pins are included with Temporary Concrete Barrier. No restraint is required when "A" is greater than 3'-1".

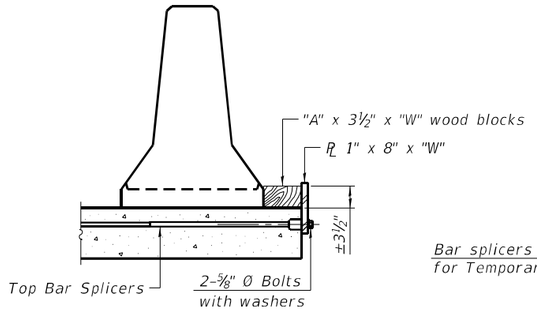
EXISTING SLAB



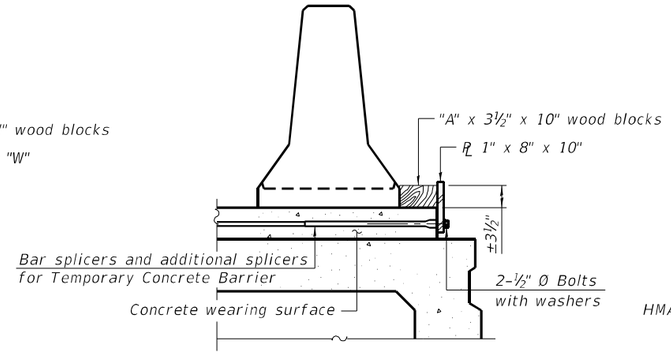
* When hot-mix asphalt wearing surface is present, embedment shall be 3" plus the wearing surface depth.

EXISTING DECK BEAM

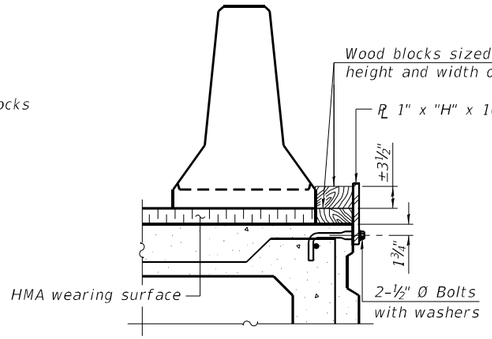
SECTIONS THRU SLAB OR DECK BEAM



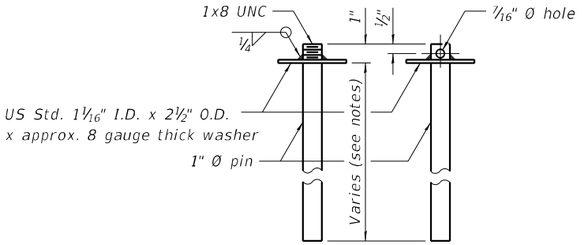
DETAIL I



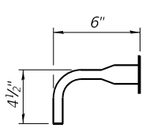
DETAIL II



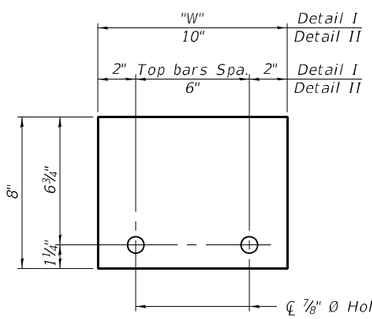
DETAIL III



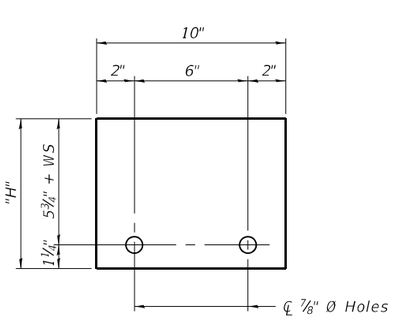
RESTRAINING PIN



BAR SPLICER FOR #4 BAR - DETAIL III



STEEL RETAINER ℄ 1" x 8" x "W"
(Detail I and II)



STEEL RETAINER ℄ 1" x "H" x 10"
(Detail III)

Notes:

Cost of retainer assembly is included with Temporary Concrete Barrier.

A retainer assembly shall be located at the approximate ℄ of each temporary concrete barrier.

The retainer plate shall not be removed until the concrete on the adjacent stage is ready to be poured. For Detail III applications the retainer plate shall not be removed until just prior to placing the adjacent beam.

When the 'A' dimension is less than 1½", the wood block shall be omitted and the barrier shall be placed in direct contact with the steel retainer plate. For deck beam applications the minimum required 'A' distance is 6" to accommodate the shear key clamping device.

Detail I - Installation for a new bridge deck or bridge slab.

Detail II - Installation for a new deck beam with an initial concrete wearing surface. Additional bar splicers shall be provided at 6'-0" centers and paired with the bar splicers of the concrete wearing surface reinforcement to accommodate the installation of the retainer assemblies. The cost of the additional bar splicers is included with the concrete wearing surface.

Detail III - Installation for a new deck beam with no initial wearing surface or with an initial hot-mix asphalt (HMA) wearing surface present. The deck beam directly beneath the temporary concrete barrier shall be fabricated with bar splicer inserts in the side of the beam, as detailed, to accommodate the installation of the retainer assemblies. A pair of bar splicers, 6" apart, shall be placed at 6'-0" centers along the length of the beam. The cost of the bar splicers is included with the deck beam.

RAILING CRITERIA

NCHRP 350 Test Level	3
Railing Weight (plf)	440

R-27

10-12-2021

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USER NAME = ABenz	DESIGNED - CMC	REVISED -
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PLOT SCALE =	DRAWN - CMC	REVISED -
PLOT DATE = 2/12/2024	CHECKED - ACB	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CONCRETE BARRIER
STRUCTURE NO. 006-0193 (SB) & 006-0194 (NB)
SHEET 5 OF 80 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
180	(06-2B-1)ES	BUREAU	327	145
		CONTRACT NO. 66K66		
	ILLINOIS	FED. AID PROJECT		

MODEL: Default
FILE NAME: \\SERVER18\Projects\SS4\22057.08 IDOT D3 PTB 204-028 WO 08 I-180 over Bureau Creek\DGN\Bridge\Final\Plotsheets\006-0193&0194-66K66-005-Temporary Barrier.dgn

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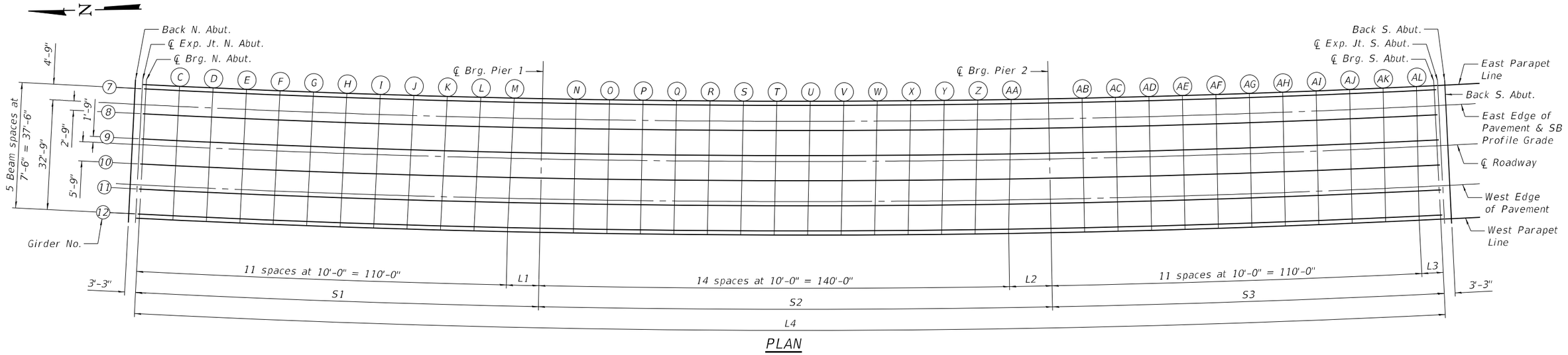
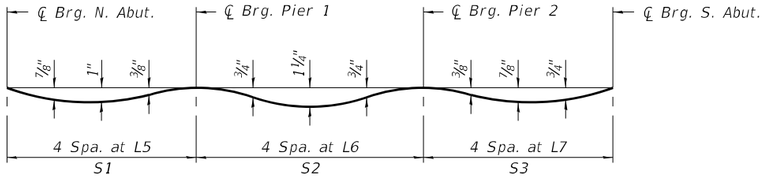


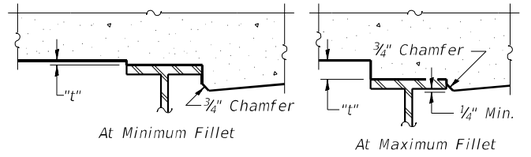
PLAN



DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only.)

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 and grinding as shown on sheets 7 thru 10 of 80.



To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown above. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection and Grinding" shown on sheets 7 thru 10 of 80, minus the initial slab thickness prior to grinding, equals the fillet heights "t" above top flange of beams.

The slab is to be ground after curing to achieve smoothness, but the slab is not to be ground to elevations below the "Theoretical Grade Elevations" shown on sheets 7 thru 10 of 80. For grinding the deck, see Special Provisions.

FILLET HEIGHTS

TABLE OF DIMENSIONS

Location	L1	L2	L3	L4	L5	S1	L6	S2	L7	S3
Girder 7	8'-6¼"	11'-2"	5'-3⅛"	384'-11½"	29'-7⅜"	118'-6¼"	37'-9½"	151'-2"	28'-9¾"	115'-3⅛"
Girder 8	8'-9⅛"	11'-5½"	5'-5⅞"	385'-8½"	29'-8¼"	118'-9⅛"	37'-10⅜"	151'-5½"	28'-10½"	115'-5⅞"
Girder 9	8'-11⅞"	11'-9⅛"	5'-8½"	386'-5½"	29'-9"	118'-11⅞"	37'-11¼"	151'-9⅛"	28'-11⅛"	115'-8½"
Girder 10	9'-2⅝"	12'-0⅝"	5'-11¼"	387'-2½"	29'-9⅝"	119'-2⅝"	38'-0⅛"	152'-0⅝"	28'-11¾"	115'-11¼"
Girder 11	9'-5⅜"	12'-4⅛"	6'-1⅞"	387'-11½"	29'-10⅜"	119'-5⅜"	38'-1"	152'-4⅛"	29'-0½"	116'-1⅞"
Girder 12	9'-8⅛"	12'-7¾"	6'-4⅝"	388'-8½"	29'-11"	119'-8⅛"	38'-1⅞"	152'-7¾"	29'-1⅛"	116'-4⅝"

E-S1 1-14-2019

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	CHECKED - ACB	REVISED -	
PLOT SCALE =	DRAWN - CMC	REVISED -	
PLOT DATE = 2/12/2024	CHECKED - ACB	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS
STRUCTURE NO. 006-0193 (SB)
SHEET 6 OF 80 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
180	(06-2B-1)ES	BUREAU	327	146
		CONTRACT NO. 66K66		
	ILLINOIS	FED. AID PROJECT		

MODEL: Default
FILE NAME: \\SERVER18\Projects\SS4\22057.08 IDOT D3 PTB 204-028 WO 08 I-180 over Bureau Creek\DGN\Bridge\Final\PltSheets\006-0193&0194-66K66-006-Top of Slab Elevations (SB).dgn

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EAST PARAPET LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Back N. Abut.	519+45.15	-6.00	502.53	502.55
℄ Exp. Jt. N. Abut.	519+47.25	-6.00	502.59	502.61
℄ Brg. N. Abut.	519+48.38	-6.00	502.62	502.64
C	519+58.30	-6.00	502.90	502.95
D	519+68.23	-6.00	503.19	503.26
E	519+78.15	-6.00	503.47	503.56
F	519+88.08	-6.00	503.77	503.87
G	519+98.00	-6.00	504.07	504.17
H	520+07.93	-6.00	504.36	504.46
I	520+17.85	-6.00	504.66	504.74
J	520+27.78	-6.00	504.95	505.02
K	520+37.70	-6.00	505.25	505.30
L	520+47.63	-6.00	505.54	505.58
M	520+57.55	-6.00	505.84	505.86
℄ Brg. Pier 1	520+65.97	-6.00	506.09	506.11
N	520+75.89	-6.00	506.39	506.42
O	520+85.82	-6.00	506.68	506.73
P	520+95.74	-6.00	506.98	507.04
Q	521+05.67	-6.00	507.27	507.36
R	521+15.59	-6.00	507.57	507.67
S	521+25.52	-6.00	507.87	507.98
T	521+35.44	-6.00	508.16	508.29
U	521+45.37	-6.00	508.46	508.59
V	521+55.29	-6.00	508.75	508.88
W	521+65.22	-6.00	509.05	509.16
X	521+75.14	-6.00	509.34	509.44
Y	521+85.07	-6.00	509.64	509.71
Z	521+94.99	-6.00	509.94	509.99
AA	522+04.92	-6.00	510.23	510.27
℄ Brg. Pier 2	522+15.95	-6.00	510.56	510.58
AB	522+25.87	-6.00	510.86	510.88
AC	522+35.80	-6.00	511.15	511.19
AD	522+45.72	-6.00	511.45	511.50
AE	522+55.65	-6.00	511.74	511.81
AF	522+65.57	-6.00	512.04	512.12
AG	522+75.50	-6.00	512.34	512.42
AH	522+85.42	-6.00	512.63	512.72
AI	522+95.35	-6.00	512.93	513.02
AJ	523+05.27	-6.00	513.22	513.30
AK	523+15.20	-6.00	513.52	513.58
AL	523+25.12	-6.00	513.81	513.86
℄ Brg. S. Abut.	523+30.31	-6.00	513.97	513.99
℄ Exp. Jt. S. Abut.	523+31.43	-6.00	514.00	514.02
Back S. Abut.	523+33.53	-6.00	514.06	514.09

GIRDER 7

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Back N. Abut.	519+45.15	-4.75	502.58	502.60
℄ Exp. Jt. N. Abut.	519+47.25	-4.75	502.64	502.66
℄ Brg. N. Abut.	519+48.38	-4.75	502.67	502.69
C	519+58.30	-4.75	502.95	503.00
D	519+68.22	-4.75	503.24	503.31
E	519+78.14	-4.75	503.53	503.62
F	519+88.07	-4.75	503.82	503.92
G	519+97.99	-4.75	504.12	504.22
H	520+07.91	-4.75	504.41	504.51
I	520+17.83	-4.75	504.71	504.80
J	520+27.75	-4.75	505.00	505.08
K	520+37.67	-4.75	505.30	505.35
L	520+47.59	-4.75	505.60	505.63
M	520+57.52	-4.75	505.89	505.92
℄ Brg. Pier 1	520+65.97	-4.75	506.14	506.16
N	520+75.89	-4.75	506.44	506.47
O	520+85.81	-4.75	506.74	506.78
P	520+95.73	-4.75	507.03	507.09
Q	521+05.66	-4.75	507.33	507.41
R	521+15.58	-4.75	507.62	507.73
S	521+25.50	-4.75	507.92	508.04
T	521+35.42	-4.75	508.21	508.34
U	521+45.34	-4.75	508.51	508.64
V	521+55.26	-4.75	508.80	508.93
W	521+65.18	-4.75	509.10	509.21
X	521+75.11	-4.75	509.40	509.49
Y	521+85.03	-4.75	509.69	509.76
Z	521+94.95	-4.75	509.99	510.04
AA	522+04.87	-4.75	510.28	510.32
℄ Brg. Pier 2	522+15.95	-4.75	510.61	510.63
AB	522+25.87	-4.75	510.91	510.93
AC	522+35.79	-4.75	511.20	511.24
AD	522+45.71	-4.75	511.50	511.55
AE	522+55.64	-4.75	511.80	511.86
AF	522+65.56	-4.75	512.09	512.17
AG	522+75.48	-4.75	512.39	512.48
AH	522+85.40	-4.75	512.68	512.78
AI	522+95.32	-4.75	512.98	513.07
AJ	523+05.24	-4.75	513.27	513.35
AK	523+15.16	-4.75	513.57	513.63
AL	523+25.09	-4.75	513.87	513.92
℄ Brg. S. Abut.	523+30.31	-4.75	514.02	514.04
℄ Exp. Jt. S. Abut.	523+31.43	-4.75	514.05	514.08
Back S. Abut.	523+33.53	-4.75	514.12	514.14

EAST EDGE OF PAVEMENT & SB PROFILE GRADE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Back N. Abut.	519+45.15	0.00	502.78	502.80
℄ Exp. Jt. N. Abut.	519+47.25	0.00	502.84	502.86
℄ Brg. N. Abut.	519+48.38	0.00	502.87	502.89
C	519+58.29	0.00	503.15	503.20
D	519+68.20	0.00	503.44	503.51
E	519+78.11	0.00	503.72	503.81
F	519+88.02	0.00	504.02	504.12
G	519+97.93	0.00	504.32	504.42
H	520+07.84	0.00	504.61	504.71
I	520+17.74	0.00	504.91	504.99
J	520+27.65	0.00	505.20	505.27
K	520+37.56	0.00	505.50	505.55
L	520+47.47	0.00	505.79	505.83
M	520+57.38	0.00	506.09	506.11
℄ Brg. Pier 1	520+65.97	0.00	506.34	506.36
N	520+75.88	0.00	506.64	506.67
O	520+85.79	0.00	506.93	506.98
P	520+95.70	0.00	507.23	507.29
Q	521+05.61	0.00	507.52	507.61
R	521+15.52	0.00	507.82	507.92
S	521+25.43	0.00	508.12	508.23
T	521+35.33	0.00	508.41	508.54
U	521+45.24	0.00	508.71	508.83
V	521+55.15	0.00	509.00	509.12
W	521+65.06	0.00	509.30	509.40
X	521+74.97	0.00	509.59	509.68
Y	521+84.88	0.00	509.89	509.96
Z	521+94.79	0.00	510.18	510.23
AA	522+04.70	0.00	510.48	510.51
℄ Brg. Pier 2	522+15.95	0.00	510.81	510.83
AB	522+25.86	0.00	511.11	511.13
AC	522+35.77	0.00	511.40	511.44
AD	522+45.68	0.00	511.70	511.75
AE	522+55.59	0.00	511.99	512.06
AF	522+65.50	0.00	512.29	512.37
AG	522+75.41	0.00	512.58	512.67
AH	522+85.31	0.00	512.88	512.97
AI	522+95.22	0.00	513.18	513.26
AJ	523+05.13	0.00	513.47	513.55
AK	523+15.04	0.00	513.77	513.82
AL	523+24.95	0.00	514.06	514.11
℄ Brg. S. Abut.	523+30.31	0.00	514.22	514.24
℄ Exp. Jt. S. Abut.	523+31.43	0.00	514.25	514.27
Back S. Abut.	523+33.53	0.00	514.32	514.34

GIRDER 8

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Back N. Abut.	519+45.16	2.75	502.90	502.92
℄ Exp. Jt. N. Abut.	519+47.25	2.75	502.96	502.98
℄ Brg. N. Abut.	519+48.38	2.75	502.99	503.01
C	519+58.28	2.75	503.27	503.32
D	519+68.18	2.75	503.55	503.62
E	519+78.09	2.75	503.84	503.93
F	519+87.99	2.75	504.13	504.24
G	519+97.89	2.75	504.43	504.53
H	520+07.79	2.75	504.73	504.83
I	520+17.70	2.75	505.02	505.11
J	520+27.60	2.75	505.32	505.39
K	520+37.50	2.75	505.61	505.66
L	520+47.40	2.75	505.91	505.94
M	520+57.30	2.75	506.20	506.22
℄ Brg. Pier 1	520+65.97	2.75	506.46	506.48
N	520+75.87	2.75	506.75	506.79
O	520+85.77	2.75	507.05	507.09
P	520+95.68	2.75	507.34	507.41
Q	521+05.58	2.75	507.64	507.72
R	521+15.48	2.75	507.93	508.04
S	521+25.38	2.75	508.23	508.35
T	521+35.29	2.75	508.52	508.65
U	521+45.19	2.75	508.82	508.95
V	521+55.09	2.75	509.11	509.24
W	521+64.99	2.75	509.41	509.52
X	521+74.89	2.75	509.70	509.80
Y	521+84.80	2.75	510.00	510.07
Z	521+94.70	2.75	510.29	510.35
AA	522+04.60	2.75	510.59	510.63
℄ Brg. Pier 2	522+15.95	2.75	510.93	510.95
AB	522+25.85	2.75	511.22	511.25
AC	522+35.75	2.75	511.52	511.55
AD	522+45.66	2.75	511.81	511.86
AE	522+55.56	2.75	512.11	512.17
AF	522+65.46	2.75	512.40	512.48
AG	522+75.36	2.75	512.70	512.79
AH	522+85.27	2.75	512.99	513.09
AI	522+95.17	2.75	513.29	513.38
AJ	523+05.07	2.75	513.58	513.66
AK	523+14.97	2.75	513.88	513.94
AL	523+24.87	2.75	514.17	514.22
℄ Brg. S. Abut.	523+30.31	2.75	514.34	514.36
℄ Exp. Jt. S. Abut.	523+31.43	2.75	514.37	514.39
Back S. Abut.	523+33.53	2.75	514.43	514.45

GIRDER 9

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Back N. Abut.	519+45.16	10.25	503.21	503.23
℄ Exp. Jt. N. Abut.	519+47.25	10.25	503.27	503.29
℄ Brg. N. Abut.	519+48.38	10.25	503.30	503.32
C	519+58.26	10.25	503.58	503.63
D	519+68.15	10.25	503.87	503.94
E	519+78.03	10.25	504.15	504.24
F	519+87.91	10.25	504.45	504.55
G	519+97.79	10.25	504.74	504.85
H	520+07.68	10.25	505.04	505.14
I	520+17.56	10.25	505.33	505.42
J	520+27.44	10.25	505.63	505.70
K	520+37.33	10.25	505.92	505.97
L	520+47.21	10.25	506.21	506.25
M	520+57.09	10.25	506.51	506.53
℄ Brg. Pier 1	520+65.97	10.25	506.77	506.79
N	520+75.85	10.25	507.07	507.10
O	520+85.74	10.25	507.36	507.41
P	520+95.62	10.25	507.66	507.72
Q	521+05.50	10.25	507.95	508.04
R	521+15.38	10.25	508.25	508.35
S	521+25.27	10.25	508.54	508.66
T	521+35.15	10.25	508.84	508.96
U	521+45.03	10.25	509.13	509.26
V	521+54.92	10.25	509.42	509.55
W	521+64.80	10.25	509.72	509.83
X	521+74.68	10.25	510.01	510.10
Y	521+84.57	10.25	510.31	510.38
Z	521+94.45	10.25	510.60	510.65
AA	522+04.33	10.25	510.90	510.93
℄ Brg. Pier 2	522+15.95	10.25	511.24	511.26
AB	522+25.83	10.25	511.54	511.56
AC	522+35.72	10.25	511.83	511.87
AD	522+45.60	10.25	512.13	512.18
AE	522+55.48	10.25	512.42	512.49
AF	522+65.36	10.25	512.72	512.80
AG	522+75.25	10.25	513.01	513.10
AH	522+85.13	10.25	513.30	513.40
AI	522+95.01	10.25	513.60	513.69
AJ	523+04.90	10.25	513.89	513.97
AK	523+14.78	10.25	514.19	514.25
AL	523+24.66	10.25	514.48	514.53
℄ Brg. S. Abut.	523+30.31	10.25	514.65	514.67
℄ Exp. Jt. S. Abut.	523+31.43	10.25	514.68	514.71
Back S. Abut.	523+33.52	10.25	514.75	514.77

CENTERLINE OF ROADWAY

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Back N. Abut.	519+45.16	12.00	503.29	503.31
℄ Exp. Jt. N. Abut.	519+47.25	12.00	503.35	503.37
℄ Brg. N. Abut.	519+48.38	12.00	503.38	503.40
C	519+58.26	12.00	503.66	503.70
D	519+68.14	12.00	503.94	504.01
E	519+78.02	12.00	504.23	504.32
F	519+87.89	12.00	504.52	504.62
G	519+97.77	12.00	504.82	504.92
H	520+07.65	12.00	505.11	505.21
I	520+17.53	12.00	505.40	505.49
J	520+27.41	12.00	505.70	505.77
K	520+37.29	12.00	505.99	506.05
L	520+47.16	12.00	506.29	506.32
M	520+57.04	12.00	506.58	506.60
℄ Brg. Pier 1	520+65.97	12.00	506.85	506.87
N	520+75.85	12.00	507.14	507.18
O	520+85.73	12.00	507.44	507.48
P	520+95.61	12.00	507.73	507.79
Q	521+05.48	12.00	508.02	508.11
R	521+15.36	12.00	508.32	508.42
S	521+25.24	12.00	508.61	508.73
T	521+35.12	12.00	508.91	509.03
U	521+45.00	12.00	509.20	509.33
V	521+54.88	12.00	509.50	509.62
W	521+64.75	12.00	509.79	509.90
X	521+74.63	12.00	510.09	510.18
Y	521+84.51	12.00	510.38	510.45
Z	521+94.39	12.00	510.67	510.72
AA	522+04.27	12.00	510.97	511.01
℄ Brg. Pier 2	522+15.95	12.00	511.32	511.34
AB	522+25.83	12.00	511.61	511.64
AC	522+35.71	12.00	511.91	511.94
AD	522+45.59	12.00	512.20	512.25
AE	522+55.46	12.00	512.49	512.56
AF	522+65.34	12.00	512.79	512.87
AG	522+75.22	12.00	513.08	513.17
AH	522+85.10	12.00	513.38	513.47
AI	522+94.98	12.00	513.67	513.76
AJ	523+04.86	12.00	513.97	514.04
AK	523+14.73	12.00	514.26	514.32
AL	523+24.61	12.00	514.55	514.60
℄ Brg. S. Abut.	523+30.31	12.00	514.72	514.75
℄ Exp. Jt. S. Abut.	523+31.43	12.00	514.76	514.78
Back S. Abut.	523+33.52	12.00	514.82	514.84

GIRDER 10

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Back N. Abut.	519+45.17	17.75	503.53	503.55
℄ Exp. Jt. N. Abut.	519+47.26	17.75	503.59	503.61
℄ Brg. N. Abut.	519+48.38	17.75	503.62	503.64
C	519+58.24	17.75	503.90	503.94
D	519+68.11	17.75	504.18	504.25
E	519+77.97	17.75	504.47	504.56
F	519+87.84	17.75	504.76	504.86
G	519+97.70	17.75	505.05	505.16
H	520+07.56	17.75	505.35	505.45
I	520+17.43	17.75	505.64	505.73
J	520+27.29	17.75	505.94	506.01
K	520+37.15	17.75	506.23	506.28
L	520+47.02	17.75	506.52	506.56
M	520+56.88	17.75	506.82	506.84
℄ Brg. Pier 1	520+65.97	17.75	507.09	507.11
N	520+75.83	17.75	507.38	507.42
O	520+85.70	17.75	507.68	507.72
P	520+95.56	17.75	507.97	508.03
Q	521+05.43	17.75	508.26	508.35
R	521+15.29	17.75	508.56	508.66
S	521+25.15	17.75	508.85	508.97
T	521+35.02	17.75	509.15	509.27
U	521+44.88	17.75	509.44	509.57
V	521+54.74	17.75	509.73	509.86
W	521+64.61	17.75	510.03	510.14
X	521+74.47	17.75	510.32	510.41
Y	521+84.34	17.75	510.62	510.69
Z	521+94.20	17.75	510.91	510.96
AA	522+04.06	17.75	511.20	511.24
℄ Brg. Pier 2	522+15.95	17.75	511.56	511.58
AB	522+25.81	17.75	511.85	511.88
AC	522+35.68	17.75	512.15	512.18
AD	522+45.54	17.75	512.44	512.49
AE	522+55.41	17.75	512.73	512.80
AF	522+65.27	17.75	513.03	513.11
AG	522+75.13	17.75	513.32	513.41
AH	522+85.00	17.75	513.62	513.71
AI	522+94.86	17.75	513.91	514.00
AJ	523+04.72	17.75	514.20	514.28
AK	523+14.59	17.75	514.50	514.56
AL	523+24.45	17.75	514.79	514.84
℄ Brg. S. Abut.	523+30.31	17.75	514.97	514.99
℄ Exp. Jt. S. Abut.	523+31.43	17.75	515.00	515.02
Back S. Abut.	523+33.51	17.75	515.06	515.08

WEST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Back N. Abut.	519+45.17	24.00	503.79	503.81
℄ Exp. Jt. N. Abut.	519+47.26	24.00	503.85	503.87
℄ Brg. N. Abut.	519+48.38	24.00	503.88	503.90
C	519+58.23	24.00	504.16	504.21
D	519+68.08	24.00	504.44	504.51
E	519+77.92	24.00	504.73	504.82
F	519+87.77	24.00	505.02	505.12
G	519+97.62	24.00	505.31	505.42
H	520+07.47	24.00	505.61	505.71
I	520+17.32	24.00	505.90	505.99
J	520+27.16	24.00	506.19	506.27
K	520+37.01	24.00	506.49	506.54
L	520+46.86	24.00	506.78	506.82
M	520+56.71	24.00	507.08	507.10
℄ Brg. Pier 1	520+65.97	24.00	507.35	507.37
N	520+75.82	24.00	507.64	507.68
O	520+85.67	24.00	507.94	507.98
P	520+95.51	24.00	508.23	508.30
Q	521+05.36	24.00	508.53	508.61
R	521+15.21	24.00	508.82	508.92
S	521+25.06	24.00	509.11	509.23
T	521+34.91	24.00	509.41	509.53
U	521+44.75	24.00	509.70	509.83
V	521+54.60	24.00	509.99	510.11
W	521+64.45	24.00	510.29	510.39
X	521+74.30	24.00	510.58	510.67
Y	521+84.14	24.00	510.87	510.94
Z	521+93.99	24.00	511.17	511.22
AA	522+03.84	24.00	511.46	511.50
℄ Brg. Pier 2	522+15.95	24.00	511.82	511.84
AB	522+25.80	24.00	512.11	512.14
AC	522+35.65	24.00	512.41	512.44
AD	522+45.49	24.00	512.70	512.75
AE	522+55.34	24.00	512.99	513.06
AF	522+65.19	24.00	513.29	513.37
AG	522+75.04	24.00	513.58	513.67
AH	522+84.89	24.00	513.87	513.97
AI	522+94.73	24.00	514.17	514.26
AJ	523+04.58	24.00	514.46	514.54
AK	523+14.43	24.00	514.76	514.81
AL	523+24.28	24.00	515.05	515.10
℄ Brg. S. Abut.	523+30.31	24.00	515.23	515.25
℄ Exp. Jt. S. Abut.	523+31.42	24.00	515.26	515.28
Back S. Abut.	523+33.51	24.00	515.32	515.34

GIRDER 11

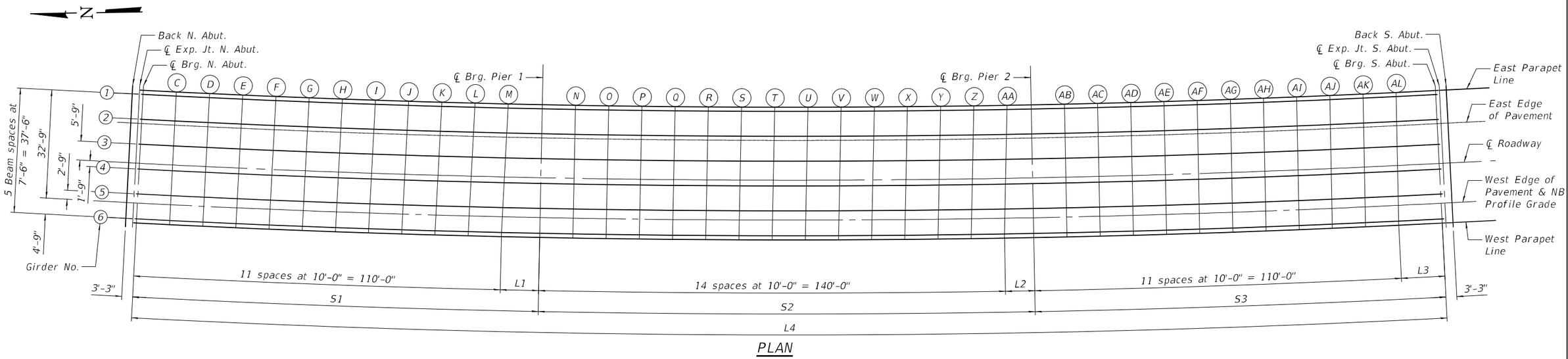
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Back N. Abut.	519+45.18	25.25	503.84	503.87
℄ Exp. Jt. N. Abut.	519+47.26	25.25	503.90	503.92
℄ Brg. N. Abut.	519+48.38	25.25	503.93	503.95
C	519+58.22	25.25	504.21	504.26
D	519+68.07	25.25	504.49	504.57
E	519+77.91	25.25	504.78	504.87
F	519+87.76	25.25	505.07	505.17
G	519+97.60	25.25	505.37	505.47
H	520+07.45	25.25	505.66	505.76
I	520+17.29	25.25	505.95	506.04
J	520+27.14	25.25	506.25	506.32
K	520+36.98	25.25	506.54	506.59
L	520+46.83	25.25	506.83	506.87
M	520+56.67	25.25	507.13	507.15
℄ Brg. Pier 1	520+65.97	25.25	507.40	507.42
N	520+75.81	25.25	507.70	507.73
O	520+85.66	25.25	507.99	508.04
P	520+95.50	25.25	508.28	508.35
Q	521+05.35	25.25	508.58	508.66
R	521+15.19	25.25	508.87	508.97
S	521+25.04	25.25	509.16	509.28
T	521+34.88	25.25	509.46	509.58
U	521+44.73	25.25	509.75	509.88
V	521+54.57	25.25	510.04	510.17
W	521+64.42	25.25	510.34	510.45
X	521+74.26	25.25	510.63	510.72
Y	521+84.11	25.25	510.92	510.99
Z	521+93.95	25.25	511.22	511.27
AA	522+03.80	25.25	511.51	511.55
℄ Brg. Pier 2	522+15.95	25.25	511.87	511.89
AB	522+25.79	25.25	512.17	512.19
AC	522+35.64	25.25	512.46	512.50
AD	522+45.48	25.25	512.75	512.80
AE	522+55.33	25.25	513.05	513.11
AF	522+65.17	25.25	513.34	513.42
AG	522+75.02	25.25	513.63	513.72
AH	522+84.86	25.25	513.93	514.02
AI	522+94.71	25.25	514.22	514.31
AJ	523+04.55	25.25	514.51	514.59
AK	523+14.40	25.25	514.81	514.87
AL	523+24.24	25.25	515.10	515.15
℄ Brg. S. Abut.	523+30.31	25.25	515.28	515.30
℄ Exp. Jt. S. Abut.	523+31.42	25.25	515.31	515.34
Back S. Abut.	523+33.51	25.25	515.38	515.40

GIRDER 12

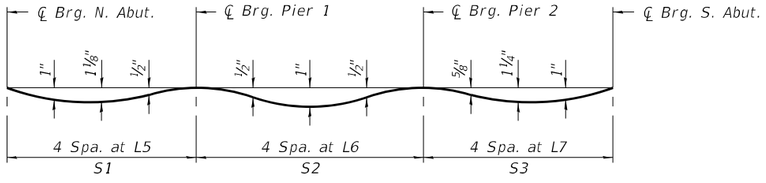
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Back N. Abut.	519+45.18	32.75	504.16	504.18
℄ Exp. Jt. N. Abut.	519+47.26	32.75	504.22	504.24
℄ Brg. N. Abut.	519+48.38	32.75	504.25	504.27
C	519+58.21	32.75	504.53	504.57
D	519+68.03	32.75	504.81	504.88
E	519+77.86	32.75	505.09	505.18
F	519+87.68	32.75	505.39	505.49
G	519+97.51	32.75	505.68	505.78
H	520+07.33	32.75	505.97	506.07
I	520+17.16	32.75	506.26	506.35
J	520+26.99	32.75	506.56	506.63
K	520+36.81	32.75	506.85	506.90
L	520+46.64	32.75	507.14	507.18
M	520+56.46	32.75	507.44	507.46
℄ Brg. Pier 1	520+65.97	32.75	507.72	507.74
N	520+75.80	32.75	508.01	508.05
O	520+85.62	32.75	508.30	508.35
P	520+95.45	32.75	508.60	508.66
Q	521+05.27	32.75	508.89	508.97
R	521+15.10	32.75	509.18	509.29
S	521+24.92	32.75	509.48	509.59
T	521+34.75	32.75	509.77	509.89
U	521+44.58	32.75	510.06	510.19
V	521+54.40	32.75	510.35	510.48
W	521+64.23	32.75	510.65	510.76
X	521+74.05	32.75	510.94	511.03
Y	521+83.88	32.75	511.23	511.30
Z	521+93.70	32.75	511.53	511.58
AA	522+03.53	32.75	511.82	511.86
℄ Brg. Pier 2	522+15.95	32.75	512.19	512.21
AB	522+25.78	32.75	512.48	512.51
AC	522+35.60	32.75	512.77	512.81
AD	522+45.43	32.75	513.07	513.12
AE	522+55.25	32.75	513.36	513.42
AF	522+65.08	32.75	513.65	513.73
AG	522+74.90	32.75	513.95	514.03
AH	522+84.73	32.75	514.24	514.33
AI	522+94.56	32.75	514.53	514.62
AJ	523+04.38	32.75	514.82	514.90
AK	523+14.21	32.75	515.12	515.17
AL	523+24.03	32.75	515.41	515.46
℄ Brg. S. Abut.	523+30.31	32.75	515.60	515.62
℄ Exp. Jt. S. Abut.	523+31.42	32.75	515.63	515.65
Back S. Abut.	523+33.50	32.75	515.69	515.71

WEST PARAPET LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Back N. Abut.	519+45.18	34.00	504.21	504.23
℄ Exp. Jt. N. Abut.	519+47.26	34.00	504.27	504.29
℄ Brg. N. Abut.	519+48.38	34.00	504.30	504.32
C	519+58.20	34.00	504.58	504.63
D	519+68.03	34.00	504.86	504.93
E	519+77.85	34.00	505.15	505.24
F	519+87.67	34.00	505.44	505.54
G	519+97.49	34.00	505.73	505.83
H	520+07.32	34.00	506.02	506.12
I	520+17.14	34.00	506.32	506.40
J	520+26.96	34.00	506.61	506.68
K	520+36.78	34.00	506.90	506.96
L	520+46.61	34.00	507.19	507.23
M	520+56.43	34.00	507.49	507.51
℄ Brg. Pier 1	520+65.97	34.00	507.77	507.79
N	520+75.79	34.00	508.06	508.10
O	520+85.62	34.00	508.36	508.40
P	520+95.44	34.00	508.65	508.71
Q	521+05.26	34.00	508.94	509.03
R	521+15.08	34.00	509.23	509.34
S	521+24.91	34.00	509.53	509.65
T	521+34.73	34.00	509.82	509.95
U	521+44.55	34.00	510.11	510.24
V	521+54.37	34.00	510.41	510.53
W	521+64.20	34.00	510.70	510.81
X	521+74.02	34.00	510.99	511.08
Y	521+83.84	34.00	511.28	511.35
Z	521+93.66	34.00	511.58	511.63
AA	522+03.49	34.00	511.87	511.91
℄ Brg. Pier 2	522+15.95	34.00	512.24	512.26
AB	522+25.77	34.00	512.53	512.56
AC	522+35.60	34.00	512.83	512.86
AD	522+45.42	34.00	513.12	513.17
AE	522+55.24	34.00	513.41	513.48
AF	522+65.06	34.00	513.70	513.78
AG	522+74.89	34.00	514.00	514.09
AH	522+84.71	34.00	514.29	514.38
AI	522+94.53	34.00	514.58	514.67
AJ	523+04.35	34.00	514.88	514.95
AK	523+14.18	34.00	515.17	515.23
AL	523+24.00	34.00	515.46	515.51
℄ Brg. S. Abut.	523+30.31	34.00	515.65	515.67
℄ Exp. Jt. S. Abut.	523+31.42	34.00	515.68	515.70
Back S. Abut.	523+33.50	34.00	515.74	515.76



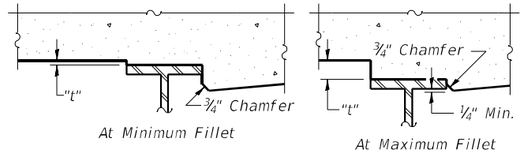
PLAN



DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only.)

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 and grinding as shown on sheets 12 thru 15 of 80.



To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown above. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection and Grinding" shown on sheets 12 thru 15 of 80, minus the initial slab thickness prior to grinding, equals the fillet heights "t" above top flange of beams.

The slab is to be ground after curing to achieve smoothness, but the slab is not to be ground to elevations below the "Theoretical Grade Elevations" shown on sheets 12 thru 15 of 80. For grinding the deck, see Special Provisions.

FILLET HEIGHTS

TABLE OF DIMENSIONS

Location	L1	L2	L3	L4	L5	S1	L6	S2	L7	S3
Girder 1	10'-3⅜"	7'-3⅜"	11'-11⅛"	389'-6⅞"	30'-1"	120'-3⅜"	36'-10"	147'-3⅜"	30'-5¾"	121'-11⅛"
Girder 2	10'-6¾"	7'-7⅜"	12'-1⅞"	390'-4"	30'-1¾"	120'-6¾"	36'-10⅞"	147'-7⅜"	30'-6½"	122'-1⅞"
Girder 3	10'-9⅝"	7'-10⅞"	12'-4⅝"	391'-1¼"	30'-2⅜"	120'-9⅝"	36'-11¾"	147'-10⅞"	30'-7⅛"	122'-4⅝"
Girder 4	11'-0½"	8'-2½"	12'-7⅜"	391'-10⅜"	30'-3⅛"	121'-0½"	37'-0⅝"	148'-2½"	30'-7⅞"	122'-7⅜"
Girder 5	11'-3½"	8'-6"	12'-10⅛"	392'-7⅝"	30'-3⅞"	121'-3½"	37'-1½"	148'-6"	30'-8½"	122'-10⅛"
Girder 6	11'-6⅜"	8'-9½"	13'-0⅞"	393'-4¾"	30'-4⅝"	121'-6⅜"	37'-2⅜"	148'-9½"	30'-9¼"	123'-0⅞"

E-S1

1-14-2019

EFK•Moen Civil Engineering Design	USER NAME = ABenz	DESIGNED - CMC	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
		CHECKED - ACB	REVISED -	
	PLOT SCALE =	DRAWN - CMC	REVISED -	
	PLOT DATE = 2/12/2024	CHECKED - ACB	REVISED -	

TOP OF SLAB ELEVATIONS
STRUCTURE NO. 006-0194 (NB)
SHEET 11 OF 80 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
180	(06-2B-1)ES	BUREAU	327	151
		CONTRACT NO. 66K66		
	ILLINOIS	FED. AID PROJECT		

MODEL: Default
FILE NAME: \\SERVER18\Projects\SS\22057.08 IDOT D3 PTB 204-028 WO 08 I-180 over Bureau Creek\DGN\Bridge\Final\Plotsheets\006-0193&0194-66K66-011-Top of Slab Elevations (NB).dgn

2/12/2024 10:35:09 AM

EAST PARAPET LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Back N. Abut.	519+40.16	-34.00	501.98	502.00
℄ Exp. Jt. N. Abut.	519+42.32	-34.00	502.04	502.06
℄ Brg. N. Abut.	519+43.47	-34.00	502.07	502.09
C	519+53.65	-34.00	502.35	502.41
D	519+63.84	-34.00	502.64	502.72
E	519+74.02	-34.00	502.94	503.04
F	519+84.21	-34.00	503.24	503.35
G	519+94.39	-34.00	503.54	503.66
H	520+04.57	-34.00	503.84	503.96
I	520+14.76	-34.00	504.15	504.25
J	520+24.94	-34.00	504.45	504.54
K	520+35.13	-34.00	504.76	504.83
L	520+45.31	-34.00	505.06	505.11
M	520+55.49	-34.00	505.36	505.39
℄ Brg. Pier 1	520+65.97	-34.00	505.67	505.69
N	520+76.15	-34.00	505.97	506.00
O	520+86.34	-34.00	506.26	506.30
P	520+96.52	-34.00	506.56	506.61
Q	521+06.71	-34.00	506.86	506.92
R	521+16.89	-34.00	507.15	507.23
S	521+27.07	-34.00	507.44	507.54
T	521+37.26	-34.00	507.73	507.83
U	521+47.44	-34.00	508.02	508.12
V	521+57.63	-34.00	508.31	508.41
W	521+67.81	-34.00	508.60	508.68
X	521+77.99	-34.00	508.89	508.95
Y	521+88.18	-34.00	509.18	509.22
Z	521+98.36	-34.00	509.46	509.49
AA	522+08.55	-34.00	509.74	509.77
℄ Brg. Pier 2	522+15.95	-34.00	509.95	509.97
AB	522+26.13	-34.00	510.23	510.26
AC	522+36.32	-34.00	510.51	510.56
AD	522+46.50	-34.00	510.79	510.86
AE	522+56.69	-34.00	511.07	511.16
AF	522+66.87	-34.00	511.35	511.45
AG	522+77.05	-34.00	511.62	511.74
AH	522+87.24	-34.00	511.90	512.03
AI	522+97.42	-34.00	512.17	512.29
AJ	523+07.61	-34.00	512.45	512.55
AK	523+17.79	-34.00	512.72	512.81
AL	523+27.97	-34.00	512.99	513.05
℄ Brg. S. Abut.	523+39.96	-34.00	513.30	513.33
℄ Exp. Jt. S. Abut.	523+41.09	-34.00	513.33	513.35
Back S. Abut.	523+43.21	-34.00	513.39	513.41

GIRDER 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Back N. Abut.	519+40.16	-32.75	502.03	502.05
℄ Exp. Jt. N. Abut.	519+42.32	-32.75	502.09	502.11
℄ Brg. N. Abut.	519+43.47	-32.75	502.12	502.14
C	519+53.65	-32.75	502.41	502.46
D	519+63.83	-32.75	502.70	502.77
E	519+74.01	-32.75	502.99	503.09
F	519+84.19	-32.75	503.29	503.40
G	519+94.37	-32.75	503.59	503.71
H	520+04.55	-32.75	503.90	504.01
I	520+14.73	-32.75	504.20	504.30
J	520+24.91	-32.75	504.50	504.59
K	520+35.10	-32.75	504.81	504.88
L	520+45.28	-32.75	505.11	505.16
M	520+55.46	-32.75	505.41	505.44
℄ Brg. Pier 1	520+65.97	-32.75	505.72	505.74
N	520+76.15	-32.75	506.02	506.05
O	520+86.33	-32.75	506.32	506.35
P	520+96.51	-32.75	506.61	506.66
Q	521+06.69	-32.75	506.91	506.97
R	521+16.87	-32.75	507.20	507.28
S	521+27.05	-32.75	507.49	507.59
T	521+37.23	-32.75	507.79	507.88
U	521+47.41	-32.75	508.08	508.17
V	521+57.60	-32.75	508.37	508.46
W	521+67.78	-32.75	508.65	508.73
X	521+77.96	-32.75	508.94	509.00
Y	521+88.14	-32.75	509.23	509.27
Z	521+98.32	-32.75	509.51	509.54
AA	522+08.50	-32.75	509.79	509.82
℄ Brg. Pier 2	522+15.95	-32.75	510.00	510.02
AB	522+26.13	-32.75	510.28	510.32
AC	522+36.31	-32.75	510.56	510.61
AD	522+46.49	-32.75	510.84	510.91
AE	522+56.67	-32.75	511.12	511.21
AF	522+66.85	-32.75	511.40	511.51
AG	522+77.03	-32.75	511.68	511.80
AH	522+87.21	-32.75	511.95	512.08
AI	522+97.39	-32.75	512.22	512.35
AJ	523+07.58	-32.75	512.50	512.61
AK	523+17.76	-32.75	512.77	512.86
AL	523+27.94	-32.75	513.04	513.10
℄ Brg. S. Abut.	523+39.96	-32.75	513.36	513.38
℄ Exp. Jt. S. Abut.	523+41.09	-32.75	513.39	513.41
Back S. Abut.	523+43.21	-32.75	513.44	513.46

GIRDER 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Back N. Abut.	519+40.17	-25.25	502.35	502.37
℄ Exp. Jt. N. Abut.	519+42.32	-25.25	502.40	502.43
℄ Brg. N. Abut.	519+43.47	-25.25	502.44	502.46
C	519+53.63	-25.25	502.72	502.77
D	519+63.79	-25.25	503.01	503.09
E	519+73.95	-25.25	503.30	503.40
F	519+84.11	-25.25	503.60	503.72
G	519+94.27	-25.25	503.90	504.02
H	520+04.43	-25.25	504.21	504.32
I	520+14.59	-25.25	504.51	504.61
J	520+24.75	-25.25	504.81	504.90
K	520+34.91	-25.25	505.12	505.19
L	520+45.07	-25.25	505.42	505.47
M	520+55.23	-25.25	505.72	505.75
℄ Brg. Pier 1	520+65.97	-25.25	506.04	506.06
N	520+76.13	-25.25	506.33	506.36
O	520+86.29	-25.25	506.63	506.67
P	520+96.45	-25.25	506.93	506.98
Q	521+06.61	-25.25	507.22	507.29
R	521+16.77	-25.25	507.51	507.60
S	521+26.93	-25.25	507.81	507.90
T	521+37.09	-25.25	508.10	508.20
U	521+47.25	-25.25	508.39	508.48
V	521+57.41	-25.25	508.68	508.77
W	521+67.57	-25.25	508.96	509.04
X	521+77.73	-25.25	509.25	509.31
Y	521+87.89	-25.25	509.53	509.58
Z	521+98.05	-25.25	509.82	509.85
AA	522+08.21	-25.25	510.10	510.13
℄ Brg. Pier 2	522+15.95	-25.25	510.32	510.34
AB	522+26.11	-25.25	510.60	510.63
AC	522+36.27	-25.25	510.88	510.92
AD	522+46.43	-25.25	511.16	511.22
AE	522+56.59	-25.25	511.43	511.52
AF	522+66.75	-25.25	511.71	511.82
AG	522+76.91	-25.25	511.99	512.11
AH	522+87.07	-25.25	512.26	512.39
AI	522+97.23	-25.25	512.53	512.66
AJ	523+07.39	-25.25	512.81	512.92
AK	523+17.55	-25.25	513.08	513.17
AL	523+27.71	-25.25	513.35	513.41
℄ Brg. S. Abut.	523+39.96	-25.25	513.67	513.69
℄ Exp. Jt. S. Abut.	523+41.09	-25.25	513.70	513.72
Back S. Abut.	523+43.21	-25.25	513.76	513.78

EAST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Back N. Abut.	519+40.17	-24.00	502.40	502.42
℄ Exp. Jt. N. Abut.	519+42.32	-24.00	502.46	502.48
℄ Brg. N. Abut.	519+43.47	-24.00	502.49	502.51
C	519+53.63	-24.00	502.77	502.82
D	519+63.78	-24.00	503.06	503.14
E	519+73.94	-24.00	503.35	503.46
F	519+84.10	-24.00	503.65	503.77
G	519+94.25	-24.00	503.96	504.08
H	520+04.41	-24.00	504.26	504.37
I	520+14.57	-24.00	504.56	504.67
J	520+24.72	-24.00	504.86	504.95
K	520+34.88	-24.00	505.17	505.24
L	520+45.04	-24.00	505.47	505.52
M	520+55.20	-24.00	505.77	505.80
℄ Brg. Pier 1	520+65.97	-24.00	506.09	506.11
N	520+76.13	-24.00	506.39	506.41
O	520+86.28	-24.00	506.68	506.72
P	520+96.44	-24.00	506.98	507.03
Q	521+06.60	-24.00	507.27	507.34
R	521+16.75	-24.00	507.57	507.65
S	521+26.91	-24.00	507.86	507.95
T	521+37.07	-24.00	508.15	508.25
U	521+47.22	-24.00	508.44	508.54
V	521+57.38	-24.00	508.73	508.82
W	521+67.54	-24.00	509.01	509.09
X	521+77.70	-24.00	509.30	509.36
Y	521+87.85	-24.00	509.59	509.63
Z	521+98.01	-24.00	509.87	509.90
AA	522+08.17	-24.00	510.15	510.18
℄ Brg. Pier 2	522+15.95	-24.00	510.37	510.39
AB	522+26.11	-24.00	510.65	510.68
AC	522+36.26	-24.00	510.93	510.98
AD	522+46.42	-24.00	511.21	511.28
AE	522+56.58	-24.00	511.49	511.57
AF	522+66.73	-24.00	511.76	511.87
AG	522+76.89	-24.00	512.04	512.16
AH	522+87.05	-24.00	512.31	512.44
AI	522+97.20	-24.00	512.59	512.71
AJ	523+07.36	-24.00	512.86	512.97
AK	523+17.52	-24.00	513.13	513.22
AL	523+27.68	-24.00	513.40	513.46
℄ Brg. S. Abut.	523+39.96	-24.00	513.72	513.75
℄ Exp. Jt. S. Abut.	523+41.09	-24.00	513.75	513.77
Back S. Abut.	523+43.21	-24.00	513.81	513.83

GIRDER 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Back N. Abut.	519+40.18	-17.75	502.66	502.68
℄ Exp. Jt. N. Abut.	519+42.32	-17.75	502.72	502.74
℄ Brg. N. Abut.	519+43.47	-17.75	502.75	502.77
C	519+53.61	-17.75	503.03	503.09
D	519+63.75	-17.75	503.32	503.40
E	519+73.89	-17.75	503.62	503.72
F	519+84.03	-17.75	503.91	504.03
G	519+94.17	-17.75	504.22	504.34
H	520+04.31	-17.75	504.52	504.63
I	520+14.45	-17.75	504.82	504.92
J	520+24.59	-17.75	505.12	505.21
K	520+34.73	-17.75	505.43	505.50
L	520+44.87	-17.75	505.73	505.78
M	520+55.01	-17.75	506.03	506.06
℄ Brg. Pier 1	520+65.97	-17.75	506.35	506.37
N	520+76.11	-17.75	506.65	506.68
O	520+86.25	-17.75	506.94	506.98
P	520+96.39	-17.75	507.24	507.29
Q	521+06.53	-17.75	507.53	507.60
R	521+16.67	-17.75	507.83	507.91
S	521+26.81	-17.75	508.12	508.21
T	521+36.95	-17.75	508.41	508.51
U	521+47.09	-17.75	508.70	508.79
V	521+57.23	-17.75	508.99	509.08
W	521+67.37	-17.75	509.27	509.35
X	521+77.51	-17.75	509.56	509.62
Y	521+87.65	-17.75	509.84	509.89
Z	521+97.79	-17.75	510.13	510.16
AA	522+07.93	-17.75	510.41	510.44
℄ Brg. Pier 2	522+15.95	-17.75	510.63	510.65
AB	522+26.09	-17.75	510.91	510.95
AC	522+36.23	-17.75	511.19	511.24
AD	522+46.37	-17.75	511.47	511.54
AE	522+56.51	-17.75	511.75	511.84
AF	522+66.65	-17.75	512.02	512.13
AG	522+76.79	-17.75	512.30	512.42
AH	522+86.93	-17.75	512.57	512.70
AI	522+97.07	-17.75	512.85	512.97
AJ	523+07.21	-17.75	513.12	513.23
AK	523+17.35	-17.75	513.39	513.48
AL	523+27.49	-17.75	513.66	513.72
℄ Brg. S. Abut.	523+39.96	-17.75	513.99	514.01
℄ Exp. Jt. S. Abut.	523+41.09	-17.75	514.02	514.04
Back S. Abut.	523+43.21	-17.75	514.07	514.09

CENTERLINE OF ROADWAY

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Back N. Abut.	519+40.18	-12.00	502.90	502.92
℄ Exp. Jt. N. Abut.	519+42.32	-12.00	502.96	502.98
℄ Brg. N. Abut.	519+43.47	-12.00	502.99	503.01
C	519+53.59	-12.00	503.28	503.33
D	519+63.72	-12.00	503.56	503.64
E	519+73.84	-12.00	503.86	503.96
F	519+83.97	-12.00	504.15	504.27
G	519+94.09	-12.00	504.46	504.57
H	520+04.22	-12.00	504.76	504.87
I	520+14.34	-12.00	505.06	505.16
J	520+24.47	-12.00	505.36	505.45
K	520+34.59	-12.00	505.67	505.73
L	520+44.72	-12.00	505.97	506.01
M	520+54.84	-12.00	506.27	506.30
℄ Brg. Pier 1	520+65.97	-12.00	506.59	506.61
N	520+76.09	-12.00	506.89	506.92
O	520+86.22	-12.00	507.18	507.22
P	520+96.34	-12.00	507.48	507.53
Q	521+06.47	-12.00	507.77	507.84
R	521+16.59	-12.00	508.06	508.15
S	521+26.72	-12.00	508.36	508.45
T	521+36.84	-12.00	508.65	508.74
U	521+46.97	-12.00	508.93	509.03
V	521+57.09	-12.00	509.22	509.32
W	521+67.22	-12.00	509.51	509.59
X	521+77.34	-12.00	509.79	509.86
Y	521+87.46	-12.00	510.08	510.13
Z	521+97.59	-12.00	510.36	510.40
AA	522+07.71	-12.00	510.64	510.67
℄ Brg. Pier 2	522+15.95	-12.00	510.87	510.89
AB	522+26.07	-12.00	511.15	511.19
AC	522+36.20	-12.00	511.43	511.48
AD	522+46.32	-12.00	511.71	511.78
AE	522+56.45	-12.00	511.99	512.07
AF	522+66.57	-12.00	512.26	512.37
AG	522+76.70	-12.00	512.54	512.66
AH	522+86.82	-12.00	512.81	512.94
AI	522+96.95	-12.00	513.08	513.21
AJ	523+07.07	-12.00	513.35	513.46
AK	523+17.20	-12.00	513.62	513.71
AL	523+27.32	-12.00	513.89	513.95
℄ Brg. S. Abut.	523+39.96	-12.00	514.23	514.25
℄ Exp. Jt. S. Abut.	523+41.09	-12.00	514.26	514.28
Back S. Abut.	523+43.21	-12.00	514.31	514.33

EFK•Moen
Civil Engineering Design

USER NAME = ABenz	DESIGNED - CMC	REVISED -	
	CHECKED - ACB	REVISED -	
PLOT SCALE =	DRAWN - CMC	REVISED -	
PLOT DATE = 2/12/2024	CHECKED - ACB	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS
STRUCTURE NO. 006-0194 (NB)
SHEET 13 OF 80 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
180	(06-2B-1)ES	BUREAU	327	153
		CONTRACT NO. 66K66		
	ILLINOIS FED. AID PROJECT			

GIRDER 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Back N. Abut.	519+40.18	-10.25	502.98	503.00
℄ Exp. Jt. N. Abut.	519+42.32	-10.25	503.03	503.06
℄ Brg. N. Abut.	519+43.47	-10.25	503.07	503.09
C	519+53.59	-10.25	503.35	503.40
D	519+63.71	-10.25	503.64	503.72
E	519+73.83	-10.25	503.93	504.03
F	519+83.95	-10.25	504.23	504.34
G	519+94.07	-10.25	504.53	504.65
H	520+04.19	-10.25	504.83	504.95
I	520+14.31	-10.25	505.13	505.24
J	520+24.43	-10.25	505.43	505.52
K	520+34.55	-10.25	505.74	505.81
L	520+44.67	-10.25	506.04	506.09
M	520+54.79	-10.25	506.34	506.37
℄ Brg. Pier 1	520+65.97	-10.25	506.67	506.69
N	520+76.09	-10.25	506.96	506.99
O	520+86.21	-10.25	507.26	507.29
P	520+96.33	-10.25	507.55	507.60
Q	521+06.45	-10.25	507.85	507.91
R	521+16.57	-10.25	508.14	508.22
S	521+26.69	-10.25	508.43	508.52
T	521+36.81	-10.25	508.72	508.82
U	521+46.93	-10.25	509.01	509.10
V	521+57.05	-10.25	509.29	509.39
W	521+67.17	-10.25	509.58	509.66
X	521+77.29	-10.25	509.87	509.93
Y	521+87.41	-10.25	510.15	510.20
Z	521+97.53	-10.25	510.43	510.47
AA	522+07.65	-10.25	510.72	510.74
℄ Brg. Pier 2	522+15.95	-10.25	510.95	510.97
AB	522+26.07	-10.25	511.23	511.26
AC	522+36.19	-10.25	511.51	511.55
AD	522+46.31	-10.25	511.78	511.85
AE	522+56.43	-10.25	512.06	512.15
AF	522+66.55	-10.25	512.34	512.44
AG	522+76.67	-10.25	512.61	512.73
AH	522+86.79	-10.25	512.88	513.01
AI	522+96.91	-10.25	513.16	513.28
AJ	523+07.03	-10.25	513.43	513.54
AK	523+17.15	-10.25	513.70	513.79
AL	523+27.27	-10.25	513.97	514.03
℄ Brg. S. Abut.	523+39.96	-10.25	514.30	514.32
℄ Exp. Jt. S. Abut.	523+41.09	-10.25	514.33	514.35
Back S. Abut.	523+43.21	-10.25	514.39	514.41

GIRDER 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Back N. Abut.	519+40.19	-2.75	503.29	503.31
℄ Exp. Jt. N. Abut.	519+42.32	-2.75	503.35	503.37
℄ Brg. N. Abut.	519+43.47	-2.75	503.38	503.40
C	519+53.57	-2.75	503.66	503.72
D	519+63.67	-2.75	503.95	504.03
E	519+73.77	-2.75	504.24	504.34
F	519+83.87	-2.75	504.54	504.65
G	519+93.97	-2.75	504.84	504.96
H	520+04.07	-2.75	505.14	505.26
I	520+14.17	-2.75	505.44	505.55
J	520+24.27	-2.75	505.74	505.83
K	520+34.37	-2.75	506.05	506.12
L	520+44.47	-2.75	506.35	506.40
M	520+54.57	-2.75	506.65	506.68
℄ Brg. Pier 1	520+65.97	-2.75	506.98	507.00
N	520+76.07	-2.75	507.28	507.31
O	520+86.17	-2.75	507.57	507.61
P	520+96.27	-2.75	507.87	507.92
Q	521+06.37	-2.75	508.16	508.23
R	521+16.47	-2.75	508.45	508.53
S	521+26.57	-2.75	508.74	508.83
T	521+36.67	-2.75	509.03	509.13
U	521+46.77	-2.75	509.32	509.42
V	521+56.87	-2.75	509.60	509.70
W	521+66.97	-2.75	509.89	509.97
X	521+77.07	-2.75	510.18	510.24
Y	521+87.17	-2.75	510.46	510.51
Z	521+97.27	-2.75	510.74	510.78
AA	522+07.37	-2.75	511.02	511.05
℄ Brg. Pier 2	522+15.95	-2.75	511.26	511.28
AB	522+26.05	-2.75	511.54	511.57
AC	522+36.15	-2.75	511.82	511.87
AD	522+46.25	-2.75	512.10	512.16
AE	522+56.35	-2.75	512.37	512.46
AF	522+66.45	-2.75	512.65	512.75
AG	522+76.55	-2.75	512.92	513.04
AH	522+86.65	-2.75	513.19	513.32
AI	522+96.75	-2.75	513.47	513.59
AJ	523+06.85	-2.75	513.74	513.85
AK	523+16.95	-2.75	514.01	514.10
AL	523+27.05	-2.75	514.28	514.34
℄ Brg. S. Abut.	523+39.96	-2.75	514.62	514.64
℄ Exp. Jt. S. Abut.	523+41.09	-2.75	514.65	514.67
Back S. Abut.	523+43.21	-2.75	514.70	514.72

WEST EDGE OF PAVEMENT & NB PROFILE GRADE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Back N. Abut.	519+40.19	0.00	503.41	503.43
℄ Exp. Jt. N. Abut.	519+42.33	0.00	503.47	503.49
℄ Brg. N. Abut.	519+43.47	0.00	503.50	503.52
C	519+53.56	0.00	503.78	503.83
D	519+63.65	0.00	504.07	504.14
E	519+73.75	0.00	504.36	504.46
F	519+83.84	0.00	504.65	504.77
G	519+93.93	0.00	504.95	505.07
H	520+04.02	0.00	505.26	505.37
I	520+14.12	0.00	505.56	505.66
J	520+24.21	0.00	505.86	505.94
K	520+34.30	0.00	506.16	506.23
L	520+44.39	0.00	506.46	506.51
M	520+54.49	0.00	506.76	506.79
℄ Brg. Pier 1	520+65.97	0.00	507.10	507.12
N	520+76.06	0.00	507.39	507.42
O	520+86.15	0.00	507.69	507.72
P	520+96.25	0.00	507.98	508.03
Q	521+06.34	0.00	508.27	508.34
R	521+16.43	0.00	508.56	508.65
S	521+26.52	0.00	508.85	508.95
T	521+36.62	0.00	509.14	509.24
U	521+46.71	0.00	509.43	509.53
V	521+56.80	0.00	509.72	509.81
W	521+66.89	0.00	510.00	510.08
X	521+76.99	0.00	510.29	510.35
Y	521+87.08	0.00	510.57	510.62
Z	521+97.17	0.00	510.85	510.89
AA	522+07.26	0.00	511.14	511.16
℄ Brg. Pier 2	522+15.95	0.00	511.38	511.40
AB	522+26.04	0.00	511.66	511.69
AC	522+36.13	0.00	511.93	511.98
AD	522+46.23	0.00	512.21	512.28
AE	522+56.32	0.00	512.49	512.58
AF	522+66.41	0.00	512.76	512.87
AG	522+76.50	0.00	513.04	513.16
AH	522+86.60	0.00	513.31	513.44
AI	522+96.69	0.00	513.58	513.70
AJ	523+06.78	0.00	513.85	513.96
AK	523+16.87	0.00	514.12	514.21
AL	523+26.97	0.00	514.39	514.45
℄ Brg. S. Abut.	523+39.96	0.00	514.73	514.75
℄ Exp. Jt. S. Abut.	523+41.09	0.00	514.76	514.78
Back S. Abut.	523+43.21	0.00	514.82	514.84

GIRDER 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Back N. Abut.	519+40.20	4.75	503.61	503.63
℄ Exp. Jt. N. Abut.	519+42.33	4.75	503.66	503.69
℄ Brg. N. Abut.	519+43.47	4.75	503.70	503.72
C	519+53.55	4.75	503.98	504.03
D	519+63.63	4.75	504.26	504.34
E	519+73.71	4.75	504.56	504.66
F	519+83.79	4.75	504.85	504.97
G	519+93.87	4.75	505.15	505.27
H	520+03.95	4.75	505.45	505.57
I	520+14.03	4.75	505.75	505.86
J	520+24.11	4.75	506.05	506.14
K	520+34.19	4.75	506.36	506.42
L	520+44.27	4.75	506.66	506.70
M	520+54.35	4.75	506.95	506.98
℄ Brg. Pier 1	520+65.97	4.75	507.30	507.32
N	520+76.05	4.75	507.59	507.62
O	520+86.13	4.75	507.89	507.92
P	520+96.21	4.75	508.18	508.23
Q	521+06.29	4.75	508.47	508.54
R	521+16.37	4.75	508.76	508.84
S	521+26.45	4.75	509.05	509.15
T	521+36.53	4.75	509.34	509.44
U	521+46.61	4.75	509.63	509.73
V	521+56.69	4.75	509.91	510.01
W	521+66.77	4.75	510.20	510.28
X	521+76.85	4.75	510.48	510.55
Y	521+86.93	4.75	510.77	510.81
Z	521+97.01	4.75	511.05	511.08
AA	522+07.09	4.75	511.33	511.36
℄ Brg. Pier 2	522+15.95	4.75	511.58	511.60
AB	522+26.03	4.75	511.86	511.89
AC	522+36.11	4.75	512.13	512.18
AD	522+46.19	4.75	512.41	512.48
AE	522+56.27	4.75	512.69	512.77
AF	522+66.35	4.75	512.96	513.07
AG	522+76.43	4.75	513.23	513.36
AH	522+86.51	4.75	513.51	513.64
AI	522+96.59	4.75	513.78	513.90
AJ	523+06.67	4.75	514.05	514.16
AK	523+16.75	4.75	514.32	514.41
AL	523+26.83	4.75	514.58	514.64
℄ Brg. S. Abut.	523+39.96	4.75	514.93	514.95
℄ Exp. Jt. S. Abut.	523+41.09	4.75	514.96	514.98
Back S. Abut.	523+43.21	4.75	515.02	515.04

WEST PARAPET LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Back N. Abut.	519+40.20	6.00	503.66	503.68
℄ Exp. Jt. N. Abut.	519+42.33	6.00	503.72	503.74
℄ Brg. N. Abut.	519+43.47	6.00	503.75	503.77
C	519+53.55	6.00	504.03	504.08
D	519+63.62	6.00	504.32	504.40
E	519+73.70	6.00	504.61	504.71
F	519+83.78	6.00	504.90	505.02
G	519+93.85	6.00	505.20	505.32
H	520+03.93	6.00	505.50	505.62
I	520+14.01	6.00	505.80	505.91
J	520+24.08	6.00	506.11	506.19
K	520+34.16	6.00	506.41	506.48
L	520+44.23	6.00	506.71	506.76
M	520+54.31	6.00	507.01	507.04
℄ Brg. Pier 1	520+65.97	6.00	507.35	507.37
N	520+76.05	6.00	507.64	507.67
O	520+86.12	6.00	507.94	507.97
P	520+96.20	6.00	508.23	508.28
Q	521+06.28	6.00	508.52	508.59
R	521+16.35	6.00	508.81	508.90
S	521+26.43	6.00	509.10	509.20
T	521+36.51	6.00	509.39	509.49
U	521+46.58	6.00	509.68	509.78
V	521+56.66	6.00	509.97	510.06
W	521+66.73	6.00	510.25	510.33
X	521+76.81	6.00	510.54	510.60
Y	521+86.89	6.00	510.82	510.87
Z	521+96.96	6.00	511.10	511.13
AA	522+07.04	6.00	511.38	511.41
℄ Brg. Pier 2	522+15.95	6.00	511.63	511.65
AB	522+26.03	6.00	511.91	511.94
AC	522+36.10	6.00	512.19	512.23
AD	522+46.18	6.00	512.46	512.53
AE	522+56.26	6.00	512.74	512.83
AF	522+66.33	6.00	513.01	513.12
AG	522+76.41	6.00	513.29	513.41
AH	522+86.49	6.00	513.56	513.69
AI	522+96.56	6.00	513.83	513.95
AJ	523+06.64	6.00	514.10	514.21
AK	523+16.71	6.00	514.37	514.46
AL	523+26.79	6.00	514.64	514.70
℄ Brg. S. Abut.	523+39.96	6.00	514.98	515.01
℄ Exp. Jt. S. Abut.	523+41.09	6.00	515.01	515.03
Back S. Abut.	523+43.21	6.00	515.07	515.09

EAST EDGE OF SHOULDER

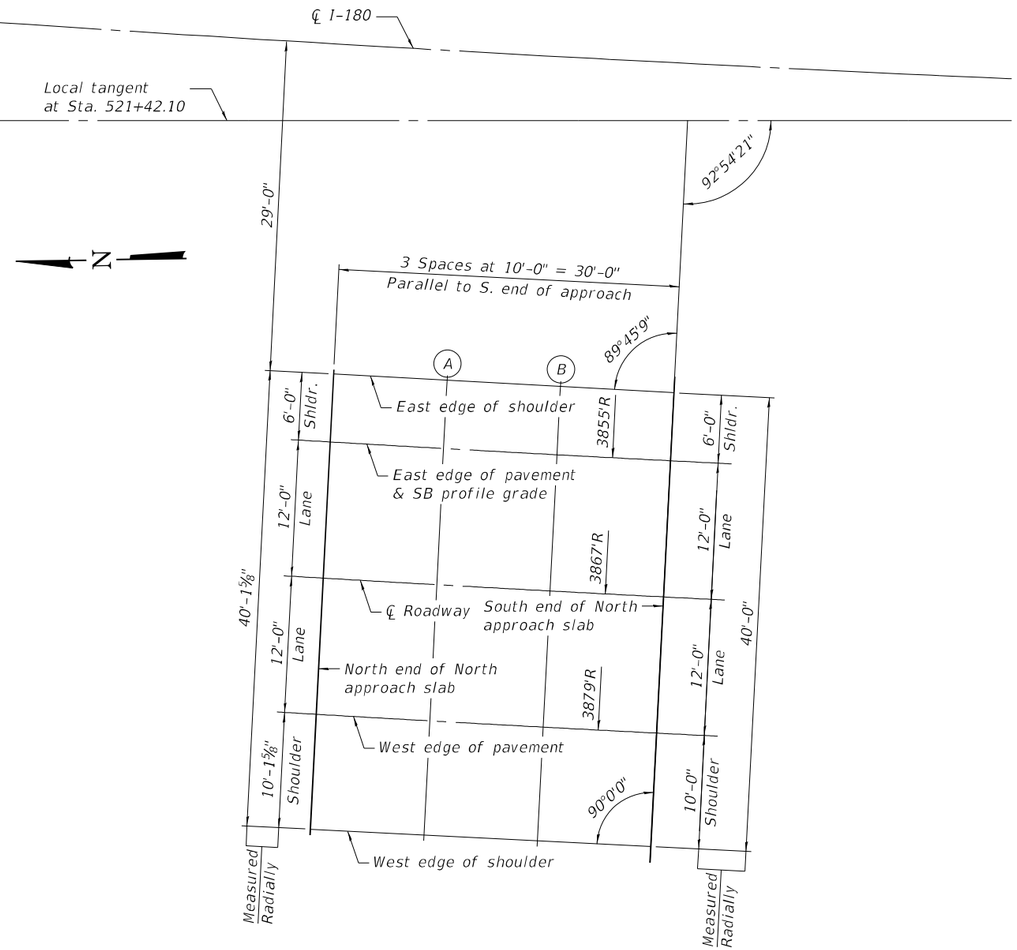
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
N. End of N. Appr Slab	519+16.37	-6.00	501.75	501.77
A	519+26.30	-6.00	502.02	502.04
B	519+36.22	-6.00	502.29	502.31
S. End of N. Appr Slab	519+46.15	-6.00	502.56	502.58

EAST EDGE OF PAVEMENT & SB PROFILE GRADE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
N. End of N. Appr Slab	519+16.42	0.00	502.01	502.03
A	519+26.33	0.00	502.27	502.29
B	519+36.24	0.00	502.54	502.56
S. End of N. Appr Slab	519+46.15	0.00	502.81	502.83

℄ ROADWAY

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
N. End of N. Appr Slab	519+16.52	12.00	502.51	502.53
A	519+26.40	12.00	502.78	502.80
B	519+36.28	12.00	503.04	503.06
S. End of N. Appr Slab	519+46.16	12.00	503.32	503.34



PLAN

WEST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
N. End of N. Appr Slab	519+16.62	24.00	503.02	503.04
A	519+26.47	24.00	503.28	503.30
B	519+36.32	24.00	503.55	503.57
S. End of N. Appr Slab	519+46.16	24.00	503.82	503.84

WEST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
N. End of N. Appr Slab	519+16.70	34.13	503.45	503.47
A	519+26.53	34.06	503.70	503.73
B	519+36.35	34.02	503.97	503.99
S. End of N. Appr Slab	519+46.17	34.00	504.24	504.26

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EFK•Moen Civil Engineering Design

USER NAME = ABenz	DESIGNED - CMC	REVISED -	
	CHECKED - ACB	REVISED -	
PLOT SCALE =	DRAWN - CMC	REVISED -	
PLOT DATE = 2/12/2024	CHECKED - ACB	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF NORTH APPROACH SLAB ELEVATIONS
STRUCTURE NO. 006-0193 (SB)
SHEET 16 OF 80 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
180	(06-2B-1)ES	BUREAU	327	156
		CONTRACT NO. 66K66		
	ILLINOIS FED. AID PROJECT			

EAST EDGE OF SHOULDER

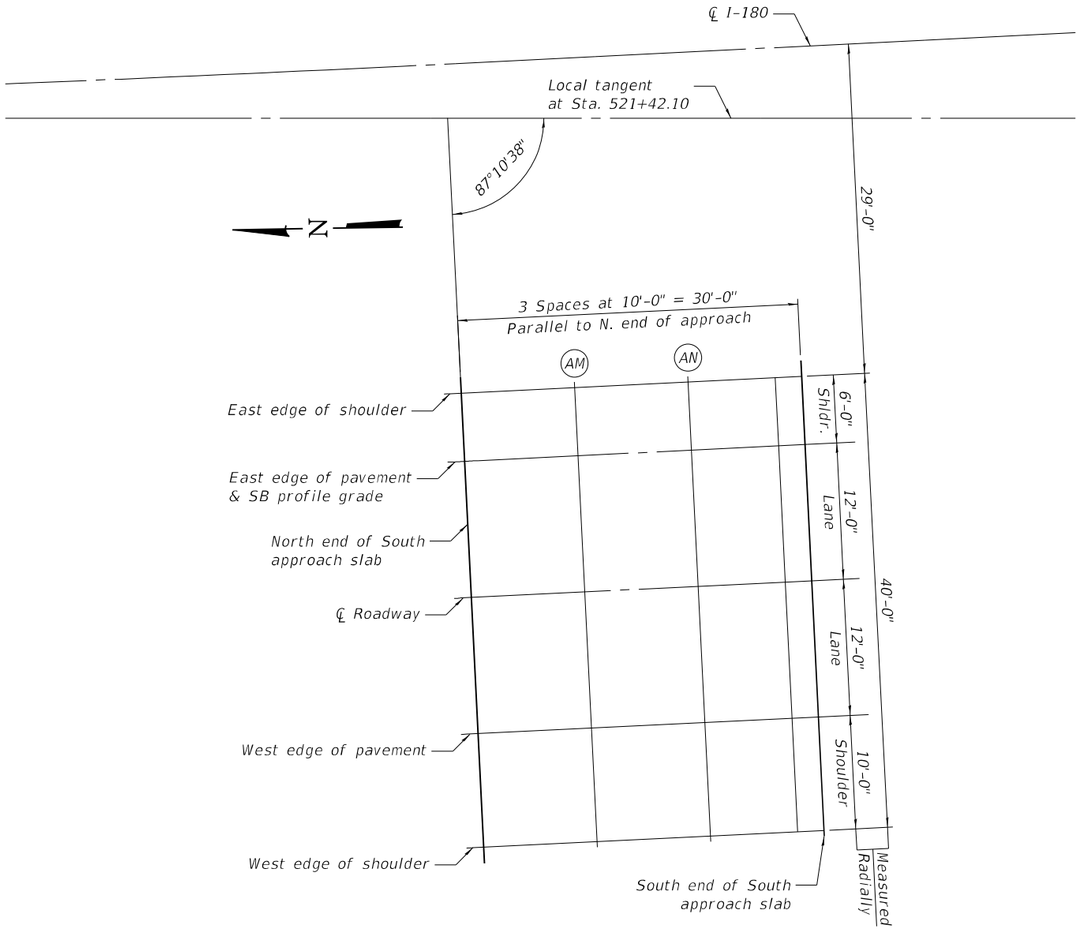
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
N. End of S. Appr Slab	523+32.54	-6.00	514.04	514.06
AM	523+42.53	-6.00	514.33	514.35
AN	523+52.53	-6.00	514.63	514.65
S. End of S. Appr Slab	523+62.53	-6.00	514.93	514.95

EAST EDGE OF PAVEMENT & SB PROFILE GRADE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
N. End of S. Appr Slab	523+32.54	0.00	514.29	514.31
AM	523+42.53	0.00	514.58	514.61
AN	523+52.53	0.00	514.88	514.90
S. End of S. Appr Slab	523+62.53	0.00	515.18	515.20

℄ ROADWAY

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
N. End of S. Appr Slab	523+32.53	12.00	514.79	514.81
AM	523+42.52	12.00	515.09	515.11
AN	523+52.52	12.00	515.39	515.41
S. End of S. Appr Slab	523+62.52	12.00	515.68	515.71



PLAN

WEST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
N. End of S. Appr Slab	523+32.52	24.00	515.29	515.32
AM	523+42.51	24.00	515.59	515.61
AN	523+52.51	24.00	515.89	515.91
S. End of S. Appr Slab	523+62.51	24.00	516.19	516.21

WEST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
N. End of S. Appr Slab	523+32.52	34.00	515.71	515.74
AM	523+42.50	34.00	516.01	516.03
AN	523+52.50	34.00	516.31	516.33
S. End of S. Appr Slab	523+62.50	34.00	516.61	516.63

EFK•Moen
Civil Engineering Design

USER NAME = ABenz	DESIGNED - CMC	REVISED -	
	CHECKED - ACB	REVISED -	
PLOT SCALE =	DRAWN - CMC	REVISED -	
PLOT DATE = 2/12/2024	CHECKED - ACB	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SOUTH APPROACH SLAB ELEVATIONS
STRUCTURE NO. 006-0193 (SB)
SHEET 17 OF 80 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
180	(06-2B-1)ES	BUREAU	327	157
		CONTRACT NO. 66K66		
	ILLINOIS	FED. AID PROJECT		

EAST EDGE OF SHOULDER

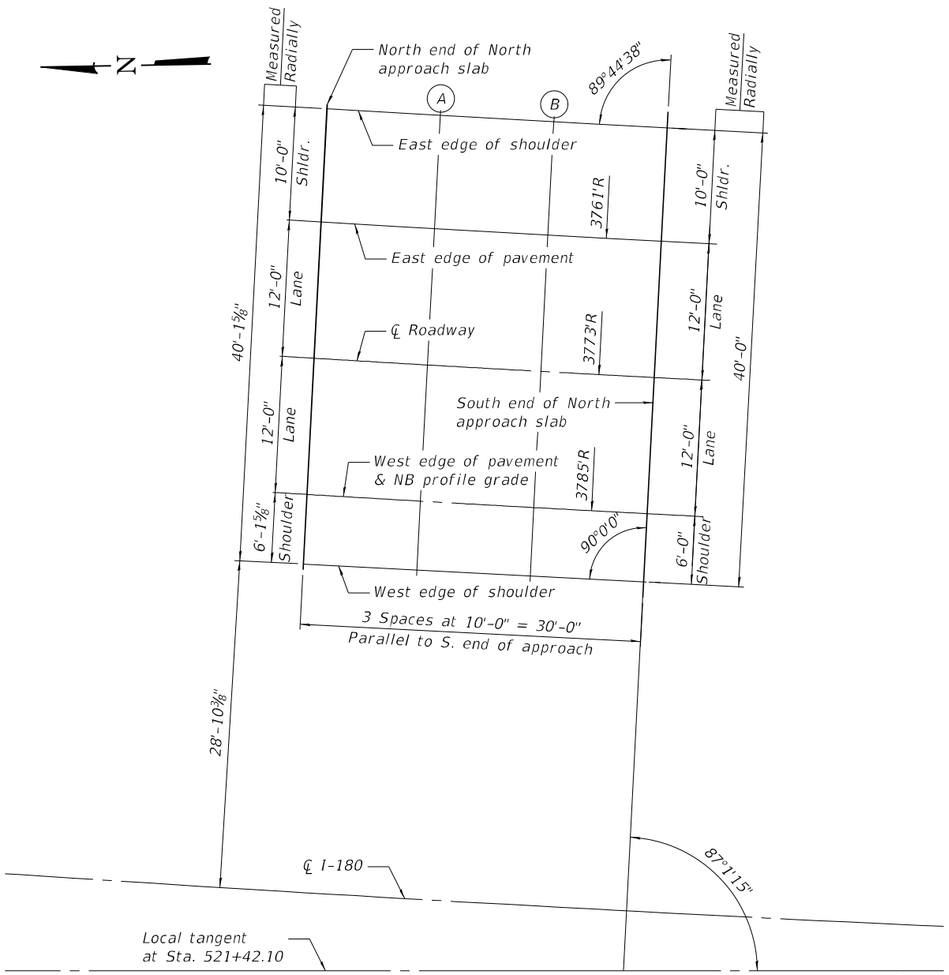
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
N. End of N. Appr Slab	519+10.63	-34.00	501.19	501.21
A	519+20.81	-34.00	501.45	501.48
B	519+30.99	-34.01	501.73	501.75
S. End of N. Appr Slab	519+41.18	-34.00	502.01	502.03

EAST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
N. End of N. Appr Slab	519+10.71	-24.00	501.61	501.63
A	519+20.87	-24.00	501.88	501.90
B	519+31.03	-24.00	502.15	502.17
S. End of N. Appr Slab	519+41.18	-24.00	502.43	502.45

℄ ROADWAY

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
N. End of N. Appr Slab	519+10.82	-12.00	502.12	502.14
A	519+20.94	-12.00	502.38	502.40
B	519+31.07	-12.00	502.65	502.67
S. End of N. Appr Slab	519+41.19	-12.00	502.93	502.95



PLAN

WEST EDGE OF PAVEMENT & NB PROFILE GRADE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
N. End of N. Appr Slab	519+10.92	0.00	502.62	502.64
A	519+21.01	0.00	502.89	502.91
B	519+31.11	0.00	503.16	503.18
S. End of N. Appr Slab	519+41.20	0.00	503.43	503.46

WEST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
N. End of N. Appr Slab	519+10.97	6.14	502.88	502.90
A	519+21.05	6.06	503.14	503.16
B	519+31.13	6.02	503.41	503.43
S. End of N. Appr Slab	519+41.20	6.00	503.69	503.71

EFK•Moen Civil Engineering Design

USER NAME = ABenz	DESIGNED - CMC	REVISED -	
	CHECKED - ACB	REVISED -	
PLOT SCALE =	DRAWN - CMC	REVISED -	
PLOT DATE = 2/12/2024	CHECKED - ACB	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF NORTH APPROACH SLAB ELEVATIONS
STRUCTURE NO. 006-0194 (NB)
SHEET 18 OF 80 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
180	(06-2B-1)ES	BUREAU	327	158
		CONTRACT NO. 66K66		
	ILLINOIS FED. AID PROJECT			

EAST EDGE OF SHOULDER

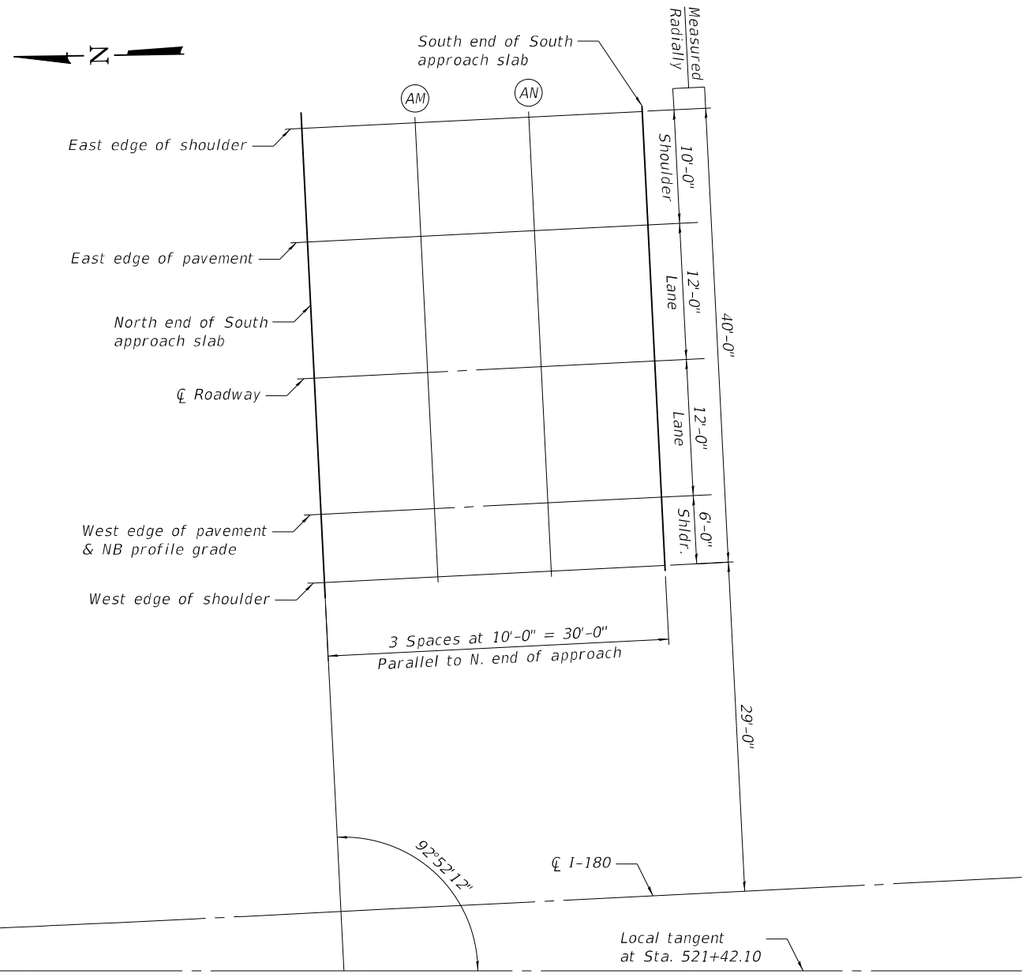
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
N. End of S. Appr Slab	523+42.21	-34.00	513.36	513.38
AM	523+52.21	-34.00	513.63	513.65
AN	523+62.21	-34.00	513.89	513.91
S. End of S. Appr Slab	523+72.21	-34.00	514.15	514.17

EAST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
N. End of S. Appr Slab	523+42.21	-24.00	513.78	513.80
AM	523+52.21	-24.00	514.05	514.07
AN	523+62.21	-24.00	514.31	514.33
S. End of S. Appr Slab	523+72.21	-24.00	514.57	514.59

℄ ROADWAY

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
N. End of S. Appr Slab	523+42.21	-12.00	514.29	514.31
AM	523+52.21	-12.00	514.55	514.57
AN	523+62.21	-12.00	514.81	514.83
S. End of S. Appr Slab	523+72.21	-12.00	515.07	515.09



PLAN

WEST EDGE OF PAVEMENT & NB PROFILE GRADE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
N. End of S. Appr Slab	523+42.21	0.00	514.79	514.81
AM	523+52.21	0.00	515.05	515.08
AN	523+62.21	0.00	515.32	515.34
S. End of S. Appr Slab	523+72.21	0.00	515.58	515.60

WEST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
N. End of S. Appr Slab	523+42.21	6.00	515.04	515.06
AM	523+52.21	6.00	515.31	515.33
AN	523+62.21	6.00	515.57	515.59
S. End of S. Appr Slab	523+72.21	6.00	515.83	515.85

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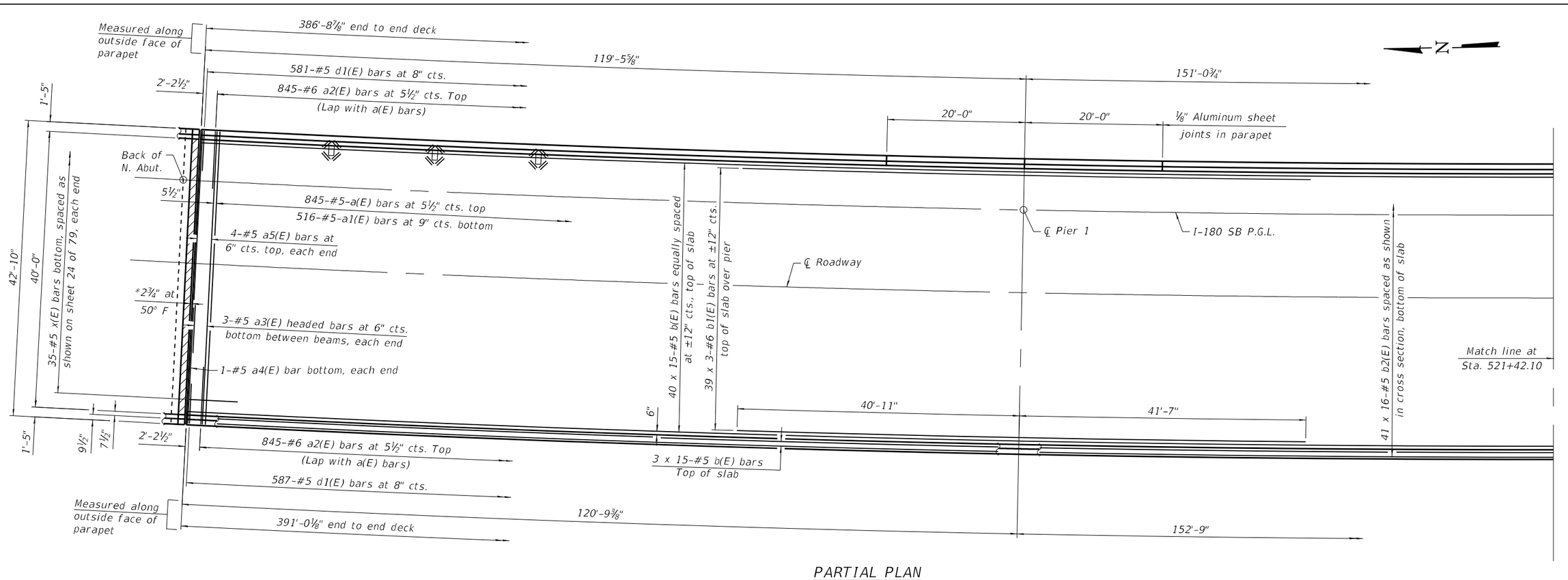
	CHECKED - ACB	REVISED -	
PLOT SCALE =	DRAWN - CMC	REVISED -	
PLOT DATE = 2/12/2024	CHECKED - ACB	REVISED -	

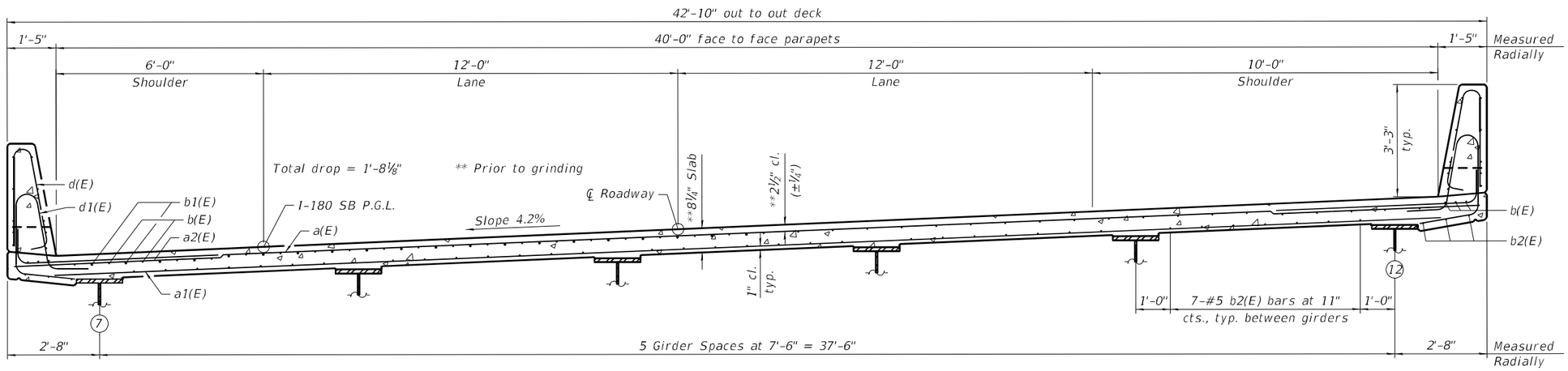
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SOUTH APPROACH SLAB ELEVATIONS
STRUCTURE NO. 006-0194 (NB)
SHEET 19 OF 80 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
180	(06-2B-1)ES	BUREAU	327	159
		CONTRACT NO. 66K66		
	ILLINOIS	FED. AID PROJECT		



PARTIAL PLAN



NEAR PIER NEAR MIDSPAN

CROSS SECTION

(Looking South)

* Dimension showing concrete opening.
For joint opening, see sheet 34 of 80.

MINIMUM BAR LAP

#5 bar = 3'-6"
#6 bar = 4'-10"

Notes:
See sheet 23 of 80 for superstructure details and Bill of Material.
Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
See sheet 21 of 80 for remaining spans.
See sheet 22 of 80 for parapet reinforcement.
The "a" bars are placed radially.
The "b" bars are placed concentrically.

MODEL: Default
FILE NAME: \\SERVER18\Projects\SS4\22057.08 IDOT D3 PTB 204-028 WO 08 I-180 over Bureau Creek\DGN\BridgeFinal\Plotsheets\006-0193&0194-66K66-020-Superstructure (SB).dgn
2/12/2024 10:35:37 AM

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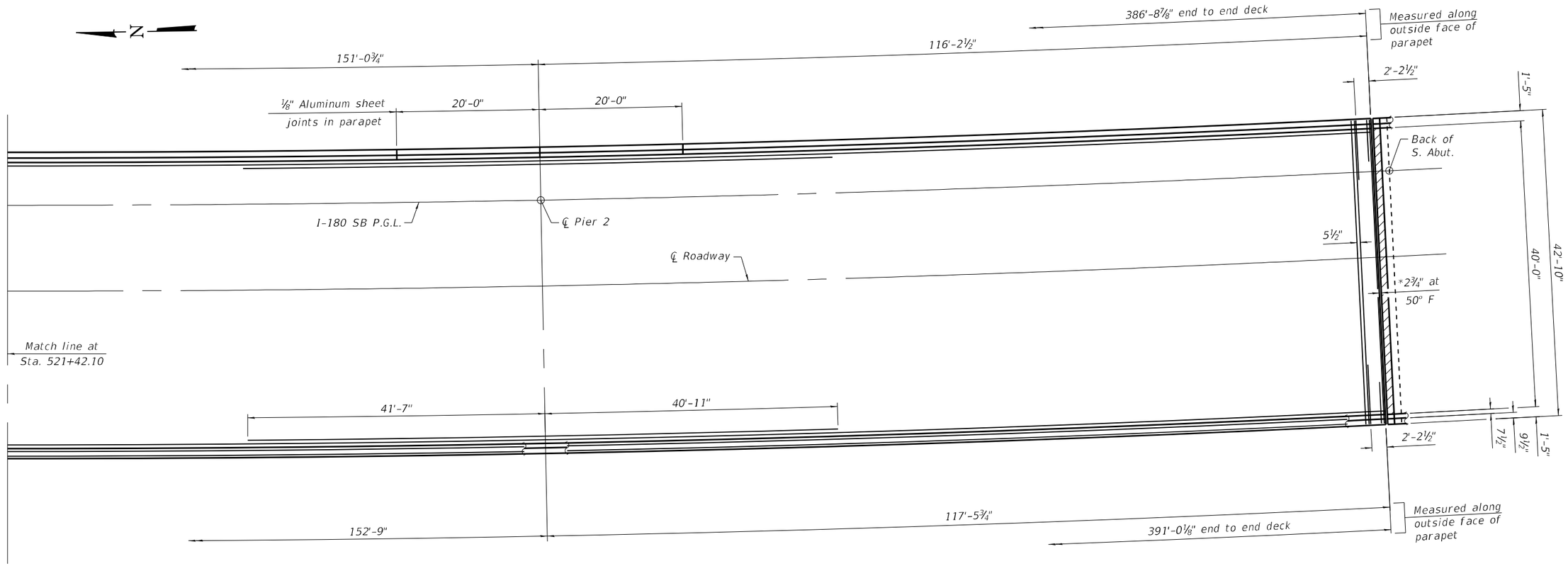
	CHECKED - ACB	REVISED -	
PLOT SCALE =	DRAWN - CMC	REVISED -	
PLOT DATE = 2/12/2024	CHECKED - ACB	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

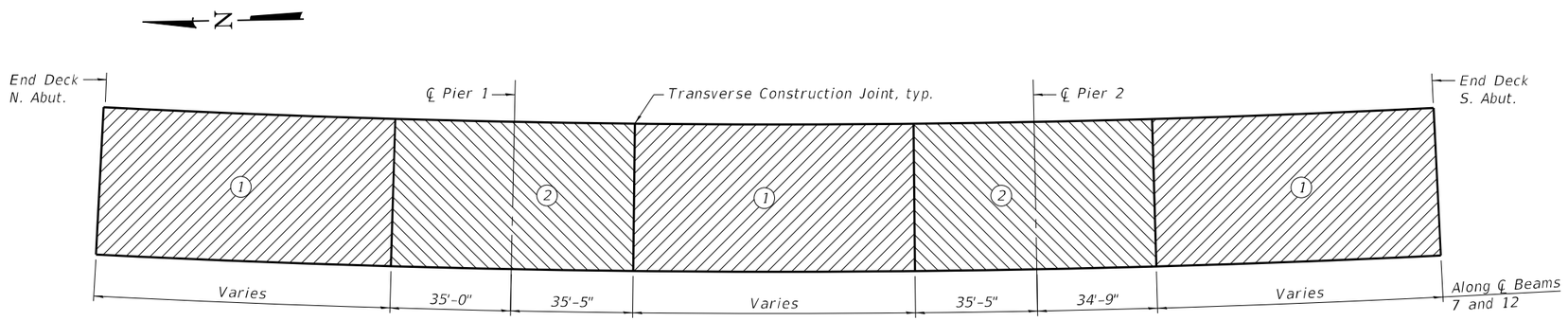
SUPERSTRUCTURE
STRUCTURE 006-0193 (SB)
SHEET 20 OF 80 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
180	(06-2B-1)ES	BUREAU	327	160
		CONTRACT NO. 66K66		
	ILLINOIS FED. AID PROJECT			



PARTIAL PLAN

* Dimension showing concrete opening.
For joint opening, see sheet 34 of 80.



SLAB POURING SEQUENCE

MINIMUM BAR LAP

#5 bar = 3'-6"
#6 bar = 4'-10"

Notes:

See sheet 23 of 80 for superstructure details and Bill of Material.

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

See sheet 20 of 80 for remaining spans.

See sheet 22 of 80 for parapet reinforcement.

When the deck pour is stopped for the day at one or more of the transverse bonded construction joints in the deck pouring sequence as shown, the next pour shall not be made until both of the following are met:

1. At least 72 hours shall have elapsed from the end of the previous pour.
2. The concrete strength shall have attained a minimum flexural strength of 675 psi or a minimum compressive strength of 4000 psi.

MODEL: Default
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2/12/2024 10:35:42 AM

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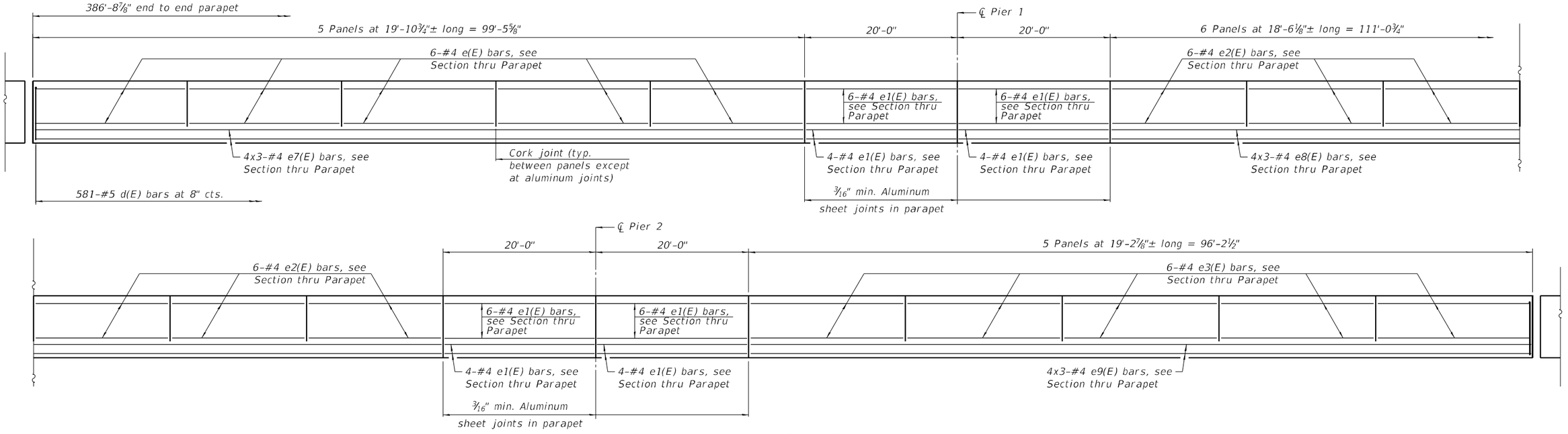
	CHECKED - ACB	REVISED -	
PLOT SCALE =	DRAWN - CMC	REVISED -	
PLOT DATE = 2/12/2024	CHECKED - ACB	REVISED -	

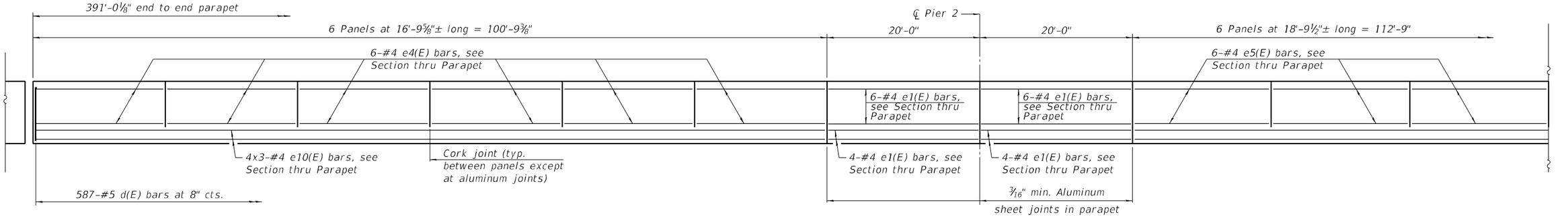
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE
STRUCTURE 006-0193 (SB)
SHEET 21 OF 80 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
180	(06-2B-1)ES	BUREAU	327	161
		CONTRACT NO. 66K66		
	ILLINOIS	FED. AID PROJECT		



INSIDE ELEVATION OF EAST PARAPET



MINIMUM BAR LAP

#4 bar = 2'-5"

INSIDE ELEVATION OF WEST PARAPET

Notes:
See sheet 23 of 80 for parapet joint details and Bill of Material.
Dimensions taken along back face of parapets.

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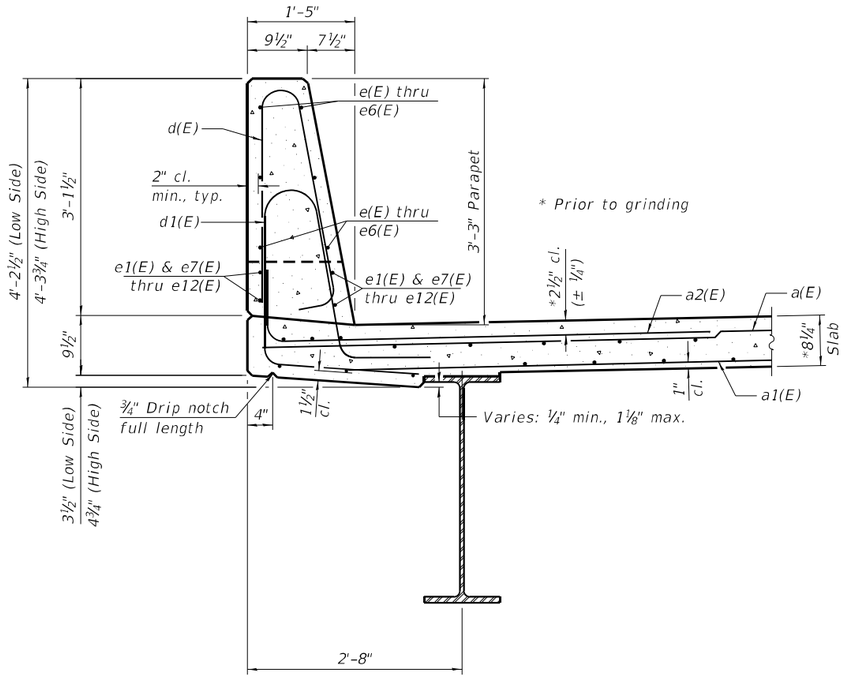
Civil Engineering Design

USER NAME = ABenz	DESIGNED - CMC	REVISED -
	CHECKED - ACB	REVISED -
PLOT SCALE =	DRAWN - CMC	REVISED -
PLOT DATE = 2/12/2024	CHECKED - ACB	REVISED -

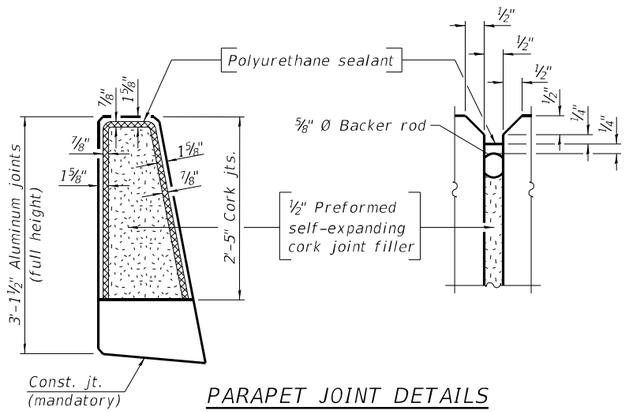
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE DETAILS
STRUCTURE NO. 006-0193 (SB)
SHEET 22 OF 80 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
180	(06-2B-1)ES	BUREAU	327	162
		CONTRACT NO. 66K66		
	ILLINOIS	FED. AID PROJECT		



SECTION THRU PARAPET



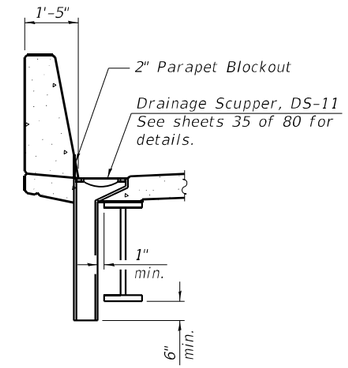
PARAPET JOINT DETAILS

Notes:

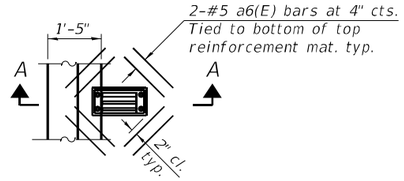
The 3/16" minimum aluminum sheet shall be ASTM B 209 alloy 3003-H14 and coated with 5 mils of either bitumen paint or epoxy paint to minimize reaction with wet concrete. Cost included with Concrete Superstructure.

The Polyurethane Sealant shall be according to Article 1050.04 of the Std. Spec. and the color shall be gray.

Bar terminators, paid for separately. See Total Bill of Material.

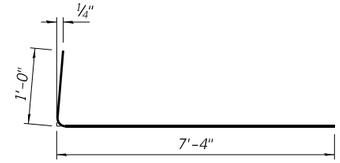


SECTION A-A

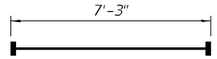


PLAN

Note:
Cut longitudinal reinforcement to clear drainage scuppers.

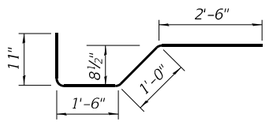


BAR a2(E)

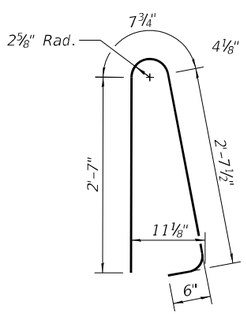


BAR a3(E)

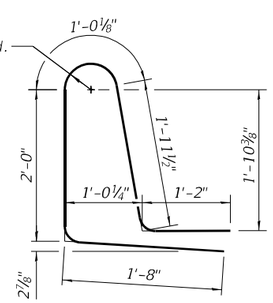
(Headed. 60-#5 Bar terminators)



BAR x(E)



BAR d(E)



BAR d1(E)

SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	845	#5	42'-6"	
a1(E)	516	#5	40'-6"	
a2(E)	1690	#6	8'-4"	
a3(E)	30	#5	7'-3"	
a4(E)	2	#5	42'-6"	
a5(E)	8	#5	40'-6"	
a6(E)	24	#5	1'-6"	
b(E)	690	#5	29'-4"	
b1(E)	234	#6	30'-9"	
b2(E)	656	#5	27'-9"	
d(E)	1168	#5	6'-5"	
d1(E)	1168	#5	7'-10"	
e(E)	30	#4	19'-6"	
e1(E)	80	#4	19'-8"	
e2(E)	36	#4	18'-2"	
e3(E)	30	#4	18'-11"	
e4(E)	36	#4	16'-6"	
e5(E)	36	#4	18'-6"	
e6(E)	30	#4	19'-2"	
e7(E)	12	#4	34'-8"	
e8(E)	12	#4	38'-7"	
e9(E)	12	#4	33'-7"	
e10(E)	12	#4	35'-2"	
e11(E)	12	#4	39'-2"	
e12(E)	12	#4	34'-0"	
x(E)	70	#5	5'-11"	
Reinforcement Bars, Epoxy Coated		Lbs.	155,010	
Concrete Superstructure		Cu. Yds.	560.6	

Bars indicated thus 1 x 2-#4 etc. indicates 1 line of bars with 2 lengths per line.

SDE-SB-2

10-27-2023

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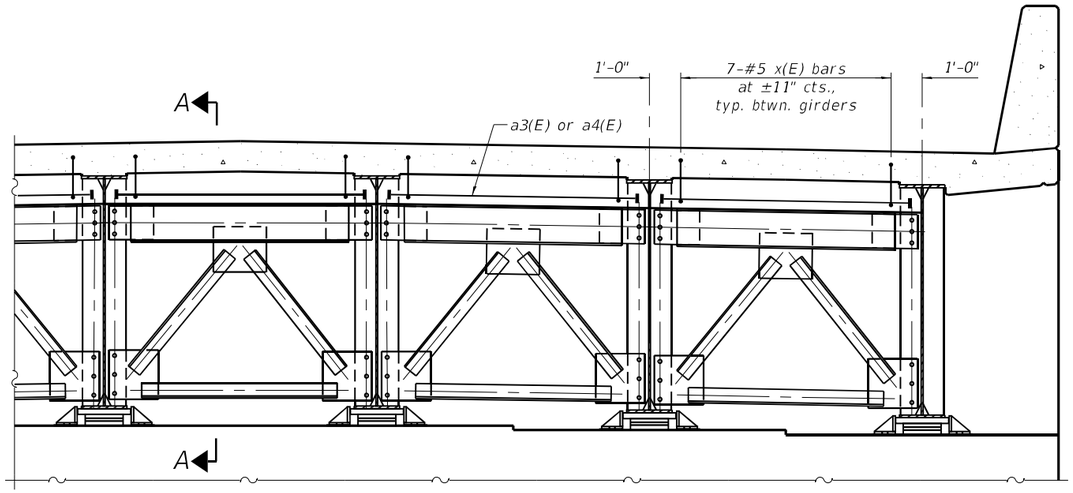
PLOT DATE = 2/12/2024	CHECKED - ACB	REVISED -	

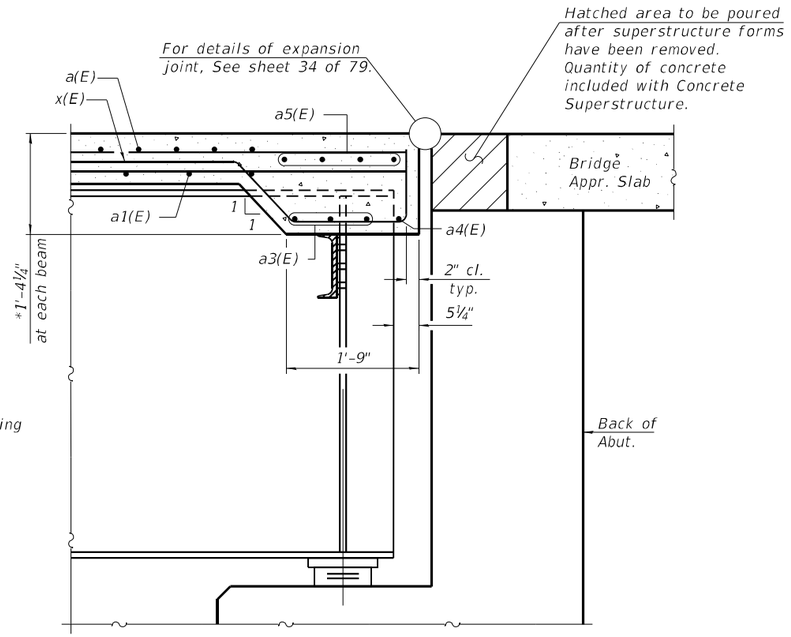
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE DETAILS
STRUCTURE 006-0193 (SB)
SHEET 23 OF 80 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
180	(06-2B-1)ES	BUREAU	327	163
		CONTRACT NO. 66K66		
	ILLINOIS FED. AID PROJECT			



DIAPHRAGM AT ABUTMENT



* Prior to grinding

SECTION A-A

(Full cross frame not shown for clarity)

Notes:
See sheet 23 of 80 for superstructure details and Bill of Material.

DEA-SB≥40-0 1-1-2020

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		CHECKED - ACB	REVISED -
	PLOT SCALE =	DRAWN - CMC	REVISED -
	PLOT DATE = 2/12/2024	CHECKED - ACB	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DIAPHRAGM DETAILS
STRUCTURE NO. 006-0193 (SB)
SHEET 24 OF 80 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
180	(06-2B-1)ES	BUREAU	327	164
		CONTRACT NO. 66K66		
	ILLINOIS FED. AID PROJECT			

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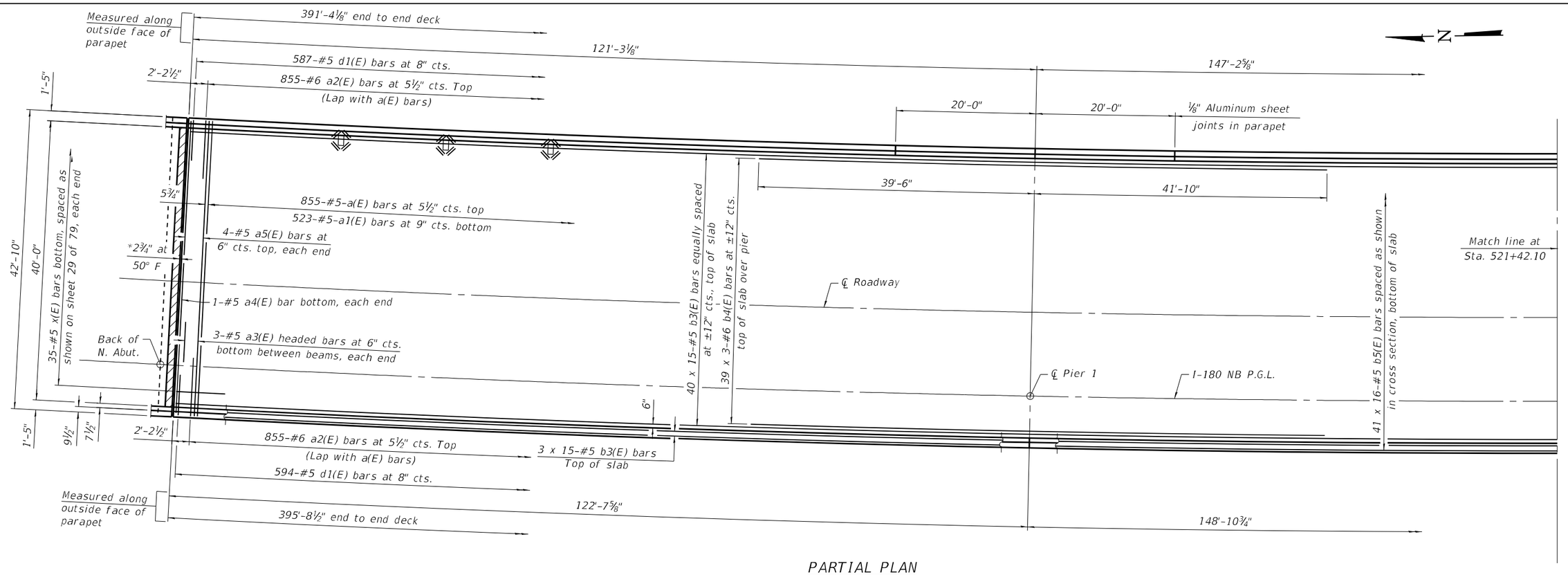
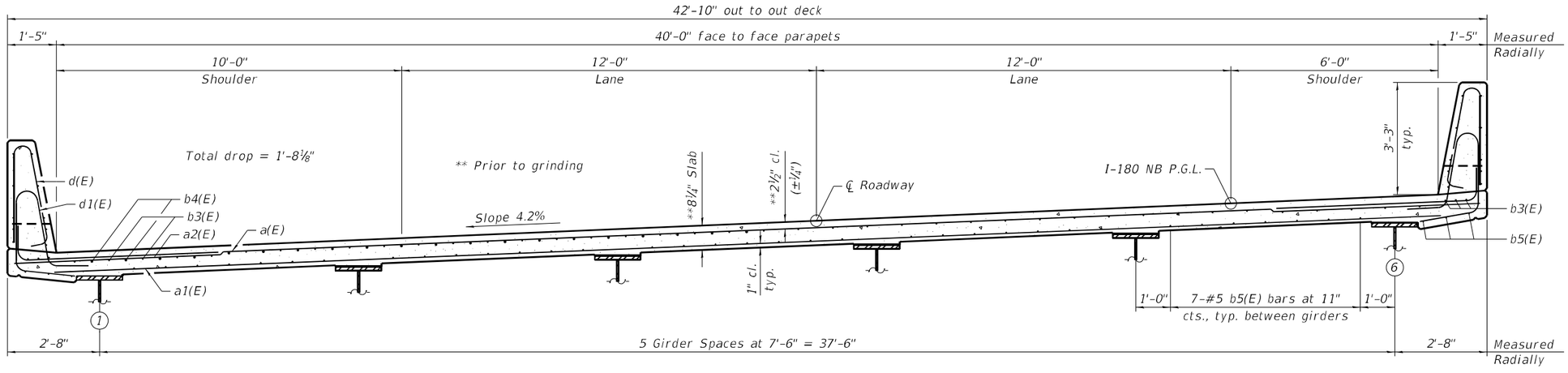


PARTIAL PLAN



NEAR PIER

NEAR MIDSPAN

CROSS SECTION

(Looking South)

* Dimension showing concrete opening.
For joint opening, see sheet 34 of 80.

MINIMUM BAR LAP

#5 bar = 3'-6"
#6 bar = 4'-10"

Notes:
See sheet 28 of 80 for superstructure details and Bill of Material.
Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
See sheet 26 of 80 for remaining spans.
See sheet 27 of 80 for parapet reinforcement.
The "a" bars are placed radially.
The "b" bars are placed concentrically.

MODEL: Default
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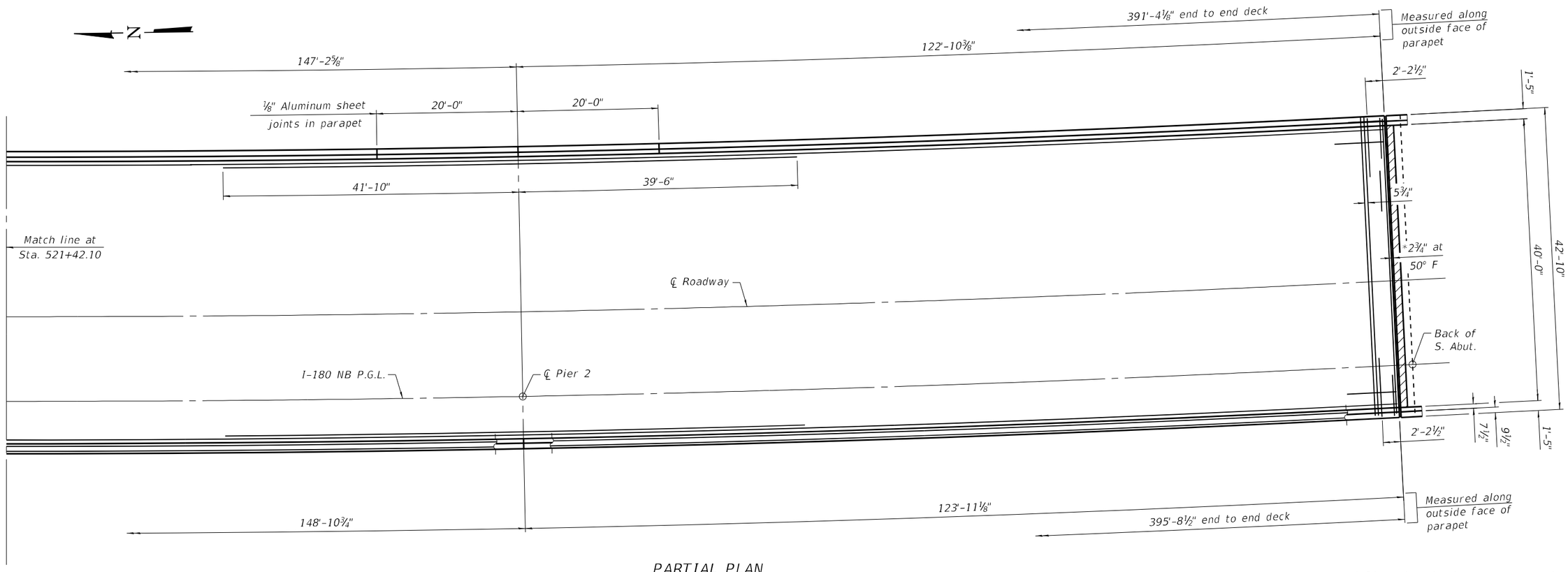
PLOT SCALE =	DRAWN - CMC	REVISED -	
PLOT DATE = 2/12/2024	CHECKED - ACB	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE
STRUCTURE 006-0194 (NB)
SHEET 25 OF 80 SHEETS

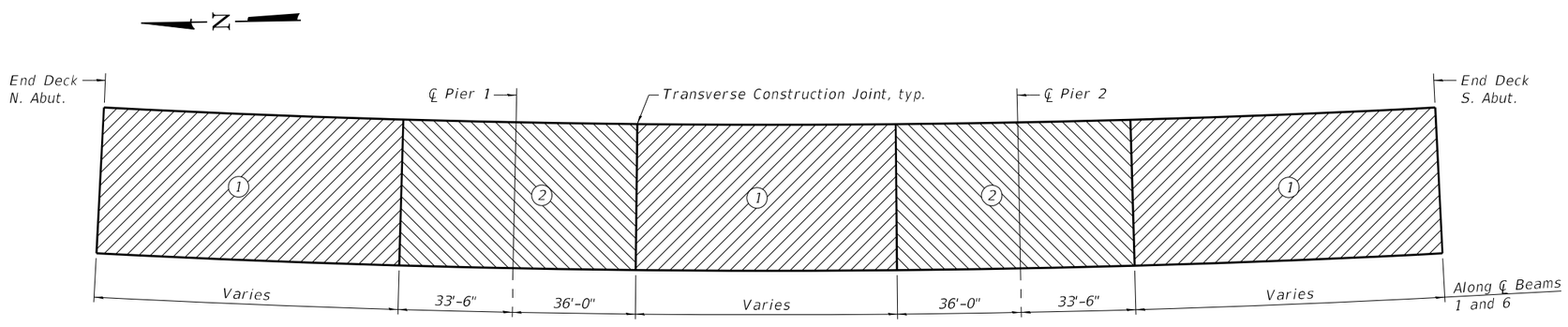
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
180	(06-2B-1)ES	BUREAU	327	165
		CONTRACT NO. 66K66		
		ILLINOIS	FED. AID PROJECT	



PARTIAL PLAN

* Dimension showing concrete opening.
For joint opening, see sheet 34 of 80.

MINIMUM BAR LAP
#5 bar = 3'-6"
#6 bar = 4'-10"



SLAB POURING SEQUENCE

Notes:
See sheet 28 of 80 for superstructure details and Bill of Material.
Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
See sheet 25 of 80 for remaining spans.
See sheet 27 of 80 for parapet reinforcement.
When the deck pour is stopped for the day at one or more of the transverse bonded construction joints in the deck pouring sequence as shown, the next pour shall not be made until both of the following are met:
1. At least 72 hours shall have elapsed from the end of the previous pour.
2. The concrete strength shall have attained a minimum flexural strength of 675 psi or a minimum compressive strength of 4000 psi.

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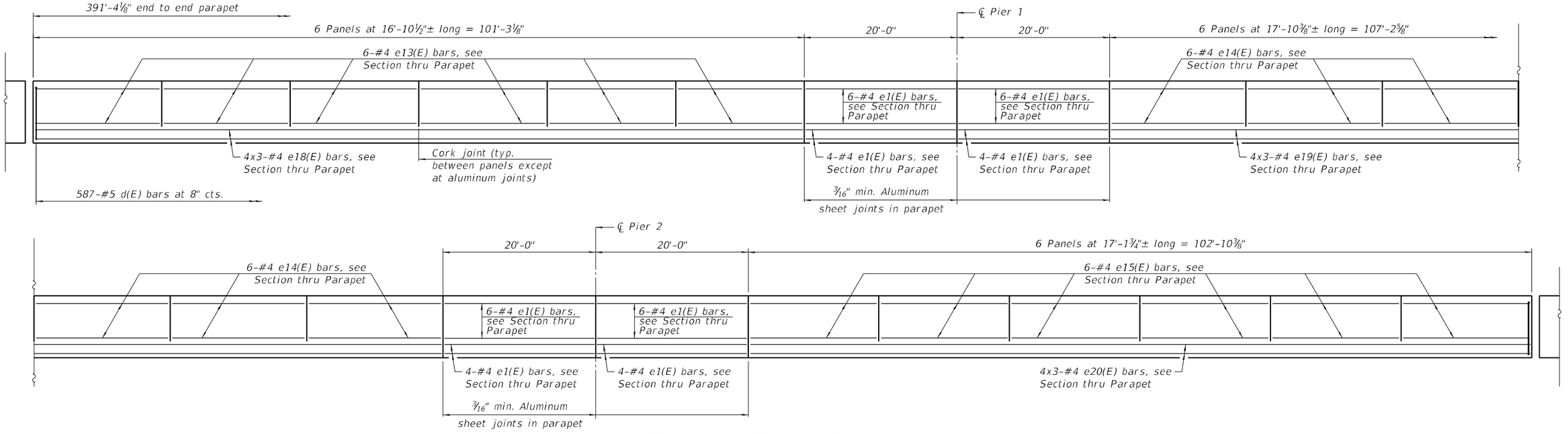
Civil Engineering Design

USER NAME = ABenz	DESIGNED - CMC	REVISED -
	CHECKED - ACB	REVISED -
PLOT SCALE =	DRAWN - CMC	REVISED -
PLOT DATE = 2/12/2024	CHECKED - ACB	REVISED -

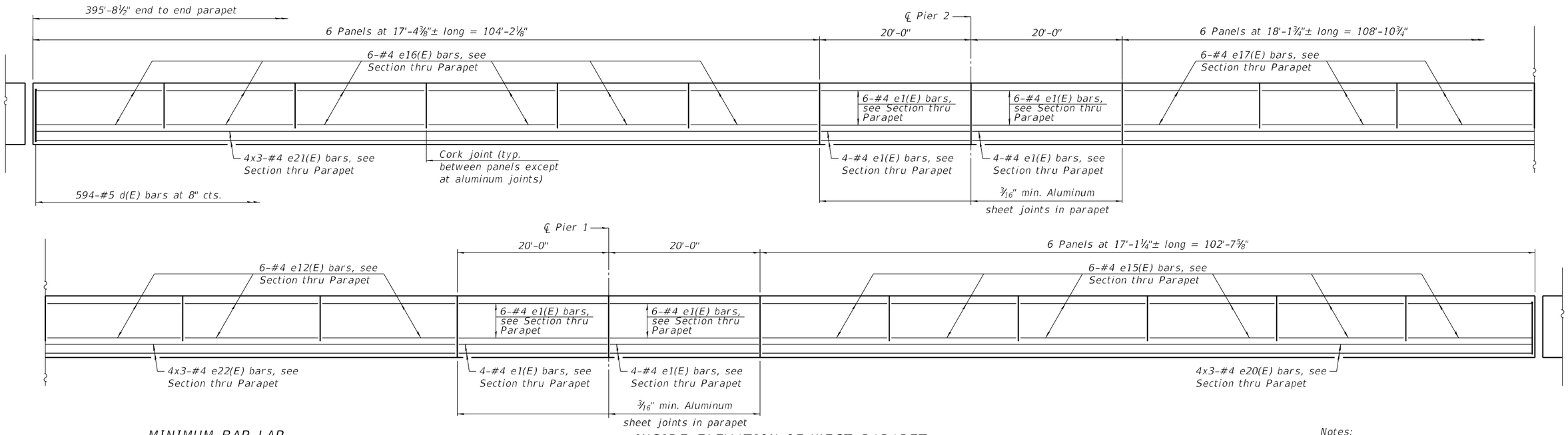
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE
STRUCTURE NO. 006-0194 (NB)
SHEET 26 OF 80 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
180	(06-2B-1)ES	BUREAU	327	166
		CONTRACT NO. 66K66		
	ILLINOIS FED. AID PROJECT			



INSIDE ELEVATION OF EAST PARAPET



MINIMUM BAR LAP

#4 bar = 2'-5"

INSIDE ELEVATION OF WEST PARAPET

Notes:
See sheet 28 of 80 for parapet joint details and Bill of Material.
Dimensions taken along back face of parapets.

EFK•Moen
Civil Engineering Design

USER NAME = ABenz	DESIGNED - CMC	REVISED -	
	CHECKED - ACB	REVISED -	
PLOT SCALE =	DRAWN - CMC	REVISED -	
PLOT DATE = 2/12/2024	CHECKED - ACB	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE DETAILS
STRUCTURE 006-0194 (NB)
SHEET 27 OF 80 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
180	(06-2B-1)ES	BUREAU	327	167
		CONTRACT NO. 66K66		
		ILLINOIS	FED. AID PROJECT	

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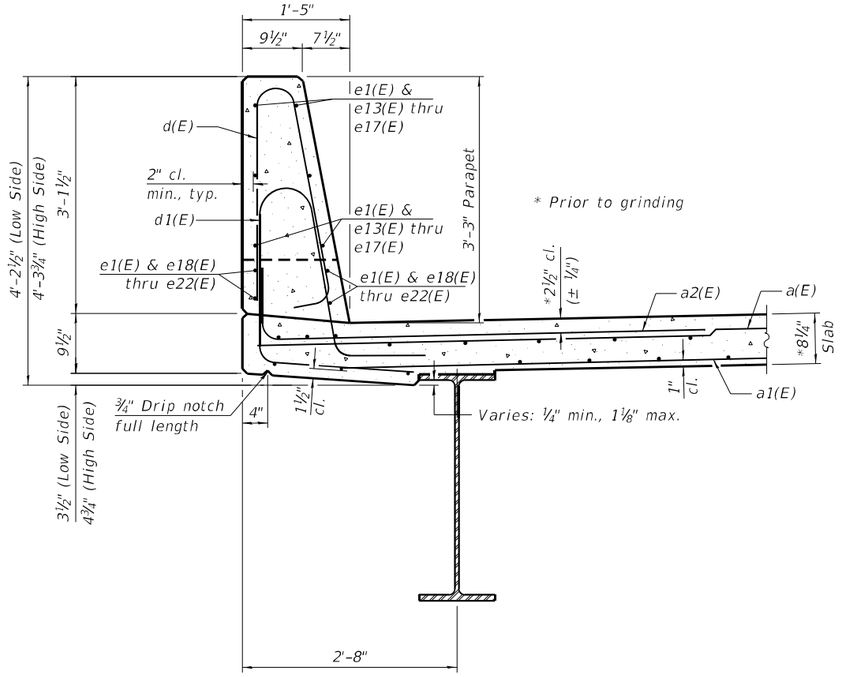
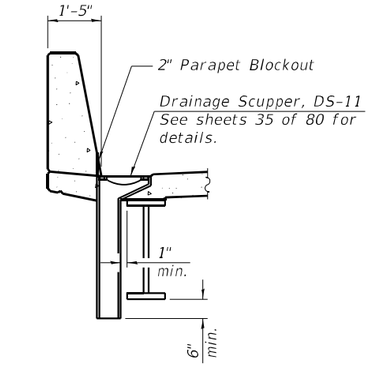
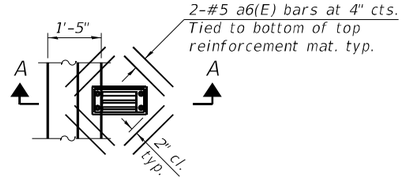


SECTION THRU PARAPET

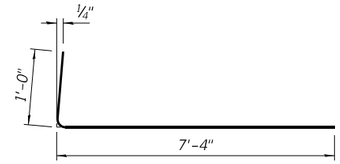


SECTION A-A

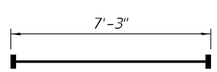


PLAN

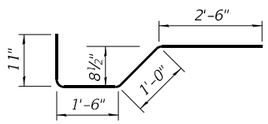
Note:
Cut longitudinal reinforcement to clear drainage scuppers.



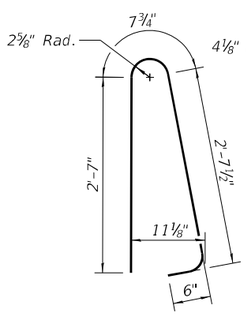
BAR a2(E)



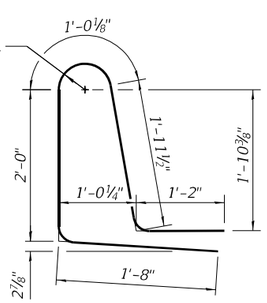
BAR a3(E)
(Headed. 60-#5 Bar terminators)



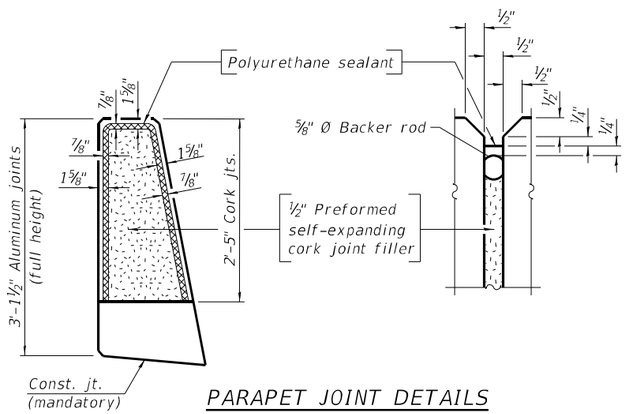
BAR x(E)



BAR d(E)



BAR d1(E)



PARAPET JOINT DETAILS

Notes:
The 3/16" minimum aluminum sheet shall be ASTM B 209 alloy 3003-H14 and coated with 5 mils of either bitumen paint or epoxy paint to minimize reaction with wet concrete. Cost included with Concrete Superstructure.
The Polyurethane Sealant shall be according to Article 1050.04 of the Std. Spec. and the color shall be gray.
Bar terminators, paid for separately. See Total Bill of Material.

SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	855	#5	42'-6"	
a1(E)	523	#5	40'-6"	
a2(E)	1710	#6	8'-4"	
a3(E)	30	#5	7'-3"	
a4(E)	2	#5	42'-6"	
a5(E)	8	#5	40'-6"	
a6(E)	24	#5	1'-6"	
b3(E)	690	#5	29'-8"	
b4(E)	234	#6	30'-4"	
b5(E)	656	#5	28'-0"	
d(E)	1181	#5	6'-5"	
d1(E)	1181	#5	7'-10"	
e1(E)	80	#4	19'-8"	
e13(E)	36	#4	16'-6"	
e14(E)	36	#4	17'-6"	
e15(E)	72	#4	16'-9"	
e16(E)	36	#4	17'-0"	
e17(E)	36	#4	17'-10"	
e18(E)	12	#4	35'-4"	
e19(E)	12	#4	37'-6"	
e20(E)	24	#4	35'-10"	
e21(E)	12	#4	36'-3"	
e22(E)	12	#4	37'-10"	
x(E)	70	#5	5'-11"	
Reinforcement Bars, Epoxy Coated		Lbs.	156,510	
Concrete Superstructure		Cu. Yds.	567.0	

Bars indicated thus 1 x 2-#4 etc. indicates 1 line of bars with 2 lengths per line.

SDE-SB-2 10-27-2023

EFK•Moen
Civil Engineering Design

USER NAME = ABenz	DESIGNED - CMC	REVISED -
	CHECKED - ACB	REVISED -
PLOT SCALE =	DRAWN - CMC	REVISED -
PLOT DATE = 2/12/2024	CHECKED - ACB	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE DETAILS
STRUCTURE 006-0194 (NB)
SHEET 28 OF 80 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
180	(06-2B-1)ES	BUREAU	327	168
		CONTRACT NO. 66K66		
		ILLINOIS	FED. AID PROJECT	

MODEL: Default
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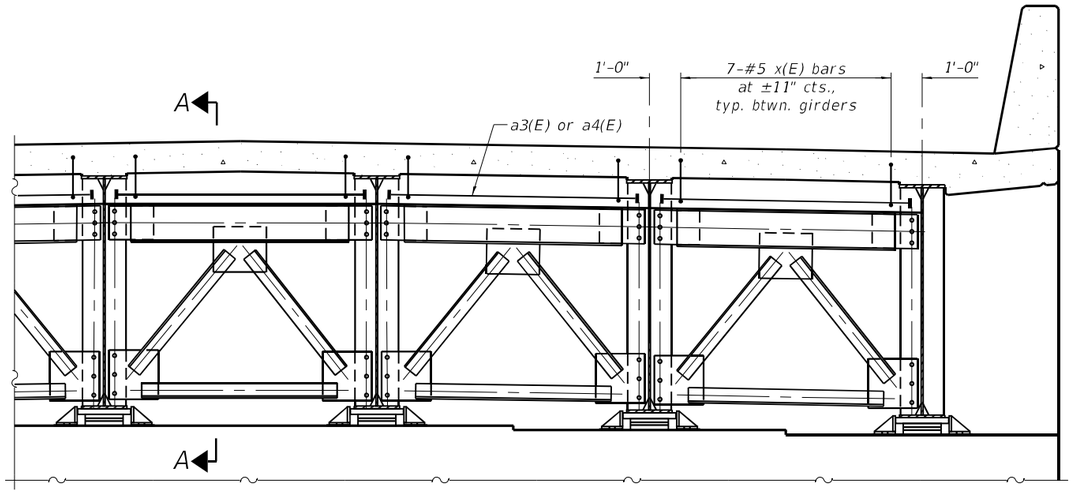
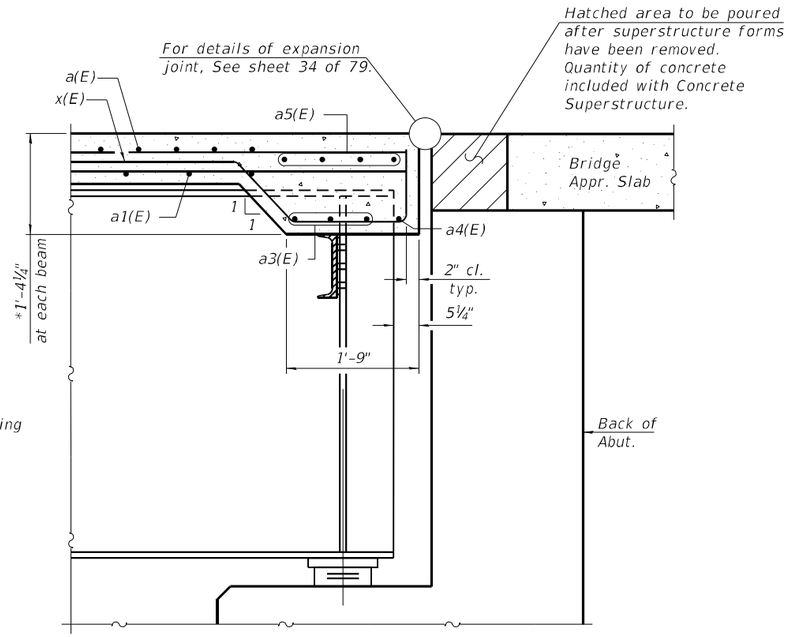


DIAPHRAGM AT ABUTMENT



* Prior to grinding

SECTION A-A

(Full cross frame not shown for clarity)

Notes:
See sheet 28 of 80 for superstructure details and Bill of Material.

DEA-SB≥40-0 1-1-2020

EFK♦Moen Civil Engineering Design	USER NAME = ABenz	DESIGNED - CMC	REVISED -
		CHECKED - ACB	REVISED -
	PLOT SCALE =	DRAWN - CMC	REVISED -
	PLOT DATE = 2/12/2024	CHECKED - ACB	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DIAPHRAGM DETAILS
STRUCTURE 006-0194 (NB)
SHEET 29 OF 80 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
180	(06-2B-1)ES	BUREAU	327	169
		CONTRACT NO. 66K66		
	ILLINOIS FED. AID PROJECT			

MODEL: Default
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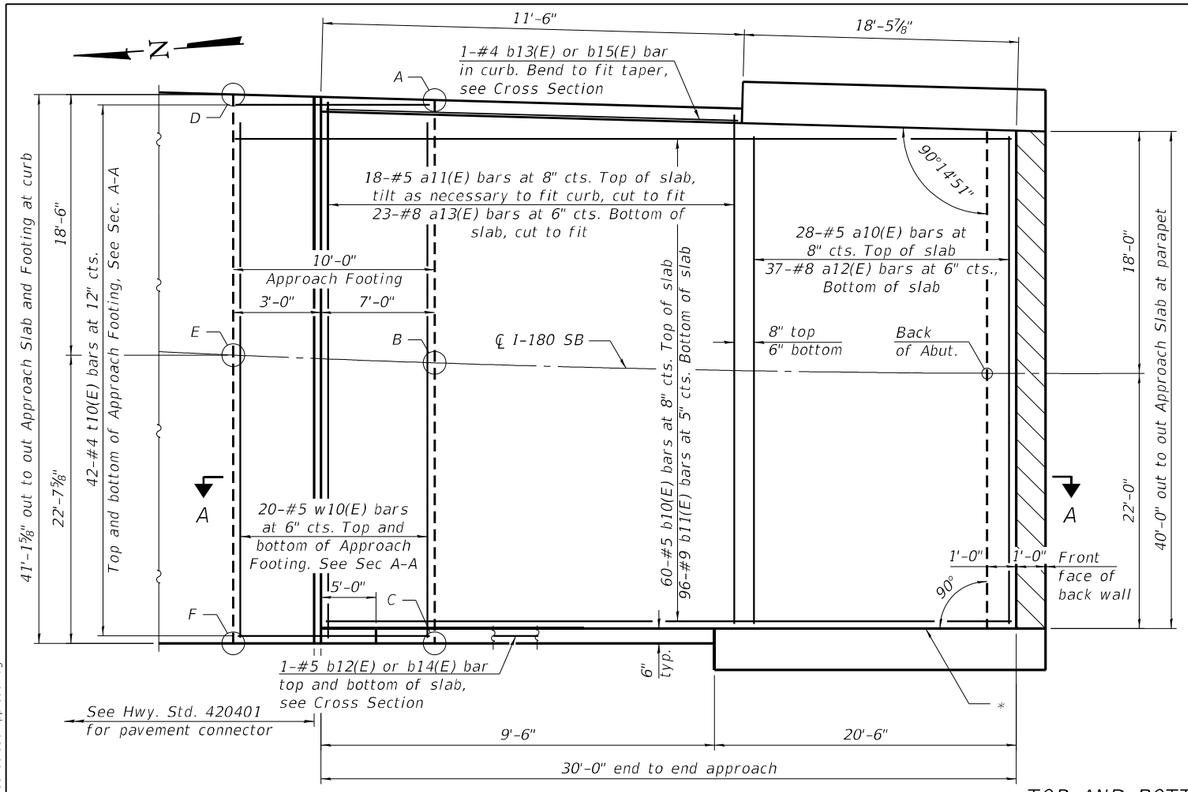
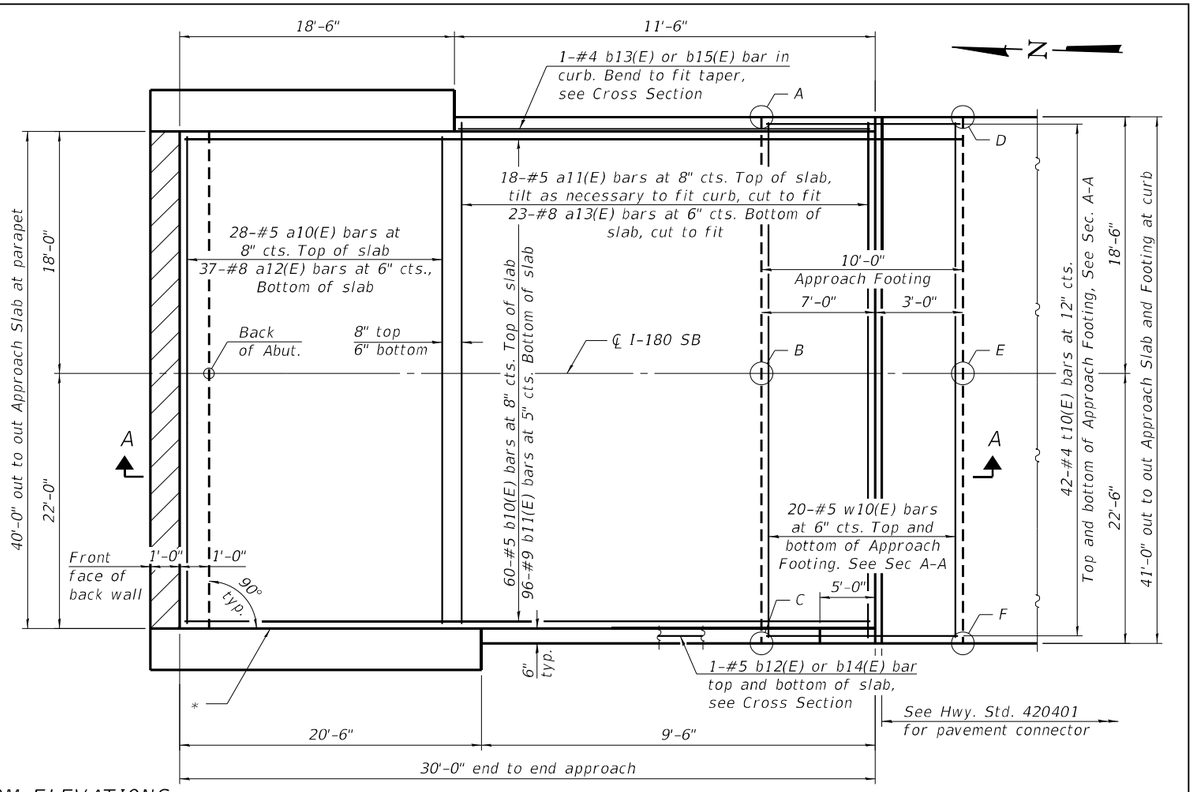


PLAN
(North approach)

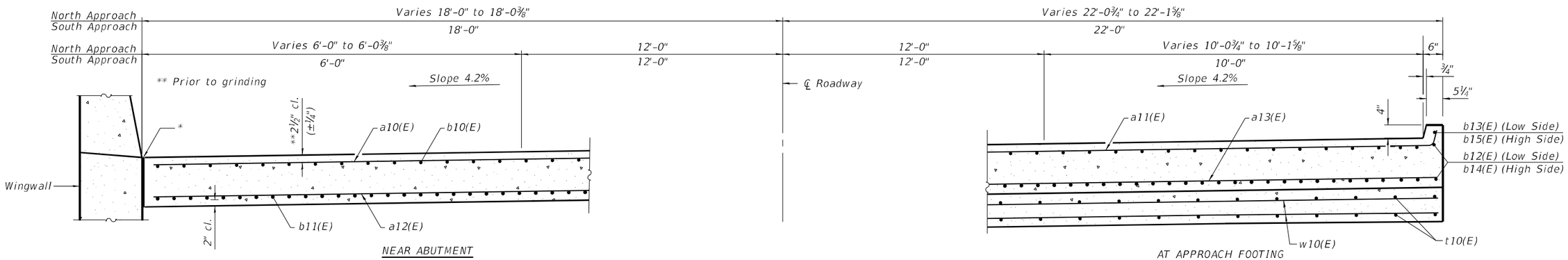


PLAN
(South approach)

TOP AND BOTTOM ELEVATIONS FOR APPROACH FOOTING

North Approach			South Approach		
Point/ Location	Top	Bottom	Point/ Location	Top	Bottom
A	500.67	499.83	A	513.45	512.62
B	501.45	500.61	B	514.23	513.39
C	502.40	501.57	C	515.17	514.34
D	500.40	499.57	D	513.75	512.91
E	501.18	500.35	E	514.53	513.69
F	502.14	501.30	F	515.47	514.64

* ½" Preformed Expansion Joint Filler according to Article 1051.09 of the Standard Specifications; full depth of slab, full length of parapet. Typ. each parapet.



NEAR ABUTMENT

AT APPROACH FOOTING

CROSS SECTION
(Looking South)

BASA-CIP-3944CS-0 2-1-2023

(Sheet 1 of 2)

EFK•Moen
Civil Engineering Design

USER NAME = ABenz	DESIGNED - CMC	REVISED -	
	CHECKED - ACB	REVISED -	
PLOT SCALE =	DRAWN - CMC	REVISED -	
PLOT DATE = 2/12/2024	CHECKED - ACB	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 006-0193 (SB)
SHEET 30 OF 80 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
180	(06-2B-1)ES	BUREAU	327	170
		CONTRACT NO. 66K66		
	ILLINOIS	FED. AID PROJECT		

MODEL: Default
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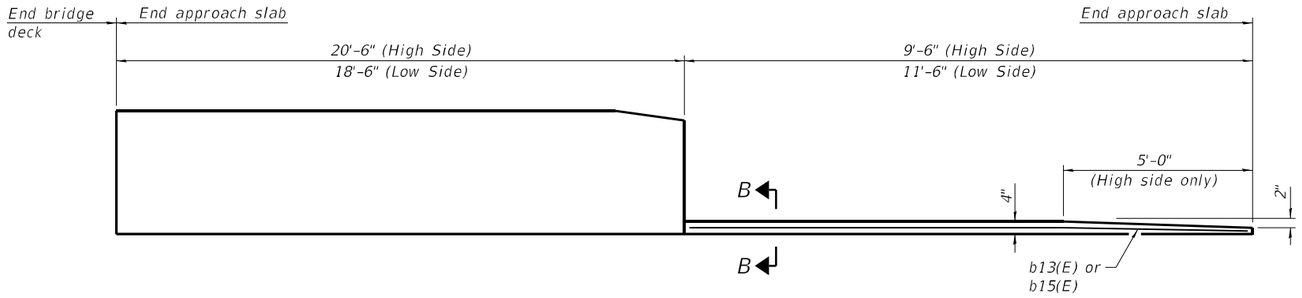
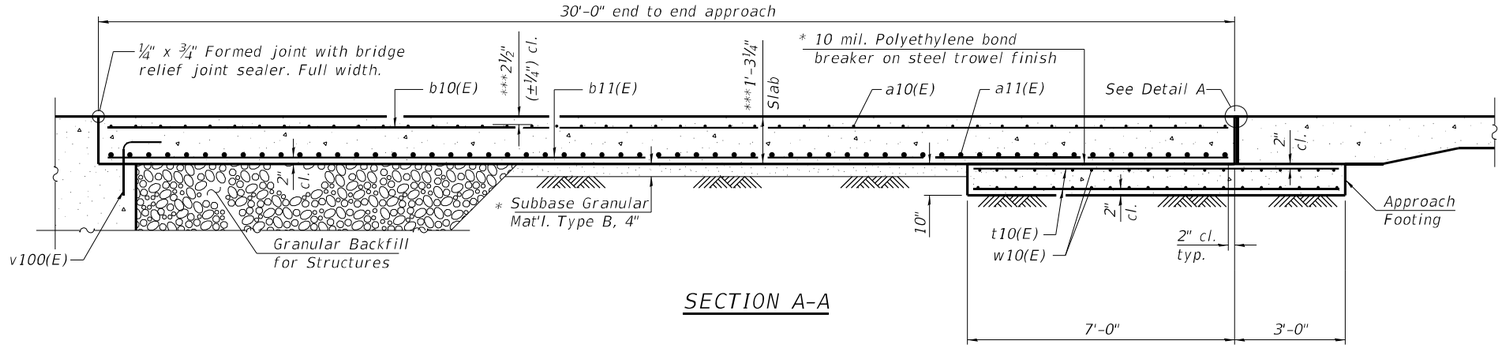
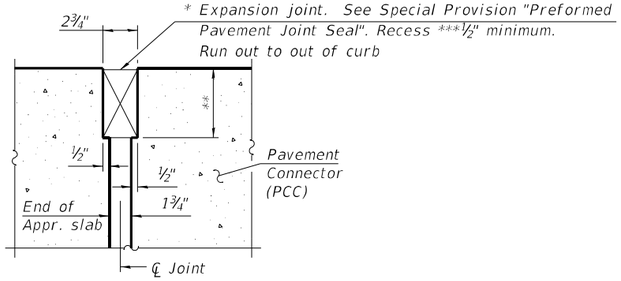


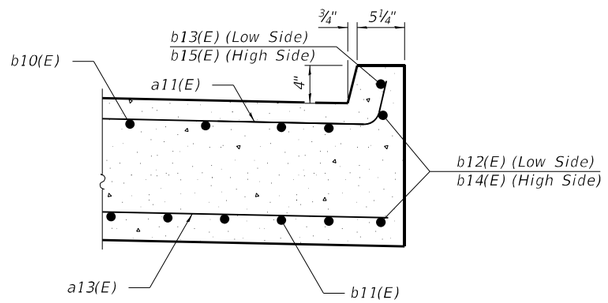
INSIDE ELEVATION OF PARAPET AND CURB



SECTION A-A



DETAIL A



SECTION B-B

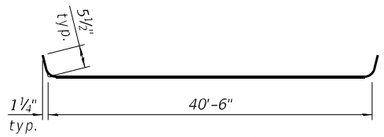
* Cost included with Concrete Superstructure (Approach Slab).

** Per manufacturer recommendations

*** Prior to grinding

Notes:

Approach slab shall be paid for as Concrete Superstructure (Approach Slab).
Approach footing concrete shall be paid for as Concrete Structures.
The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
Cost of excavation for approach footing included with Concrete Structures.
For Granular Backfill for Structures and drainage treatment details, see sheet 2 of 80.
See sheets 44 and 47 of 80 for hatched block details.



BAR a11(E)

TWO APPROACHES BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a10(E)	56	#5	39'-7"	———
a11(E)	36	#5	41'-5"	———
a12(E)	74	#8	39'-7"	———
a13(E)	46	#8	40'-9"	———
b10(E)	120	#5	29'-8"	———
b11(E)	192	#9	29'-8"	———
b12(E)	4	#5	11'-2"	———
b13(E)	2	#4	11'-2"	———
b14(E)	4	#5	9'-2"	———
b15(E)	2	#4	9'-2"	———
t10(E)	168	#4	9'-8"	———
w10(E)	80	#5	40'-9"	———
Concrete Superstructure (Approach Slab)			Cu. Yd.	114.6
Concrete Structures			Cu. Yd.	25.4
Reinforcement Bars, Epoxy Coated			Pound	44,360

EFK•Moen Civil Engineering Design

USER NAME = ABenz	DESIGNED - CMC	REVISED -
	CHECKED - ACB	REVISED -
PLOT SCALE =	DRAWN - CMC	REVISED -
PLOT DATE = 2/12/2024	CHECKED - ACB	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 006-0193 (SB)
SHEET 31 OF 80 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
180	(06-2B-1)ES	BUREAU	327	171
		CONTRACT NO. 66K66		
	ILLINOIS FED. AID PROJECT			

MODEL: Default
FILE NAME: \\SERVER18\Projects\SS4\22057.08 IDOT D3 PTB 204-028 WO 08 I-180 over Bureau Creek\DGN\Bridge\Final\Plotsheets\006-0193&0194-66K66-031-Approach.dgn

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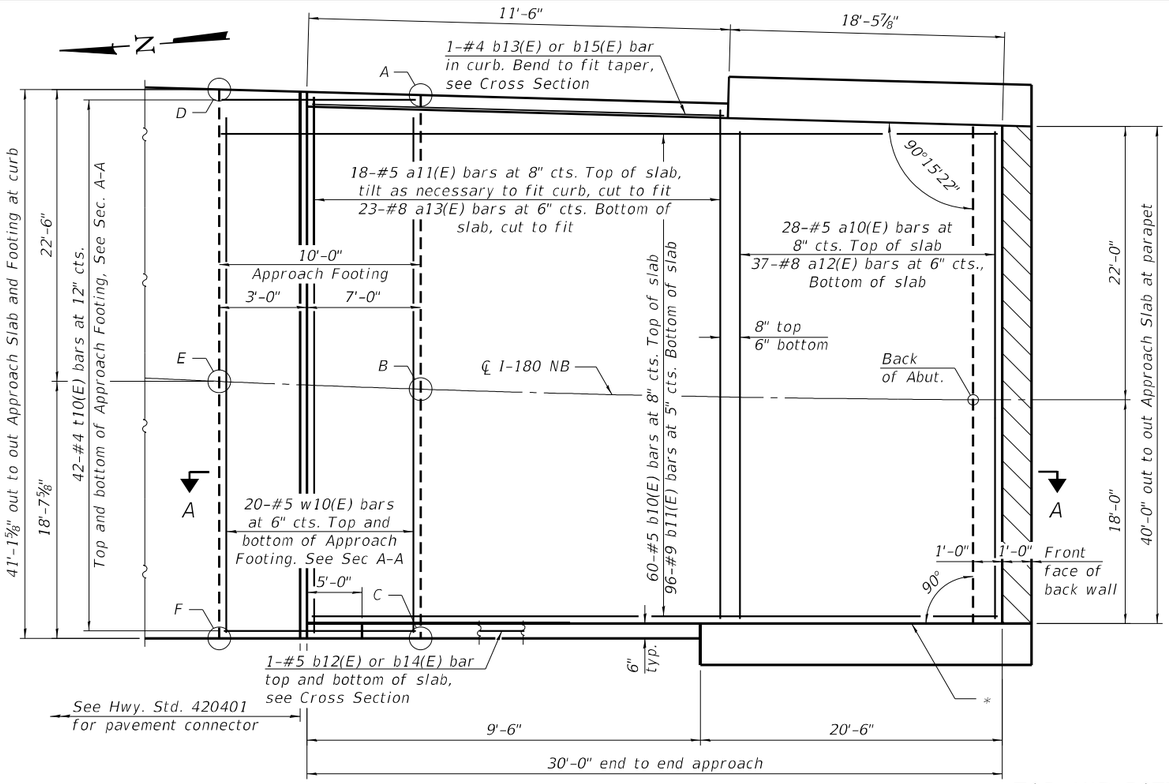
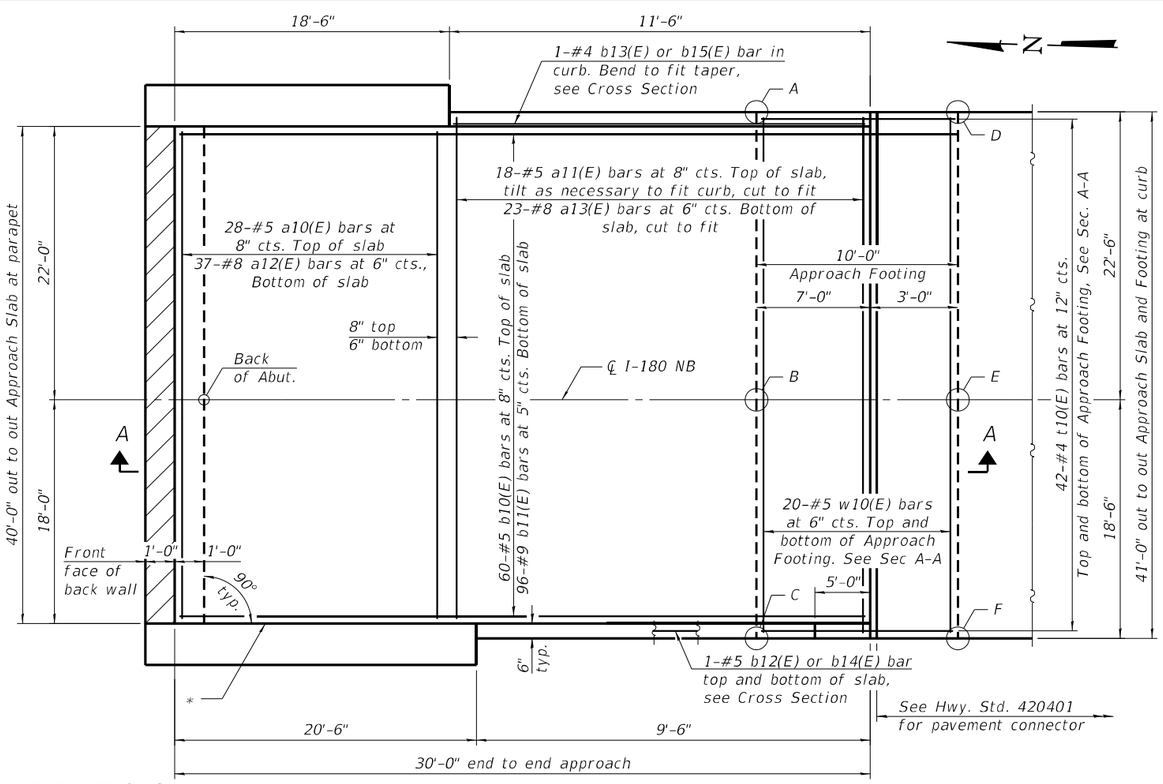


PLAN
(North approach)

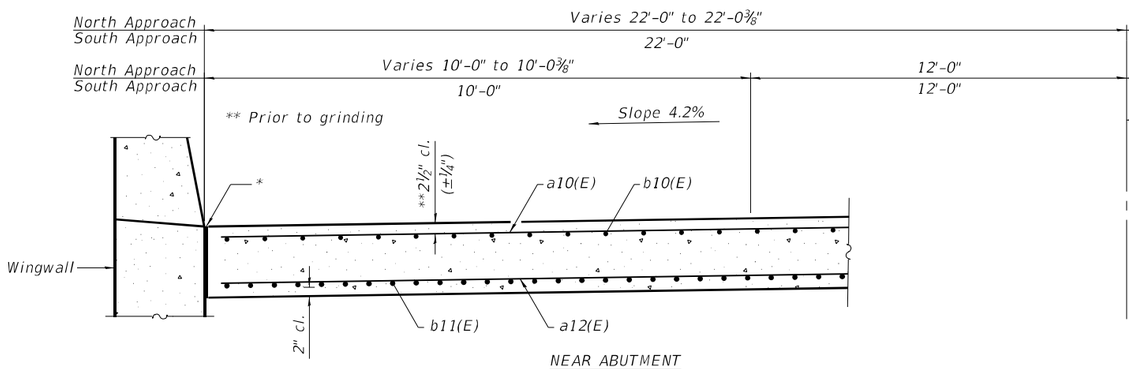


PLAN
(South approach)

TOP AND BOTTOM ELEVATIONS FOR APPROACH FOOTING

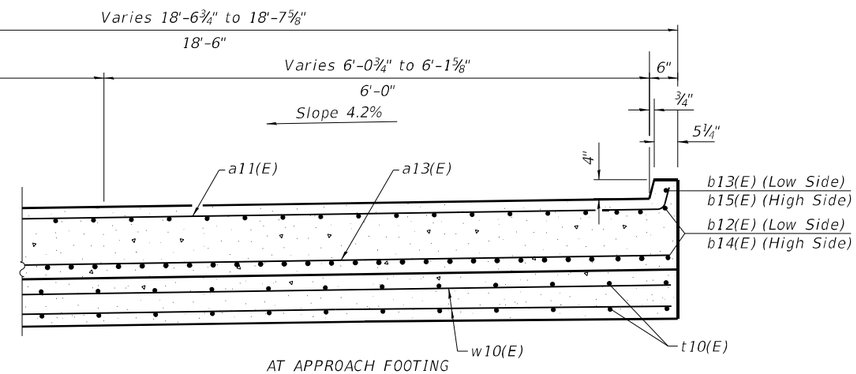
North Approach			South Approach		
Point/ Location	Top	Bottom	Point/ Location	Top	Bottom
A	500.10	499.27	A	512.70	511.86
B	501.05	500.22	B	513.64	512.81
C	501.84	501.00	C	514.42	513.58
D	499.84	499.00	D	512.95	512.12
E	500.79	499.95	E	513.90	513.07
F	501.57	500.74	F	514.68	513.85

* ½" Preformed Expansion Joint Filler according to Article 1051.09 of the Standard Specifications; full depth of slab, full length of parapet. Typ. each parapet.



NEAR ABUTMENT

CROSS SECTION
(Looking South)



AT APPROACH FOOTING

BASA-CIP-3944CS-0 2-1-2023

MODEL: Default
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2/12/2024 10:36:21 AM

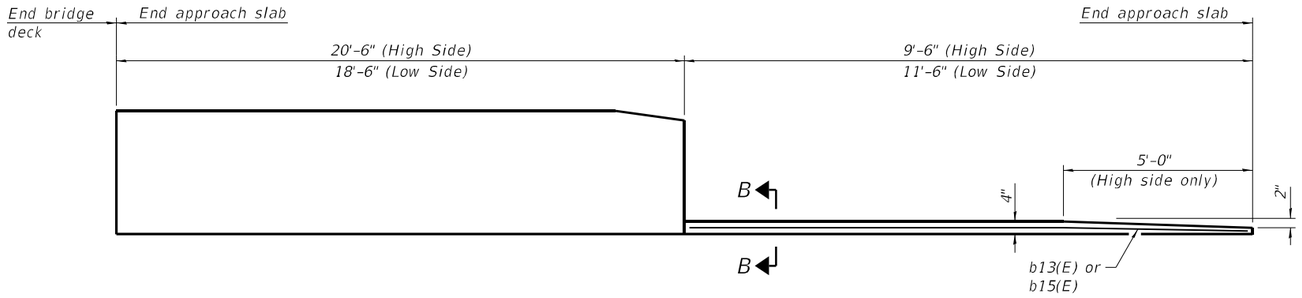
EFK•Moen Civil Engineering Design

USER NAME = ABenz	DESIGNED - CMC	REVISED -	
	CHECKED - ACB	REVISED -	
PLOT SCALE =	DRAWN - CMC	REVISED -	
PLOT DATE = 2/12/2024	CHECKED - ACB	REVISED -	

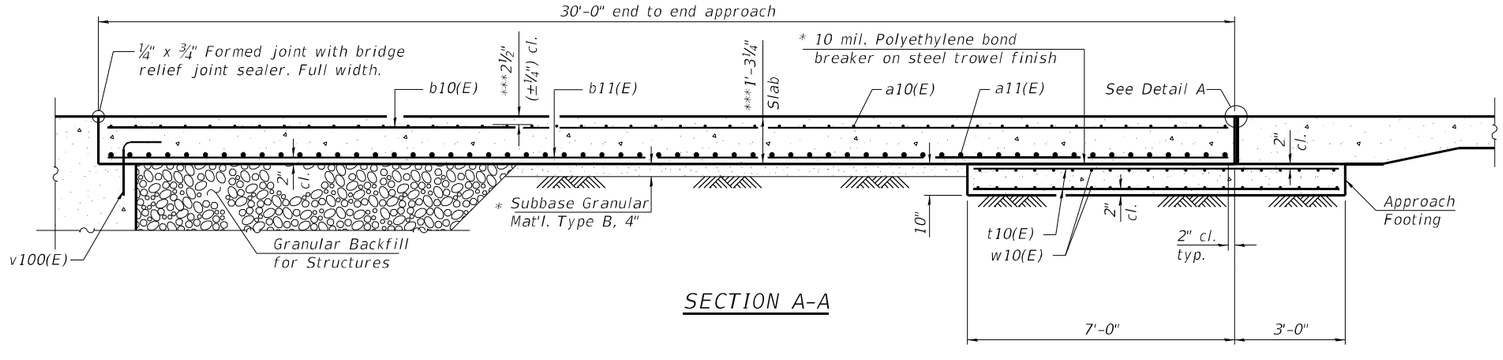
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BRIDGE APPROACH SLAB DETAILS
STRUCTURE 006-0194 (NB)
SHEET 32 OF 80 SHEETS

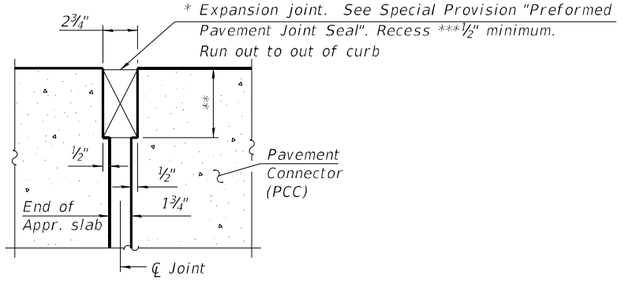
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
180	(06-2B-1)ES	BUREAU	327	172
		CONTRACT NO. 66K66		
	ILLINOIS	FED. AID PROJECT		



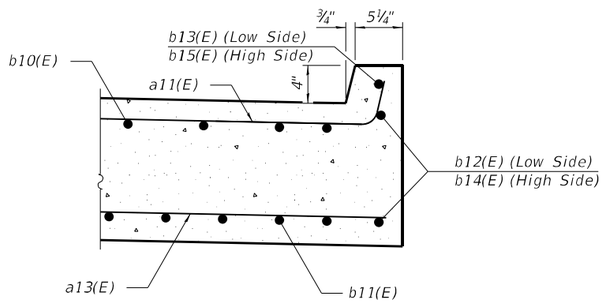
INSIDE ELEVATION OF PARAPET AND CURB



SECTION A-A



DETAIL A



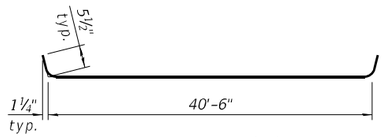
SECTION B-B

* Cost included with Concrete Superstructure (Approach Slab).

** Per manufacturer recommendations

*** Prior to grinding

Notes:
- Approach slab shall be paid for as Concrete Superstructure (Approach Slab).
- Approach footing concrete shall be paid for as Concrete Structures.
- The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
- Cost of excavation for approach footing included with Concrete Structures.
- For Granular Backfill for Structures and drainage treatment details, see sheet 2 of 80.
- See sheets 50 and 53 of 80 for hatched block details.



BAR a11(E)

TWO APPROACHES
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a10(E)	56	#5	39'-7"	———
a11(E)	36	#5	41'-5"	————
a12(E)	74	#8	39'-7"	———
a13(E)	46	#8	40'-9"	———
b10(E)	120	#5	29'-8"	———
b11(E)	192	#9	29'-8"	———
b12(E)	4	#5	11'-2"	———
b13(E)	2	#4	11'-2"	———
b14(E)	4	#5	9'-2"	———
b15(E)	2	#4	9'-2"	———
t10(E)	168	#4	9'-8"	———
w10(E)	80	#5	40'-9"	———
Concrete Superstructure (Approach Slab)			Cu. Yd.	114.6
Concrete Structures			Cu. Yd.	25.4
Reinforcement Bars, Epoxy Coated			Pound	44,360

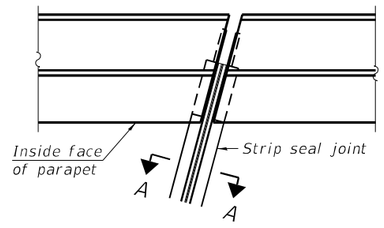
EFK•Moen Civil Engineering Design

USER NAME = ABenz	DESIGNED - CMC	REVISED -
	CHECKED - ACB	REVISED -
PLOT SCALE =	DRAWN - CMC	REVISED -
PLOT DATE = 2/12/2024	CHECKED - ACB	REVISED -

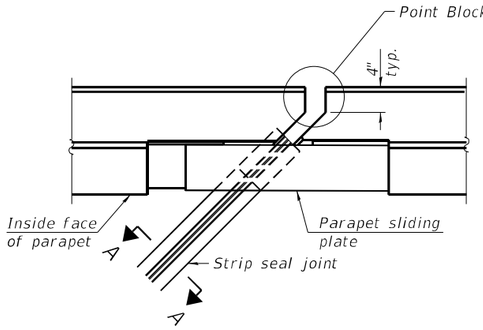
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BRIDGE APPROACH SLAB DETAILS
STRUCTURE 006-0194 (NB)
SHEET 33 OF 80 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
180	(06-2B-1)ES	BUREAU	327	173
		CONTRACT NO. 66K66		
	ILLINOIS	FED. AID PROJECT		

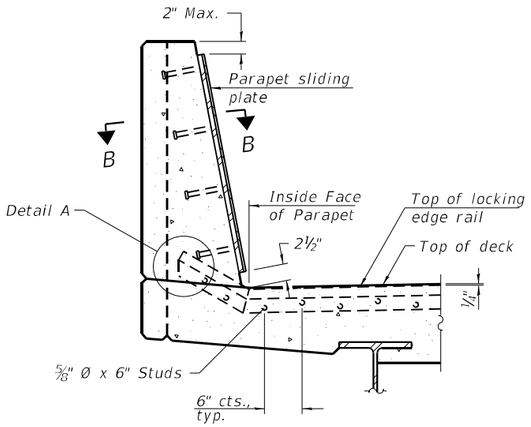


FOR SKEWS ≤ 30°



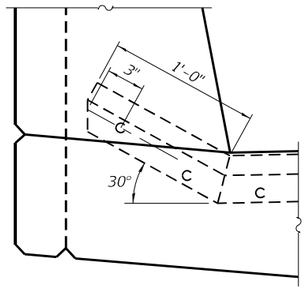
FOR SKEWS > 30°

PLAN AT PARAPET

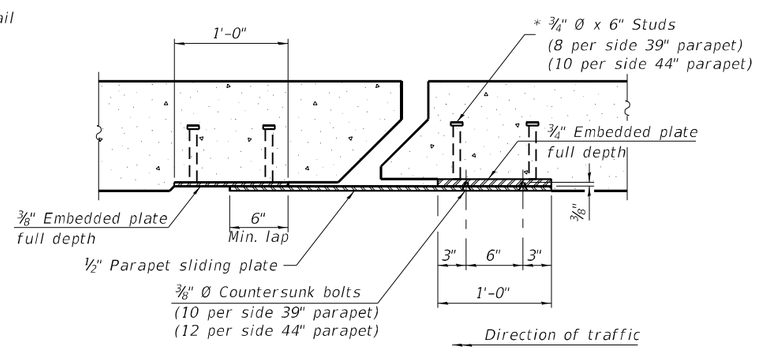


SECTION AT PARAPET

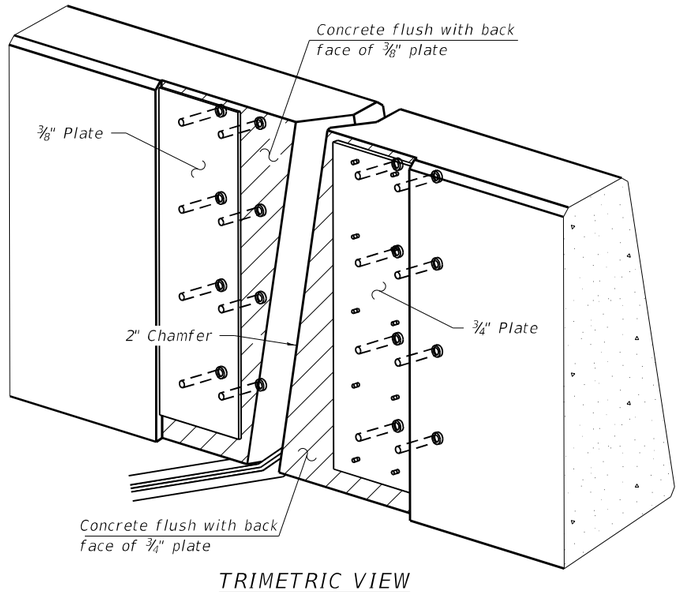
(Skews > 30° shown. Skews ≤ 30° similar except as shown in plan view.)



DETAIL A

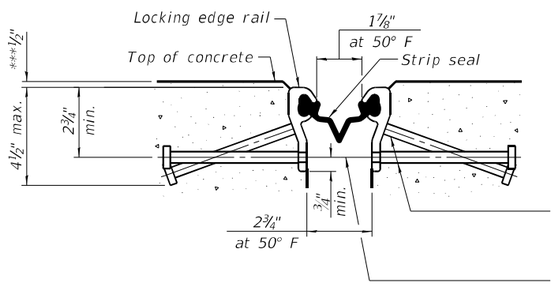


SECTION B-B



TRIMETRIC VIEW

(Showing embedded plates only)



SHOWING ROLLED RAIL JOINT

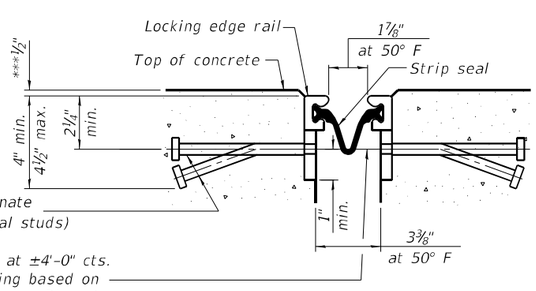
* ⅝" Ø x 6" studs @ 6" cts. (alternate angled/bent studs with horizontal studs)

⅜" ϕ threaded rods in 7/16" ϕ holes at ±4'-0" cts. for holding the proper joint opening based on the temperature during the deck pour. Place to miss studs. All rods shall be burned, or sawed off flush with the plates after concrete is set.

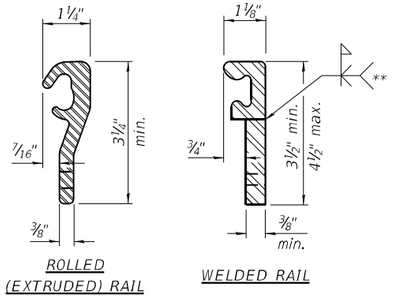
SECTION A-A

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

*** Prior to grinding



SHOWING WELDED RAIL JOINT

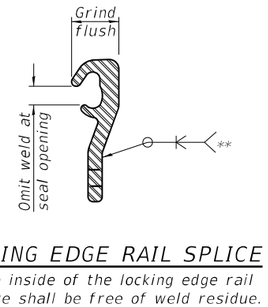


ROLLED (EXTRUDED) RAIL

WELDED RAIL

LOCKING EDGE RAILS

** 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.

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	168

Notes:

The strip seal shall be made continuous and shall have a minimum thickness of ¼". 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 4½" 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.

39" constant slope barrier shown, 44" constant slope barrier similar as noted.

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.

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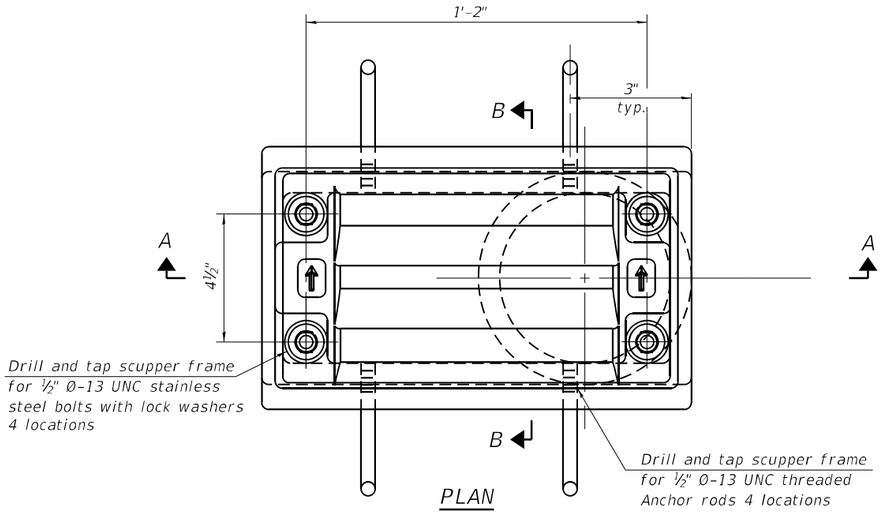
Civil Engineering Design

USER NAME = ABenz	DESIGNED - CMC	REVISED -
	CHECKED - ACB	REVISED -
PLOT SCALE =	DRAWN - CMC	REVISED -
PLOT DATE = 2/12/2024	CHECKED - ACB	REVISED -

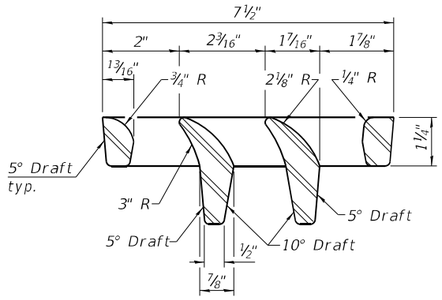
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MODIFIED PREFORMED JOINT STRIP SEAL
STRUCTURE NO. 006-0193 (SB) & 006-0194 (NB)
SHEET 34 OF 80 SHEETS

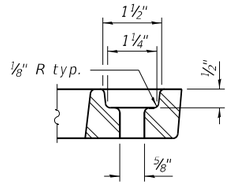
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
180	(06-2B-1)ES	BUREAU	327	174
		CONTRACT NO. 66K66		
	ILLINOIS	FED. AID PROJECT		



PLAN



VANE GRATE DETAIL



GRATE BOLT HOLE DETAIL

Notes:

All cast iron parts shall be gray iron conforming to the requirements of AASHTO M105, Class 35B and AASHTO M306.

Bolts, anchor rods, nuts and washers shall be according to ASTM A307 and shall be galvanized according to AASHTO M232. As an alternate stainless steel may be used.

Stainless steel hardware shall be according to Article 1006.29(d) of the Standard Specifications.

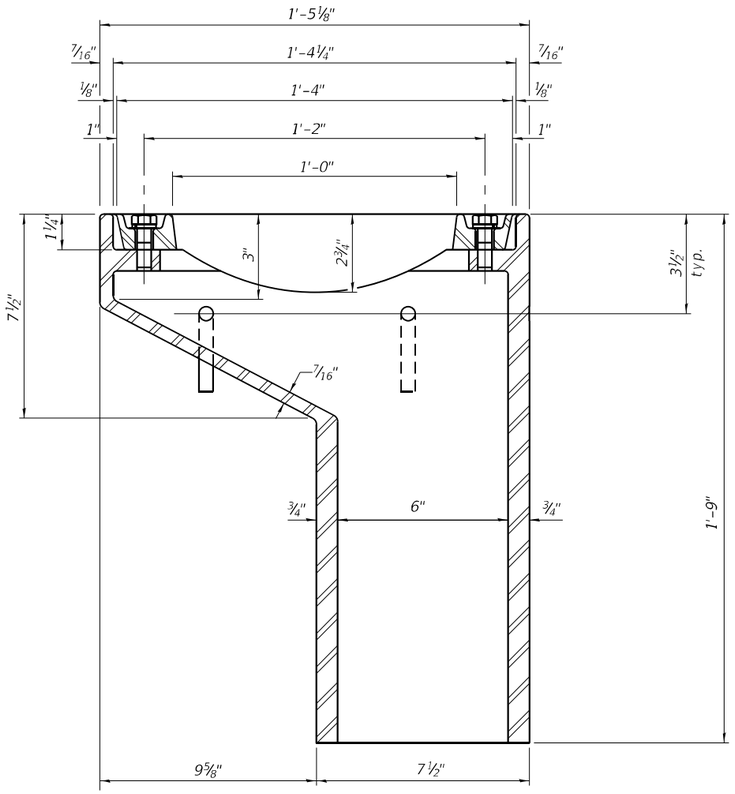
Structural steel weldments of equal sections and of the same configuration may be substituted for the cast iron scupper frames and downspouts; however, the scupper grates shall remain cast iron. Fillet or full penetration welds shall be used for the weldments. Details shall be submitted to the Engineer for approval.

Structural steel scupper frames and downspouts, when utilized, shall be galvanized according to AASHTO M111.

As an alternate, fiberglass may be used for downspouts according to ASTM D2996 with a short-time rupture strength hoop tensile stress of 30,000 psi min. in lieu of the cast iron or structural steel.

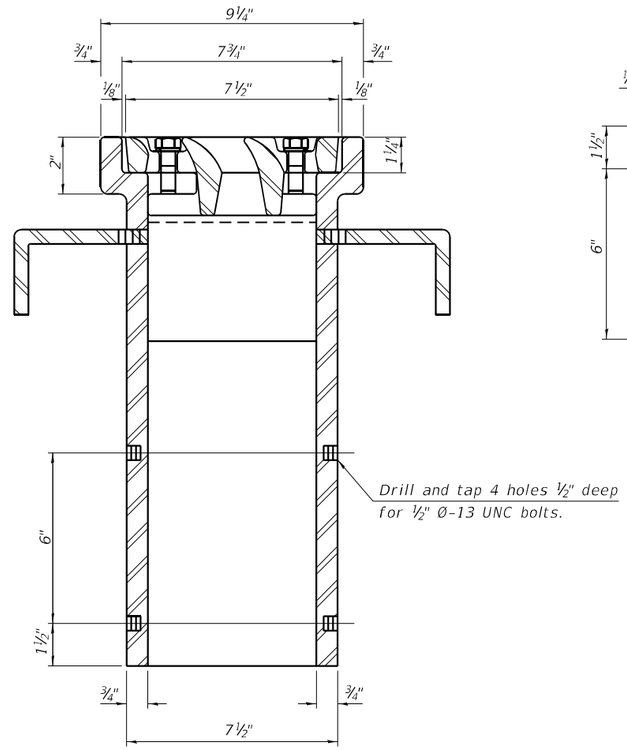
The Contractor shall take appropriate measures to assure that Protective Coat is not applied to the scupper.

Cost of the grate, frame, downspout, anchor rods, nuts and washers including complete installation of the scupper shall be paid for at the contract unit price for Drainage Scuppers, DS-11.

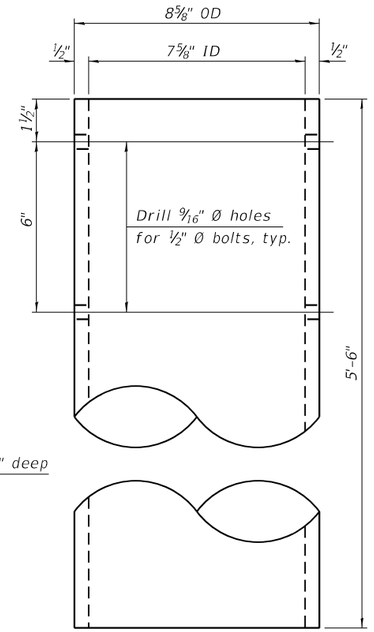


SECTION A-A

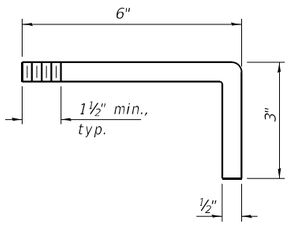
See sheet 23 & 28 of 80 for scupper location relative to parapet.



SECTION B-B



DOWNSPOUT



ANCHOR ROD DETAIL

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Drainage Scuppers, DS-11	Each	6

DS-11

2-1-2023

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Civil Engineering Design

USER NAME = ABenz	DESIGNED - CMC	REVISED -	
	CHECKED - ACB	REVISED -	
PLOT SCALE =	DRAWN - CMC	REVISED -	
PLOT DATE = 2/12/2024	CHECKED - ACB	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DRAINAGE SCUPPER, DS-11
STRUCTURE NO. 006-0193 (SB) & 006-0194 (NB)
SHEET 35 OF 80 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
180	(06-2B-1)ES	BUREAU	327	175
		CONTRACT NO. 66K66		
	ILLINOIS	FED. AID PROJECT		

MODEL: Default
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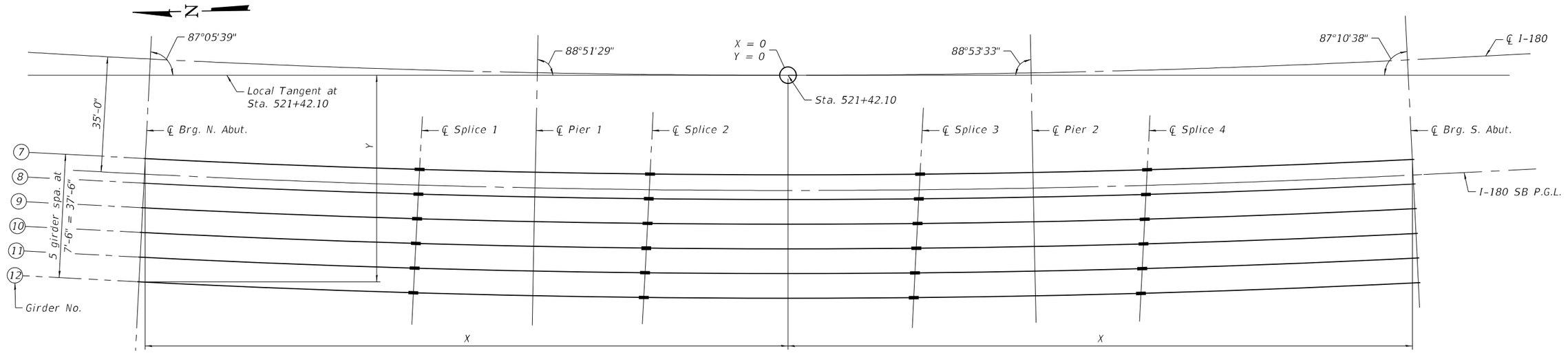
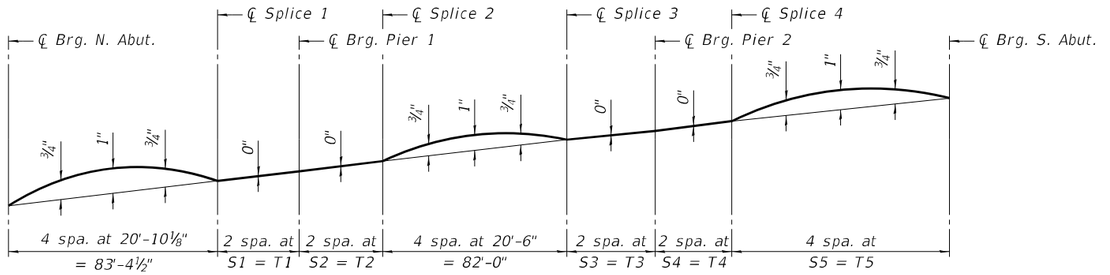


CURVED GIRDER LAYOUT

GIRDER LAYOUT DIMENSIONS

Girder	℄ Brg. N. Abut.		℄ Splice 1		℄ Pier 1		℄ Splice 2		℄ Splice 3		℄ Pier 2		℄ Splice 4		℄ Brg. S. Abut.	
	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y
7	195'-2 1/8"	25'-3 3/8"	111'-10 1/2"	28'-7 1/2"	76'-8 3/4"	29'-5 7/8"	41'-10 5/8"	30'-0 1/4"	40'-1 3/8"	30'-0 1/2"	74'-5 1/8"	29'-6 3/8"	109'-1 1/8"	28'-8 1/2"	189'-7 3/8"	25'-6 1/2"
8	195'-6 3/4"	32'-9 1/2"	112'-3"	36'-1 3/8"	76'-10 3/8"	36'-11 3/4"	42'-3 1/4"	37'-6 1/4"	39'-8 3/4"	37'-6 1/2"	74'-6 1/8"	37'-0 3/8"	108'-8 3/8"	36'-2 3/8"	189'-11 7/8"	33'-0 7/8"
9	195'-11 1/4"	40'-3 3/8"	112'-7 5/8"	43'-7 1/4"	77'-0 3/8"	44'-5 3/4"	42'-7 3/4"	45'-0 1/8"	39'-4 1/4"	45'-0 3/8"	74'-8 5/8"	44'-6 3/8"	108'-4"	43'-8 3/4"	190'-4 1/4"	40'-6 3/4"
10	196'-3 1/8"	47'-9 1/4"	113'-0 1/8"	51'-1 1/4"	77'-2 1/8"	51'-11 3/4"	43'-0 3/8"	52'-6 1/8"	38'-11 5/8"	52'-6 5/8"	74'-10 3/8"	52'-0 3/8"	107'-11 1/2"	51'-3"	190'-8 5/8"	48'-0 3/8"
11	196'-8 3/8"	55'-3 1/8"	113'-4 3/4"	58'-7 1/8"	77'-4"	59'-5 1/4"	43'-4 1/8"	60'-0 1/8"	38'-7 1/8"	60'-0 1/4"	75'-0"	59'-6 1/4"	107'-6 1/8"	58'-9 1/8"	191'-1 1/8"	55'-6 1/2"
12	197'-1"	62'-9"	113'-9 1/4"	66'-1"	77'-5 3/4"	66'-11 3/4"	43'-9 1/2"	67'-6"	38'-2 1/2"	67'-6 3/4"	75'-1 3/4"	67'-0 1/4"	107'-2 3/8"	66'-3 1/4"	191'-5 1/2"	63'-0 3/8"



CAMBER DIAGRAM

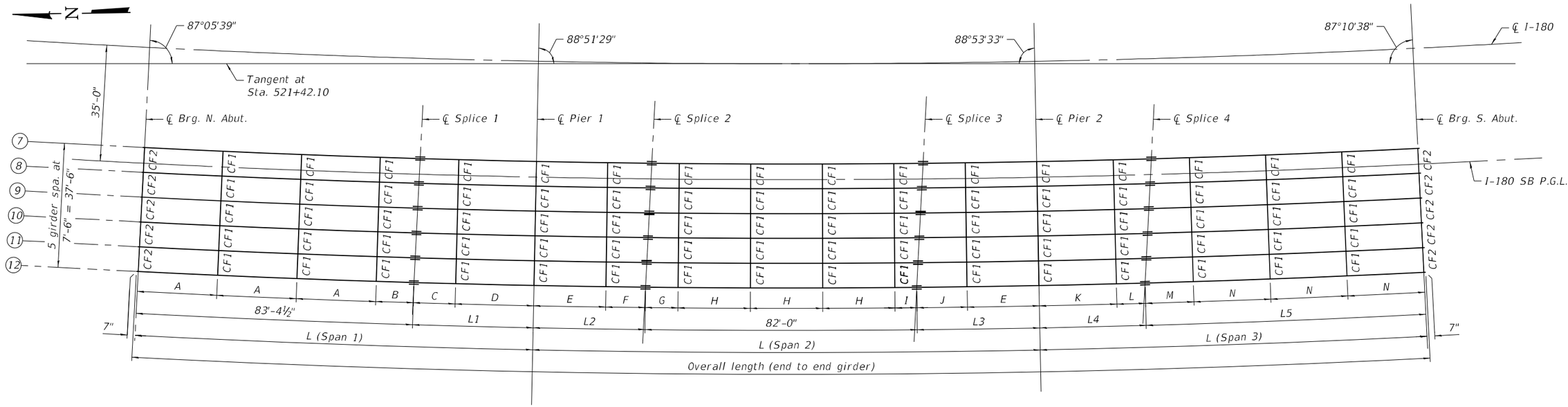
*TOP OF WEB ELEVATIONS

Location	Girder 7	Girder 8	Girder 9	Girder 10	Girder 11	Girder 12
℄ Brg at N. Abut	501.72	502.03	502.35	502.66	502.98	503.29
℄ Splice 1	504.08	504.39	504.70	505.01	505.32	505.63
℄ Brg at Pier 1	505.12	505.44	505.75	506.07	506.38	506.70
℄ Splice 2	506.16	506.46	506.77	507.08	507.38	507.69
℄ Splice 3	508.59	508.89	509.19	509.49	509.79	510.10
℄ Brg at Pier 2	509.59	509.90	510.22	510.53	510.85	511.16
℄ Splice 4	510.60	510.90	511.20	511.49	511.79	512.09
℄ Brg at S. Abut	513.06	513.38	513.69	514.01	514.32	514.64

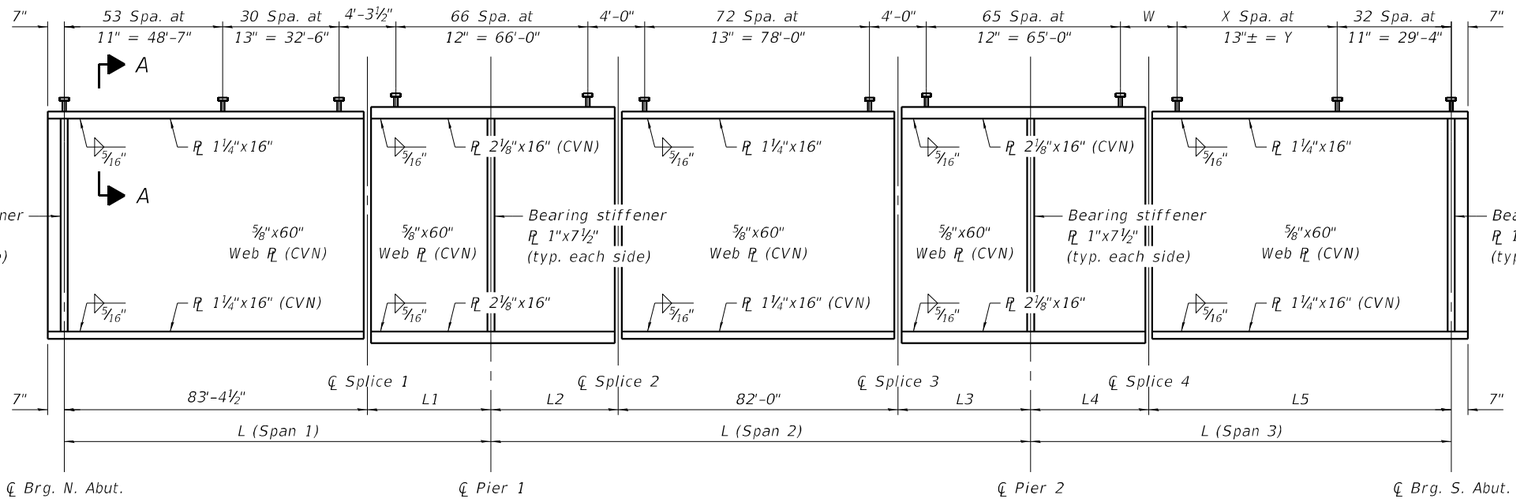
* For fabrication only

TABLE OF CAMBER DIMENSIONS

Girder	S1	T1	S2	T2	S3	T3	S4	T4	S5	T5
7	17'-6 7/8"	35'-1 3/4"	17'-5 1/2"	34'-10 1/4"	17'-1 7/8"	34'-3 3/4"	17'-4 1/8"	34'-8 1/4"	20'-1 3/4"	80'-6 7/8"
8	17'-8 1/4"	35'-4 1/2"	17'-3 3/4"	34'-7 1/2"	17'-5"	34'-10 1/8"	17'-1"	34'-1 7/8"	20'-4"	81'-3 7/8"
9	17'-9 5/8"	35'-7 1/4"	17'-2 3/8"	34'-4 3/4"	17'-8 1/8"	35'-4 3/8"	16'-9 7/8"	33'-7 5/8"	20'-6 1/4"	82'-0 7/8"
10	17'-11"	35'-10 1/8"	17'-1"	34'-1 7/8"	17'-11 3/8"	35'-10 5/8"	16'-6 5/8"	33'-1 3/8"	20'-8 1/2"	82'-9 7/8"
11	18'-0 3/8"	36'-0 7/8"	16'-11 5/8"	33'-11 1/8"	18'-2 1/2"	36'-5"	16'-3 1/2"	32'-7"	20'-10 3/4"	83'-6 7/8"
12	18'-1 1/4"	36'-3 5/8"	16'-10 1/4"	33'-8 3/8"	18'-5 5/8"	36'-11 1/4"	16'-0 3/8"	32'-0 3/4"	21'-1"	84'-3 7/8"

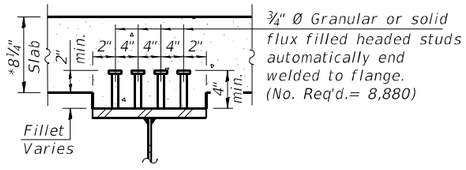


STEEL FRAMING PLAN



GIRDER ELEVATION

"CVN" shall conform to the Charpy-VNotch Impact Energy Requirement, Zone 2.



SECTION A-A

* Prior to grinding

GIRDER VARIABLES MEASURED ALONG ℄ GIRDER

Girder	Radius	Overall Length	L (Span 1)	L (Span 2)	L (Span 3)	L1	L2	L3	L4	L5	A	B	C	D	E	F	G	H	I	J	K	L	M	N	W	X	Y
7	3850'-3"	386'-1½"	118'-6¼"	151'-2"	115'-3⅛"	35'-1¾"	34'-10¼"	34'-3⅛"	34'-8⅛"	80'-7"	23'-9¼"	12'-0⅞"	11'-8⅜"	23'-5⅞"	21'-6⅜"	13'-3⅞"	8'-3⅝"	21'-7½"	8'-10"	12'-9½"	23'-0¼"	11'-7⅞"	11'-4½"	23'-0¼"	4'-6"	45	48'-9"
8	3857'-9"	386'-10½"	118'-9⅛"	151'-5½"	115'-5⅞"	35'-4⅝"	34'-7⅞"	34'-10⅛"	34'-1⅞"	81'-4"	23'-9¾"	11'-11⅛"	11'-10⅝"	23'-6"	21'-6⅞"	13'-0⅜"	8'-7⅜"	21'-8"	8'-4⅝"	13'-3¼"	23'-0⅞"	11'-1"	11'-11¾"	23'-0⅞"	4'-2"	46	49'-10"
9	3865'-3"	387'-7½"	118'-11⅞"	151'-9⅛"	115'-8½"	35'-7⅜"	34'-4⅝"	35'-4⅜"	33'-7⅝"	82'-1"	23'-10⅜"	11'-9½"	12'-0⅞"	23'-6½"	21'-7⅜"	12'-9⅜"	8'-11⅛"	21'-8½"	7'-11⅜"	13'-9⅛"	23'-1⅜"	10'-6⅛"	12'-7¼"	23'-1⅜"	4'-2"	47	50'-7"
10	3872'-9"	388'-4½"	119'-2⅜"	152'-0⅜"	115'-11¼"	35'-10⅛"	34'-1⅞"	35'-10¾"	33'-1¼"	82'-10"	23'-10⅞"	11'-7⅞"	12'-3⅛"	23'-7"	21'-7⅛"	12'-6"	9'-3"	21'-9"	7'-6⅛"	14'-2⅛"	23'-1⅞"	9'-11⅜"	13'-2⅜"	23'-1⅞"	4'-7"	47	50'-11"
11	3880'-3"	389'-1½"	119'-5⅜"	152'-4⅛"	116'-1⅞"	36'-0⅞"	33'-11⅛"	36'-5"	32'-7"	83'-7"	23'-11½"	11'-6⅛"	12'-5⅛"	23'-7⅝"	21'-8⅜"	12'-2¾"	9'-6¾"	21'-9½"	7'-0¼"	14'-8⅜"	23'-2½"	9'-4½"	13'-10"	23'-2½"	4'-3"	48	52'-0"
12	3887'-9"	389'-10½"	119'-8⅛"	152'-7¾"	116'-4⅜"	36'-3⅜"	33'-8⅜"	36'-11⅜"	32'-0⅝"	84'-4"	24'-0"	11'-4½"	12'-7½"	23'-8⅛"	21'-8⅛"	11'-11½"	9'-10½"	21'-10"	6'-7½"	15'-2½"	23'-4⅜"	8'-8"	14'-7"	23'-3"	4'-1¾"	49	52'-10⅛"

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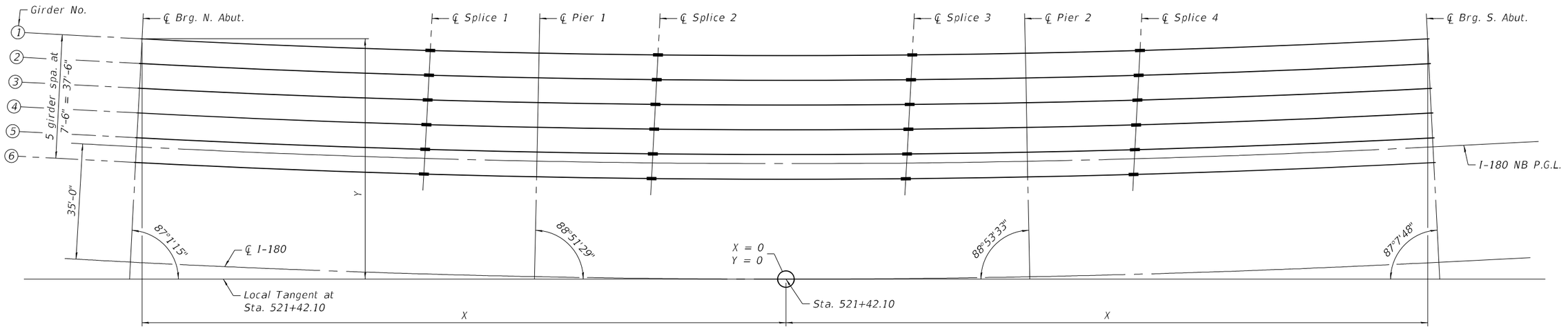
Civil Engineering Design

USER NAME = ABenz	DESIGNED - CMC	REVISED -
	CHECKED - ACB	REVISED -
PLOT SCALE =	DRAWN - CMC	REVISED -
PLOT DATE = 2/12/2024	CHECKED - ACB	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STEEL FRAMING PLAN
STRUCTURE NO. 006-0193 (SB)
SHEET 37 OF 80 SHEETS

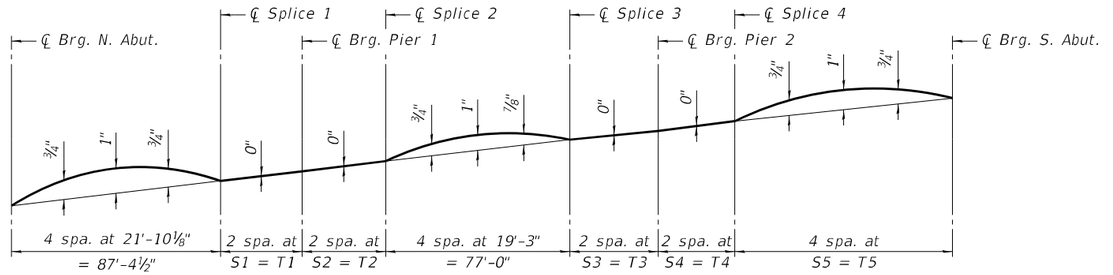
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
180	(06-2B-1)ES	BUREAU	327	177
		CONTRACT NO. 66K66		
		ILLINOIS	FED. AID PROJECT	



CURVED GIRDER LAYOUT

GIRDER LAYOUT DIMENSIONS

Girder	℄ Brg. N. Abut.		℄ Splice 1		℄ Pier 1		℄ Splice 2		℄ Splice 3		℄ Pier 2		℄ Splice 4		℄ Brg. S. Abut.	
	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y
1	195'-0 1/4"	72'-9 7/8"	107'-8 5/8"	69'-3 1/2"	74'-9 3/8"	68'-6"	38'-8 7/8"	67'-11 3/8"	38'-3 1/8"	67'-11 3/8"	72'-6 3/8"	68'-5 3/8"	107'-3"	69'-3 3/8"	194'-4 1/2"	72'-9 1/2"
2	195'-5"	65'-4"	108'-1 3/8"	61'-9 5/8"	74'-11 1/8"	61'-0"	39'-1 1/2"	60'-5 1/2"	37'-10 1/2"	60'-5 1/4"	72'-8 1/8"	60'-11 3/8"	106'-10 3/8"	61'-9 1/4"	194'-9"	65'-3 5/8"
3	195'-9 3/8"	57'-10 1/8"	108'-6"	54'-3 3/4"	75'-1"	53'-6"	39'-6 1/8"	52'-11 1/2"	37'-5 3/4"	52'-11 1/4"	72'-9 7/8"	53'-5 1/2"	106'-5 5/8"	54'-3"	195'-1 1/2"	57'-9 5/8"
4	196'-2 1/4"	50'-4 1/4"	108'-10 7/8"	46'-9 1/8"	75'-2 3/4"	46'-0"	39'-10 1/8"	45'-5 1/2"	37'-1 1/8"	45'-5 1/4"	72'-11 3/8"	45'-11 1/2"	106'-1"	46'-8 1/8"	195'-6"	50'-3 3/4"
5	196'-7"	42'-10 3/8"	109'-3 3/8"	39'-4"	75'-4 1/2"	38'-6"	40'-3 1/2"	37'-11 3/8"	36'-8 1/2"	37'-11 1/8"	73'-1 3/8"	38'-5 1/2"	105'-8 1/4"	39'-2 3/4"	195'-10 1/2"	42'-9 1/8"
6	196'-11 5/8"	35'-4 1/2"	109'-8"	31'-10"	75'-6 3/8"	31'-0"	40'-8 1/4"	30'-5 3/8"	36'-3 3/4"	30'-5 1/8"	73'-3 1/8"	30'-11 1/2"	105'-3 3/8"	31'-8 1/2"	196'-3"	35'-4"



CAMBER DIAGRAM

*TOP OF WEB ELEVATIONS

Location	Girder 1	Girder 2	Girder 3	Girder 4	Girder 5	Girder 6
℄ Brg at N. Abut	501.16	501.48	501.79	502.11	502.42	502.74
℄ Splice 1	503.70	504.01	504.32	504.63	504.94	505.25
℄ Brg at Pier 1	504.69	505.01	505.32	505.64	505.95	506.27
℄ Splice 2	505.76	506.07	506.37	506.68	506.98	507.29
℄ Splice 3	508.00	508.30	508.60	508.90	509.20	509.51
℄ Brg at Pier 2	508.97	509.29	509.60	509.92	510.23	510.55
℄ Splice 4	509.94	510.24	510.61	510.91	511.21	511.51
℄ Brg at S. Abut	512.40	512.71	513.03	513.34	513.66	513.97

* For fabrication only

TABLE OF CAMBER DIMENSIONS

Girder	S1	T1	S2	T2	S3	T3	S4	T4	S5	T5
1	16'-5 3/4"	32'-11 3/8"	18'-0 1/4"	36'-0 3/8"	17'-1 5/8"	34'-3 1/4"	17'-4 7/8"	34'-8 3/4"	21'-9 1/4"	87'-2 3/8"
2	16'-7 1/8"	33'-2 1/4"	17'-10 7/8"	35'-9 3/4"	17'-4 7/8"	34'-9 5/8"	17'-1 1/8"	34'-2 5/8"	21'-11 5/8"	87'-11 1/2"
3	16'-8 5/8"	33'-5 1/8"	17'-9 3/8"	35'-6 7/8"	17'-8"	35'-4 1/8"	16'-10"	33'-7 7/8"	22'-1 7/8"	88'-8 3/4"
4	16'-10"	33'-8"	17'-8"	35'-4"	17'-11 1/4"	35'-10 1/2"	16'-6 3/4"	33'-1 1/2"	22'-4 1/4"	89'-5 7/8"
5	16'-11 1/2"	33'-11"	17'-6 1/2"	35'-1"	18'-2 1/2"	36'-4 7/8"	16'-3 1/2"	32'-7 1/8"	22'-6 5/8"	90'-3 1/8"
6	17'-0 7/8"	34'-1 7/8"	17'-5 1/8"	34'-10 1/8"	18'-5 7/8"	36'-11 3/8"	16'-0 3/8"	32'-0 5/8"	22'-8 7/8"	91'-0 1/4"

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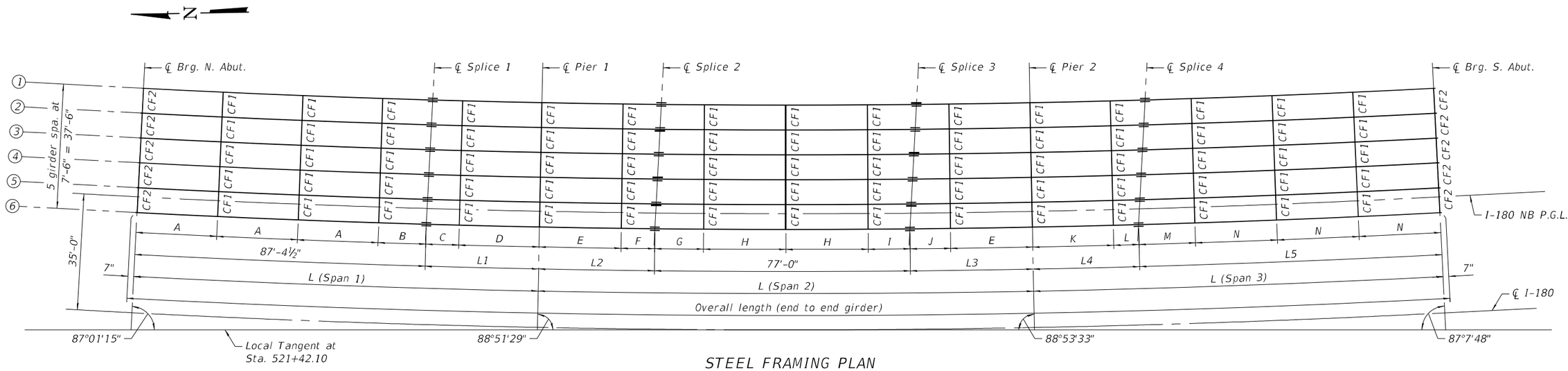
PLOT DATE = 2/12/2024	CHECKED - ACB	REVISED -	

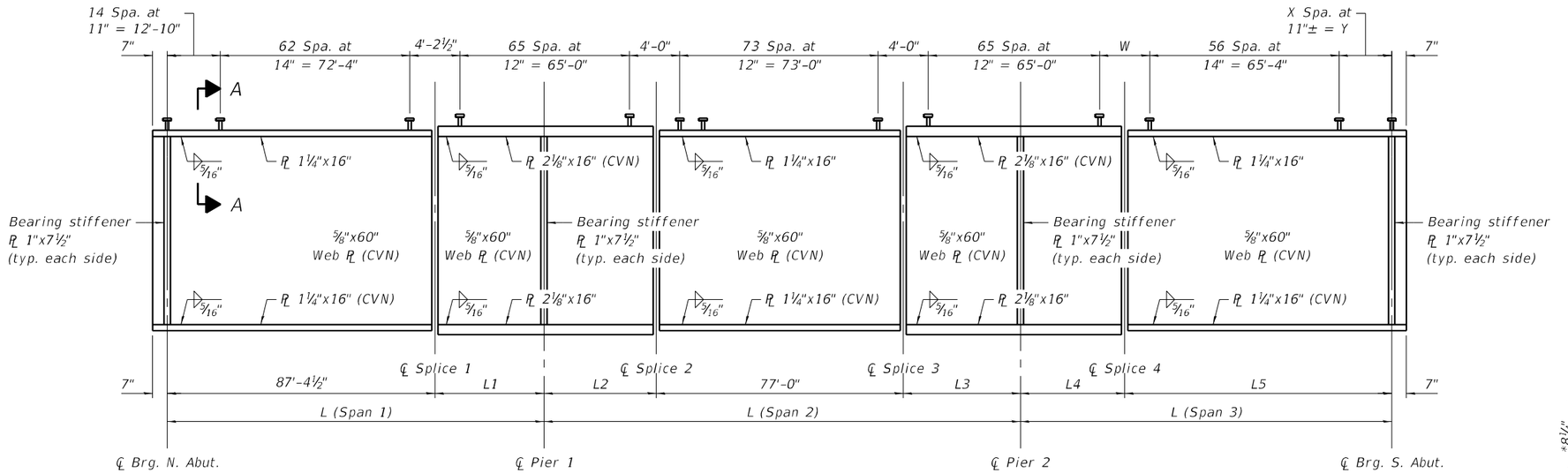
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STEEL FRAMING PLAN
STRUCTURE NO. 006-0194 (NB)
SHEET 38 OF 80 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
180	(06-2B-1)ES	BUREAU	327	178
		CONTRACT NO. 66K66		
	ILLINOIS	FED. AID PROJECT		

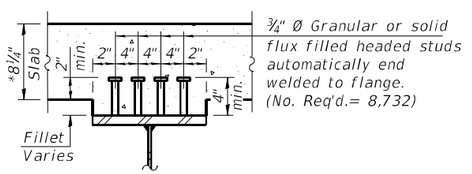


STEEL FRAMING PLAN



GIRDER ELEVATION

"CVN" shall conform to the Charpy-VNotch Impact Energy Requirement, Zone 2.



SECTION A-A

** Prior to grinding*

GIRDER VARIABLES MEASURED ALONG ℄ GIRDER

Girder	Radius	Overall Length	L (Span 1)	L (Span 2)	L (Span 3)	L1	L2	L3	L4	L5	A	B	C	D	E	F	G	H	I	J	K	L	M	N	W	X	Y
1	3752'-3"	390'-8⅛"	120'-3⅞"	147'-3⅞"	121'-11⅛"	32'-11⅞"	36'-0⅛"	34'-3¼"	34'-8¾"	87'-2⅝"	24'-1⅛"	15'-1⅛"	9'-0"	23'-11½"	24'-5⅞"	11'-6¾"	13'-0¼"	24'-7"	14'-9⅝"	9'-9⅜"	24'-2¾"	10'-6"	13'-11⅛"	24'-5⅛"	3'-11½"	22	19'-10¾"
2	3759'-9"	391'-6"	120'-6¾"	147'-7⅜"	122'-1⅞"	33'-2¼"	35'-9¾"	34'-9⅜"	34'-2⅜"	87'-11½"	24'-1¾"	14'-11⅜"	9'-2¼"	24'-0"	24'-6⅜"	11'-3¼"	13'-4⅜"	24'-7⅜"	14'-4⅜"	10'-3¼"	24'-3¼"	9'-11⅛"	14'-6½"	24'-5⅞"	3'-11½"	23	20'-8"
3	3767'-3"	392'-3¼"	120'-9⅜"	147'-10⅛"	122'-4⅜"	33'-5⅛"	35'-6⅞"	35'-4⅛"	33'-7⅞"	88'-8¾"	24'-2¼"	14'-9¾"	9'-4⅝"	24'-0⅝"	24'-7"	10'-11⅞"	13'-8⅜"	24'-8¼"	13'-11⅛"	10'-9⅛"	24'-3⅝"	9'-4¼"	15'-2"	24'-6¼"	4'-3⅜"	23	21'-1"
4	3774'-9"	393'-0⅜"	121'-0½"	148'-2½"	122'-7⅜"	33'-8"	35'-4"	35'-10½"	33'-1½"	89'-5⅛"	24'-2⅛"	14'-8"	9'-6⅛"	24'-1⅛"	24'-7⅝"	10'-8⅜"	14'-0½"	24'-8⅛"	13'-5⅛"	11'-2⅛"	24'-4⅛"	8'-9⅜"	15'-9⅜"	24'-6⅛"	4'-1⅛"	24	22'-0"
5	3782'-3"	393'-9⅜"	121'-3½"	148'-6"	122'-10⅛"	33'-11"	35'-1"	36'-4⅞"	32'-7⅛"	90'-3⅛"	24'-3⅜"	14'-6¼"	9'-9⅛"	24'-1¾"	24'-8⅛"	10'-4⅞"	14'-4½"	24'-9⅜"	13'-0⅝"	11'-8¾"	24'-4½"	8'-2⅝"	16'-4⅞"	24'-7⅜"	4'-0⅛"	25	22'-11"
6	3789'-9"	394'-6¾"	121'-6⅜"	148'-9½"	123'-0⅛"	34'-1⅞"	34'-10⅛"	36'-11⅜"	32'-0⅞"	91'-0¼"	24'-4"	14'-4½"	9'-11½"	24'-2⅜"	24'-8¾"	10'-1⅜"	14'-8⅝"	24'-10"	12'-7⅜"	12'-2⅝"	24'-4⅞"	7'-7¾"	17'-0¼"	24'-8"	3'-11½"	26	23'-8⅝"

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PLOT DATE = 2/12/2024	CHECKED - ACB	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STEEL FRAMING PLAN
STRUCTURE NO. 006-0194 (NB)
SHEET 39 OF 80 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
180	(06-2B-1)ES	BUREAU	327	179
		CONTRACT NO. 66K66		
	ILLINOIS FED. AID PROJECT			

MODEL: Default
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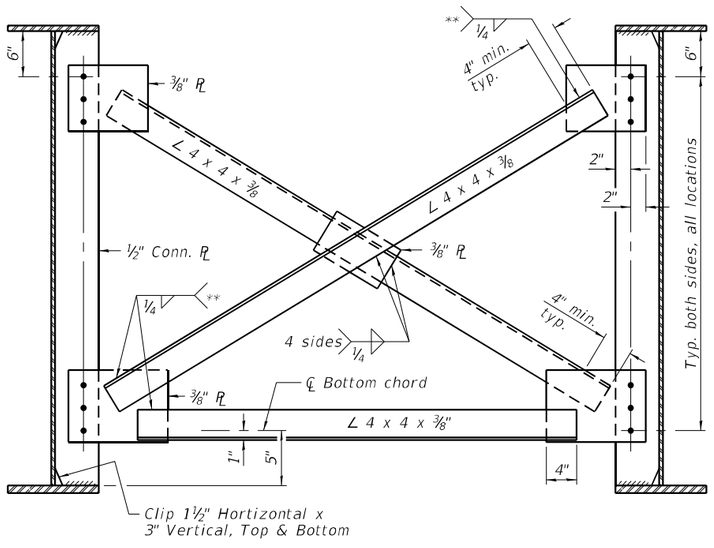
2/12/2024 10:36:48 AM



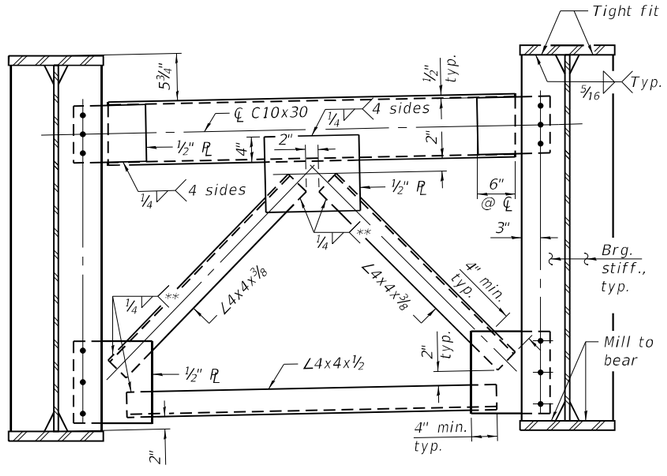
** Fillet weld angles along 3 sides on one face of gusset plate.

INTERIOR CROSS-FRAME, CF1

(155 Required)

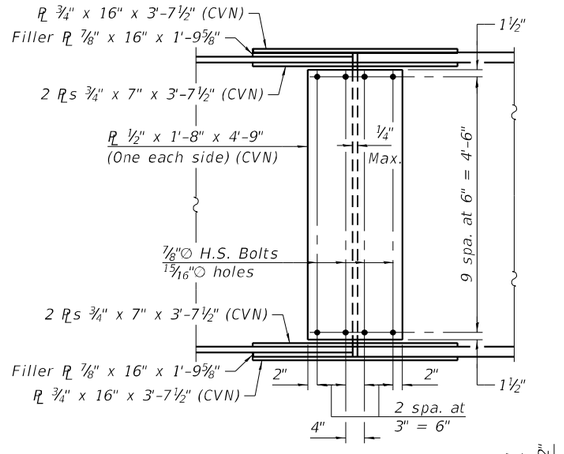
Notes:

All bolts for cross frames shall be ¾" Ø bolts with $^{15}/_{16}$" Ø holes.
Two hardened washers required for each set of oversized holes.



END CROSS-FRAME, CF2

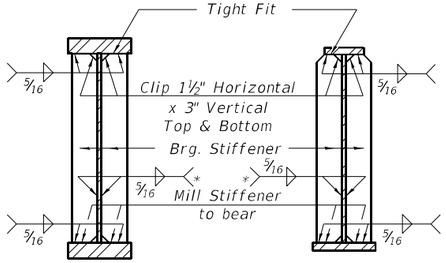
(20 Required)



FIELD SPICE DETAIL

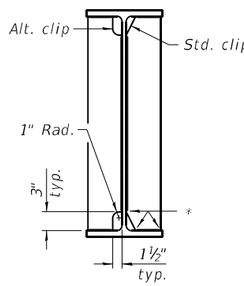
"CVN" shall conform to the Charpy-VNotch Impact Energy Requirement, Zone 2.

Note:
All cross frames between girders shall be installed with erection pins and bolts in accordance with the erection plan approved by the Engineer. Individual cross frames at supports may be temporarily disconnected to install bearing anchor bolts.



SECTION AT PIER

SECTION AT ABUTMENT



WELD LIMITS AND CLIP DETAILS

* Stop welds ¼" (±⅛") from edges as shown. Typical.

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Civil Engineering Design

USER NAME = ABenz	DESIGNED - CMC	REVISED -
	CHECKED - ACB	REVISED -
PLOT SCALE =	DRAWN - CMC	REVISED -
PLOT DATE = 2/12/2024	CHECKED - ACB	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STRUCTURAL STEEL DETAILS
STRUCTURE NO. 006–0193 (SB) & 006–0194 (NB)
SHEET 40 OF 80 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
180	(06-2B-1)ES	BUREAU	327	180
		CONTRACT NO. 66K66		
		ILLINOIS	FED. AID PROJECT	

NORTHBOUND

INTERIOR GIRDER MOMENT TABLE						
		0.4 Sp. 1	Pier 1	0.5 Sp. 2	Pier 2	0.6 Sp. 3
I_s	(in^4)	48,771	76,887	48,771	76,887	48,771
$I_c(n)$	(in^4)	105,630	146,845	105,630	146,845	105,630
$I_c(3n)$	(in^4)	78,937	111,238	78,937	111,238	78,937
$I_c(cr)$	(in^4)	———	86,740	———	86,740	———
S_s	(in^3)	1,560.7	2,393.4	1,560.7	2,393.4	1,560.7
$S_c(n)$	(in^3)	2,053.4	2,938.6	2,053.4	2,938.6	2,053.4
$S_c(3n)$	(in^3)	1,879.5	2,719.1	1,879.5	2,719.1	1,879.5
$S_c(cr)$	(in^3)	———	2,502.6	———	2,502.6	———
S_x	(in^3)	1947.0	2,735.7	1,972.8	2,732.2	1,943.7
DC1	(k/')	1.078	1.188	1.078	1.188	1.078
M_{DC1}	('k)	962.3	2079.2	730.7	2114.1	992.1
DC2	(k/')	0.175	0.175	0.175	0.175	0.175
M_{DC2}	('k)	167.3	354.0	125.3	354.0	172.8
DW	(k/')	0.333	0.333	0.333	0.333	0.333
M_{DW}	('k)	318.7	674.2	238.6	674.2	329.1
LLDF		0.59	0.59	0.56	0.59	0.59
M_{L+IM}	('k)	1,523.3	2,201.4	1,580.7	2,212.6	1,516.7
f_f (Strength I)	(ksi)	0.0	0.0	0.0	0.0	0.0
$M_u + \frac{1}{3} f_f S_x$	('k)	4,556	7,905	4,194	7,994	4,604
$\varnothing_f M_n$	('k)	9,114	11,363	9,114	11,363	9,114
f_s DC1	(ksi)	7.4	10.4	5.6	10.6	7.6
f_s DC2	(ksi)	1.1	1.7	0.8	1.7	1.1
f_s DW	(ksi)	2.0	3.2	1.5	3.3	2.1
f_s (L+IM)	(ksi)	8.9	10.6	9.2	10.6	8.9
f_f (Service II)	(ksi)	0.0	0.0	0.0	0.0	0.0
$f_s + f_f/2$ (Service II)	(ksi)	22.1	29.1	19.9	29.4	22.4
Service II Resistance	(ksi)	47.5	47.5	47.5	47.5	47.5
$f_s + f_f/3$ (Strength I)	(ksi)	29.2	38.5	26.5	38.9	29.6
$\varnothing_f F_n$	(ksi)	———	———	———	———	———
V_f	(k)	72.4	79.5	60.1	80.0	70.4

GIRDER REACTION TABLE					
		N. Abut.	Pier 1	Pier 2	S. Abut.
LLDF		0.78	0.78	0.78	0.78
OCF		———	———	———	———
R_{DC1}	(k)	45.3	158.6	159.9	46.0
R_{DC2}	(k)	7.8	26.5	26.7	7.9
R_{DW}	(k)	14.9	50.4	50.9	15.1
R_L	(k)	77.3	162.3	162.8	78.6
R_{Im}	(k)	16.4	29.3	29.4	16.7
R_{Total} (Strength I)(Impact)	(k)	252.8	642.4	645.9	257.0
R_{Total} (Strength I)(No Impact)	(k)	224.0	591.1	594.5	227.7

SOUTHBOUND

INTERIOR GIRDER MOMENT TABLE						
		0.4 Sp. 1	Pier 1	0.5 Sp. 2	Pier 2	0.6 Sp. 3
I_s	(in^4)	48,771	76,887	48,771	76,887	48,771
$I_c(n)$	(in^4)	105,630	146,854	105,630	146,854	105,630
$I_c(3n)$	(in^4)	75,908	111,238	75,908	111,238	75,908
$I_c(cr)$	(in^4)	———	86,740	———	86,740	———
S_s	(in^3)	1,560.7	2,393.4	1,560.7	2,393.4	1,560.7
$S_c(n)$	(in^3)	2,053.4	2,938.6	2,053.4	2,938.6	2,053.4
$S_c(3n)$	(in^3)	1,879.5	2,719.1	1,879.5	2,719.1	1,879.5
$S_c(cr)$	(in^3)	———	2,502.6	———	2,502.6	———
S_x	(in^3)	1,956.1	2,728.3	1,959.1	2,735.3	1,963.6
DC1	(k/')	1.078	1.188	1.078	1.188	1.078
M_{DC1}	('k)	880.5	2,155.6	853.9	2,083.2	812.3
DC2	(k/')	0.175	0.175	0.175	0.175	0.175
M_{DC2}	('k)	152.9	366.8	146.9	354.7	141.5
DW	(k/')	0.333	0.333	0.333	0.333	0.333
M_{DW}	('k)	291.2	698.8	279.8	675.7	269.5
LLDF		0.60	0.60	0.56	0.60	0.60
M_{L+IM}	('k)	1,739.6	2,233.4	1,619.7	2,206.6	1,682.1
f_f (Strength I)	(ksi)	0.0	0.0	0.0	0.0	0.0
$M_u + \frac{1}{3} f_f S_x$	('k)	4,773	8,110	4,505	7,923	4,540
$\varnothing_f M_n$	('k)	9,114	11,363	9,114	11,363	9,114
f_s DC1	(ksi)	6.8	10.8	6.6	10.4	6.2
f_s DC2	(ksi)	1.0	1.8	0.9	1.7	0.9
f_s DW	(ksi)	1.9	3.4	1.8	3.2	1.7
f_s (L+IM)	(ksi)	10.2	10.7	9.5	10.6	9.8
f_f (Service II)	(ksi)	0.0	0.0	0.0	0.0	0.0
$f_s + f_f/2$ (Service II)	(ksi)	22.8	29.8	21.6	29.1	21.6
Service II Resistance	(ksi)	47.5	47.5	47.5	47.5	47.5
$f_s + f_f/3$ (Strength I)	(ksi)	30.3	39.5	28.6	38.6	28.7
$\varnothing_f F_n$	(ksi)	———	———	———	———	———
V_f	(k)	71.8	72.8	73.9	79.7	73.9

GIRDER REACTION TABLE					
		N. Abut.	Pier 1	Pier 2	S. Abut.
LLDF		0.78	0.78	0.78	0.78
OCF		———	———	———	———
R_{DC1}	(k)	43.6	161.6	158.8	42.0
R_{DC2}	(k)	7.5	26.9	26.5	7.2
R_{DW}	(k)	14.3	51.3	50.4	13.8
R_L	(k)	77.0	162.6	161.5	77.1
R_{Im}	(k)	16.5	29.3	29.3	16.6
R_{Total} (Strength I)(Impact)	(k)	248.8	648.5	641.1	246.1
R_{Total} (Strength I)(No Impact)	(k)	220.0	597.2	589.9	217.0

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_s

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

$f_s + f_f/2$ (Service II): Sum of stresses as computed below (ksi).
f_s DC1 + f_s DC2 + f_s DW + 1.3 f_s (f_L + IM) + $f_f/2$

Service II Resistance: Composite ($0.95R_hF_{yf}$) or noncomposite ($0.80R_hF_{yf}$) stress capacity according to Article 6.10.4.2 (ksi).

$f_s + f_f/3$ (Strength I): Sum of stresses as computed below on non-compact sections (ksi).
1.25 (f_s DC1 + f_s DC2) + 1.5 f_s DW + 1.75 f_s (f_L + IM) + $f_f/3$

$\phi_f F_n$: Factored nominal flexural resistance of the section as specified in Article 6.10.7.2 or 6.10.8 as applicable (ksi).

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

OCF: Obtuse Correction Factor according to Article 4.6.2.2.3c or as further simplified by IDOT provisions.

R_{DC1}: Un-factored reaction due to non-composite dead load (kip).

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

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

R_L : Un-factored live load reaction (kip).

R_{IM} : Un-factored dynamic load allowance (impact) (kip).

R_{Total} (Strength I)(Impact): Strength I load combination of factored design reactions (kip).
1.25 ($R_{DC1} + R_{DC2}$) + 1.5R_{DW} + 1.75 ($R_L + R_{IM}$)

R_{Total} (Strength I)(No Impact): Strength I load combination of factored design reactions, not including dynamic load allowance (Impact) (kip).
1.25 ($R_{DC1} + R_{DC2}$) + 1.5R_{DW} + 1.75 (R_L)

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_x : Section modulus about the major axis of a 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.).

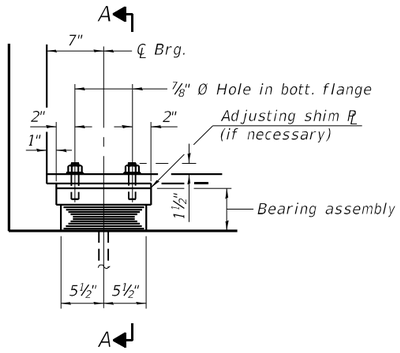
LLDF: Live Load Distribution Factor for moment and shear computed according to Article 4.6.2.2 and further IDOT provisions.

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

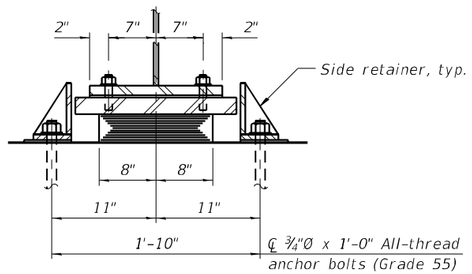
M_u : Strength I load combination of factored design moments (kip-ft.).
1.25 ($M_{DC1} + M_{DC2}$) + 1.5 M_{DW} + 1.75 M_{L+IM}

f_f : Factored calculated flange lateral bending stress as calculated using Article 6.10.1.6 and as further simplified by IDOT provisions (ksi).

$\phi_f M_n$: Factored nominal flexural resistance of the section determined as specified in Article 6.10.7.1 or A6 as applicable (kip-ft.).

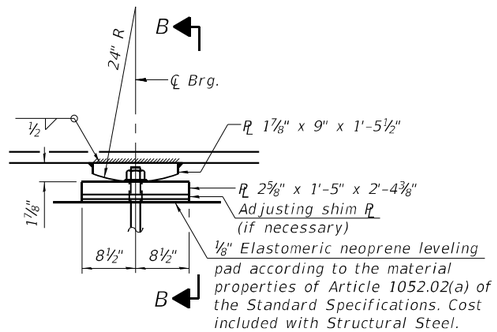


ELEVATION AT ABUT.

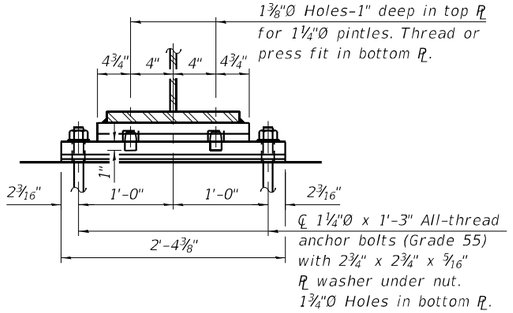


SECTION A-A

TYPE I ELASTOMERIC EXP. BRG.

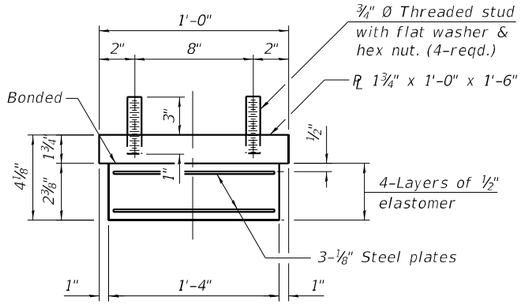


ELEVATION AT PIER



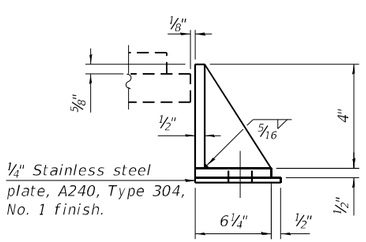
SECTION B-B

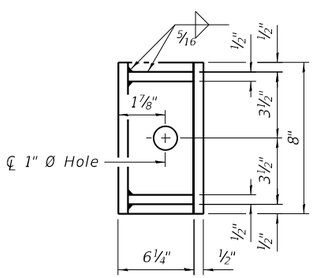
FIXED BEARING



BEARING ASSEMBLY

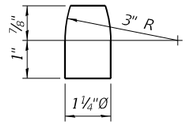
Note:
Shim plates shall not be placed under bearing assembly.





SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.



PINTLE

Notes:
Side retainers and stainless steel plates shall be included in the cost of Elastomeric Bearing Assembly, Type I.
Anchor bolts and side retainers at all supports shall be installed as each member is erected unless an equivalent temporary means of lateral restraint is used.
The structural steel plates of the Bearing Assembly shall conform to the requirements of AASHTO M270 Grade 50W.
The structural steel plates and pintles shall conform to the requirements of AASHTO M270 Grade 50W.
Two ⅛ in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly, Type I	Each	24
Anchor Bolts, 3/4"	Each	48
Anchor Bolts, 1 1/4"	Each	48

I-2E-1

6-15-2019

EFK•Moen
Civil Engineering Design

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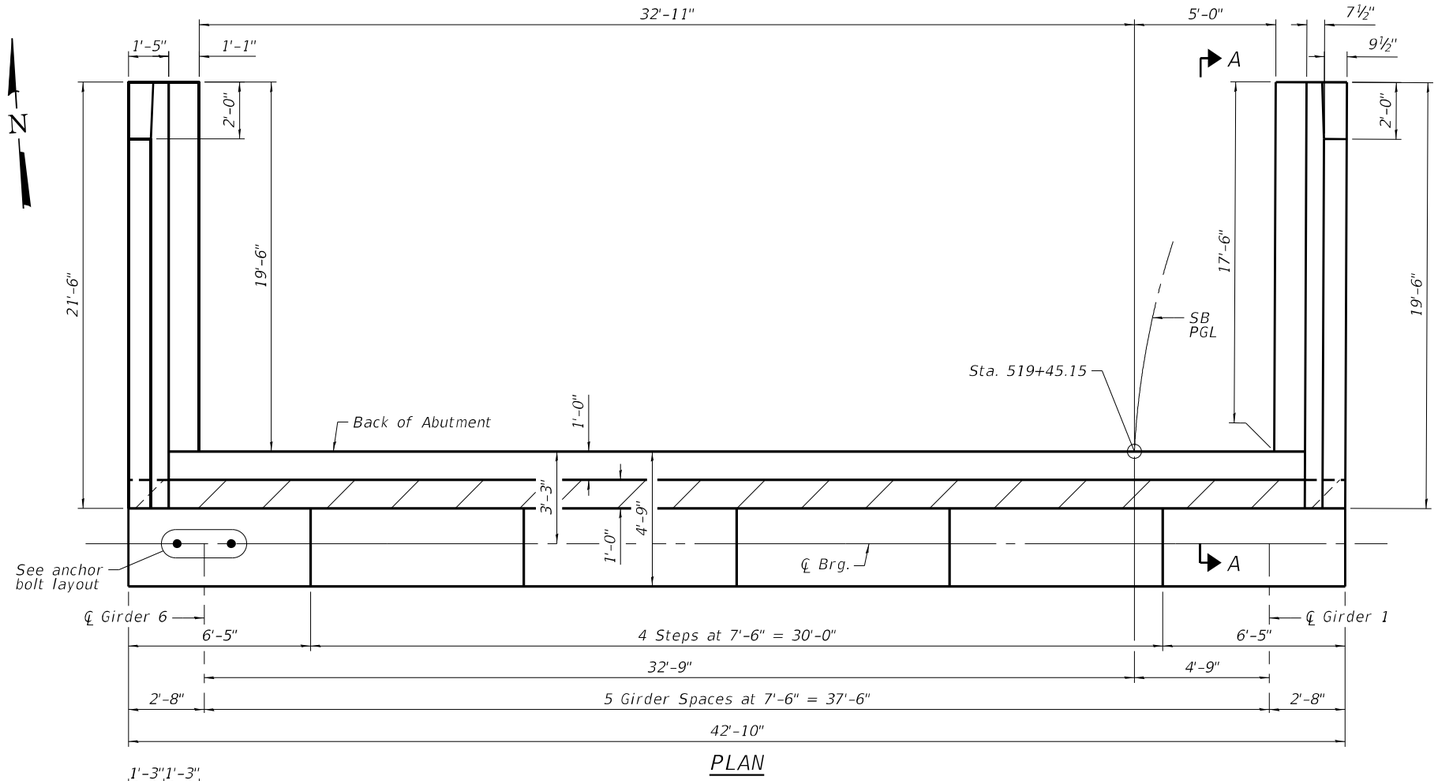
PLOT DATE = 2/12/2024	CHECKED - ACB	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

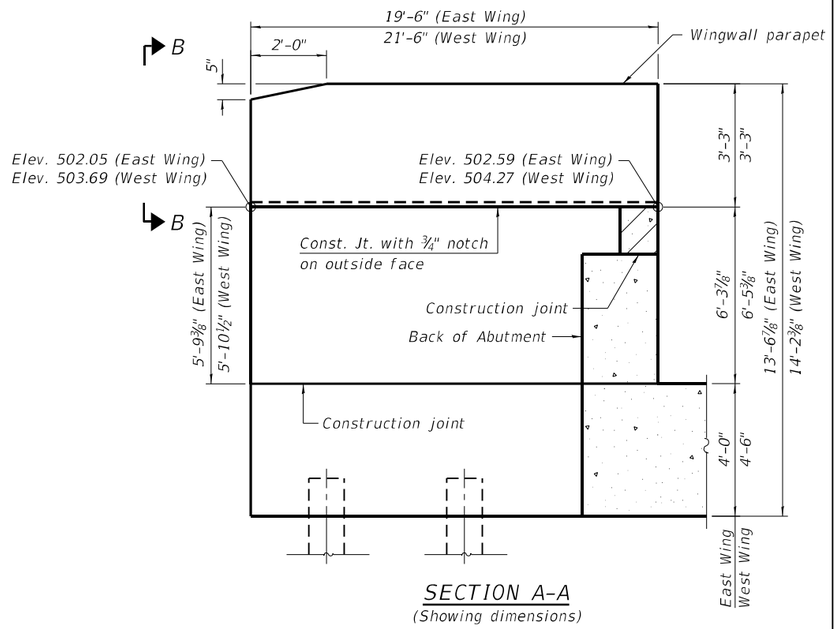
BEARING DETAILS
STRUCTURE NO. 006-0193 (SB) & 006-0194 (NB)
SHEET 42 OF 80 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
180	(06-2B-1)ES	BUREAU	327	182
		CONTRACT NO. 66K66		
	ILLINOIS FED. AID PROJECT			

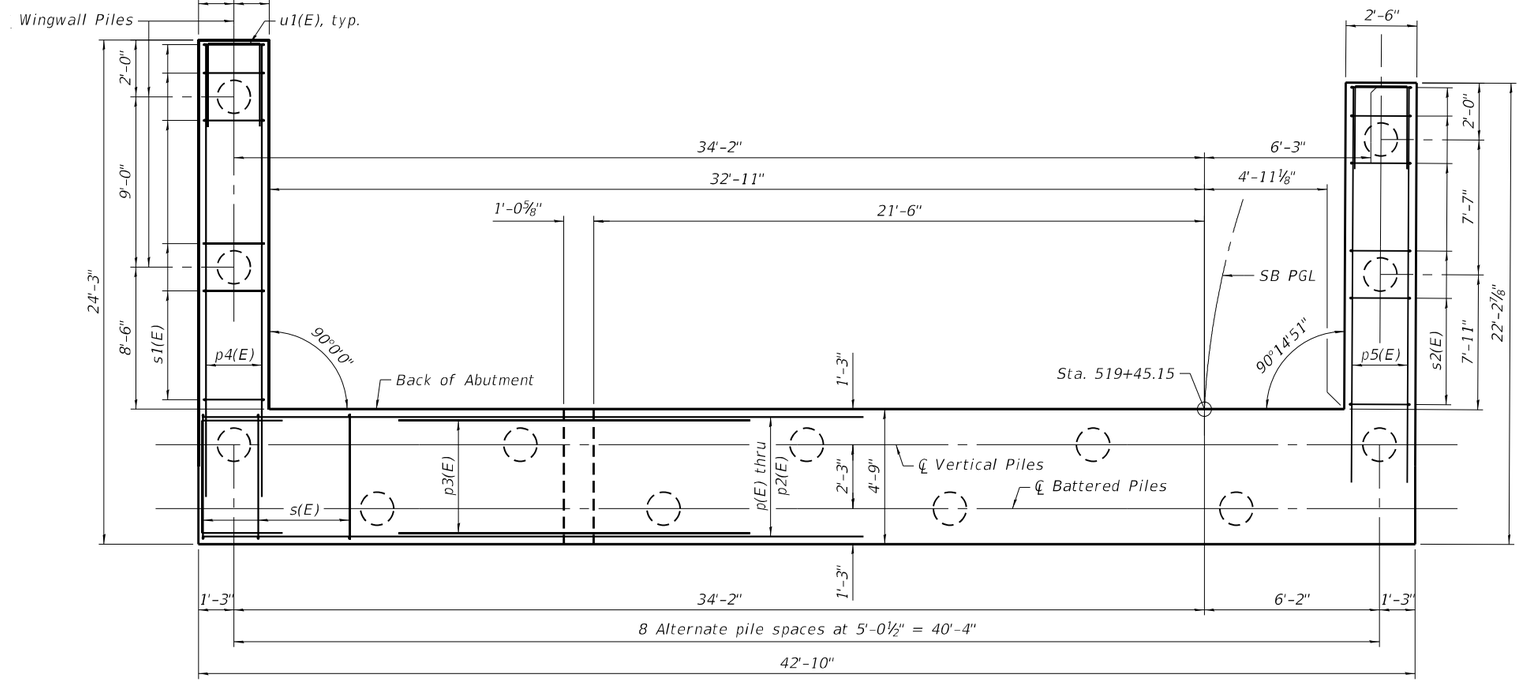
MODEL: Default
FILE NAME: \\SERVER18\Projects\SS4\22057.08 IDOT D3 PTB 204-028 WO 08 I-180 over Bureau Creek\DGN\Bridge\FinalPlotsheets\006-0193&0194-66K66-042-Bearings.dgn
2/12/2024 10:37:01 AM



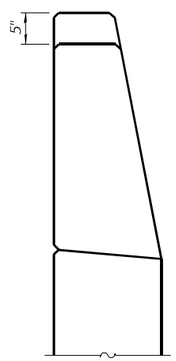
PLAN



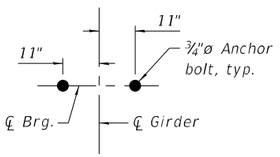
SECTION A-A
(Showing dimensions)



PILE CAP PLAN



VIEW B-B



ANCHOR BOLT LAYOUT

AS-39CS-0 12-30-2021

EFK•Moen Civil Engineering Design

USER NAME = ABenz	DESIGNED - CMC	REVISED -
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PLOT DATE = 2/12/2024	CHECKED - ACB	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NORTH ABUTMENT
STRUCTURE NO. 006-0193 (SB)
SHEET 43 OF 80 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
180	(06-2B-1)ES	BUREAU	327	183
		CONTRACT NO. 66K66		
	ILLINOIS	FED. AID PROJECT		

MODEL: Default
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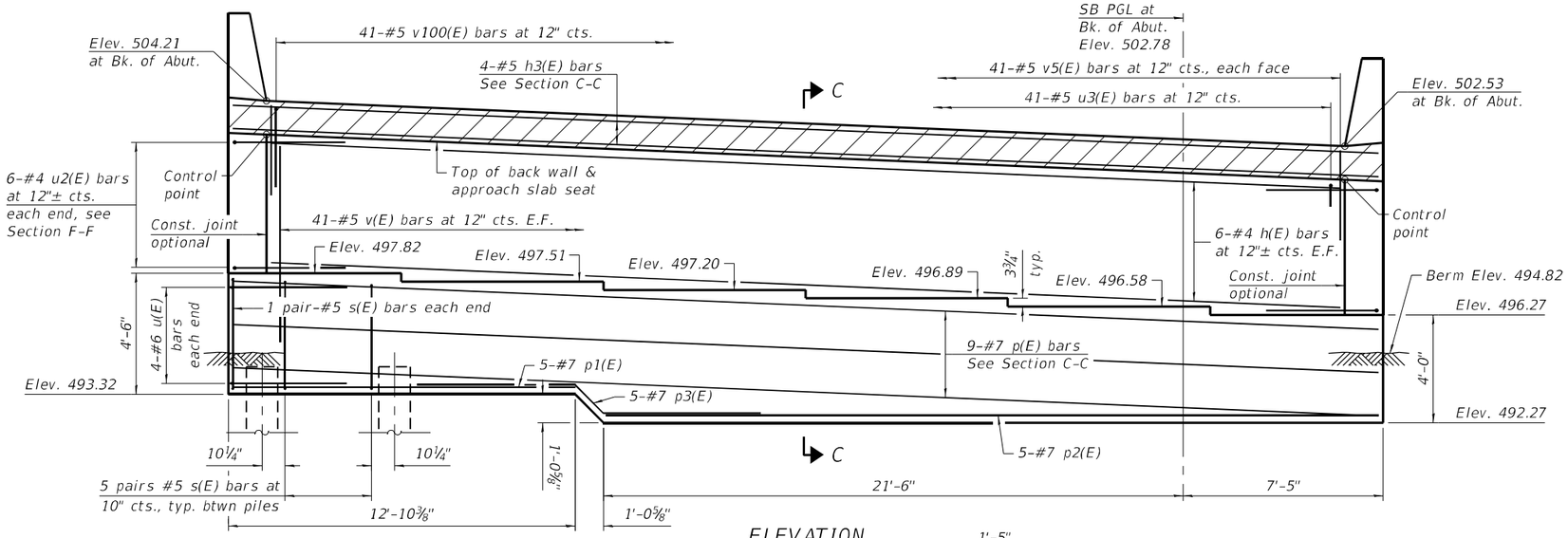
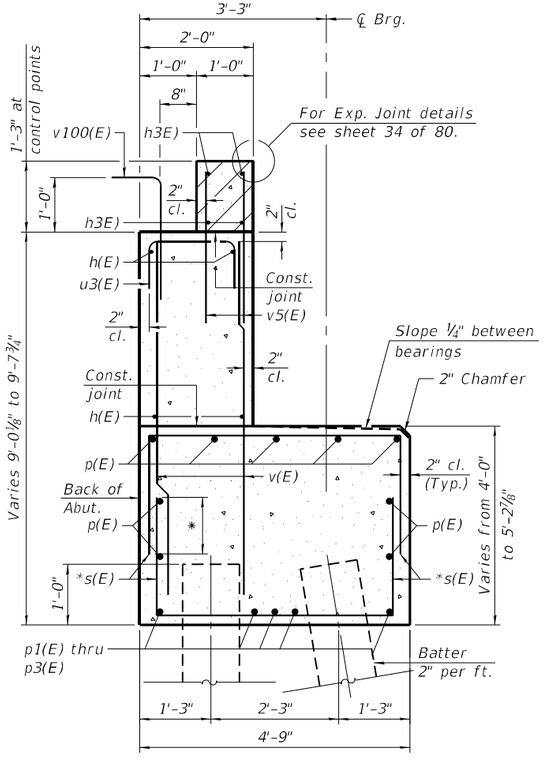
2/12/2024 10:37:04 AM

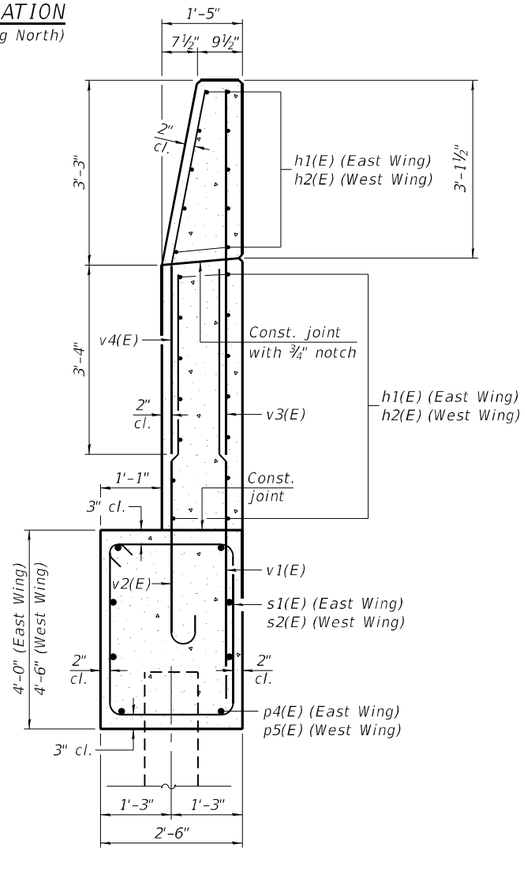


ELEVATION
(Looking North)

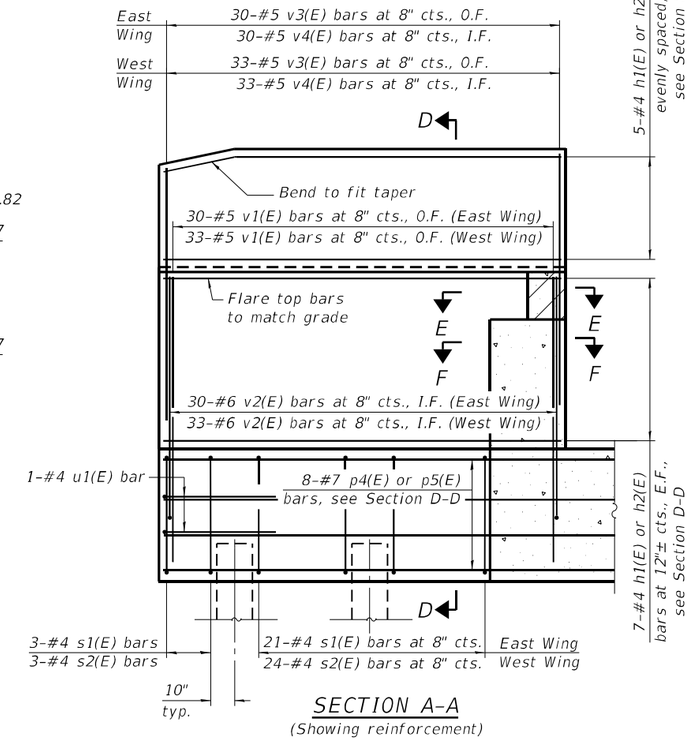


SECTION C-C

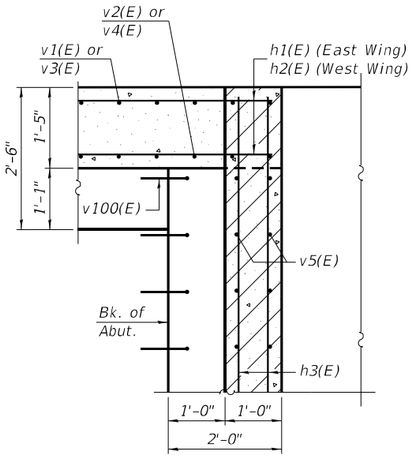
* Min. Lap = 2'-9"



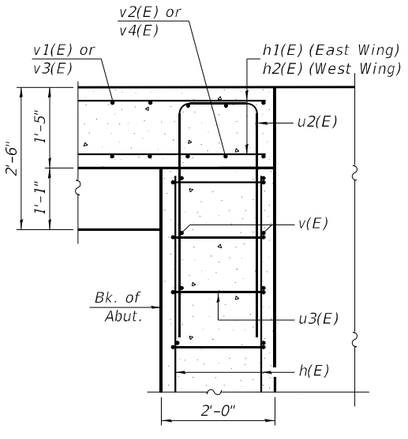
SECTION D-D



SECTION A-A
(Showing reinforcement)



SECTION E-E



SECTION F-F

AS-39CS-0 12-30-2021

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Civil Engineering Design

USER NAME = ABenz	DESIGNED - CMC	REVISED -	
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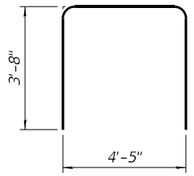
PLOT SCALE =	DRAWN - CMC	REVISED -	
PLOT DATE = 2/12/2024	CHECKED - ACB	REVISED -	

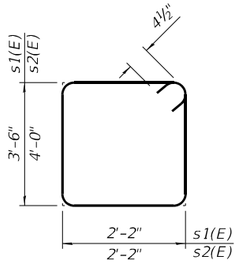
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NORTH ABUTMENT
STRUCTURE NO. 006-0193 (SB)
SHEET 44 OF 80 SHEETS

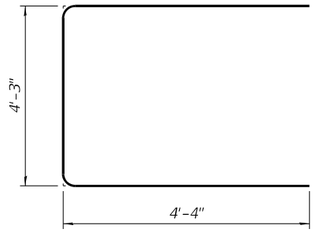
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
180	(06-2B-1)ES	BUREAU	327	184
		CONTRACT NO. 66K66		
	ILLINOIS	FED. AID PROJECT		



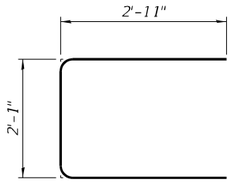
BARS s(E)



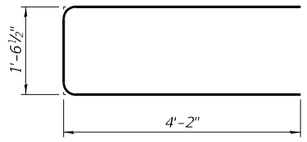
BARS s1(E) & s2(E)



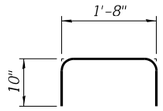
BAR u(E)



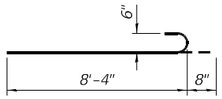
BAR u1(E)



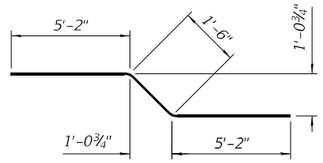
BAR u2(E)



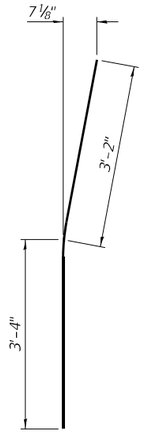
BAR u3(E)



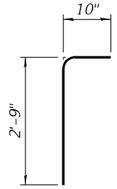
BAR v2(E)



BAR p3(E)



BAR v4(E)



BAR v100(E)

ABUTMENT
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	12	#4	39'-8"	
h1(E)	24	#4	19'-2"	
h2(E)	24	#4	21'-2"	
h3(E)	4	#5	42'-6"	
p(E)	9	#7	42'-6"	
p1(E)	5	#7	12'-8"	
p2(E)	5	#7	28'-8"	
p3(E)	5	#7	11'-10"	
p4(E)	8	#7	21'-11"	
p5(E)	8	#7	23'-11"	
s(E)	84	#5	11'-9"	
s1(E)	24	#4	12'-1"	
s2(E)	27	#4	13'-1"	
u(E)	8	#6	12'-11"	
u1(E)	4	#4	7'-11"	
u2(E)	12	#4	9'-11"	
u3(E)	41	#5	3'-4"	
v(E)	82	#5	8'-0"	
v1(E)	63	#5	9'-5"	
v2(E)	63	#6	9'-0"	
v3(E)	63	#5	6'-4"	
v4(E)	63	#5	6'-6"	
v5(E)	82	#5	2'-9"	
v100(E)	41	#5	3'-7"	
Structure Excavation			Cu. Yd.	254
Concrete Structures			Cu. Yd.	75.6
Reinforcement Bars, Epoxy Coated			Pound	8,460
Furnishing Metal Shell Piles, 14" X 0.312"			Foot	564
Driving Piles			Foot	564
Test Pile Metal Shells			Each	1
Pile Shoes			Each	13
Concrete Sealer			Sq. Ft.	599

Notes:
Hatched area to be poured separately after superstructure falsework has been removed and after approach slab side formwork has been removed.
Quantity of concrete in wingwall parapet and hatched area included with Concrete Superstructure on sheet 23 of 80.
Space reinforcement in cap to miss anchor bolts.
Pour steps monolithically with cap.
For details of piles, see sheet 59 of 80.
The top of back wall and approach slab seat shall have a constant slope determined from the control points shown.
Concrete Sealer shall be applied to the bearing seats and front faces of the hatched block, back wall, and abutment cap.

PILE DATA

Type: Metal Shell Piles, 14" X 0.312" with pile shoes
Nominal Required Bearing: 549 kips
Factored Resistance Available: 302 kips
Est. Length: 47 feet
No. Production Piles: 12
No. Test Piles: 1

AS-39CS-0 12-30-2021

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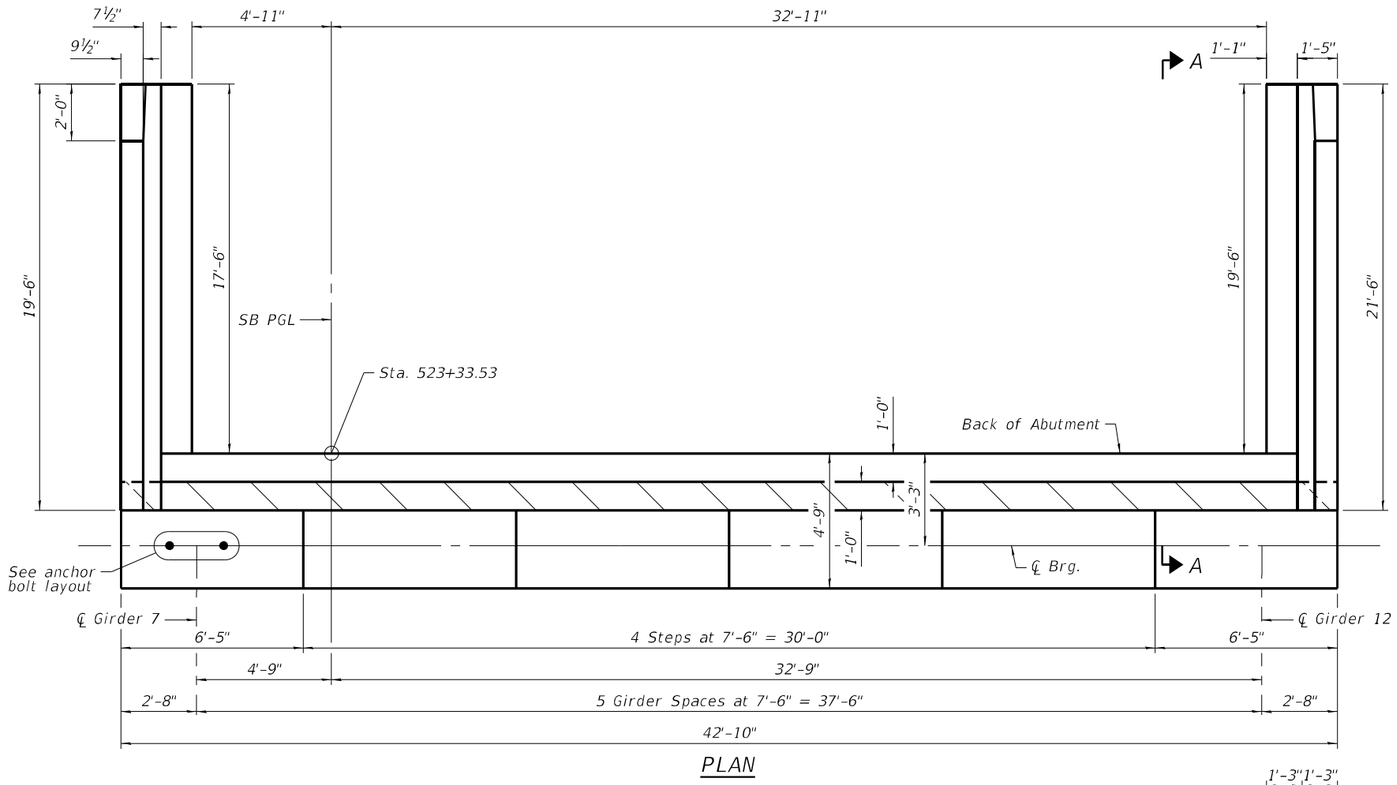
PLOT DATE = 2/12/2024	CHECKED - ACB	REVISED -

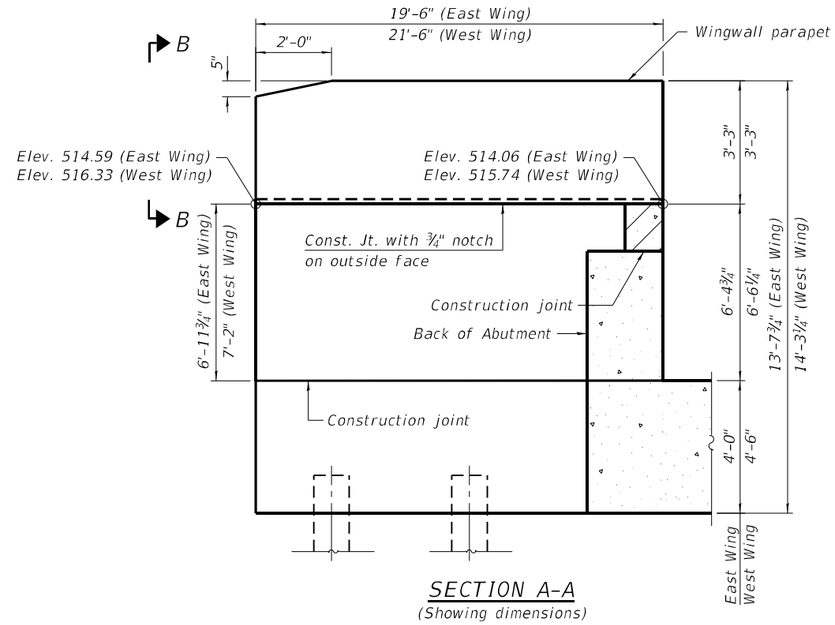
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NORTH ABUTMENT
STRUCTURE NO. 006-0193 (SB)
SHEET 45 OF 80 SHEETS

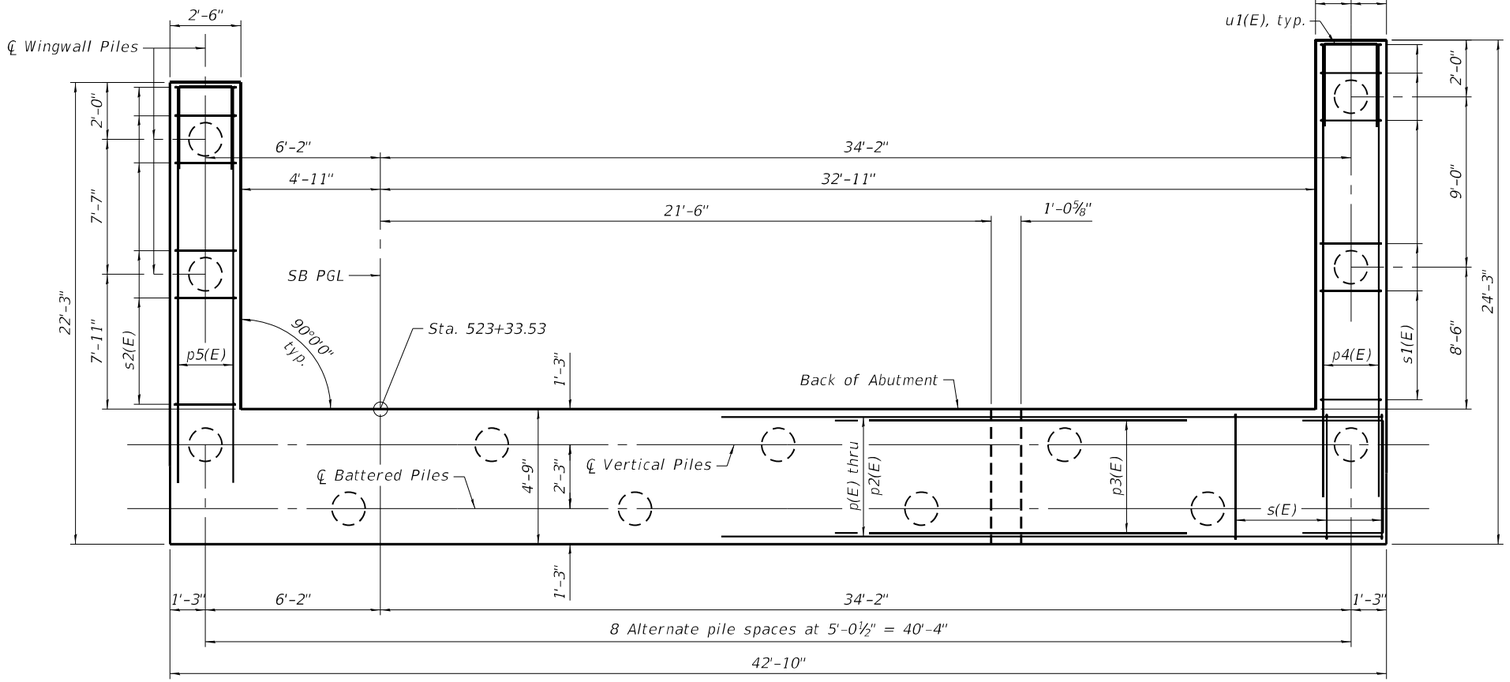
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
180	(06-2B-1)ES	BUREAU	327	185
		CONTRACT NO. 66K66		
	ILLINOIS FED. AID PROJECT			



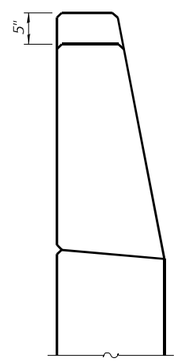
PLAN



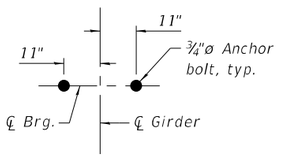
SECTION A-A
(Showing dimensions)



PILE CAP PLAN



VIEW B-B



ANCHOR BOLT LAYOUT

AS-39CS-0 12-30-2021

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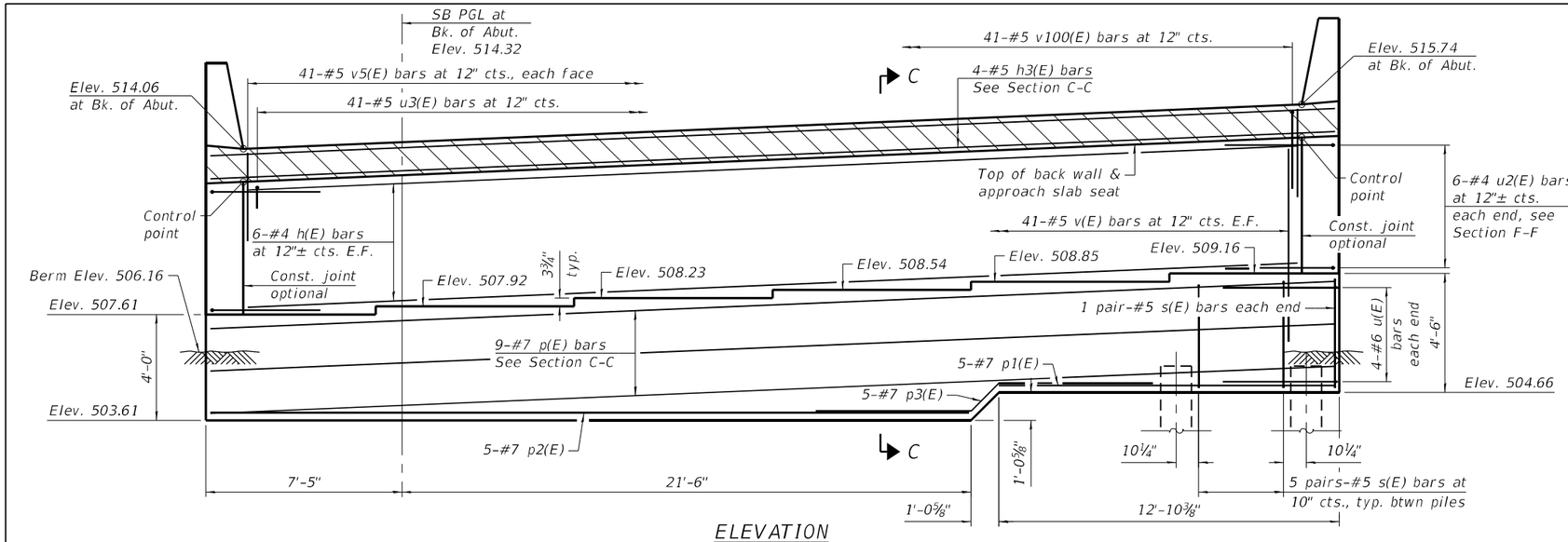
Civil Engineering Design

USER NAME = ABenz	DESIGNED - CMC	REVISED -
	CHECKED - ACB	REVISED -
PLOT SCALE =	DRAWN - CMC	REVISED -
PLOT DATE = 2/12/2024	CHECKED - ACB	REVISED -

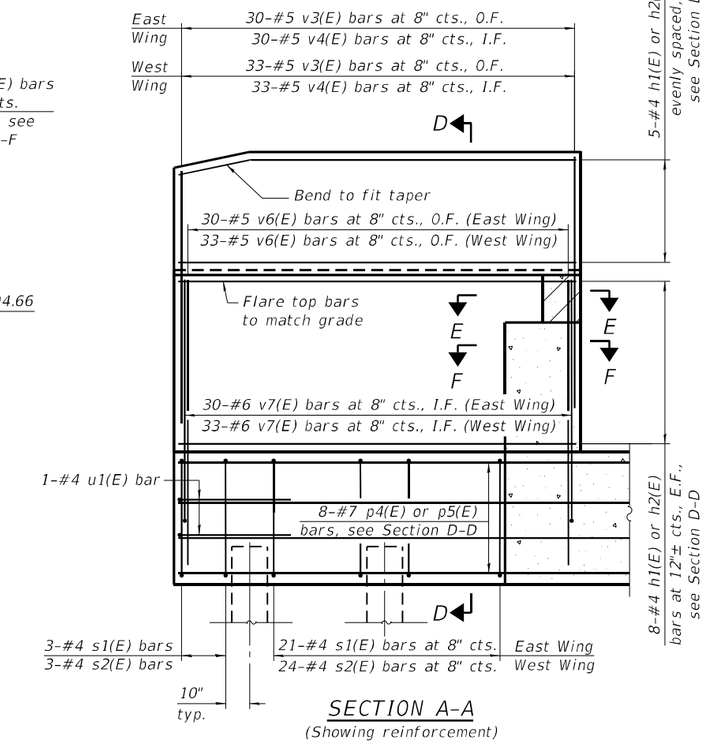
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOUTH ABUTMENT
STRUCTURE NO. 006-0193 (SB)
SHEET 46 OF 80 SHEETS

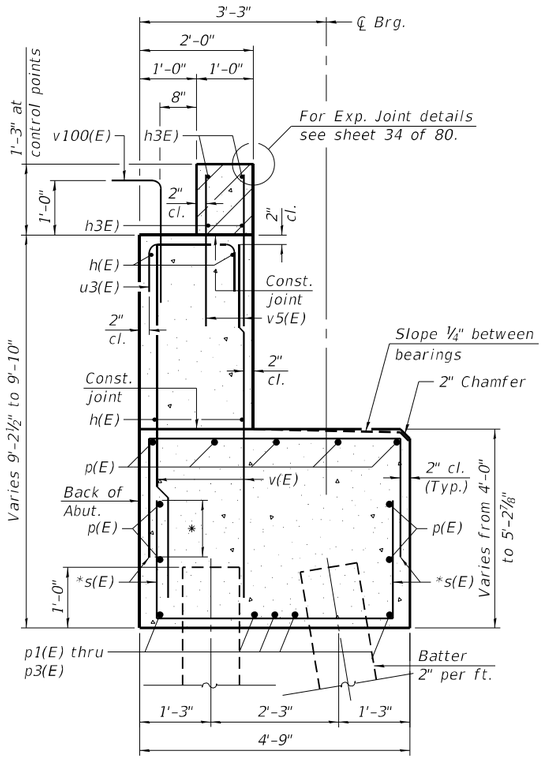
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
180	(06-2B-1)ES	BUREAU	327	186
		CONTRACT NO. 66K66		
	ILLINOIS	FED. AID PROJECT		



ELEVATION
(Looking South)

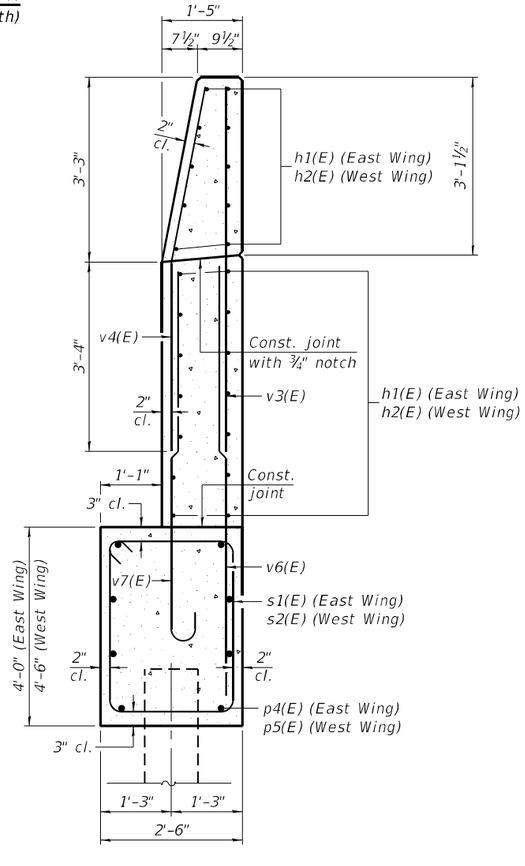


SECTION A-A
(Showing reinforcement)

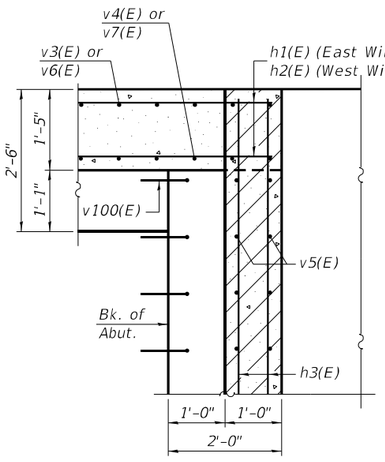


SECTION C-C

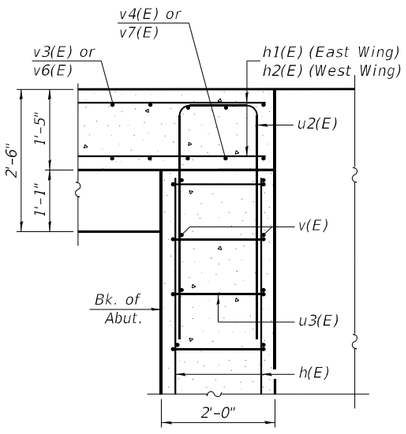
* Min. Lap = 2'-9"



SECTION D-D



SECTION E-E



SECTION F-F

AS-39CS-0 12-30-2021

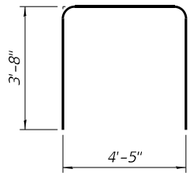
EFK•Moen
Civil Engineering Design

USER NAME = ABenz	DESIGNED - CMC	REVISED -	
	CHECKED - ACB	REVISED -	
PLOT SCALE =	DRAWN - CMC	REVISED -	
PLOT DATE = 2/12/2024	CHECKED - ACB	REVISED -	

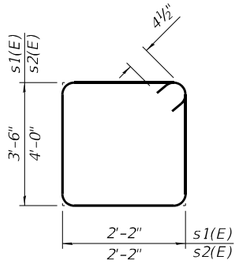
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOUTH ABUTMENT
STRUCTURE NO. 006-0193 (SB)
SHEET 47 OF 80 SHEETS

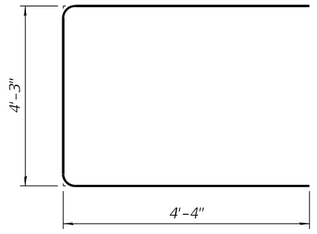
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
180	(06-2B-1)ES	BUREAU	327	187
		CONTRACT NO. 66K66		
		ILLINOIS	FED. AID PROJECT	



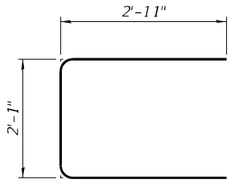
BARS s(E)



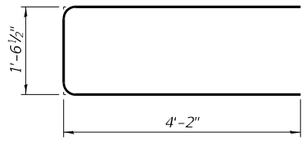
BARS s1(E) & s2(E)



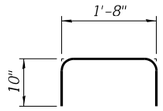
BAR u(E)



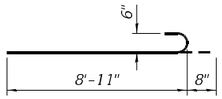
BAR u1(E)



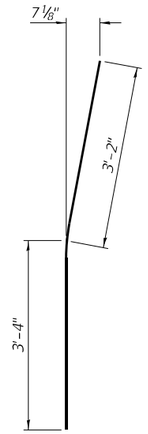
BAR u2(E)



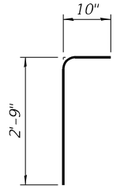
BAR u3(E)



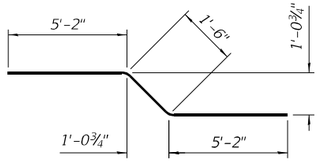
BAR v7(E)



BAR v4(E)



BAR v100(E)



BAR p3(E)

ABUTMENT
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	12	#4	39'-8"	
h1(E)	26	#4	19'-2"	
h2(E)	26	#4	21'-2"	
h3(E)	4	#5	42'-6"	
p(E)	9	#7	42'-6"	
p1(E)	5	#7	12'-8"	
p2(E)	5	#7	28'-8"	
p3(E)	5	#7	11'-10"	
p4(E)	8	#7	21'-11"	
p5(E)	8	#7	23'-11"	
s(E)	84	#5	11'-9"	
s1(E)	24	#4	12'-1"	
s2(E)	27	#4	13'-1"	
u(E)	8	#6	12'-11"	
u1(E)	4	#4	7'-11"	
u2(E)	12	#4	9'-11"	
u3(E)	41	#5	3'-4"	
v(E)	82	#5	8'-0"	
v3(E)	63	#5	6'-4"	
v4(E)	63	#5	6'-6"	
v5(E)	82	#5	2'-9"	
v6(E)	63	#5	10'-0"	
v7(E)	63	#6	9'-7"	
v100(E)	41	#5	3'-7"	
Structure Excavation			Cu. Yd.	205
Concrete Structures			Cu. Yd.	77.2
Reinforcement Bars, Epoxy Coated			Pound	8,610
Furnishing Metal Shell Piles, 14" X 0.312"			Foot	720
Driving Piles			Foot	720
Test Pile Metal Shells			Each	1
Pile Shoes			Each	13
Concrete Sealer			Sq. Ft.	602

Notes:
Hatched area to be poured separately after superstructure falsework has been removed and after approach slab side formwork has been removed.
Quantity of concrete in wingwall parapet and hatched area included with Concrete Superstructure on sheet 23 of 80.
Space reinforcement in cap to miss anchor bolts.
Pour steps monolithically with cap.
For details of piles, see sheet 59 of 80.
The top of back wall and approach slab seat shall have a constant slope determined from the control points shown.
Concrete Sealer shall be applied to the bearing seats and front faces of the hatched block, back wall, and abutment cap.

PILE DATA

Type: Metal Shell Piles, 14" X 0.312" with pile shoes
Nominal Required Bearing: 567 kips
Factored Resistance Available: 312 kips
Est. Length: 60 feet
No. Production Piles: 12
No. Test Piles: 1

AS-39CS-0 12-30-2021

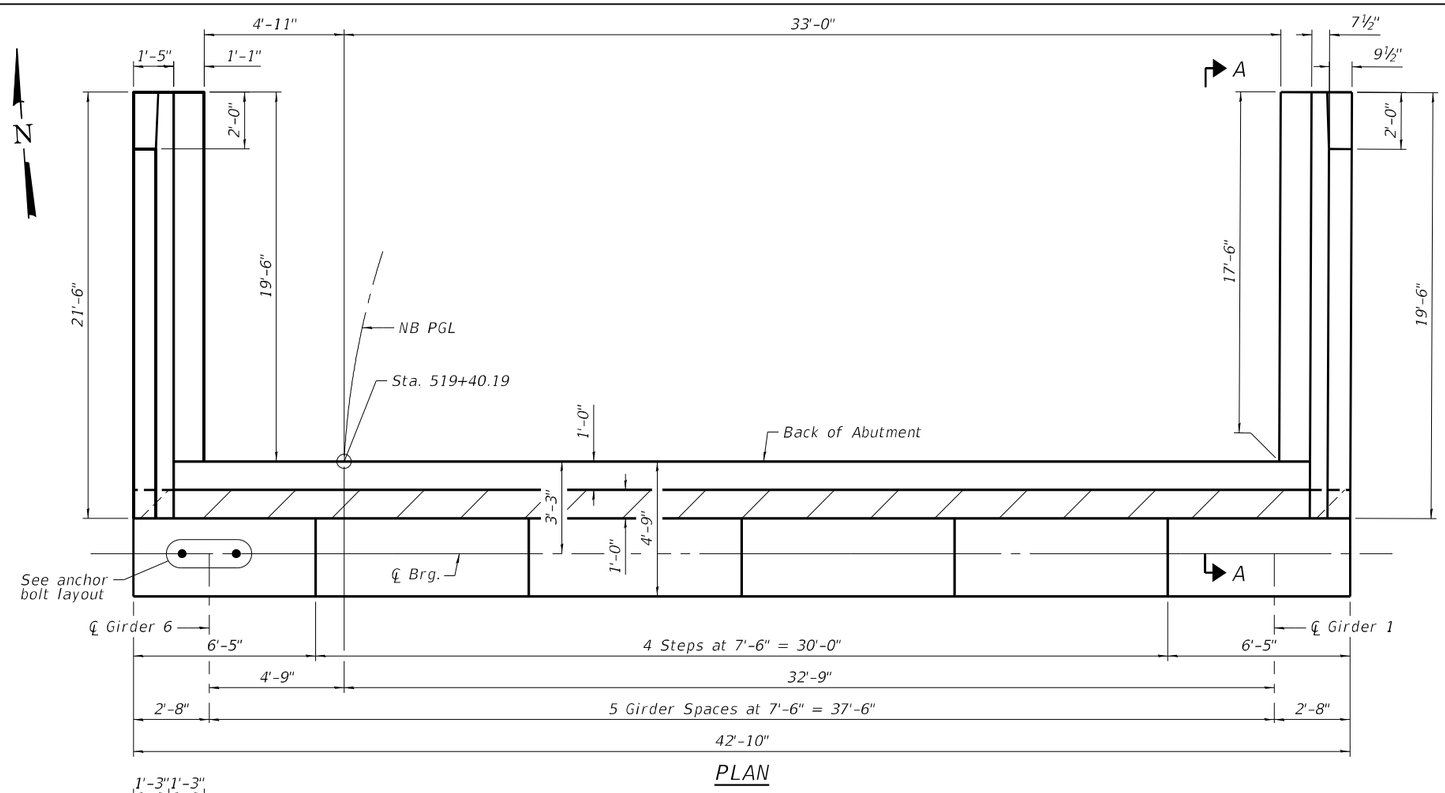
EFK•Moen
Civil Engineering Design

USER NAME = ABenz	DESIGNED - CMC	REVISED -
	CHECKED - ACB	REVISED -
PLOT SCALE =	DRAWN - CMC	REVISED -
PLOT DATE = 2/12/2024	CHECKED - ACB	REVISED -

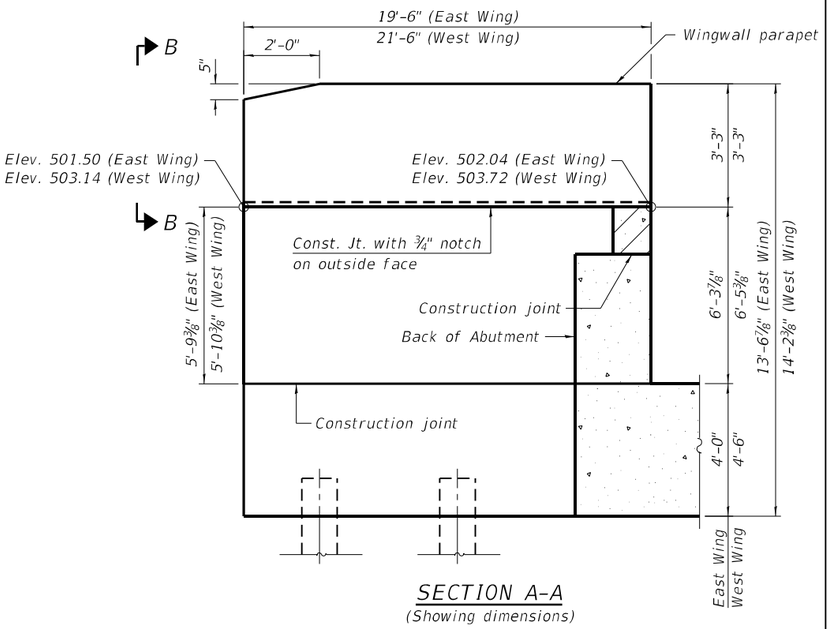
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOUTH ABUTMENT
STRUCTURE NO. 006-0193 (SB)
SHEET 48 OF 80 SHEETS

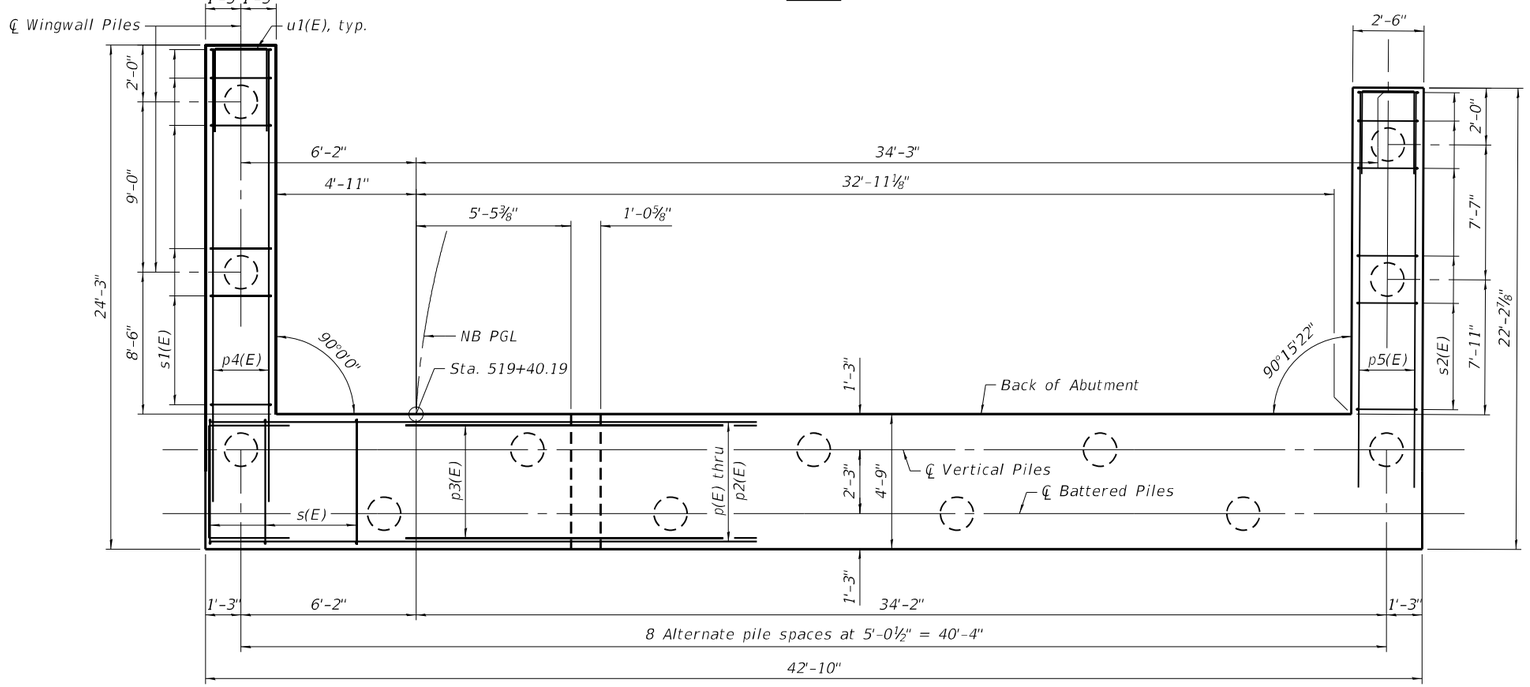
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
180	(06-2B-1)ES	BUREAU	327	188
		CONTRACT NO. 66K66		
	ILLINOIS FED. AID PROJECT			



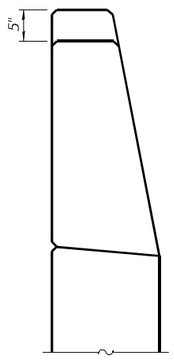
PLAN



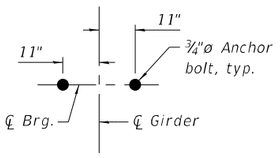
SECTION A-A
(Showing dimensions)



PILE CAP PLAN



VIEW B-B



ANCHOR BOLT LAYOUT

AS-39CS-0 12-30-2021

EFK•Moen Civil Engineering Design

USER NAME = ABenz	DESIGNED - CMC	REVISED -
	CHECKED - ACB	REVISED -
PLOT SCALE =	DRAWN - CMC	REVISED -
PLOT DATE = 2/12/2024	CHECKED - ACB	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NORTH ABUTMENT
STRUCTURE NO. 006-0194 (NB)
SHEET 49 OF 80 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
180	(06-2B-1)ES	BUREAU	327	189
		CONTRACT NO. 66K66		
	ILLINOIS	FED. AID PROJECT		

MODEL: Default
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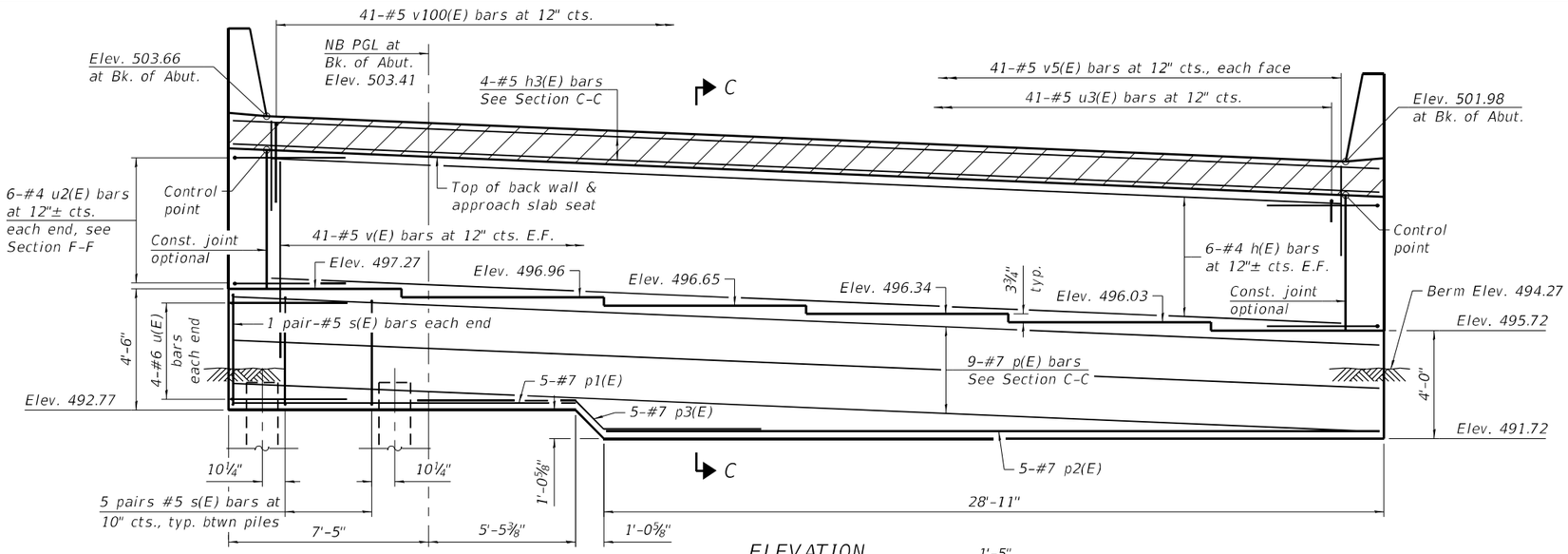
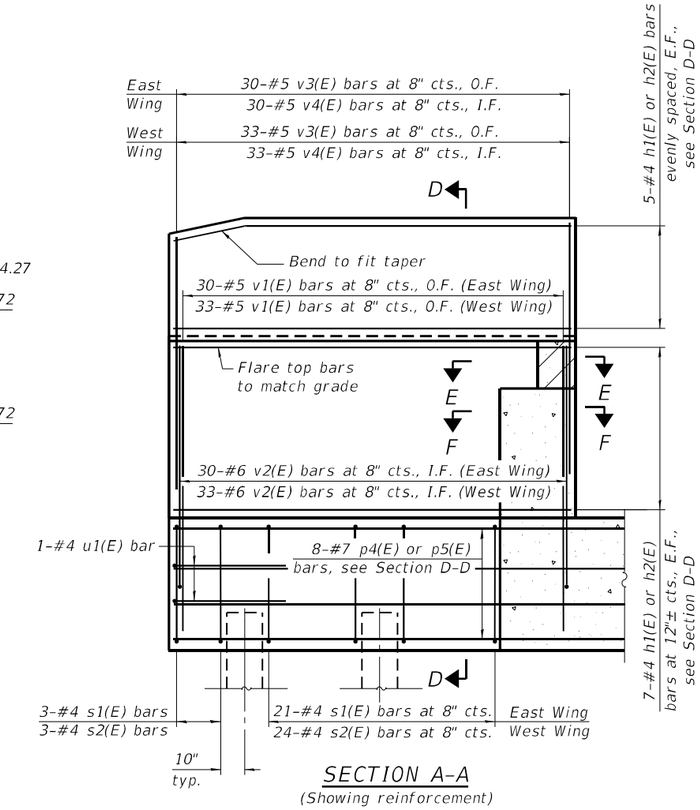
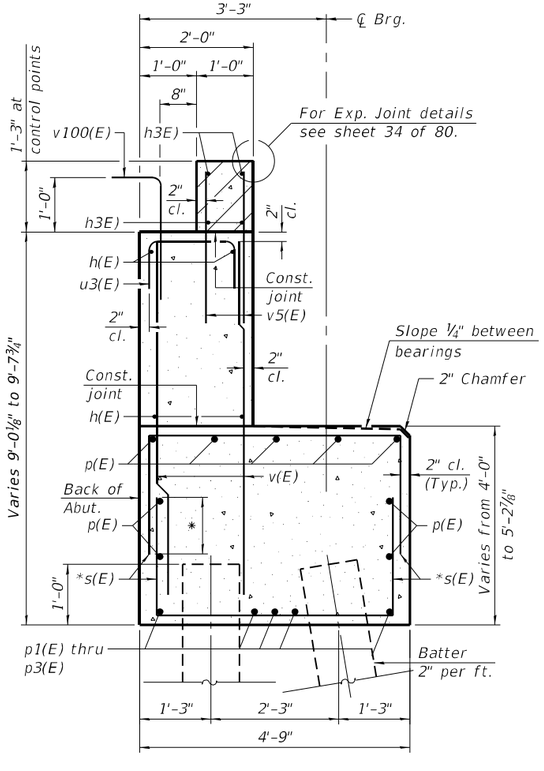


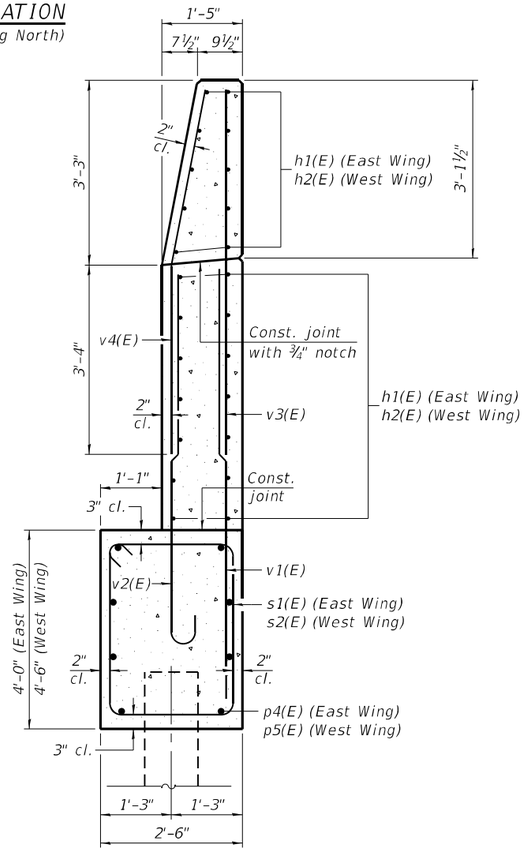
ELEVATION
(Looking North)



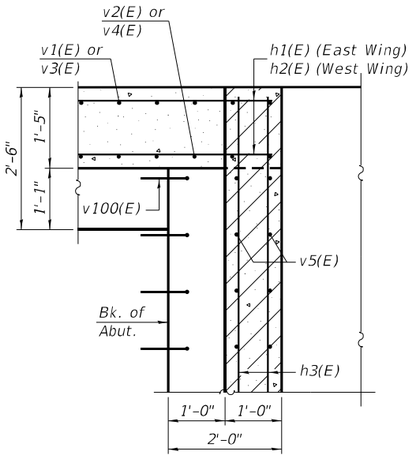
SECTION A-A
(Showing reinforcement)



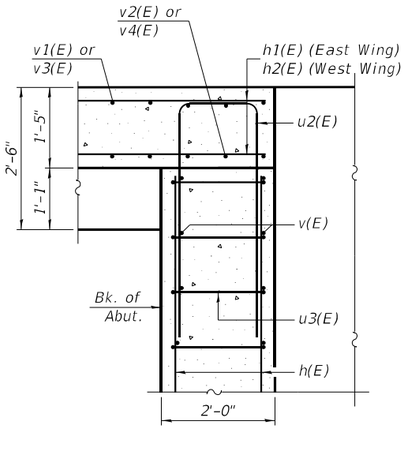
SECTION C-C
* Min. Lap = 2'-9"



SECTION D-D



SECTION E-E



SECTION F-F

AS-39CS-0 12-30-2021

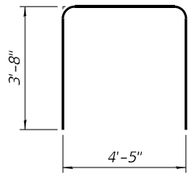
EFK•Moen Civil Engineering Design

USER NAME = ABenz	DESIGNED - CMC	REVISED -	
	CHECKED - ACB	REVISED -	
PLOT SCALE =	DRAWN - CMC	REVISED -	
PLOT DATE = 2/12/2024	CHECKED - ACB	REVISED -	

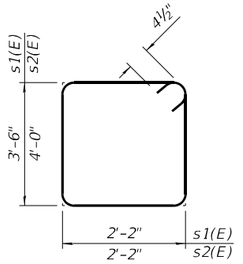
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NORTH ABUTMENT
STRUCTURE NO. 006-0194 (NB)
SHEET 50 OF 80 SHEETS

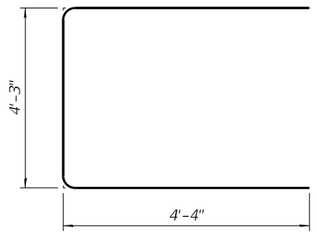
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
180	(06-2B-1)ES	BUREAU	327	190
		CONTRACT NO. 66K66		
		ILLINOIS	FED. AID PROJECT	



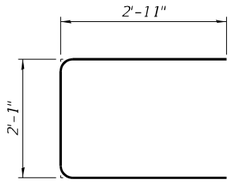
BARS s(E)



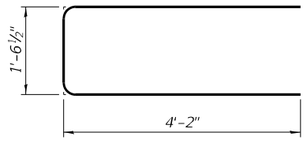
BARS s1(E) & s2(E)



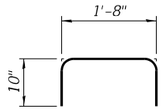
BAR u(E)



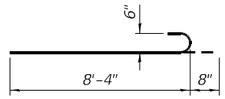
BAR u1(E)



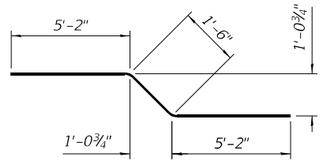
BAR u2(E)



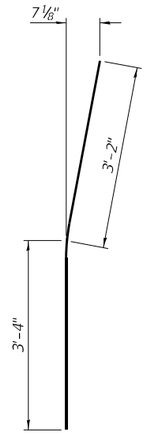
BAR u3(E)



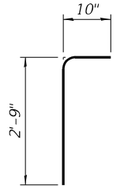
BAR v2(E)



BAR p3(E)



BAR v4(E)



BAR v100(E)

ABUTMENT BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	12	#4	39'-8"	
h1(E)	24	#4	19'-2"	
h2(E)	24	#4	21'-2"	
h3(E)	4	#5	42'-6"	
p(E)	9	#7	42'-6"	
p1(E)	5	#7	12'-8"	
p2(E)	5	#7	28'-8"	
p3(E)	5	#7	11'-10"	
p4(E)	8	#7	21'-11"	
p5(E)	8	#7	23'-11"	
s(E)	84	#5	11'-9"	
s1(E)	24	#4	12'-1"	
s2(E)	27	#4	13'-1"	
u(E)	8	#6	12'-11"	
u1(E)	4	#4	7'-11"	
u2(E)	12	#4	9'-11"	
u3(E)	41	#5	3'-4"	
v(E)	82	#5	8'-0"	
v1(E)	63	#5	9'-5"	
v2(E)	63	#6	9'-0"	
v3(E)	63	#5	6'-4"	
v4(E)	63	#5	6'-6"	
v5(E)	82	#5	2'-9"	
v100(E)	41	#5	3'-7"	
Structure Excavation			Cu. Yd.	269
Concrete Structures			Cu. Yd.	75.6
Reinforcement Bars, Epoxy Coated			Pound	8,460
Furnishing Metal Shell Piles, 14" X 0.312"			Foot	540
Driving Piles			Foot	540
Test Pile Metal Shells			Each	1
Pile Shoes			Each	13
Concrete Sealer			Sq. Ft.	599

Notes:
Hatched area to be poured separately after superstructure falsework has been removed and after approach slab side formwork has been removed.
Quantity of concrete in wingwall parapet and hatched area included with Concrete Superstructure on sheet 28 of 80.
Space reinforcement in cap to miss anchor bolts.
Pour steps monolithically with cap.
For details of piles, see sheet 59 of 80.
The top of back wall and approach slab seat shall have a constant slope determined from the control points shown.
Concrete Sealer shall be applied to the bearing seats and front faces of the hatched block, back wall, and abutment cap.

PILE DATA

Type: Metal Shell Piles, 14" X 0.312" with pile shoes
Nominal Required Bearing: 549 kips
Factored Resistance Available: 302 kips
Est. Length: 45 feet
No. Production Piles: 12
No. Test Piles: 1

AS-39CS-0 12-30-2021

EFK•Moen Civil Engineering Design

USER NAME = ABenz	DESIGNED - CMC	REVISED -
	CHECKED - ACB	REVISED -
PLOT SCALE =	DRAWN - CMC	REVISED -
PLOT DATE = 2/12/2024	CHECKED - ACB	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NORTH ABUTMENT
STRUCTURE NO. 006-0194 (NB)
SHEET 51 OF 80 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
180	(06-2B-1)ES	BUREAU	327	191
		CONTRACT NO. 66K66		
	ILLINOIS FED. AID PROJECT			

MODEL: Default
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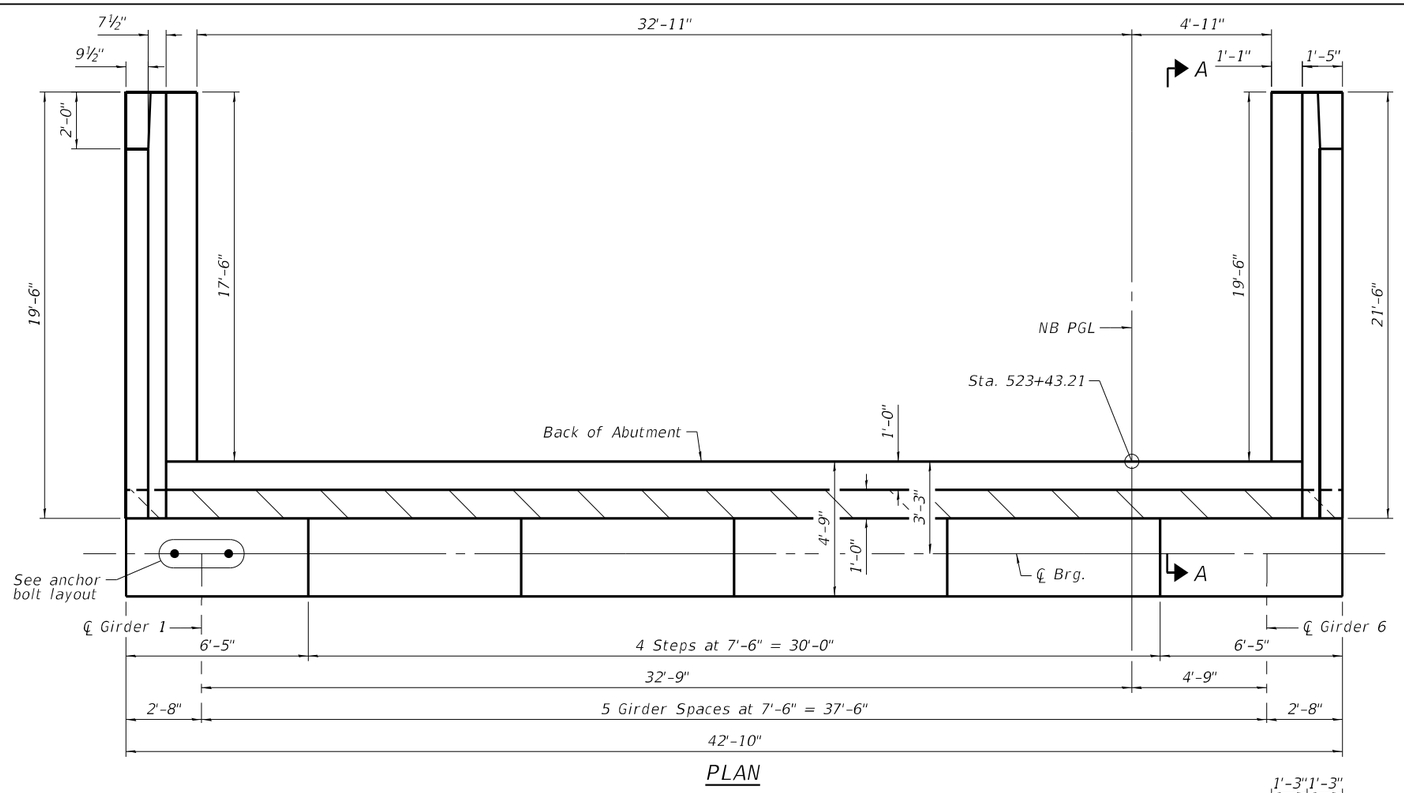
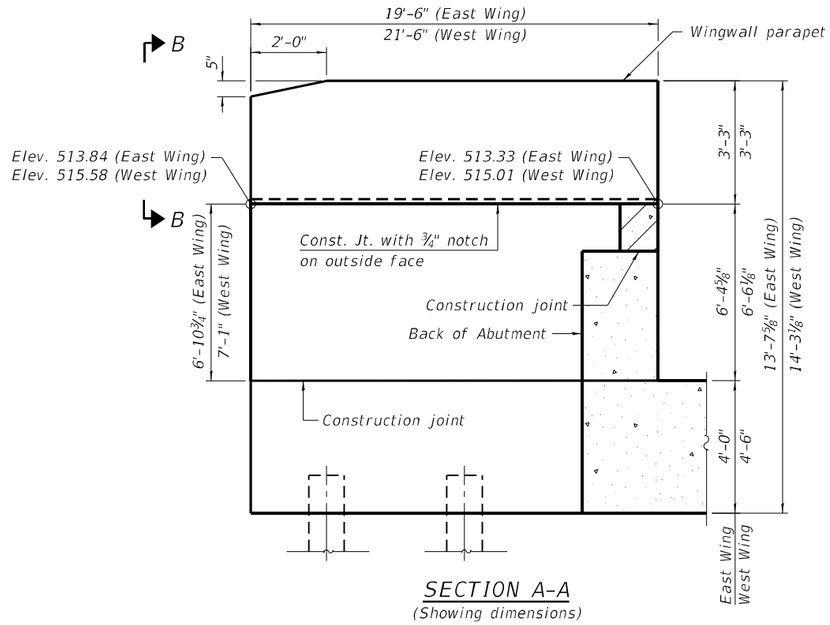
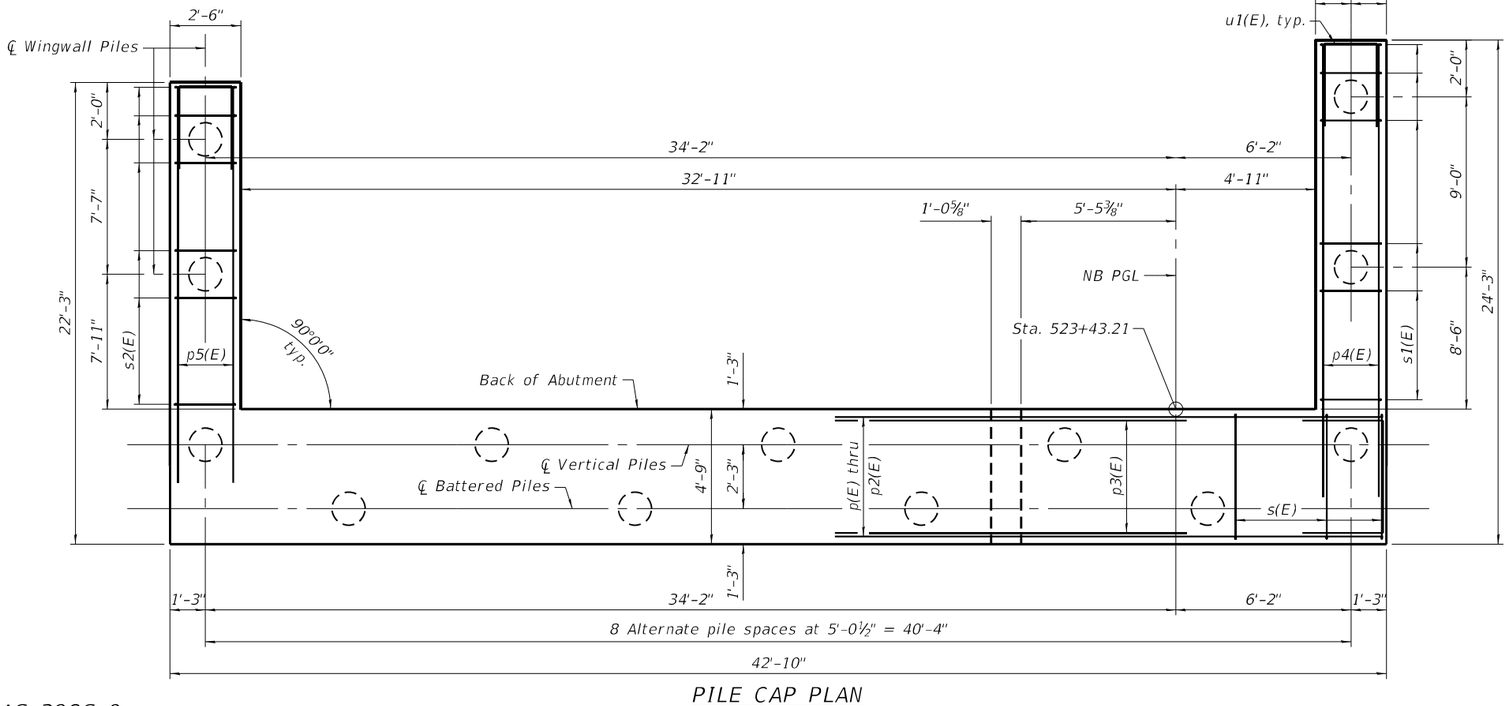
2/12/2024 10:37:33 AM



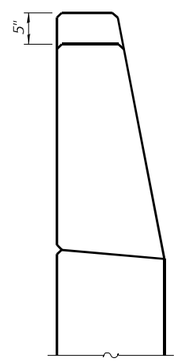
PLAN



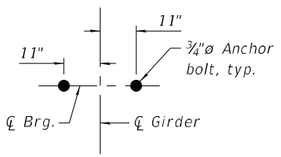
SECTION A-A
(Showing dimensions)



PILE CAP PLAN



VIEW B-B



ANCHOR BOLT LAYOUT

AS-39CS-0 12-30-2021

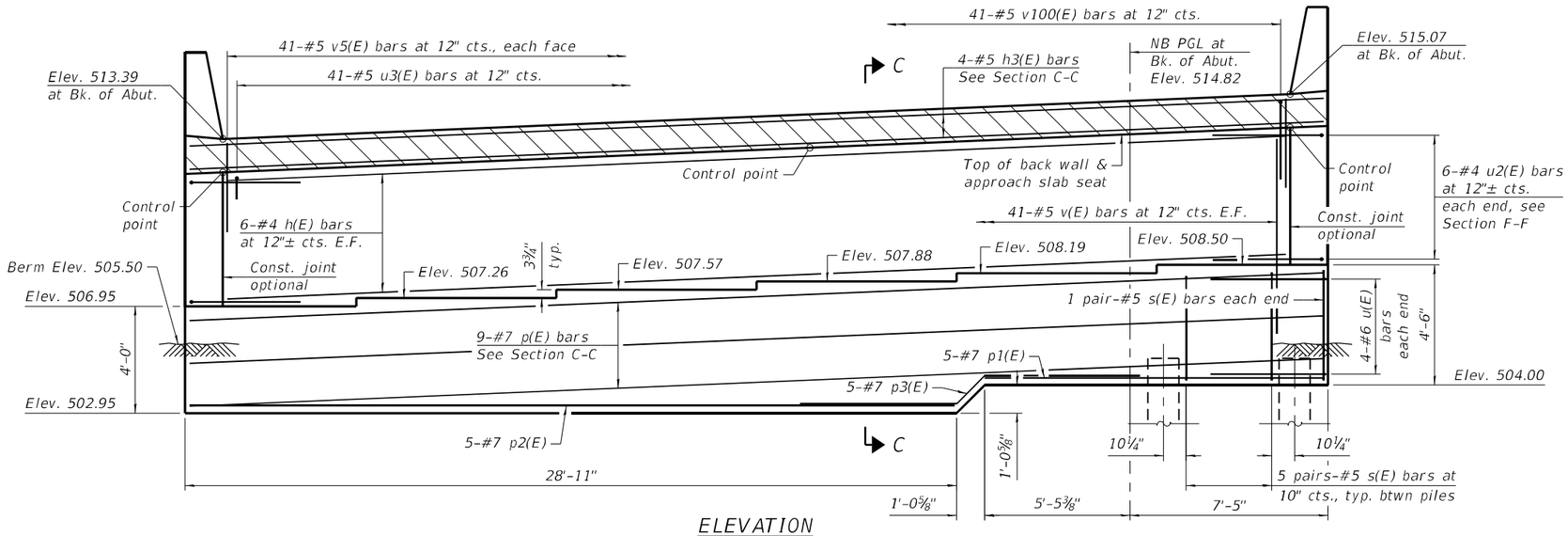
EFK•Moen Civil Engineering Design

USER NAME = ABenz	DESIGNED - CMC	REVISED -
	CHECKED - ACB	REVISED -
PLOT SCALE =	DRAWN - CMC	REVISED -
PLOT DATE = 2/12/2024	CHECKED - ACB	REVISED -

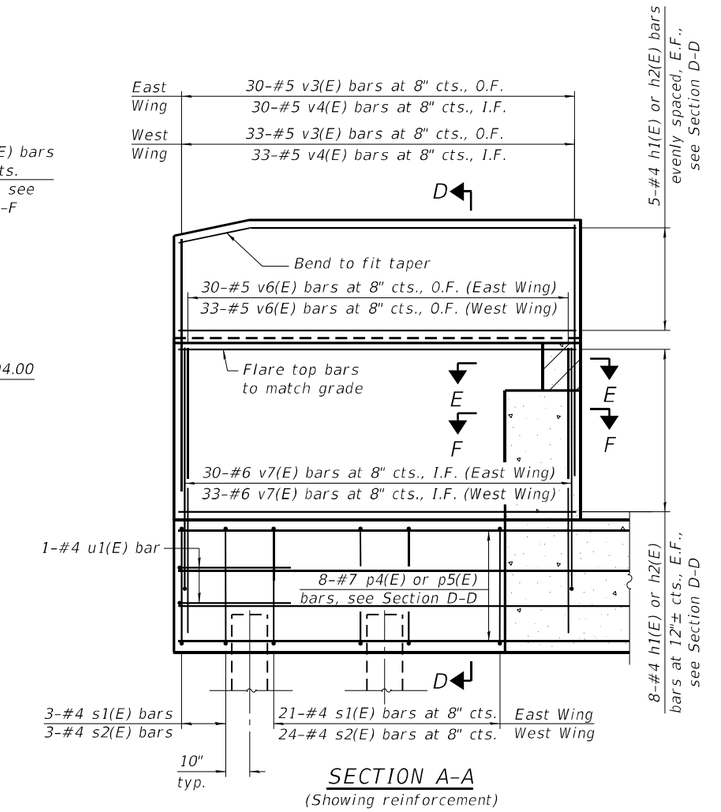
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOUTH ABUTMENT
STRUCTURE NO. 006-0194 (NB)
SHEET 52 OF 80 SHEETS

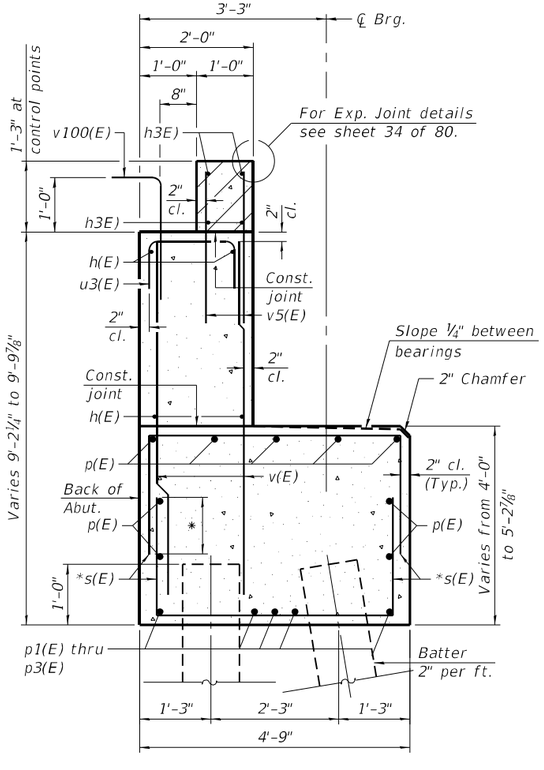
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
180	(06-2B-1)ES	BUREAU	327	192
		CONTRACT NO. 66K66		
	ILLINOIS	FED. AID PROJECT		



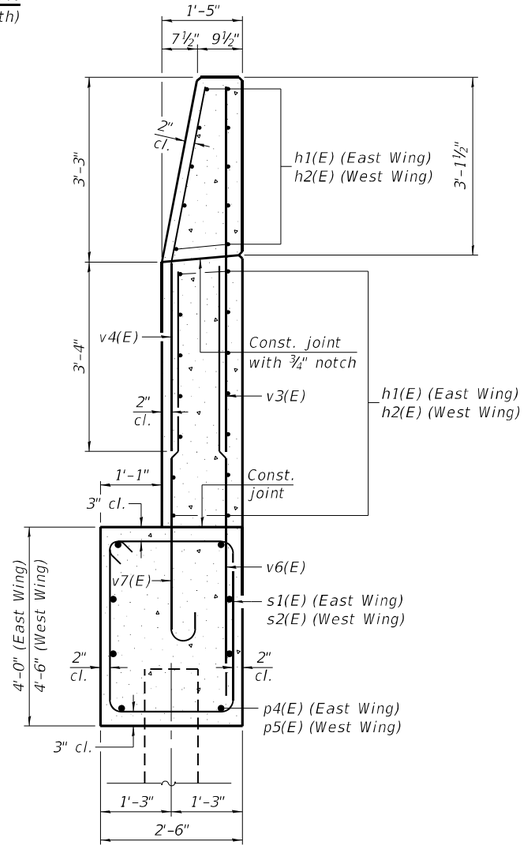
ELEVATION
(Looking South)



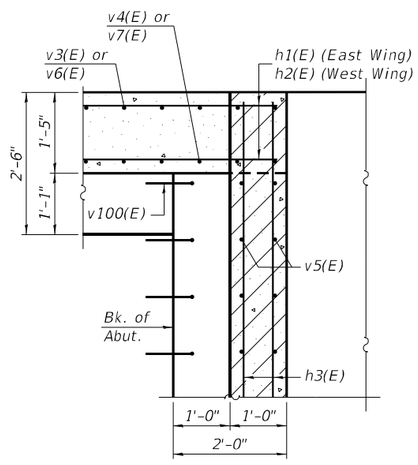
SECTION A-A
(Showing reinforcement)



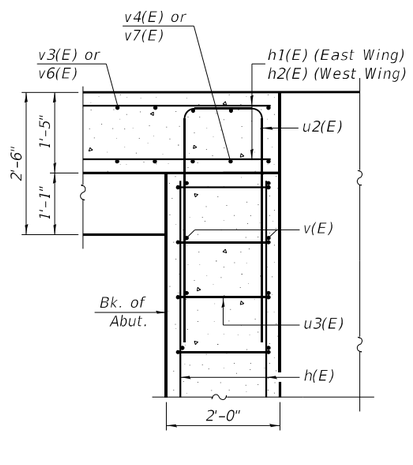
SECTION C-C
* Min. Lap = 2'-9"



SECTION D-D



SECTION E-E



SECTION F-F

AS-39CS-0 12-30-2021

EFK•Moen Civil Engineering Design

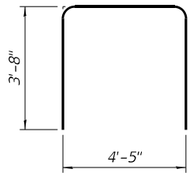
USER NAME = ABenz	DESIGNED - CMC	REVISED -	
	CHECKED - ACB	REVISED -	
PLOT SCALE =	DRAWN - CMC	REVISED -	
PLOT DATE = 2/12/2024	CHECKED - ACB	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

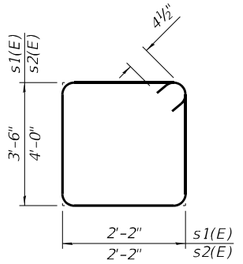
SOUTH ABUTMENT
STRUCTURE NO. 006-0194 (NB)
SHEET 53 OF 80 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
180	(06-2B-1)ES	BUREAU	327	193
		CONTRACT NO. 66K66		
		ILLINOIS	FED. AID PROJECT	

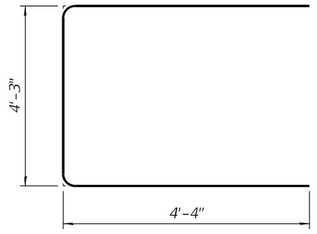
MODEL: Default
FILE NAME: \\SERVER18\Projects\SS4\22057.08 IDOT D3 PTB 204-028 WO 08 I-180 over Bureau Creek\DGN\Bridge\Final\Plotsheets\006-0193&0194-66K66-053-South Abutment.dgn
2/12/2024 10:37:40 AM



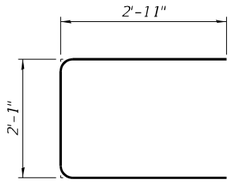
BARS s(E)



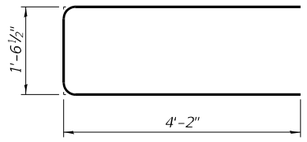
BARS s1(E) & s2(E)



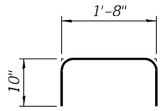
BAR u(E)



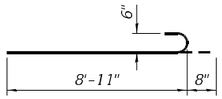
BAR u1(E)



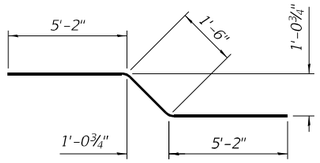
BAR u2(E)



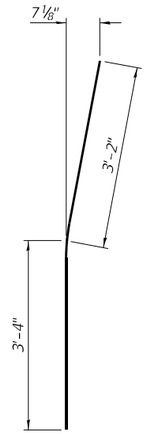
BAR u3(E)



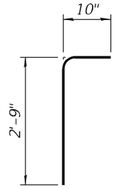
BAR v7(E)



BAR p3(E)



BAR v4(E)



BAR v100(E)

ABUTMENT
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	12	#4	39'-8"	
h1(E)	26	#4	19'-2"	
h2(E)	26	#4	21'-2"	
h3(E)	4	#5	42'-6"	
p(E)	9	#7	42'-6"	
p1(E)	5	#7	12'-8"	
p2(E)	5	#7	28'-8"	
p3(E)	5	#7	11'-10"	
p4(E)	8	#7	21'-11"	
p5(E)	8	#7	23'-11"	
s(E)	84	#5	11'-9"	
s1(E)	24	#4	12'-1"	
s2(E)	27	#4	13'-1"	
u(E)	8	#6	12'-11"	
u1(E)	4	#4	7'-11"	
u2(E)	12	#4	9'-11"	
u3(E)	41	#5	3'-4"	
v(E)	82	#5	8'-0"	
v3(E)	63	#5	6'-4"	
v4(E)	63	#5	6'-6"	
v5(E)	82	#5	2'-9"	
v6(E)	63	#5	10'-0"	
v7(E)	63	#6	9'-7"	
v100(E)	41	#5	3'-7"	
Structure Excavation			Cu. Yd.	219
Concrete Structures			Cu. Yd.	77.2
Reinforcement Bars, Epoxy Coated			Pound	8,610
Furnishing Metal Shell Piles, 14" X 0.312"			Foot	672
Driving Piles			Foot	672
Test Pile Metal Shells			Each	1
Pile Shoes			Each	13
Concrete Sealer			Sq. Ft.	601

Notes:
Hatched area to be poured separately after superstructure falsework has been removed and after approach slab side formwork has been removed.
Quantity of concrete in wingwall parapet and hatched area included with Concrete Superstructure on sheet 28 of 80.
Space reinforcement in cap to miss anchor bolts.
Pour steps monolithically with cap.
For details of piles, see sheet 59 of 80.
The top of back wall and approach slab seat shall have a constant slope determined from the control points shown.
Concrete Sealer shall be applied to the bearing seats and front faces of the hatched block, back wall, and abutment cap.

PILE DATA

Type: Metal Shell Piles, 14" X 0.312" with pile shoes
Nominal Required Bearing: 567 kips
Factored Resistance Available: 312 kips
Est. Length: 56 feet
No. Production Piles: 12
No. Test Piles: 1

AS-39CS-0 12-30-2021

EFK•Moen
Civil Engineering Design

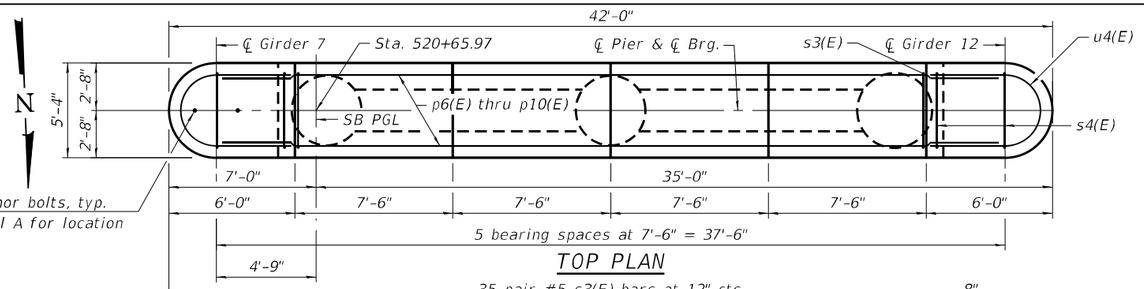
USER NAME = ABenz	DESIGNED - CMC	REVISED -
	CHECKED - ACB	REVISED -
PLOT SCALE =	DRAWN - CMC	REVISED -
PLOT DATE = 2/12/2024	CHECKED - ACB	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

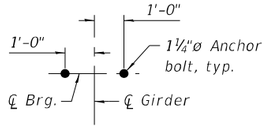
SOUTH ABUTMENT
STRUCTURE NO. 006-0194 (NB)
SHEET 54 OF 80 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
180	(06-2B-1)ES	BUREAU	327	194
		CONTRACT NO. 66K66		
	ILLINOIS FED. AID PROJECT			

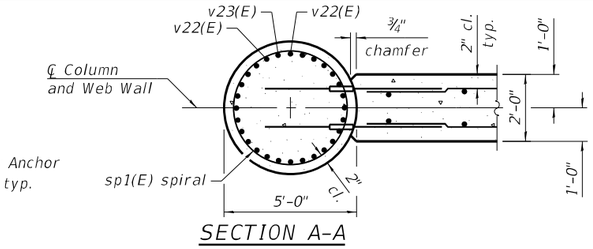
Notes:
Space reinforcement in cap to miss anchor bolts.
Pour steps monolithically with cap.
Minimum lap for spirals = 3'-8".



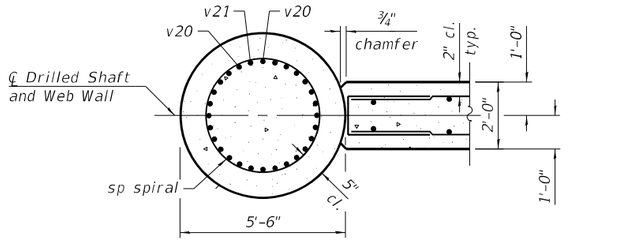
TOP PLAN



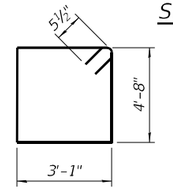
DETAIL A



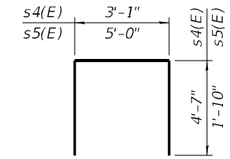
SECTION A-A



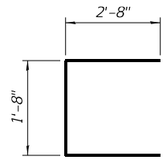
SECTION B-B



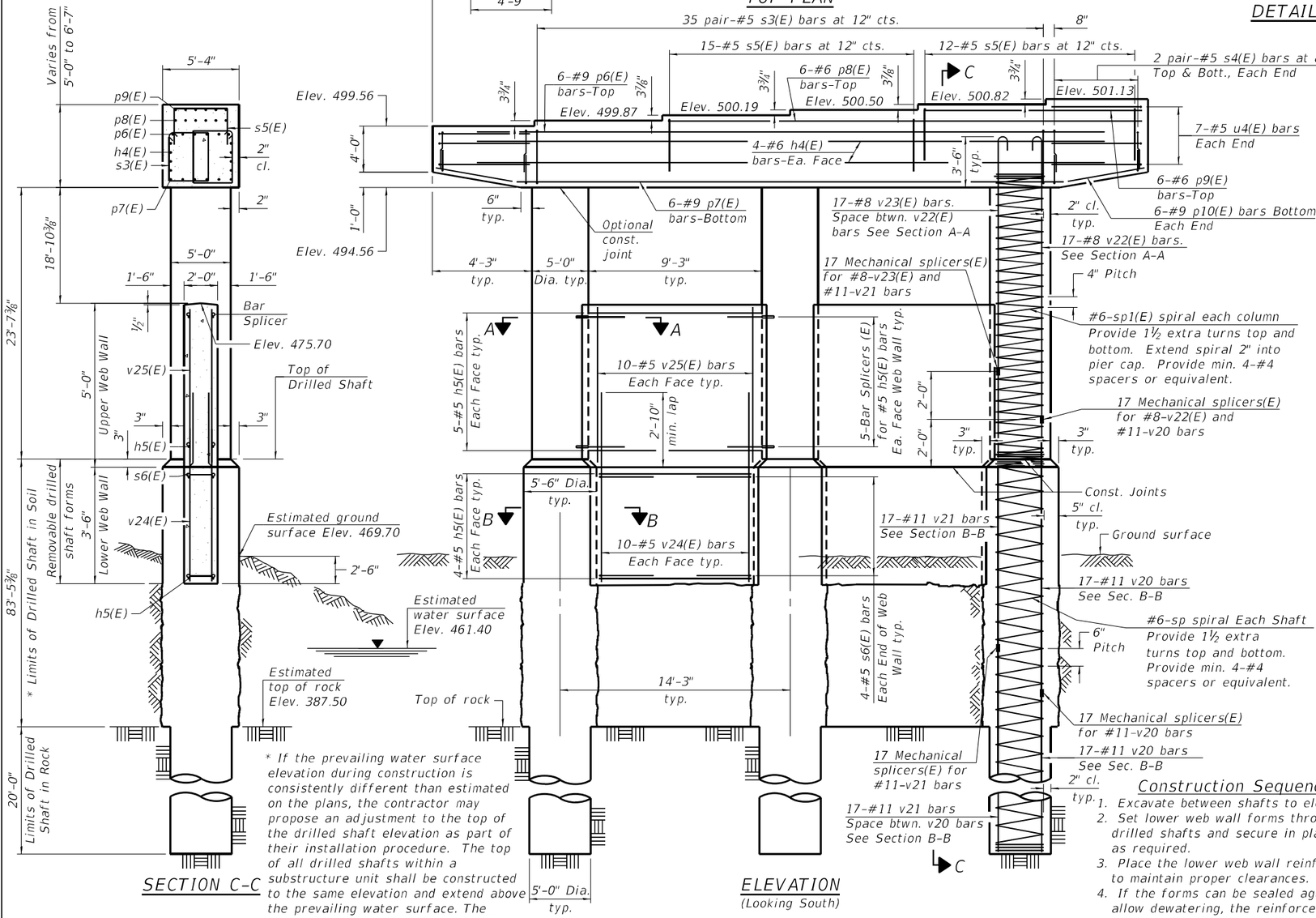
BAR s3(E)



BARS s4(E) & s5(E)

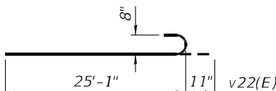


BAR s6(E)

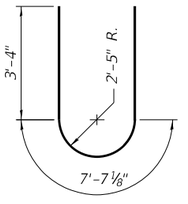


SECTION C-C

ELEVATION
(Looking South)



BARS v22(E) & v23(E)



BAR u4(E)

* If the prevailing water surface elevation during construction is consistently different than estimated on the plans, the contractor may propose an adjustment to the top of the drilled shaft elevation as part of their installation procedure. The top of all drilled shafts within a substructure unit shall be constructed to the same elevation and extend above the prevailing water surface. The quantities and reinforcement detailing are based on the top of shaft and the estimated elevations shown and may change based on the actual elevations encountered at each shaft and the final top of shaft elevation.

Construction Sequence for Web Wall:

1. Excavate between shafts to elevation of web wall base.
2. Set lower web wall reinforcements through water to bear on the circular edge of drilled shafts and secure in place with fill, struts or tie forms together as required.
3. Place the lower web wall reinforcement cage into the forms using spacers to maintain proper clearances.
4. If the forms can be sealed against the shafts and streambed to allow dewatering, the reinforcement and the concrete placement may be completed in the dry. Alternatively, the rebar cage can be lowered into position through water and the concrete discharged at the base of the excavation through a tremie pipe or pump hose, displacing water, sediment, and tainted concrete out the top of the forms.
5. Construct Columns.
6. Construct upper web walls.

BILL OF MATERIAL

	Bar	No.	Size	Length	Shape
	h4(E)	8	#6	37'-5"	
	h5(E)	36	#5	8'-7"	
	p6(E)	6	#9	37'-5"	
	p7(E)	6	#9	34'-10"	
	p8(E)	6	#6	25'-8"	
	p9(E)	6	#6	10'-8"	
	p10(E)	12	#9	3'-8"	
	s3(E)	70	#5	16'-5"	
	s4(E)	8	#5	12'-3"	
	s5(E)	27	#4	8'-8"	
	s6(E)	16	#5	7'-0"	
**	sp	3	#6	103'-3"	
**	sp1(E)	3	#6	23'-8"	
	u4(E)	14	#5	14'-3"	
	v20	102	#11	52'-8"	
	v21	102	#11	53'-8"	
	v22(E)	51	#8	26'-0"	
	v23(E)	51	#8	24'-0"	
	v24(E)	40	#5	6'-2"	
	v25(E)	40	#5	4'-8"	
	Structure Excavation		Cu. Yd.	15	
	Concrete Structures		Cu. Yd.	104.9	
	Reinforcement Bars		Pound	71,480	
	Reinforcement Bars, Epoxy Coated		Pound	16,780	
	Drilled Shaft in Soil		Cu. Yd.	220.3	
	Drilled Shaft in Rock		Cu. Yd.	43.7	
	Crosshole Sonic Logging Access Ducts		Foot	311	
	Crosshole Sonic Logging Testing		Each	3	

** Length is height of spiral.

P-DSWW 2-1-2023

MODEL: Default
FILE NAME: \\SERVER18\Projects\SS4\22057.08 IDOT D3 PTB 204-028 WO 08 I-180 over Bureau Creek\DGN\Bridge\Final\Plotsheets\006-0193&0194-66K66-055-Pier 1 Details.dgn
2/12/2024 10:37:47 AM

EFK•Moen Civil Engineering Design

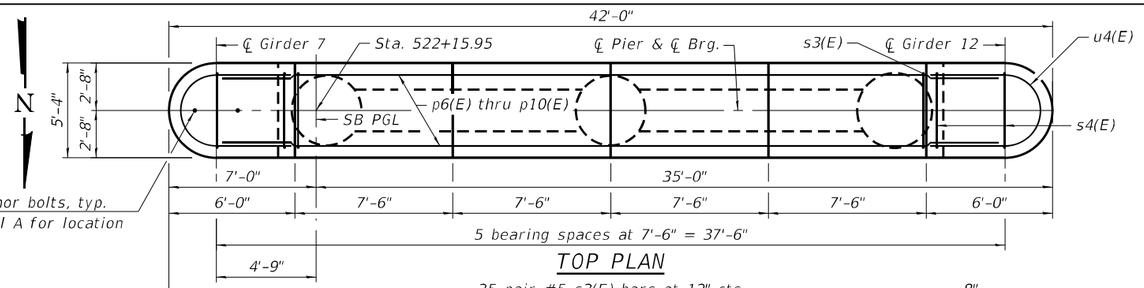
USER NAME = ABenz	DESIGNED - CMC	REVISED -	
	CHECKED - ACB	REVISED -	
PLOT SCALE =	DRAWN - CMC	REVISED -	
PLOT DATE = 2/12/2024	CHECKED - ACB	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

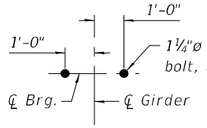
PIER 1 DETAILS
STRUCTURE NO. 006-0193 (SB)
SHEET 55 OF 80 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
180	(06-2B-1)ES	BUREAU	327	195
		CONTRACT NO. 66K66		
		ILLINOIS	FED. AID PROJECT	

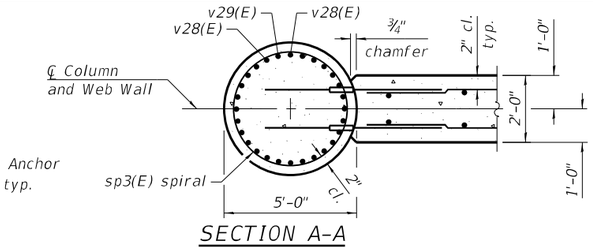
Notes:
Space reinforcement in cap to miss anchor bolts.
Pour steps monolithically with cap.
Minimum lap for spirals = 3'-8".



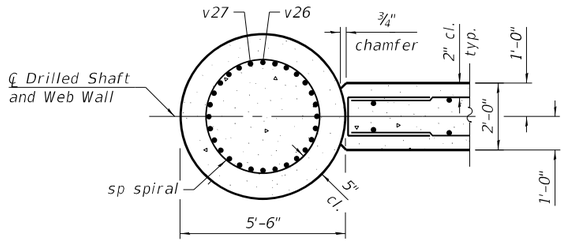
TOP PLAN



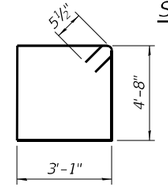
DETAIL A



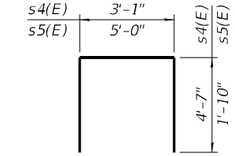
SECTION A-A



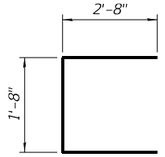
SECTION B-B



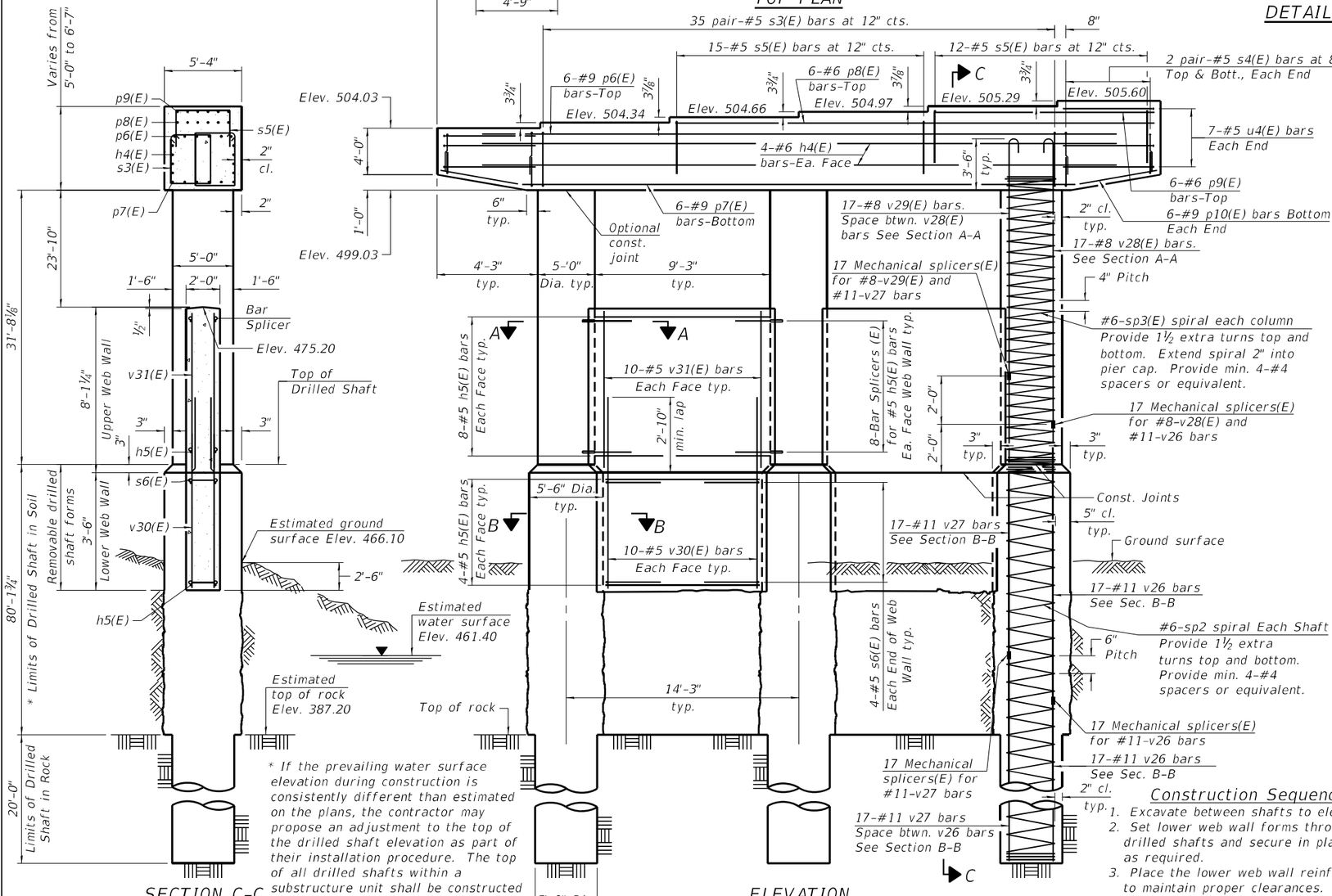
BAR s3(E)



BARS s4(E) & s5(E)

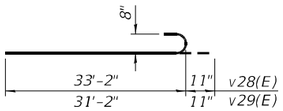


BAR s6(E)

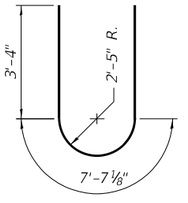


SECTION C-C

ELEVATION
(Looking South)



BARS v28(E) & v29(E)



BAR u4(E)

BILL OF MATERIAL

	Bar	No.	Size	Length	Shape
	h4(E)	8	#6	37'-5"	
	h5(E)	48	#5	8'-7"	
	p6(E)	6	#9	37'-5"	
	p7(E)	6	#9	34'-10"	
	p8(E)	6	#6	25'-8"	
	p9(E)	6	#6	10'-8"	
	p10(E)	12	#9	3'-8"	
	s3(E)	70	#5	16'-5"	
	s4(E)	8	#5	12'-3"	
	s5(E)	27	#4	8'-8"	
	s6(E)	16	#5	7'-0"	
**	sp2	3	#6	99'-11"	
**	sp3(E)	3	#6	31'-9"	
	u4(E)	14	#5	14'-3"	
	v26	102	#11	51'-0"	
	v27	102	#11	52'-0"	
	v28(E)	51	#8	34'-1"	
	v29(E)	51	#8	32'-1"	
	v30(E)	40	#5	6'-2"	
	v31(E)	40	#5	7'-9"	
	Structure Excavation		Cu. Yd.	15	
	Concrete Structures		Cu. Yd.	126.9	
	Reinforcement Bars		Pound	69,240	
	Reinforcement Bars, Epoxy Coated		Pound	20,790	
	Drilled Shaft in Soil		Cu. Yd.	211.6	
	Drilled Shaft in Rock		Cu. Yd.	43.7	
	Crosshole Sonic Logging Access Ducts		Foot	301	
	Crosshole Sonic Logging Testing		Foot	3	

** Length is height of spiral.

* If the prevailing water surface elevation during construction is consistently different than estimated on the plans, the contractor may propose an adjustment to the top of the drilled shaft elevation as part of their installation procedure. The top of all drilled shafts within a substructure unit shall be constructed to the same elevation and extend above the prevailing water surface. The quantities and reinforcement detailing are based on the top of shaft and the estimated elevations shown and may change based on the actual elevations encountered at each shaft and the final top of shaft elevation.

Construction Sequence for Web Wall:

1. Excavate between shafts to elevation of web wall base.
2. Set lower web wall reinforcements through water to bear on the circular edge of drilled shafts and secure in place with fill, struts or tie forms together as required.
3. Place the lower web wall reinforcement cage into the forms using spacers to maintain proper clearances.
4. If the forms can be sealed against the shafts and streambed to allow dewatering, the reinforcement and the concrete placement may be completed in the dry. Alternatively, the rebar cage can be lowered into position through water and the concrete discharged at the base of the excavation through a tremie pipe or pump hose, displacing water, sediment, and tainted concrete out the top of the forms.
5. Construct Columns.
6. Construct upper web walls.

P-DSWW 2-1-2023

EFK•Moen
Civil Engineering Design

USER NAME = ABenz	DESIGNED - CMC	REVISED -	
	CHECKED - ACB	REVISED -	
PLOT SCALE =	DRAWN - CMC	REVISED -	
PLOT DATE = 2/12/2024	CHECKED - ACB	REVISED -	

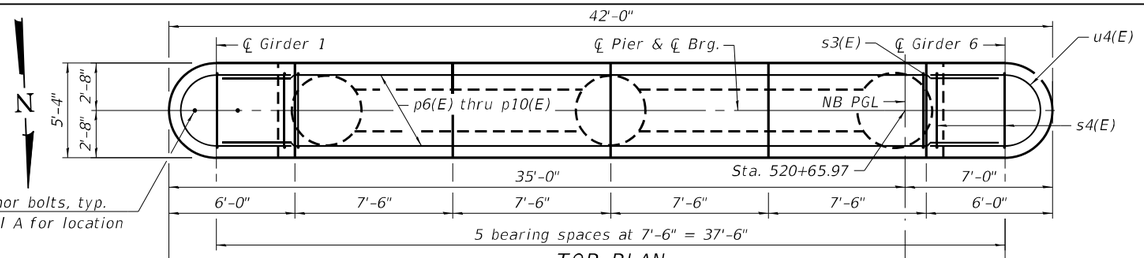
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER 2 DETAILS
STRUCTURE NO. 006-0193 (SB)
SHEET 56 OF 80 SHEETS

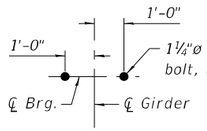
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
180	(06-2B-1)ES	BUREAU	327	196
		CONTRACT NO. 66K66		
		ILLINOIS	FED. AID PROJECT	

MODEL: Default
FILE NAME: \\SERVER18\Projects\SS4\22057.08 IDOT D3 PTB 204-028 WO 08 I-180 over Bureau Creek\DGN\Bridge\Final\Plotsheets\006-0193&0194-66K66-056-Pier 2 Details.dgn
2/12/2024 10:37:51 AM

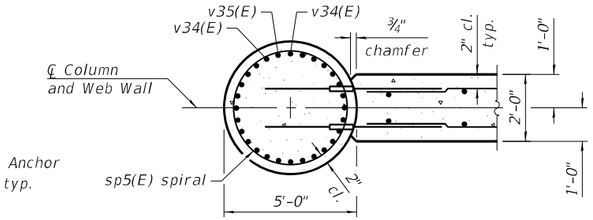
Notes:
Space reinforcement in cap to miss anchor bolts.
Pour steps monolithically with cap.
Minimum lap for spirals = 3'-8".



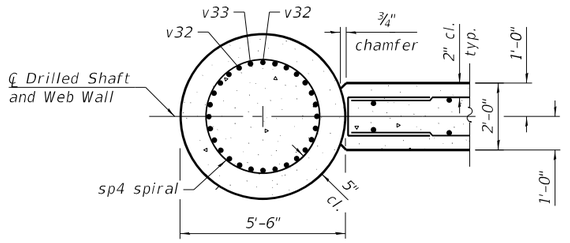
TOP PLAN



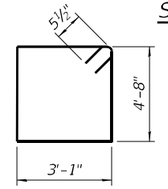
DETAIL A



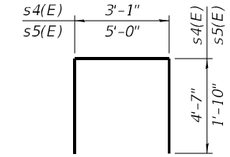
SECTION A-A



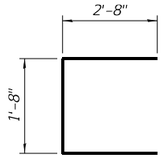
SECTION B-B



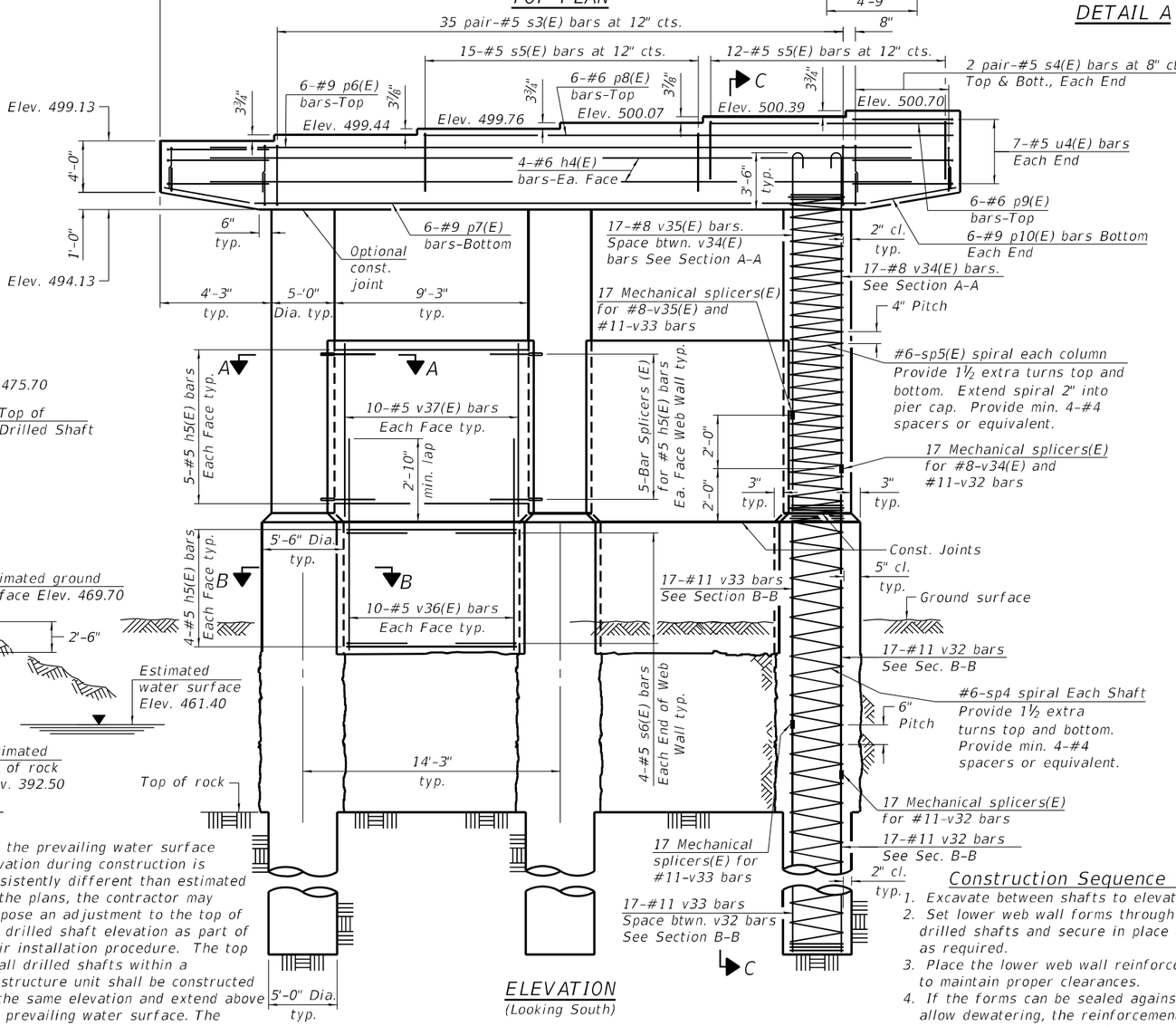
BAR s3(E)



BARS s4(E) & s5(E)



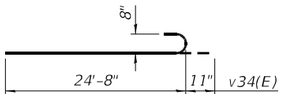
BAR s6(E)



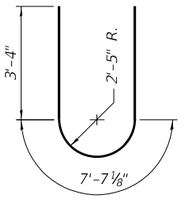
SECTION C-C

ELEVATION
(Looking South)

* If the prevailing water surface elevation during construction is consistently different than estimated on the plans, the contractor may propose an adjustment to the top of the drilled shaft elevation as part of their installation procedure. The top of all drilled shafts within a substructure unit shall be constructed to the same elevation and extend above the prevailing water surface. The quantities and reinforcement detailing are based on the top of shaft and the estimated elevations shown and may change based on the actual elevations encountered at each shaft and the final top of shaft elevation.



BARS v34(E) & v35(E)



BAR u4(E)

BILL OF MATERIAL

	Bar	No.	Size	Length	Shape
	h4(E)	8	#6	37'-5"	
	h5(E)	36	#5	8'-7"	
	p6(E)	6	#9	37'-5"	
	p7(E)	6	#9	34'-10"	
	p8(E)	6	#6	25'-8"	
	p9(E)	6	#6	10'-8"	
	p10(E)	12	#9	3'-8"	
	s3(E)	70	#5	16'-5"	
	s4(E)	8	#5	12'-3"	
	s5(E)	27	#4	8'-8"	
	s6(E)	16	#5	7'-0"	
**	sp4	3	#6	98'-3"	
**	sp5(E)	3	#6	23'-3"	
	u4(E)	14	#5	14'-3"	
	v32	102	#11	50'-2"	
	v33	102	#11	51'-2"	
	v34(E)	51	#8	25'-7"	
	v35(E)	51	#8	23'-7"	
	v36(E)	40	#5	6'-2"	
	v37(E)	40	#5	4'-8"	
	Structure Excavation		Cu. Yd.	15	
	Concrete Structures		Cu. Yd.	104.0	
	Reinforcement Bars		Pound	68,110	
	Reinforcement Bars, Epoxy Coated		Pound	16,770	
	Drilled Shaft in Soil		Cu. Yd.	207.1	
	Drilled Shaft in Rock		Cu. Yd.	43.7	
	Crosshole Sonic Logging Access Ducts		Foot	296	
	Crosshole Sonic Logging Testing		Each	3	

** Length is height of spiral.

Construction Sequence for Web Wall:

1. Excavate between shafts to elevation of web wall base.
2. Set lower web wall reinforcements through water to bear on the circular edge of drilled shafts and secure in place with fill, struts or tie forms together as required.
3. Place the lower web wall reinforcement cage into the forms using spacers to maintain proper clearances.
4. If the forms can be sealed against the shafts and streambed to allow dewatering, the reinforcement and the concrete placement may be completed in the dry. Alternatively, the rebar cage can be lowered into position through water and the concrete discharged at the base of the excavation through a tremie pipe or pump hose, displacing water, sediment, and tainted concrete out the top of the forms.
5. Construct Columns.
6. Construct upper web walls.

P-DSWW 2-1-2023

EFK•Moen
Civil Engineering Design

USER NAME = ABenz	DESIGNED - CMC	REVISED -	
	CHECKED - ACB	REVISED -	
PLOT SCALE =	DRAWN - CMC	REVISED -	
PLOT DATE = 2/12/2024	CHECKED - ACB	REVISED -	

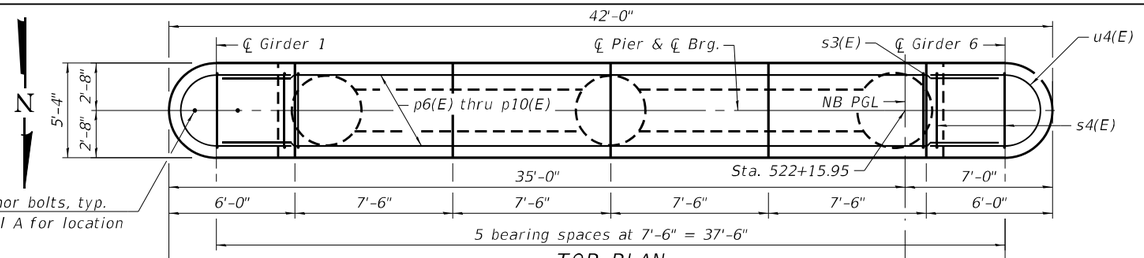
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER 1 DETAILS
STRUCTURE NO. 006-0194 (NB)
SHEET 57 OF 80 SHEETS

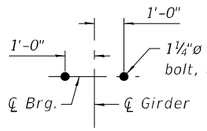
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
180	(06-2B-1)ES	BUREAU	327	197
		CONTRACT NO. 66K66		
		ILLINOIS	FED. AID PROJECT	

MODEL: Default
FILE NAME: \\SERVER18\Projects\Sa22057.08 IDOT D3 PTB 204-028 WO 08 I-180 over Bureau Creek\DGN\Bridge\Final\Plotsheets\006-0193&0194-66K66-057-Pier 1 Details.dgn
2/12/2024 10:37:55 AM

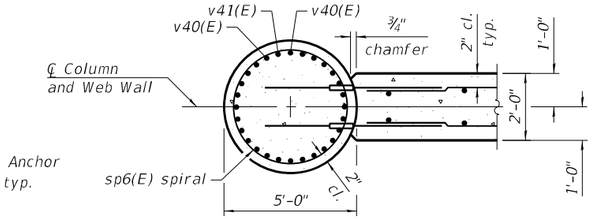
Notes:
Space reinforcement in cap to miss anchor bolts.
Pour steps monolithically with cap.
Minimum lap for spirals = 3'-8".



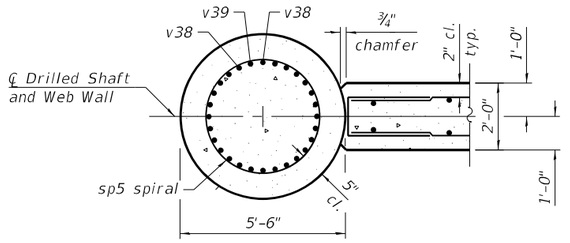
TOP PLAN



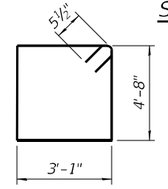
DETAIL A



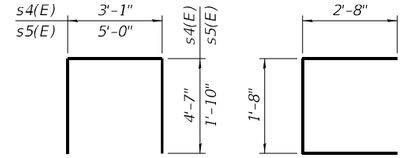
SECTION A-A



SECTION B-B

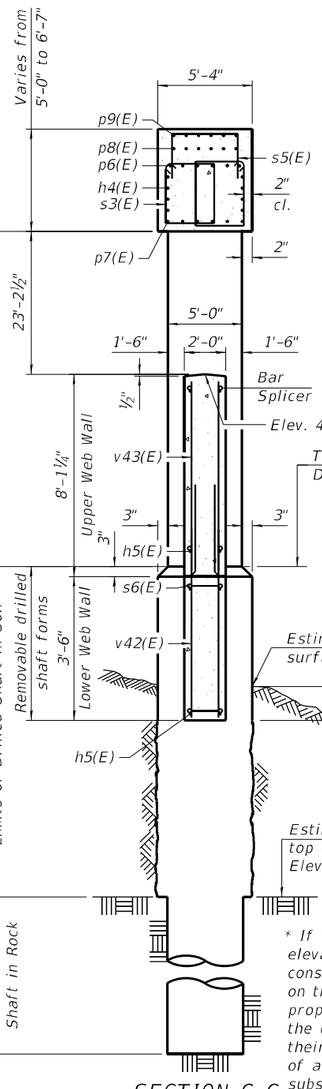


BAR s3(E)

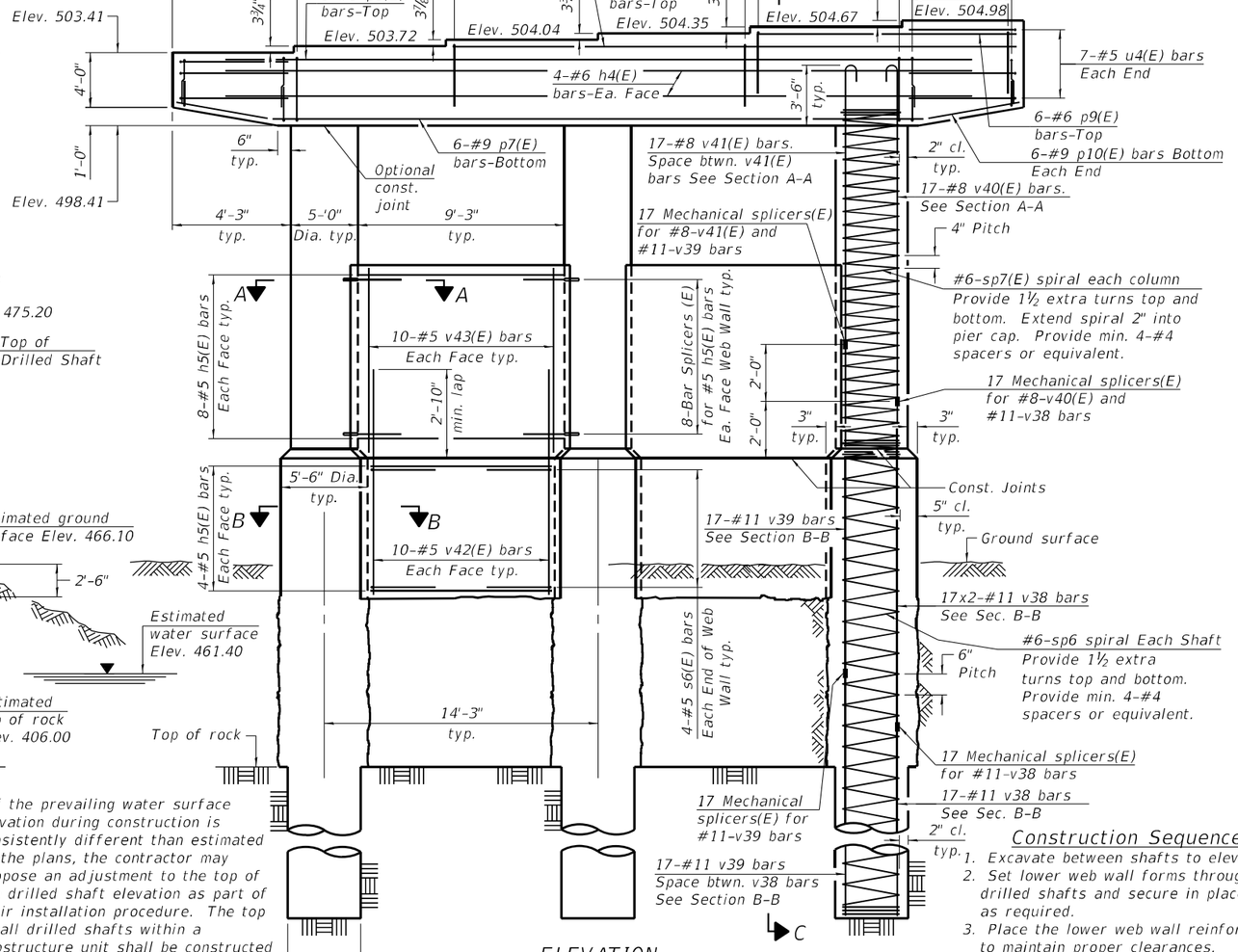


BARS s4(E) & s5(E)

BAR s6(E)

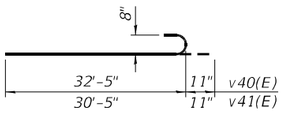


SECTION C-C

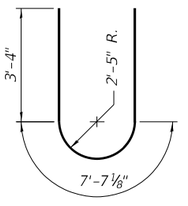


ELEVATION

(Looking South)



BARS v40(E) & v41(E)



BAR u4(E)

BILL OF MATERIAL

	Bar	No.	Size	Length	Shape
	h4(E)	8	#6	37'-5"	—
	h5(E)	48	#5	8'-7"	—
	p6(E)	6	#9	37'-5"	—
	p7(E)	6	#9	34'-10"	—
	p8(E)	6	#6	25'-8"	—
	p9(E)	6	#6	10'-8"	—
	p10(E)	12	#9	3'-8"	—
	s3(E)	70	#5	16'-5"	⊐
	s4(E)	8	#5	12'-3"	⊔
	s5(E)	27	#4	8'-8"	⊔
	s6(E)	16	#5	7'-0"	⊏
**	sp6	3	#6	81'-2"	∿∿∿
**	sp7(E)	3	#6	31'-1"	∿∿∿
	u4(E)	14	#5	14'-3"	⊃
	v38	102	#11	41'-8"	—
	v39	102	#11	42'-8"	—
	v40(E)	51	#8	33'-4"	⊃
	v41(E)	51	#8	31'-4"	⊃
	v42(E)	40	#5	6'-2"	—
	v43(E)	40	#5	7'-9"	—
	Structure Excavation		Cu. Yd.	15	
	Concrete Structures		Cu. Yd.	125.6	
	Reinforcement Bars		Pound	56,670	
	Reinforcement Bars, Epoxy Coated		Pound	20,670	
	Drilled Shaft in Soil		Cu. Yd.	162.0	
	Drilled Shaft in Rock		Cu. Yd.	43.7	
	Crosshole Sonic Logging Access Ducts		Foot	245	
	Crosshole Sonic Logging Testing		Each	3	

** Length is height of spiral.

Construction Sequence for Web Wall:

1. Excavate between shafts to elevation of web wall base.
2. Set lower web wall reinforcement cage into the forms using spacers to maintain proper clearances.
3. Place the lower web wall reinforcement cage into the forms using spacers to maintain proper clearances.
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P-DSWW 2-1-2023

EFK•Moen Civil Engineering Design

USER NAME = ABenz	DESIGNED - CMC	REVISED -	
	CHECKED - ACB	REVISED -	
PLOT SCALE =	DRAWN - CMC	REVISED -	
PLOT DATE = 2/12/2024	CHECKED - ACB	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER 2 DETAILS
STRUCTURE NO. 006-0194 (NB)
SHEET 58 OF 80 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
180	(06-2B-1)ES	BUREAU	327	198
		CONTRACT NO. 66K66		
		ILLINOIS	FED. AID PROJECT	

MODEL: Default
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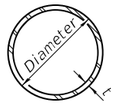
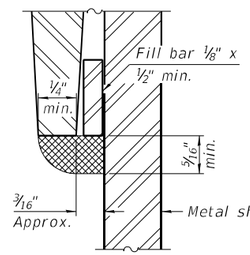
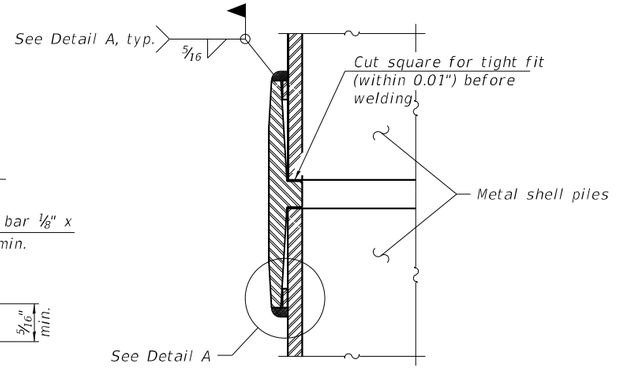


METAL SHELL PILE TABLE

Designation and outside diameter	Wall thickness t	Weight per foot (Lbs./ft.)	Inside volume (yd.³/ft.)
PP12	0.250"	31.40	0.0267
PP14	0.250"	36.75	0.0368
PP14	0.312"	45.65	0.0361
PP16	0.312"	52.32	0.0478
PP16	0.375"	62.64	0.0470

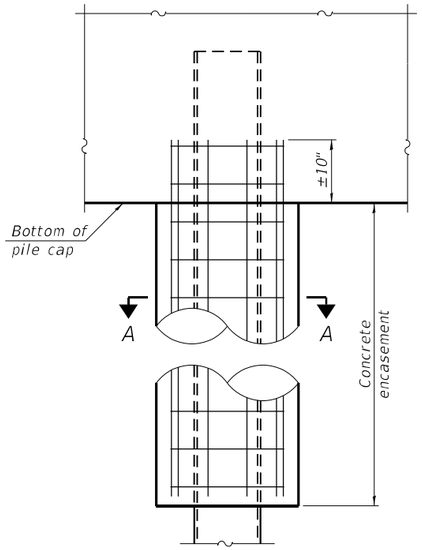


DETAIL A

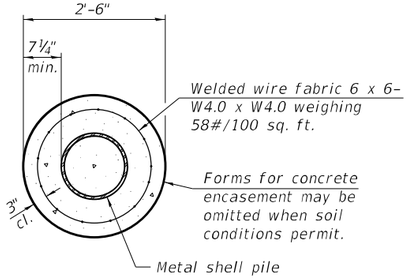


WELDED COMMERCIAL SPLICE

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.



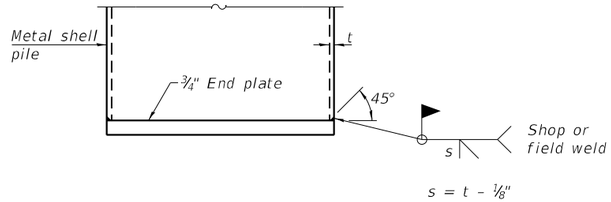
ELEVATION



SECTION A–A

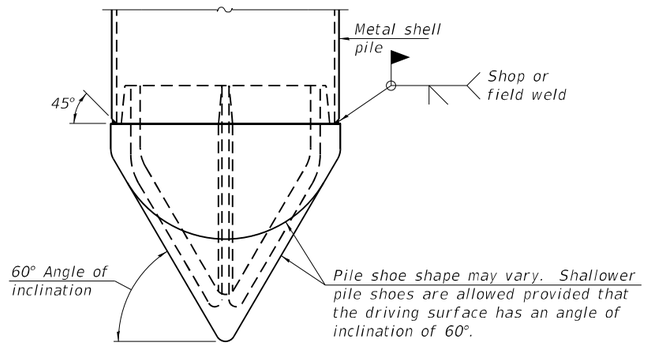
INDIVIDUAL PILE CONCRETE ENCASEMENT

(When specified)



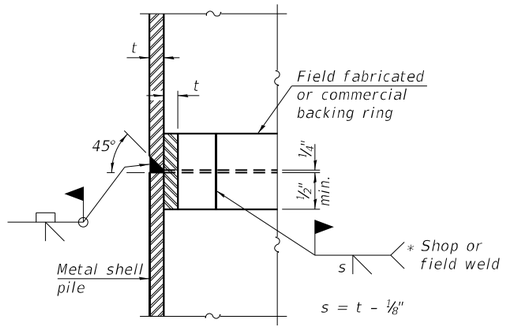
s = t – ⅛"

END PLATE ATTACHMENT



PILE SHOE ATTACHMENT

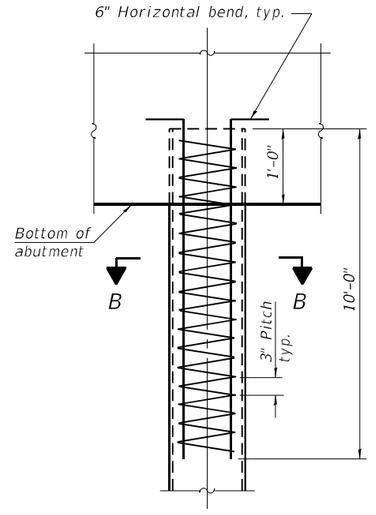
(When called for on the plans, the Contractor shall furnish metal shell pile shoes consisting of a single piece conical pile point as shown. The pile shoes shall be cast in one piece steel according to either ASTM A 148 Grade 80–50 or AASHTO M 103 Grade 65–35 and shall provide full bearing over the full 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).



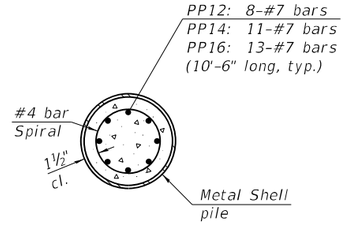
s = t – ⅛"

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.

F–MS 2-1-2023

EFK•Moen Civil Engineering Design

USER NAME = ABenz	DESIGNED - CMC	REVISED -
	CHECKED - ACB	REVISED -
PLOT SCALE =	DRAWN - CMC	REVISED -
PLOT DATE = 2/12/2024	CHECKED - ACB	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

METAL SHELL PILE DETAILS
STRUCTURE NO. 006–0193 (SB) & 006–0194 (NB)
SHEET 59 OF 80 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
180	(06-2B-1)ES	BUREAU	327	199
		CONTRACT NO. 66K66		
	ILLINOIS	FED. AID PROJECT		

MODEL: Default
FILE NAME: \\SERVER18\Projects\55a\22057.08 IDOT D3 PTB 204-028 WO 08 I-180 over Bureau Creek\DGN\Bridge\FinalPlotsheets\006-0193&0194-66K66-059-Piles.dgn
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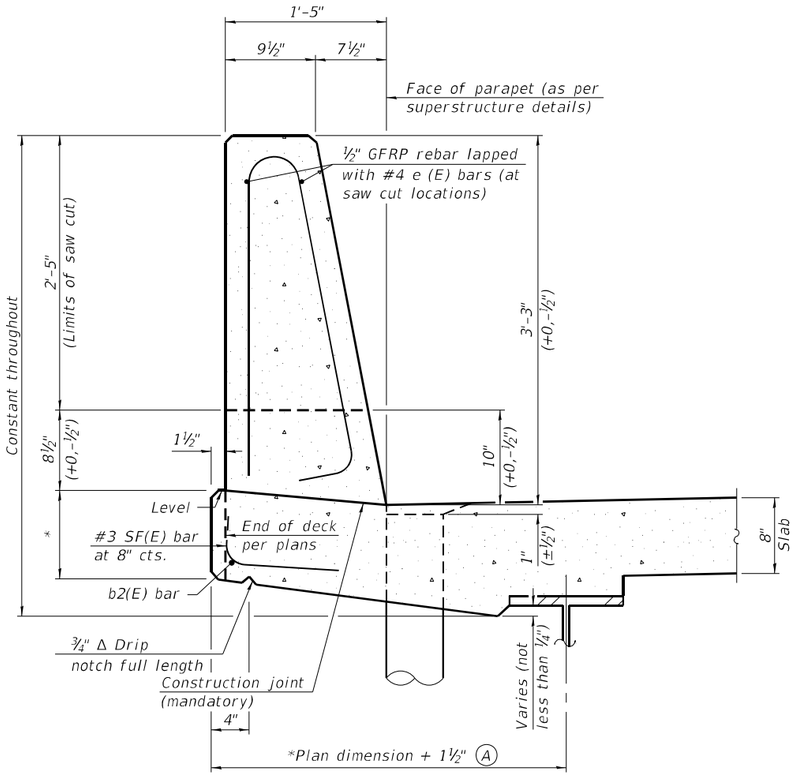
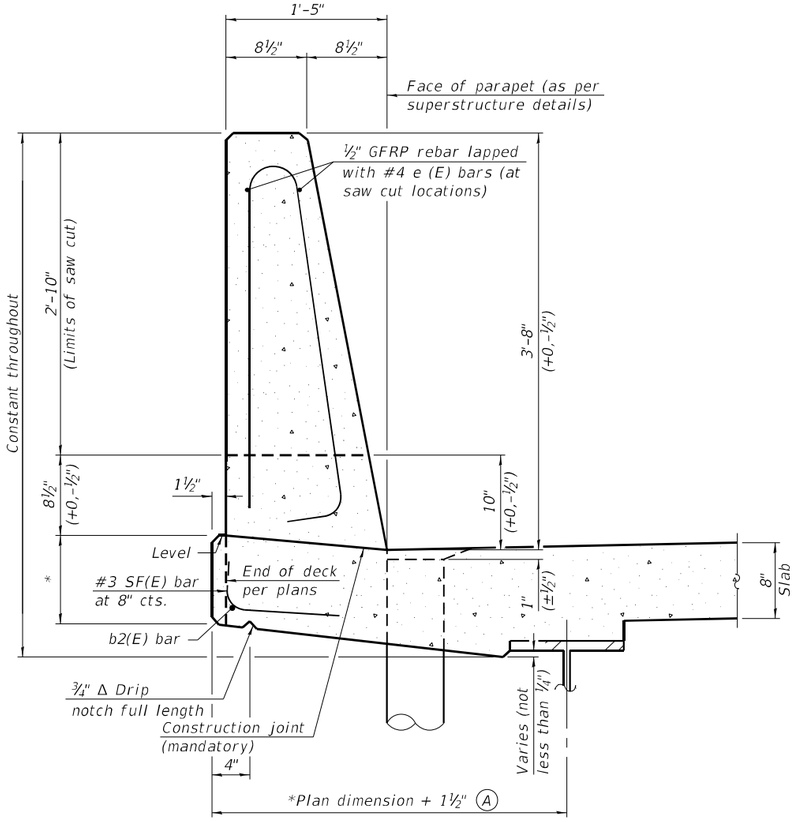


39" CONSTANT-SLOPE PARAPET SECTION

(Showing dimensions, d(E), and ½" Ø GFRP rebar)



44" CONSTANT-SLOPE PARAPET SECTION

(Showing dimensions, d(E), and ½" Ø GFRP rebar)

*See Superstructure Details.

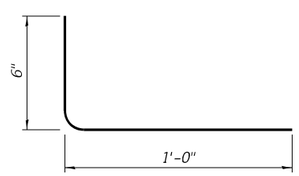
Notes:

All dimensions shall remain the same as shown on superstructure details, except dimension A which is to be revised as shown. Additional concrete needed to revise dimension A = 0.00348 cu. yds./ft. for 39" and 44" parapets.

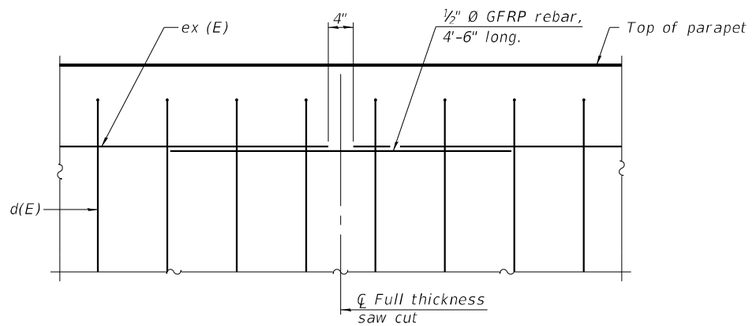
Place full depth aluminum sheets as shown on superstructure details.

Replace all cork joint filler locations with a full thickness saw cut.

Steel superstructure shown. Other superstructure types similar.



SF(E) BAR



GFRP REBAR STIFFENING DETAIL

(Place as shown in parapet section at each parapet joint location.)

SFP 39-44 11-1-2022

EFK•Moen Civil Engineering Design

USER NAME = ABenz	DESIGNED - CMC	REVISED -
	CHECKED - ACB	REVISED -
PLOT SCALE =	DRAWN - CMC	REVISED -
PLOT DATE = 2/12/2024	CHECKED - ACB	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONCRETE PARAPET SLIPFORMING OPTION
STRUCTURE NO. 006-0193 (SB) & 006-0194 (NB)
SHEET 60 OF 80 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
180	(06-2B-1)ES	BUREAU	327	200
		CONTRACT NO. 66K66		
	ILLINOIS	FED. AID PROJECT		

MODEL: Default
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