

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
714	(128BR-1)B-1	MACON	54	1
		ILLINOIS	CONTRACT NO. 74368	

FOR INDEX OF SHEETS, SEE SHEET NO. 2

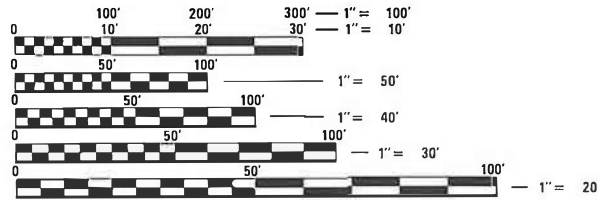
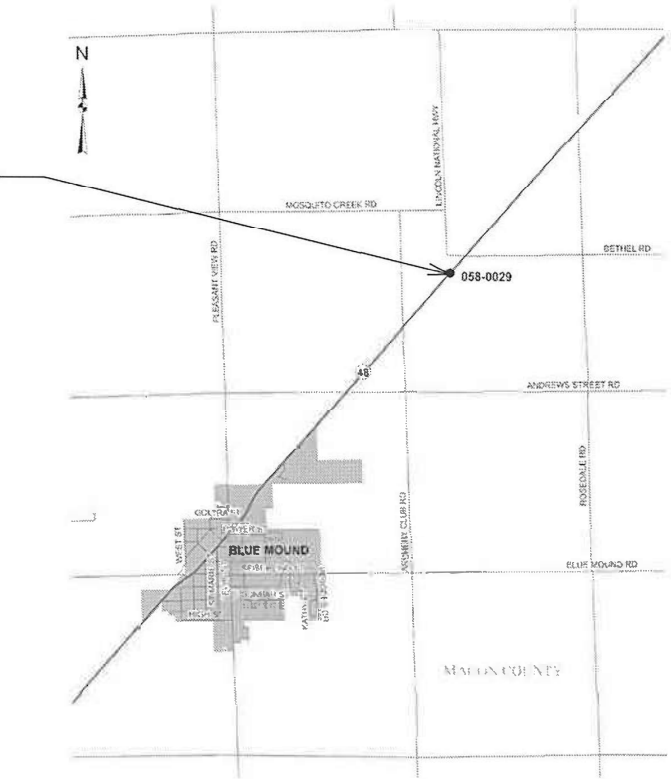
AADT (2021) = 4550

PROPOSED
HIGHWAY PLANS

FAP ROUTE 714 (IL 48)
SECTION (128BR-1)B-1
PROJECT STP-VNWG(689)
STRUCTURE REPLACEMENT
MACON COUNTY

C-97-046-09

PROJECT LOCATION
EXISTING SN 058-0029
PROPOSED SN 058-0137
STATION 382 + 15.80



FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD
ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT
CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS
ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATORS
1-800-892-0123
OR 811

PROJECT ENGINEER: BRIAN LEWIS
PROJECT MANAGER: BRIAN LEWIS
PHONE NO.: (217) 342-8360
CONTRACT NO. 74368

GROSS LENGTH = 84.67 FT. = 0.016 MILE
NET LENGTH = 84.67 FT. = 0.016 MILE



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED OCTOBER 9 20 25
Teresa C Price
REGIONAL ENGINEER

December 5 2025
[Signature]
ENGINEER OF DESIGN AND ENVIRONMENT

December 5 2025
[Signature]
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

GENERAL NOTES

THIS PROJECT IS LOCATED ON FAP 714 (IL 48) IN MACON COUNTY, OVER MOSQUITO CREEK, 1.5 MILES NORTHEAST OF BLUE MOUND.

THE WORK ON THIS PROJECT CONSISTS OF REMOVING AND REPLACING THE EXISTING STRUCTURE, NEW APPROACH PAVEMENTS, EARTH EXCAVATION AND EMBANKMENT, HOT-MIX ASPHALT MILLING, RESURFACING, HOT-MIX ASPHALT SHOULDERS, AGGREGATE SHOULDERS, GUARDRAIL, PAVEMENT MARKING, TRAFFIC CONTROL, AND ANY OTHER WORK NECESSARY TO COMPLETE THIS SECTION. THIS WORK WILL BE COMPLETED UTILIZING STAGE CONSTRUCTION.

ALL WORK ON, UNDER, OVER OR ADJACENT TO NORFOLK SOUTHERN RIGHT-OF-WAY SHALL BE PERFORMED IN ACCORDANCE WITH THE NORFOLK SOUTHERN PUBLIC PROJECT MANUAL.

PRIOR TO COMMENCING WORK THE CONTRACTOR SHALL REQUEST AND FOLLOW THE LATEST VERSION OF NORFOLK SOUTHERN'S "SPECIAL PROVISIONS FOR PROTECTION OF RAILROAD INTERESTS."

IF THE PROJECT REQUIRES THAT NS TRACK EMBANKMENT SLOPES MUST BE CLEARED TO ALLOW FOR PROJECT IMPROVEMENTS, THERE SHALL BE NO "CLEARING AND GRUBBING." ANY SLOPES REQUIRED TO BE ALTERED SHALL BE IMPROVED WITH RIPRAP TO MAINTAIN EXISTING SLOPE STABILITY. IN SUCH INSTANCES, PRIOR TO PLACEMENT OF FILTER FABRIC AND PROPOSED RIPRAP, THE EXISTING NS TRACK EMBANKMENT SLOPES SHALL BE CLEARED OF ALL DEBRIS INCLUDING TREE STUMPS, DEAD TREE BRANCHES, LARGE VEGETATION, AND OTHER OBJECTS THAT HAVE THE POTENTIAL TO PUNCTURE OR OTHERWISE DAMAGE THE PROPOSED FILTER FABRIC WHEN THE PROPOSED RIPRAP IS PLACED. HOWEVER, IF SUCH ITEMS, DEAD OR ALIVE, ARE ANCHORED IN THE SLOPE, THEY SHALL BE CUT OFF FLUSH WITH THE GROUND AND THEIR ROOTS LEFT IN PLACE TO ASSIST IN RETAINING STABILITY OF THE RAILROAD SLOPE. LIGHT VEGETATION MAY BE PRESSED DOWN ON THE NS EMBANKMENT SLOPE, TAKING CARE NOT TO STRIP, RAKE OR RIP OUT THE VEGETATION.

EXCAVATION WILL NOT BE ALLOWED WITHIN 5 FEET OF THE EXISTING WINGWALLS OF THE NORFOLK SOUTHERN BRIDGE. ANY DITCH EXCAVATION WITHIN 25 FEET OF ANY PORTION OF THE NORFOLK SOUTHERN BRIDGE SHALL BE LINED WITH RIPRAP GRADATION A4 AND SHALL HAVE FINISHED SLOPES NOSTEEPER THAN 1V:2H. THERE SHALL BE NO EXCAVATION ON, OR AT THE TOE OF THE NORFOLK SOUTHERN STRUCTURE SLOPES WITHOUT REVIEW AND COMPLIANCE WITH NORFOLK SOUTHERN RAILWAY SHORING REQUIREMENTS.

TOP OF RAIL ELEVATIONS SHALL BE CHECKED BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION. ANY DISCREPANCY SHALL BE BROUGHT TO THE ATTENTION OF THE NORFOLK SOUTHERN ENGINEER OF PUBLIC IMPROVEMENTS.

THE DEPARTMENT WILL PROVIDE NORFOLK SOUTHERN RAILWAY WITH AS-BUILT DRAWINGS OF THE BRIDGE SHOWING THE ACTUAL DIMENSIONS AS CONSTRUCTED. DEPTH, SIZE, AND LOCATION OF FOUNDATION COMPONENTS SHALL BE SHOWN ON THE DRAWINGS.

TREES THREE (3) INCHES OR GREATER IN DIAMETER AT BREAST HEIGHT SHALL NOT BE CLEARED FROM APRIL 1ST THROUGH SEPTEMBER 30TH OF ANY GIVEN YEAR.

ONE NEW PERMANENT SURVEY MARKER SHALL BE CAST IN PLACE IN A WINGWALL OF THE NEW STRUCTURE.

PIPE UNDERDRAINS FOR STRUCTURES SHALL EXTEND TO THE BOTTOM OF THE EMBANKMENT SLOPE AND TERMINATE WITH A CONCRETE HEADWALL.

THE FOLLOWING MIXTURE REQUIREMENTS ARE APPLICABLE TO THIS PROJECT:

APPLICATION	AC/PG	DESIGN AIR VOIDS	MIXTURE COMPOSITION	FRICTION AGGREGATE	TESTING PARAMETER
POLYMERIZED HMA SURFACE COURSE, MIX "D", N90	SBS PG 70-22	4.0% @ N=90	IL-9.5	MIXTURE D	QC/QA
POLYMERIZED HMA BINDER COURSE, IL-19.0, N90 (VAR DEPTH)	SBS PG 70-22	4.0% @ N=90	IL-19.0	N/A	QC/QA
HMA SHOULDERS (TOP LIFT)	PG 64-22	4.0% @ N=70	IL-9.5	MIXTURE C	QC/QA
HMA SHOULDERS (BOTTOM LIFT)	PG 64-22	4.0% @ N=70	IL-19.0	N/A	QC/QA

INDEX OF SHEETS

SHEET NO.	ITEM
1	COVER SHEET
2	GENERAL NOTES, INDEX OF SHEETS & LIST OF STANDARDS
3-5	SUMMARY OF QUANTITIES
6	TYPICAL SECTION
7	SCHEDULES OF QUANTITIES
8-9	PLAN AND PROFILE SHEETS
10-11	STAGING DETAILS
12	EROSION CONTROL DETAILS
13	ROW SHEET
14	MILLING & PAVING DETAILS
15	GUARDRAIL DETAILS
16-41	STRUCTURAL SHEETS
42-45	DISTRICT DETAILS
46-54	CROSS SECTIONS

THE FOLLOWING STANDARDS ARE A PART OF THESE PLANS AND ARE INCLUDED FOLLOWING THE LAST NUMBERED SHEET OF THE PLANS.

STD. NO.	DESCRIPTION
000001-09	STANDARD SYMBOLS, ABBREVIATIONS, AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
280001-07	TEMPORARY EROSION CONTROL SYSTEMS
420401-13	PAVEMENT CONNECTOR (PCC) FOR BRIDGE APPROACH SLAB
482001-02	HMA SHOULDER ADJACENT TO FLEXIBLE PAVEMENT
515001-04	NAME PLATE FOR BRIDGES
630001-13	STEEL PLATE BEAM GUARDRAIL
630201-07	PCC/HMA STABILIZATION AT STEEL PLATE BEAM GUARDRAIL
630301-09	SHOULDER WIDENING FOR TYPE 1 GUARDRAIL TERMINALS
631031-18	TRAFFIC BARRIER TERMINAL, TYPE 6
701001-02	OFF-ROAD OPERATIONS, 2L, 2W, MORE THAN 15' AWAY
701006-05	OFF-ROAD OPERATIONS, 2L, 2W, 15' TO 24" FROM PAVEMENT EDGE
701011-04	OFF-ROAD MOVING OPERATIONS, 2L, 2W, DAY ONLY
701201-05	LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS >= 45 MPH
701301-04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701311-03	LANE CLOSURE, 2L, 2W, MOVING OPERATIONS - DAY ONLY
701321-19	LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER
701326-04	LANE CLOSURE, 2L, 2W, PAVEMENT WIDENING, FOR SPEEDS >= 45 MPH
701901-11	TRAFFIC CONTROL DEVICES
704001-08	TEMPORARY CONCRETE BARRIER
725001-01	OBJECT AND TERMINAL MARKERS
780001-05	TYPICAL PAVEMENT MARKINGS
781001-04	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVMENT MARKERS
701316-14	LANE CLOSURE, 2L, 2W, BRIDGE REPAIR

THE PROPOSED PROJECT IS NOT ANTICIPATED TO CHANGE THE QUANTITY AND/OR CHARACTER OF FLOW ONTO THE NORFOLK SOUTHERN RAILWAY RIGHT-OF WAY.

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		DRAWN -	REVISED -				714	(128BR-1)B-1	MACON	54	2
	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -				CONTRACT NO. 74368				
	PLOT DATE = 12/31/2024	DATE -	REVISED -		SCALE:	SHEET 1	OF 1	SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT

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SUMMARY OF QUANTITIES			80% FED 20% STATE			
CODE NO	ITEM	UNIT	TOTAL QUANTITIES	CONSTRUCTION TYPE CODE		
				0010		
20100500	TREE REMOVAL, ACRES	ACRE	0.5	0.5		
20200100	EARTH EXCAVATION	CU YD	6	6		
20200500	EARTH EXCAVATION (WIDENING)	CU YD	56	56		
20300100	CHANNEL EXCAVATION	CU YD	1357	1357		
20400800	FURNISHED EXCAVATION	CU YD	1407	1407		
20600110	GRANULAR EMBANKMENT, SPECIAL	TON	262	262		
21101505	TOPSOIL EXCAVATION AND PLACEMENT	CU YD	584	584		
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	252	252		
28000305	TEMPORARY DITCH CHECKS	FOOT	20	20		
28000400	PERIMETER EROSION BARRIER	FOOT	770	770		
28100107	STONE RIPRAP, CLASS A4	SQ YD	89	89		
28100109	STONE RIPRAP, CLASS A5	SQ YD	901	901		
28200200	FILTER FABRIC	SQ YD	901	901		
31101900	SUBBASE GRANULAR MATERIAL, TYPE C	TON	32	32		

SUMMARY OF QUANTITIES			80% FED 20% STATE			
CODE NO	ITEM	UNIT	TOTAL QUANTITIES	CONSTRUCTION TYPE CODE		
				0010		
35400300	PORTLAND CEMENT CONCRETE BASE COURSE WIDENING	SQ YD	251	251		
	8"					
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	1119	1119		
40600370	LONGITUDINAL JOINT SEALANT	FOOT	497	497		
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	367	367		
40600990	TEMPORARY RAMP	SQ YD	67	67		
40603240	POLYMERIZED HOT-MIX ASPHALT BINDER COURSE,	TON	486	486		
	IL-19.0, N90					
40604164	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE,	TON	111	111		
	IL-9.5, MIX "D", N90					
42000060	WELDED WIRE REINFORCEMENT	SQ YD	80	80		
42000080	PAVEMENT CONNECTOR (PCC) FOR BRIDGE APPROACH	SQ YD	137	137		
	SLAB					
44000100	PAVEMENT REMOVAL	SQ YD	135	135		
48101200	AGGREGATE SHOULDERS, TYPE B	TON	196	196		
48203100	HOT-MIX ASPHALT SHOULDERS	TON	563	563		

REV - MS

	USER NAME = jessica.hille	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 100.0000 ' / in.	DRAWN -	REVISED -					714	(128BR-1)B-1	MACON	54	3
	PLOT DATE = 12/31/2024	CHECKED -	REVISED -		CONTRACT NO. 74368							
		DATE -	REVISED -		SCALE:	SHEET 1	OF 3	SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT	

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SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE		
				0010		
CODE NO	ITEM	UNIT				
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1	1		
50200100	STRUCTURE EXCAVATION	CU YD	216	216		
50300225	CONCRETE STRUCTURES	CU YD	77.3	77.3		
50300255	CONCRETE SUPERSTRUCTURE	CU YD	159.3	159.3		
50300260	BRIDGE DECK GROOVING	SQ YD	602	602		
50300300	PROTECTIVE COAT	SQ YD	742	742		
50301350	CONCRETE SUPERSTRUCTURE (APPROACH SLAB)	CU YD	118.1	118.1		
50500105	FURNISHING AND ERECTING STRUCTURAL STEEL	L SUM	1	1		
50500505	STUD SHEAR CONNECTORS	EACH	1968	1968		
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	88490	88490		
50800515	BAR SPLICERS	EACH	602	602		
51201610	FURNISHING STEEL PILES HP12X63	FOOT	604	604		
51202305	DRIVING PILES	FOOT	604	604		
51203610	TEST PILE STEEL HP12X63	EACH	1	1		

SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE		
				0010		
CODE NO	ITEM	UNIT				
51500100	NAME PLATES	EACH	1	1		
52100520	ANCHOR BOLTS, 1"	EACH	24	24		
52200010	TEMPORARY SHEET PILING	SQ FT	301	301		
52200020	TEMPORARY SOIL RETENTION SYSTEM	SQ FT	281	281		
58600101	GRANULAR BACKFILL FOR STRUCTURES	CU YD	124	124		
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	69	69		
60100060	CONCRETE HEADWALLS FOR PIPE DRAINS	EACH	4	4		
60146304	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	150	150		
63000001	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT	FOOT	425	425		
	POSTS					
63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	4	4		
63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL)	EACH	4	4		
	TANGENT					
63200310	GUARDRAIL REMOVAL	FOOT	800	800		
66600105	FURNISHING AND ERECTING RIGHT OF WAY MARKERS	EACH	3	3		

* SPECIALTY ITEM

REV - MS

	USER NAME = jessica.hille	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED -					714	(128BR-1)B-1	MACON	54	4
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	PLOT DATE = 12/31/2024	DATE -	REVISED -		SCALE:	SHEET 2	OF 3	SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT	

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SUMMARY OF QUANTITIES			80% FED 20% STATE			
			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE		
CODE NO	ITEM	UNIT		0010		
66700205	PERMANENT SURVEY MARKERS, TYPE I	EACH	1	1		
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	10	10		
67100100	MOBILIZATION	L SUM	1	1		
70100100	TRAFFIC CONTROL AND PROTECTION, STANDARD	EACH	1	1		
	701316					
70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD	EACH	1	1		
	701321					
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD	L SUM	1	1		
	701201					
70100500	TRAFFIC CONTROL AND PROTECTION, STANDARD	L SUM	1	1		
	701326					
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1	1		
70107005	PAVEMENT MARKING BLACKOUT TAPE, 5"	FOOT	529	529		
70107025	CHANGEABLE MESSAGE SIGN	CAL DA	28	28		
70300100	SHORT TERM PAVEMENT MARKING	FOOT	286	286		
70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SQ FT	94	94		

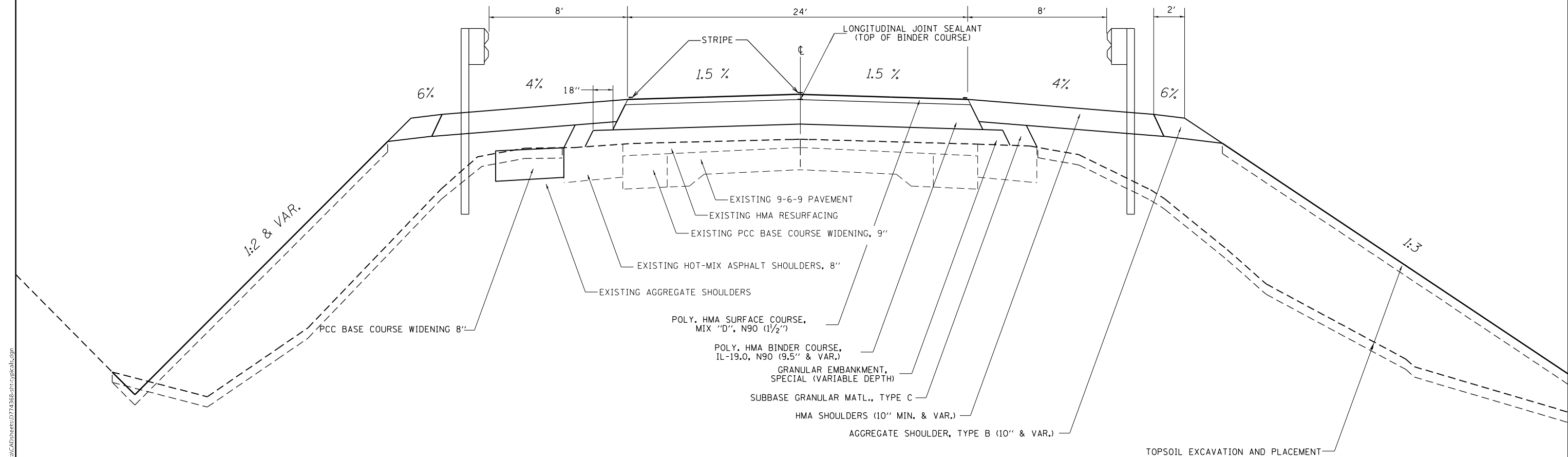
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			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE		
CODE NO	ITEM	UNIT		0010		
70300221	TEMPORARY PAVEMENT MARKING - LINE 4"- PAINT	FOOT	1770	1770		
70400100	TEMPORARY CONCRETE BARRIER	FOOT	750	750		
70400125	PINNING TEMPORARY CONCRETE BARRIER	EACH	48	48		
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	675	675		
70600250	IMPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE), TEST LEVEL 3	EACH	2	2		
70600350	IMPACT ATTENUATORS, RELOCATE (NON- REDIRECTIVE), TEST LEVEL 3	EACH	2	2		
72501000	TERMINAL MARKER - DIRECT APPLIED	EACH	4	4		
78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	1770	1770		
78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	11	11		
78200005	GUARDRAIL REFLECTORS, TYPE A	EACH	10	10		
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	11	11		
X2501000	SEEDING, CLASS 2 (SPECIAL)	ACRE	1	1		
X5080530	BAR TERMINATORS	EACH	588	588		
Z0001900	ASBESTOS BEARING PAD REMOVAL	EACH	26	26		
Z0004552	APPROACH SLAB REMOVAL	SQ YD	116	116		
Z0048665	RAILROAD PROTECTIVE LIABILITY INSURANCE	L SUM	1	1		

*SPECIALTY ITEM

REV - MS

	USER NAME = jessica.hille	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED -					714	(128BR-1)B-1	MACON	54	5
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	PLOT DATE = 12/31/2024	DATE -	REVISED -					ILLINOIS FED. AID PROJECT				
SCALE:		SHEET 3 OF 3 SHEETS		STA.		TO STA.						

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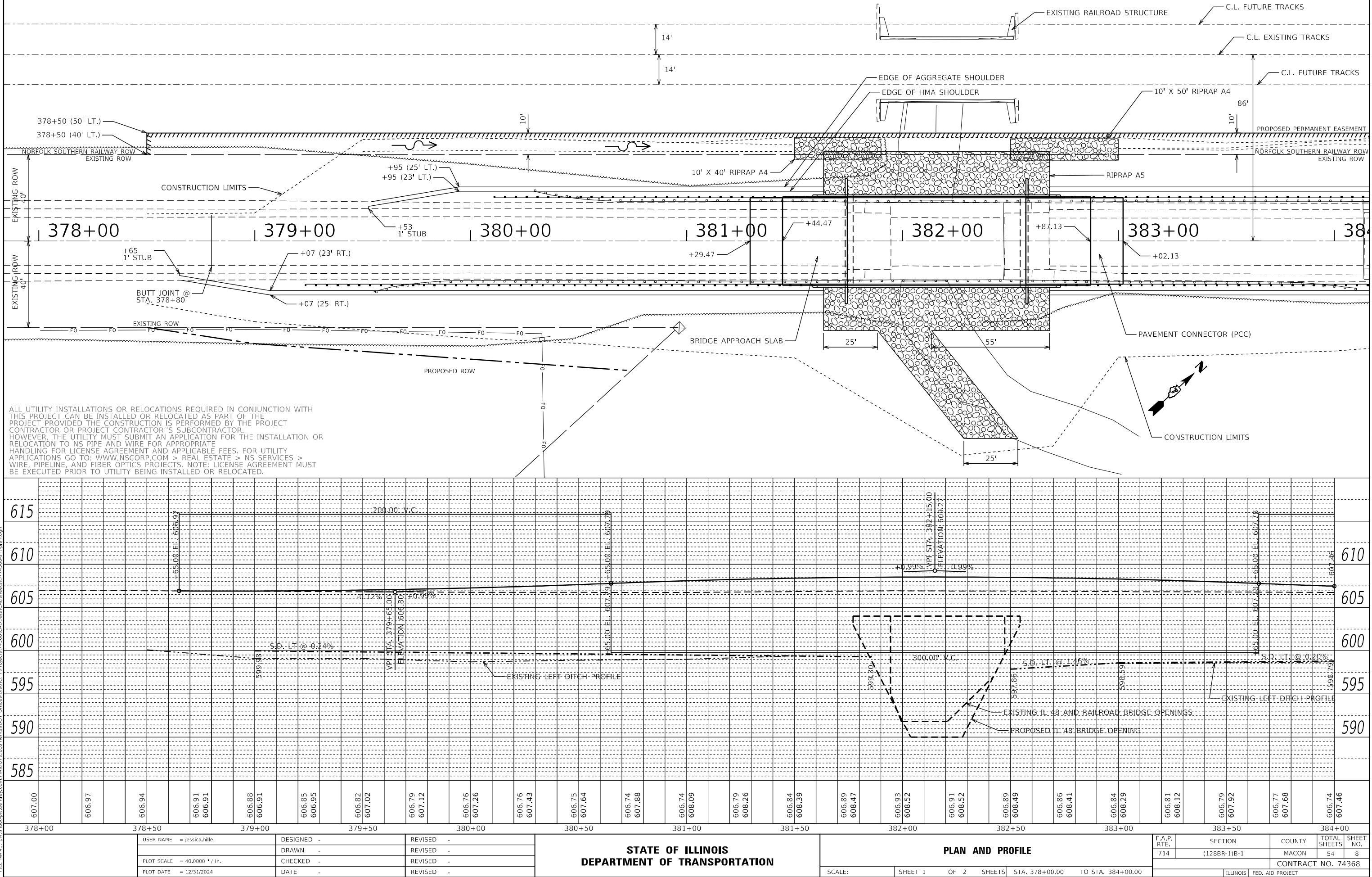


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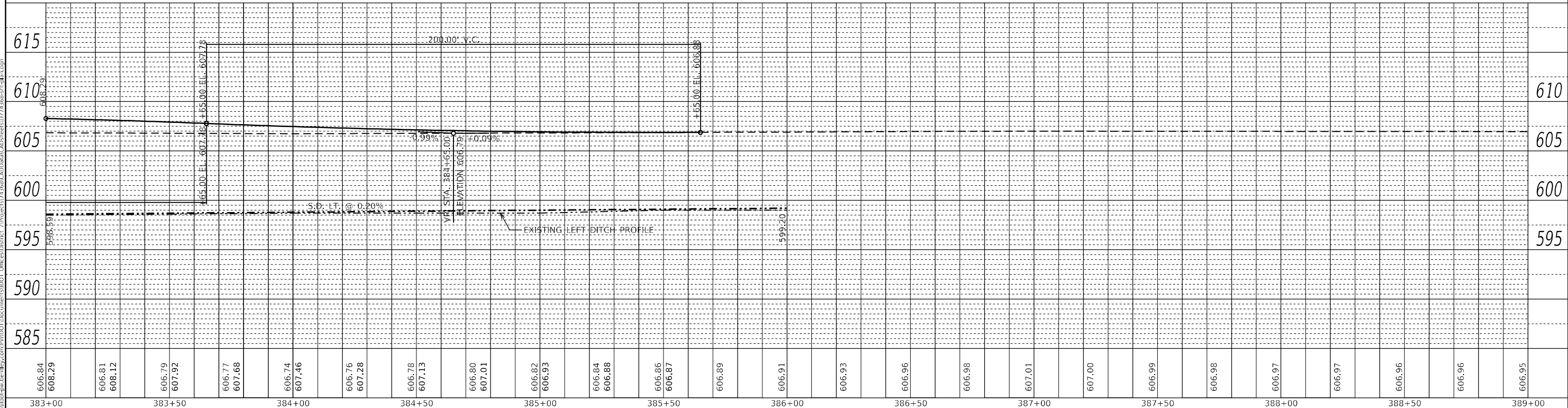
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		DRAWN -	REVISED -					714	(128BR-1)B-1	MACON	54	6
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	PLOT DATE = 12/31/2024	DATE -	REVISED -		SCALE:	SHEET 1	OF 1 SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT		

PROFILE	SURVEYED _____	BY _____	DATE _____
	PLOTTED _____		
NOTE BOOK _____	GRADES CHECKED _____		
NO. _____	B.M., NOTED _____		
	STRUCTURE NOTATIONS CHK'D _____		

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PROFILE	SURVEYED _____	BY _____	DATE _____
	PLOTTED _____		
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NO. _____	B.M., NOTED _____		
	STRUCTURE NOTATIONS CHK'D _____		

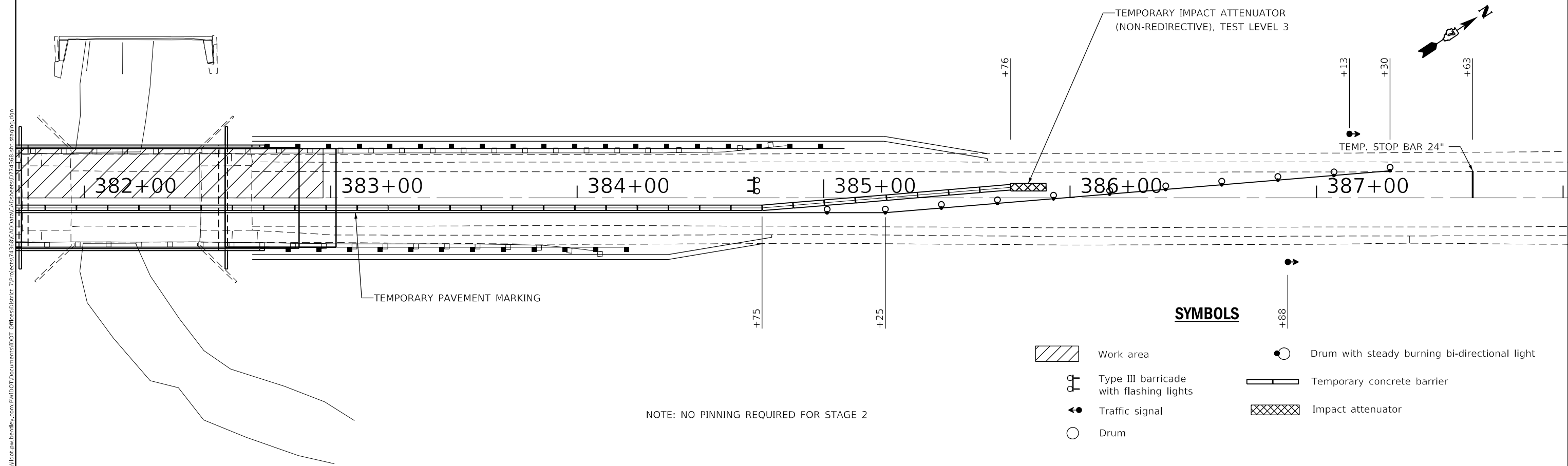
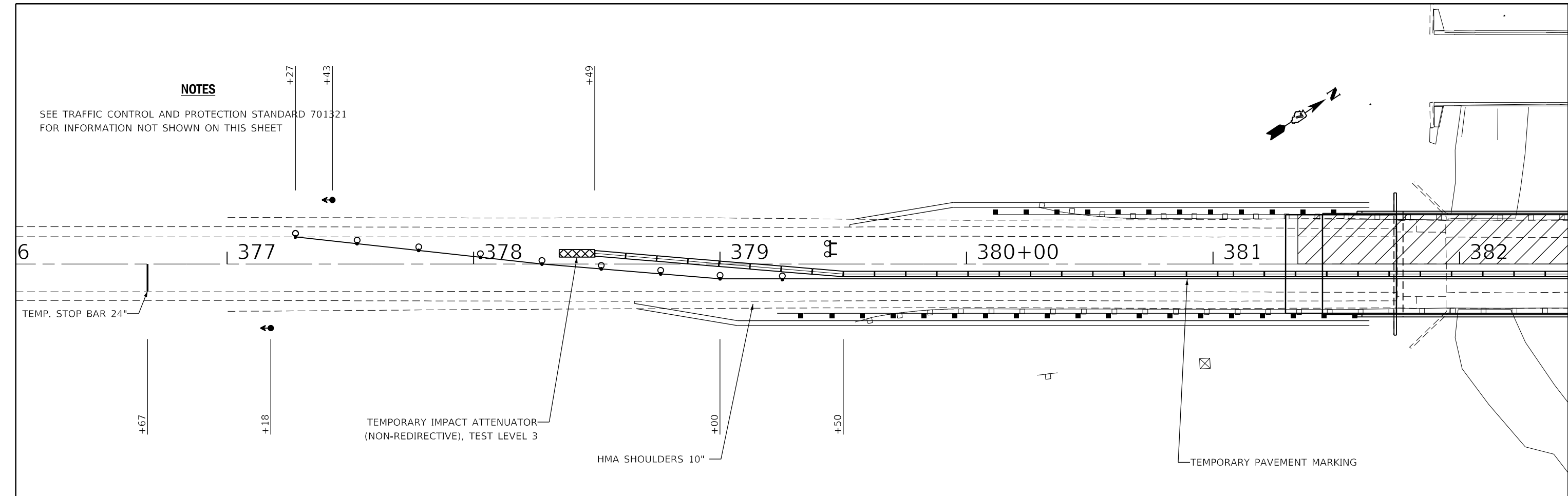


USER NAME = jessica,nille	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PLAN AND PROFILE				F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	DRAWN -	REVISED -						714	(128BR-1)B-1	MACON	54	9
PLOT SCALE = 40,000' / in.	CHECKED -	REVISED -						CONTRACT NO. 74368				
PLOT DATE = 12/31/2024	DATE -	REVISED -		SCALE:	SHEET 2	OF 2	SHEETS	STA. 383+00.00	TO STA. 389+00.00			

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NOTES

SEE TRAFFIC CONTROL AND PROTECTION STANDARD 701321
FOR INFORMATION NOT SHOWN ON THIS SHEET

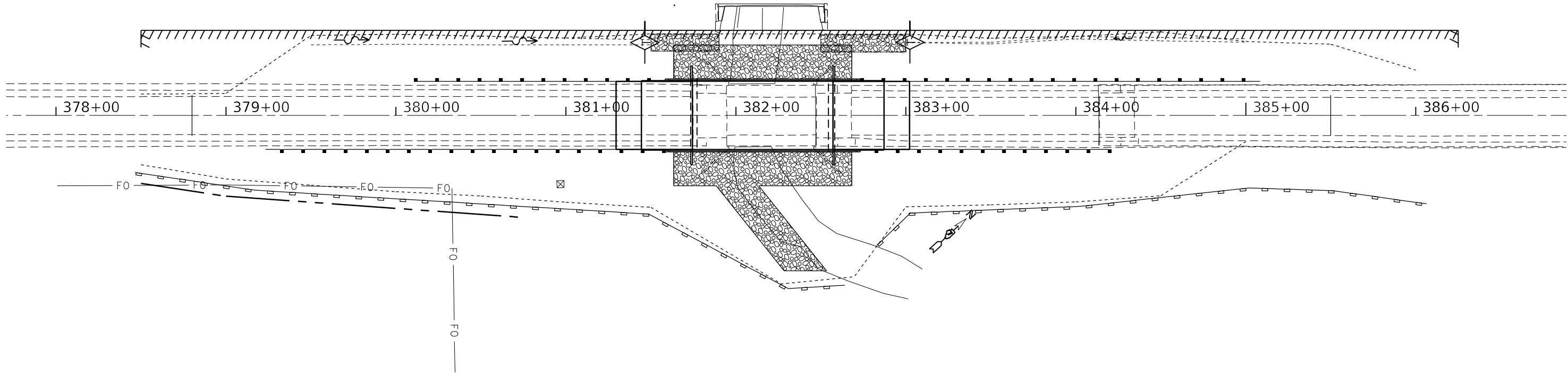


NOTE: NO PINNING REQUIRED FOR STAGE 2

SYMBOLS

- Work area
- Type III barricade with flashing lights
- Traffic signal
- Drum
- Drum with steady burning bi-directional light
- Temporary concrete barrier
- Impact attenuator

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		DRAWN -	REVISED -						714	(128BR-1)B-1	MACON	54	11
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	PLOT DATE = 12/31/2024	DATE -	REVISED -		SCALE:		SHEET 2	OF 2	SHEETS	STA.	TO STA.		
										ILLINOIS		FED. AID PROJECT	



PERIMETER EROSION BARRIER

TEMPORARY DITCH CHECKS

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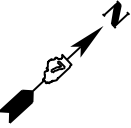
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EROSION CONTROL

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
714	(128BR-1)B-1	MACON	54	12
CONTRACT NO. 74368				
ILLINOIS FED. AID PROJECT				

T.15N.-R.1E., 3rd P.M., PLEASANT VIEW TWP.



SW 1/4, NW 1/4,
SEC. 28, T15N,
R1E, 3RD PM

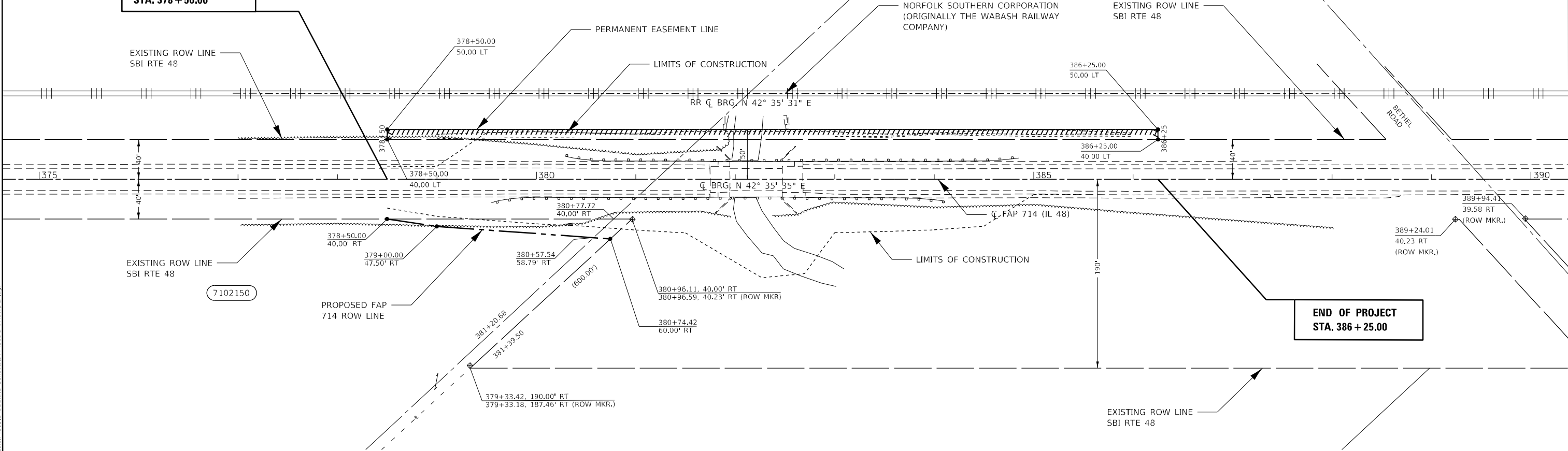
NE 1/4, NW 1/4,
SEC. 28, T15N,
R1E, 3RD PM

SE 1/4, NW 1/4,
SEC. 28, T15N,
R1E, 3RD PM

7102151PE

BEGINNING OF PROJECT
STA. 378 + 50.00

END OF PROJECT
STA. 386 + 25.00



- - EXISTING IRON PIN
- - SET IRON PIN
- ⊠ - EXISTING R.O.W. MARKER
- (R) - RECORDED DISTANCE

NOTE:
BEARINGS ARE REFERENCED TO THE
ILLINOIS STATE PLANE COORDINATE
SYSTEM EAST ZONE DATUM OF 1983(07)

PARCEL	OWNER	AREA TAKEN		EASEMENT	REM. AREA	INST	RECORDED MICRO FILM NO.	DATE	BOOK	PAGE	EXCESS AREA	SOLD
		ADD	EXIST									
7102150	THOMAS D. & CAROL S. HALL	0.064 AC.			3.746 AC.							
7102151PE	NORFOLK SOUTHERN CORPORATION			0.178 AC.								

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RIGHT OF WAY PLANS

SCALE: 1" = 50'

PROJECT: STP-VNWWG(689)

JOB NO. R-97-002-21

SHEET 2 OF 2 SHEETS

STA. 378+50 TO STA. 386+25

F.A.P.
RTE.

SECTION

COUNTY

TOTAL
SHEETS

SHEET
NO.

714

(128BR-1)B-1

MACON

54

13

CONTRACT NO. 74368

FED. ROAD DIST. NO.

ILLINOIS

FED. AID PROJECT STP-VNWWG(689)

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USER NAME = jessica_hille

FILE NAME = 0774368-sht-ROWplan.dgn

PLOT SCALE = 100.0000 ' / in.

PLOT DATE = 12/31/2024

DESIGNED - RDE

DRAWN - RDE

CHECKED - JMD

DATE - 06/27/2024

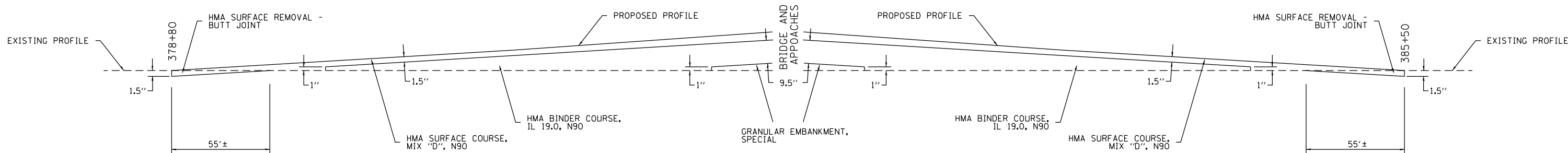
REVISED -

REVISED -

REVISED -

REVISED -

BUTT JOINT & PROFILE CHANGE DETAIL



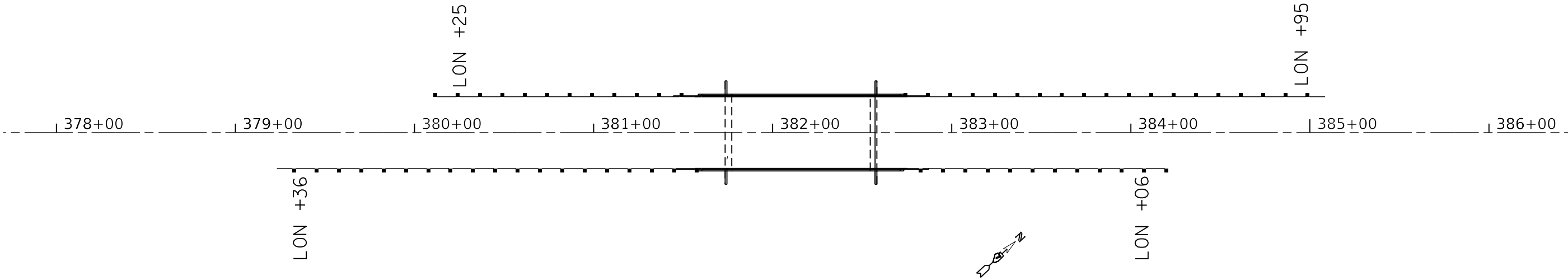
STATION	ELEVATIONS		INCREASE (FEET)	NOTES
	PROPOSED	EXISTING		
378+80	606.91	606.90	0.01	BUTT JOINT
378+85	606.91	606.89	0.01	
378+90	606.91	606.89	0.02	
378+95	606.91	606.88	0.03	
379+00	606.91	606.88	0.03	
379+05	606.91	606.87	0.04	
379+10	606.92	606.86	0.06	
379+15	606.93	606.86	0.07	
379+20	606.94	606.85	0.08	
379+25	606.95	606.85	0.10	
379+30	606.96	606.84	0.12	
379+35	606.97	606.84	0.13	END HMA SURF REM BT JT
379+40	606.98	606.83	0.15	
379+45	607.00	606.82	0.17	
379+50	607.02	606.82	0.20	BEGIN BINDER
379+55	607.03	606.81	0.22	
379+60	607.05	606.81	0.25	
379+65	607.07	606.80	0.27	
379+70	607.10	606.80	0.30	
379+75	607.12	606.79	0.33	
379+80	607.15	606.78	0.36	
379+85	607.17	606.78	0.39	
379+90	607.20	606.77	0.43	
379+95	607.23	606.77	0.46	
380+00	607.26	606.76	0.50	
380+05	607.29	606.76	0.53	
380+10	607.33	606.76	0.57	
380+15	607.36	606.76	0.60	
380+20	607.40	606.76	0.64	
380+25	607.43	606.76	0.68	
380+30	607.47	606.75	0.72	
380+35	607.51	606.75	0.76	
380+40	607.56	606.75	0.80	
380+45	607.60	606.75	0.85	
380+50	607.64	606.75	0.89	
380+55	607.69	606.75	0.94	
380+60	607.74	606.75	0.99	BEGIN G. E. S.
380+65	607.79	606.75	1.04	
380+70	607.83	606.74	1.09	
380+75	607.88	606.74	1.14	
380+80	607.93	606.74	1.18	
380+85	607.97	606.74	1.23	
380+90	608.01	606.74	1.27	
380+95	608.05	606.74	1.31	
381+00	608.09	606.74	1.35	
381+05	608.13	606.75	1.38	
381+10	608.16	606.76	1.41	
381+15	608.20	606.77	1.43	
381+20	608.23	606.78	1.45	
381+25	608.26	606.79	1.47	
381+30	608.29	606.80	1.49	
381+35	608.32	606.81	1.51	PAVEMENT CONNECTOR

STATION	ELEVATIONS		INCREASE (FEET)	NOTES
	PROPOSED	EXISTING		
382+95	608.31	606.84	1.47	PAVEMENT CONNECTOR
383+00	608.29	606.84	1.45	
383+05	608.26	606.83	1.42	
383+10	608.23	606.83	1.40	
383+15	608.19	606.82	1.37	
383+20	608.16	606.82	1.34	
383+25	608.12	606.81	1.31	
383+30	608.09	606.81	1.28	
383+35	608.05	606.80	1.24	
383+40	608.01	606.80	1.21	
383+45	607.97	606.79	1.17	END G. E. S.
383+50	607.92	606.79	1.13	
383+55	607.88	606.79	1.09	
383+60	607.83	606.78	1.05	
383+65	607.78	606.78	1.00	
383+70	607.73	606.77	0.96	
383+75	607.68	606.77	0.92	
383+80	607.64	606.76	0.87	
383+85	607.59	606.76	0.83	
383+90	607.55	606.75	0.80	
383+95	607.51	606.75	0.76	END BINDER
384+00	607.46	606.74	0.72	
384+05	607.43	606.75	0.68	
384+10	607.39	606.75	0.64	
384+15	607.35	606.75	0.60	
384+20	607.32	606.76	0.56	
384+25	607.28	606.76	0.52	
384+30	607.25	606.77	0.48	
384+35	607.22	606.77	0.45	
384+40	607.19	606.77	0.41	
384+45	607.16	606.78	0.38	BEGIN HMA SURF REM BT JT
384+50	607.13	606.78	0.35	
384+55	607.11	606.78	0.32	
384+60	607.08	606.79	0.29	
384+65	607.06	606.79	0.27	
384+70	607.04	606.80	0.24	
384+75	607.01	606.80	0.22	
384+80	607.00	606.80	0.19	
384+85	606.98	606.81	0.17	
384+90	606.96	606.81	0.15	
384+95	606.95	606.81	0.13	BUTT JOINT
385+00	606.93	606.82	0.11	
385+05	606.92	606.82	0.10	
385+10	606.91	606.83	0.08	
385+15	606.90	606.83	0.07	
385+20	606.89	606.84	0.05	
385+25	606.88	606.84	0.04	
385+30	606.88	606.85	0.03	
385+35	606.87	606.85	0.02	
385+40	606.87	606.85	0.02	
385+45	606.87	606.86	0.01	
385+50	606.87	606.86	0.01	

PAVING DETAIL

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
714	(128BR-1)B-1	MACON	54	14
		CONTRACT NO. 74368		
ILLINOIS		FED. AID PROJECT		

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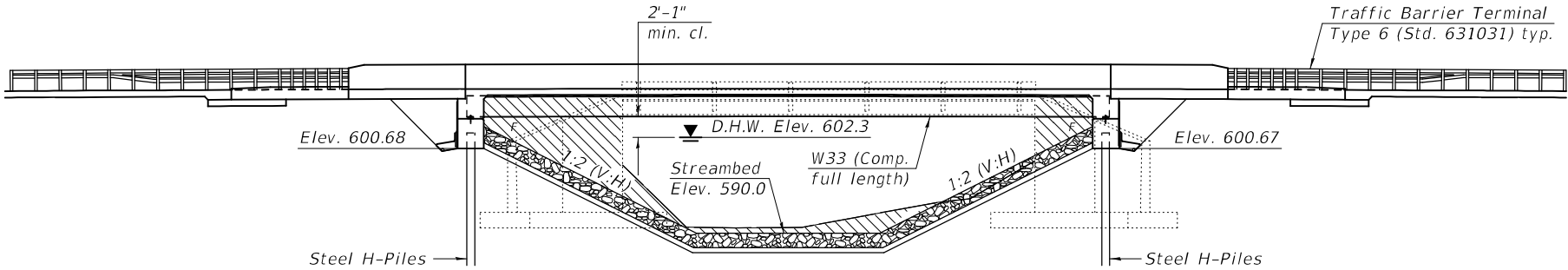
GUARDRAIL								
				STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	TRAFFIC BARRIER TERMINAL, TYPE 6	GUARDRAIL REFLECTORS, TYPE A	TERMINAL MARKER - DIRECT APPLIED
	STATION	TO	STATION	FEET	EACH	EACH	EACH	EACH
LT.	380+10	-	380+60		1			1
LT.	380+60	-	381+23	62.5			5	
LT.	381+22	-	381+60			1		
LT.	382+72	-	383+09			1		
LT.	383+09	-	384+59	150.0				
LT.	384+57	-	385+09		1			1
RT.	379+23	-	379+73		1			1
RT.	379+73	-	381+23	150.0			5	
RT.	381+23	-	381+60			1		
RT.	382+72	-	383+09			1		
RT.	383+09	-	383+72	62.5				
RT.	383+72	-	384+22		1			1
TOTALS =				425	4	4	10	4

	USER NAME = jessica.mille	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GUARDRAIL DETAILS			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED -					714	(128BR-1)B-1	MACON	54	15
	PLOT SCALE = 60,0000 * / in.	CHECKED -	REVISED -					CONTRACT NO. 74368				
	PLOT DATE = 12/31/2024	DATE -	REVISED -		SCALE:	SHEET	OF	SHEETS	STA.	TO STA.	ILLINOIS	FED. AID PROJECT

Benchmark: Brass disk in NE wingwall of SN 058-0029; Elev. 606.90, Sta. 382+46, Offset 18.6' Rt.

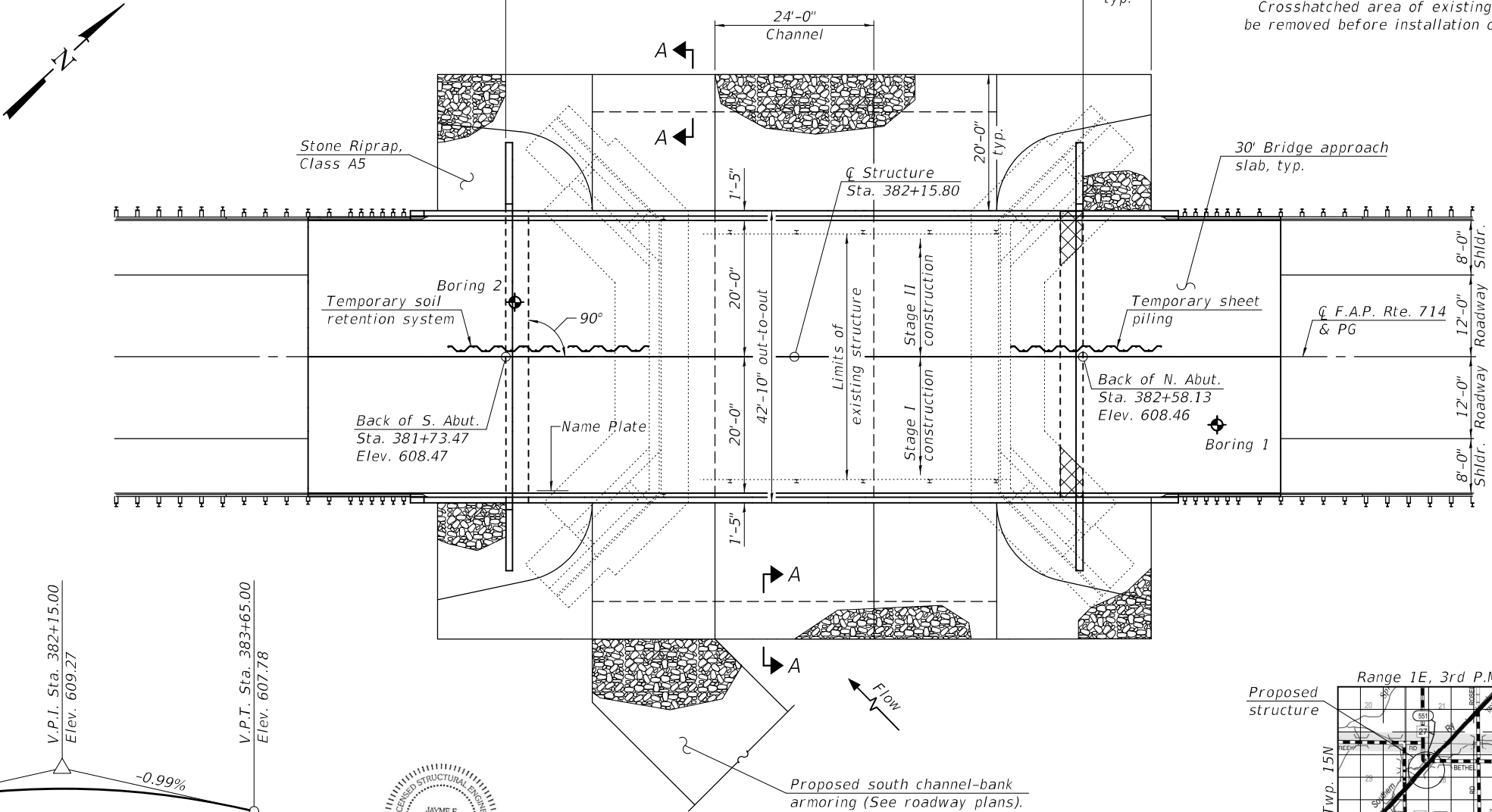
Existing Structure: Structure No. 058-0029 was originally constructed in 1928 as F.A.P. Route 714, Section 128-8. The original structure was a single span, 52'-9½" reinforced concrete deck girder superstructure supported on closed abutments with wingwalls on untreated timber pile foundation. In 1951, the structure was widened from 22 ft. to 36 ft. with new concrete wingwalls as Section 128-B-1; S.B.I. Route 48. In 1983, the concrete deck girder superstructure was removed and replaced with PPC deck beams and a bituminous wearing surface overlying a waterproofing membrane system as Section 128 BR-1. Existing structure will be removed and replaced utilizing stage construction.

No salvage.

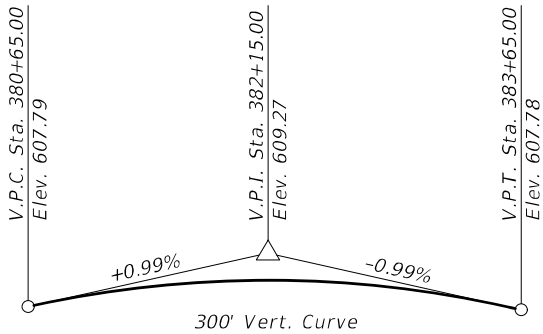


ELEVATION

Notes:
Hatched area indicates channel excavation.
See roadway plans for quantity.
Crosshatched area of existing footing to be removed before installation of piles.



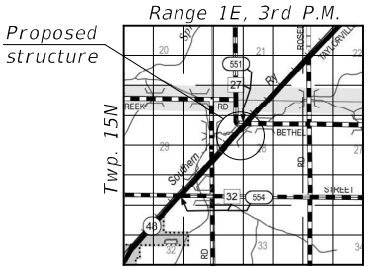
PLAN



PROFILE GRADE
(Along C F.A.P. Rte. 714)



EXPIRES 11-30-2026



LOCATION SKETCH

INDEX OF SHEETS

- 1 General Plan & Elevation
- 2 General Details
- 3 Temporary Sheet Piling and Temporary Soil Retention System
- 4 Stage Construction Details
- 5 Temporary Concrete Barrier
- 6-8 Top of Slab Elevations
- 9-10 Top of Approach Slab Elevations
- 11 Superstructure
- 12-13 Superstructure Details
- 14 Diaphragm Details
- 15-16 Bridge Approach Slab Details
- 17 Structural Steel
- 18 Structural Steel Details
- 19 South Abutment
- 20 North Abutment
- 21 Abutment Details
- 22 Steel HP Pile Details
- 23 Concrete Parapet Slipping Option
- 24 Bar Splicer Details
- 25-26 Soil Boring Logs

DESIGN SPECIFICATIONS

2017 AASHTO LRFD Bridge Design Specifications, 8th Edition

DESIGN STRESSES

FIELD UNITS

$f'_c = 3,500$ psi
 $f'_c = 4,000$ psi (Superstructure Concrete)
 $f_y = 60,000$ psi (Reinforcement)
 $f_y = 50,000$ psi (M270 Grade 50)

LOADING HL-93

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

SEISMIC DATA

Seismic Performance Zone (SPZ) = 2
Design Spectral Acceleration at 1.0 sec. (SD1) = 0.114
Design Spectral Acceleration at 0.2 sec. (SD5) = 0.227
Soil Site Class = C

GENERAL PLAN & ELEVATION
ILLINOIS ROUTE 48 OVER MOSQUITO CREEK
F.A.P. RTE. 714 - SEC. (128BR-1)B-1
MACON COUNTY
STATION 382+15.80
STRUCTURE NO. 058-0137

DESIGNED - RYAN P. NEGANGARD
CHECKED - DAVID H. RICHTER
DRAWN - GLENN W. STOVER
CHECKED - R.P.N./G.R.A.

EXAMINED
PASSED

Mark Shuffler
Jayme F. Schiff
ENGINEER OF BRIDGES AND STRUCTURES

DATE - Dec. 9, 2025
REVISED -
REVISED -

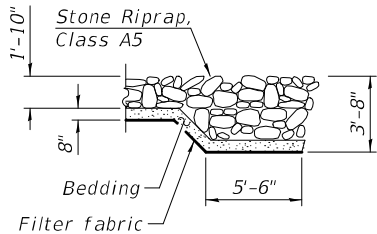
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET 1 OF 26 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
714	(128BR-1) B-1	MACON	54	16
CONTRACT NO. 74368				
ILLINOIS FED. AID PROJECT				

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SECTION A-A

DESIGN SCOUR ELEVATION TABLE

Event / Limit	Design Scour Elevations (ft.)		
	S. Abut.	N. Abut.	Item 113
Q100	600.68	600.67	8
Q200	600.68	600.67	
Design	600.68	600.67	
Check	600.68	600.67	

GENERAL NOTES

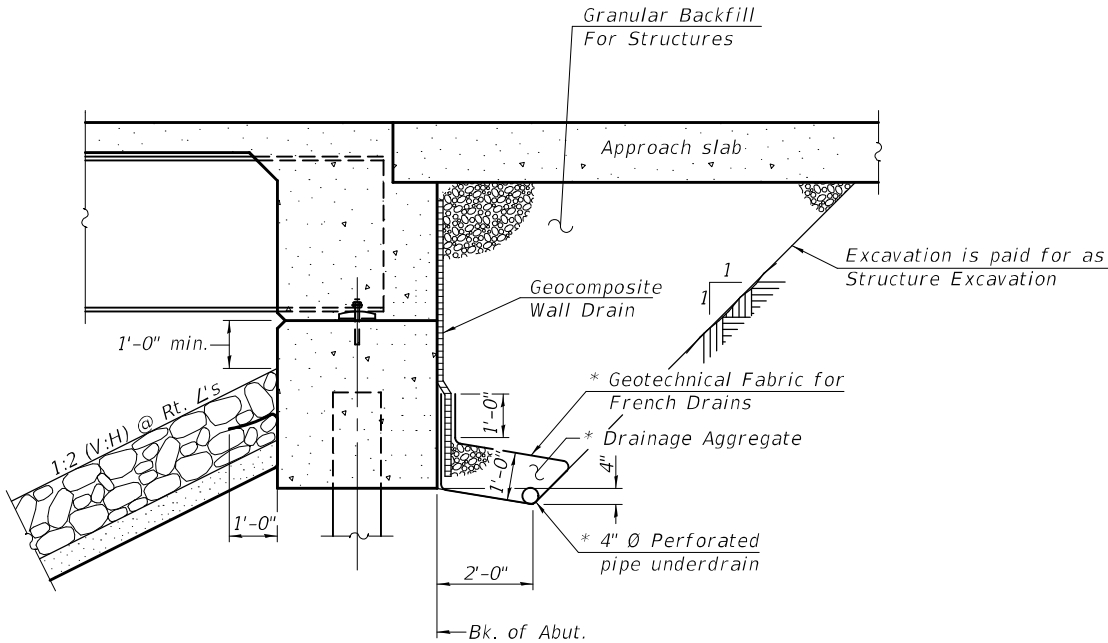
Fasteners shall be ASTM F 3125 Grade A325 Type 1, mechanically galvanized bolts. Bolts 3/4 in. Ø, holes 15/16 in. Ø, unless otherwise noted.
Calculated weight of Structural Steel = 121,440 lbs. (M270 grade 50).
Calculated weight of Structural Steel = 8,910 lbs. (M270 grade 36).
No field welding is permitted except as specified in the contract documents.
Reinforcement bars designated (E) shall be epoxy coated.
The Inorganic Zinc Rich Primer / Acrylic / Acrylic Paint System shall be used for shop and field painting of new structural steel except where otherwise noted. The color of the final finish coat for all interior steel surfaces shall be gray, Munsell No. 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be gray, Munsell No. 5B 7/1.
Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
The embankment configuration shown shall be the minimum that must be placed and compacted prior to construction of the abutments.
The contractor is advised that the existing PPC deck beams are in deteriorated condition with reduced load carrying capacity. It is the contractor's responsibility to account for the condition of the beams when developing construction procedures for removal and replacement of the superstructure.

STATION 382 + 15.80
BUILT 20 BY
STATE OF ILLINOIS
FAP RTE. 714 SEC. (128BR-1)B-1
LOADING HL-93
STRUCTURE NO. 058-0137

NAME PLATE
See Std. 515001

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Stone Riprap, Class A5	Sq. Yd.		901	901
Filter Fabric	Sq. Yd.		901	901
Removal of Existing Structures	Each			1
Structure Excavation	Cu. Yd.		216	216
Concrete Structures	Cu. Yd.		77.3	77.3
Concrete Superstructure	Cu. Yd.	159.3		159.3
Bridge Deck Grooving	Sq. Yd.	602		602
Protective Coat	Sq. Yd.	742		742
Concrete Superstructure (Approach Slab)	Cu. Yd.	118.1		118.1
Furnishing & Erecting Structural Steel	L. Sum	1		1
Stud Shear Connectors	Each	1968		1968
Reinforcement Bars, Epoxy Coated	Pound	79,850	8,640	88,490
Bar Splicers	Each	502	100	602
Furnishing Steel Piles HP12X63	Foot		604	604
Driving Piles	Foot		604	604
Test Pile Steel HP12X63	Each		1	1
Name Plates	Each	1		1
Anchor Bolts, 1"	Each		24	24
Temporary Sheet Piling	Sq. Ft.		301	301
Temporary Soil Retention System	Sq. Ft.		281	281
Granular Backfill for Structures	Cu. Yd.		124	124
Geocomposite Wall Drain	Sq. Yd.		69	69
Asbestos Bearing Pad Removal	Each		26	26
Pipe Underdrain for Structures 4"	Foot		150	150
Bar Terminators	Each	172	416	588



SECTION THRU INTEGRAL ABUTMENT

* Included in the cost of Pipe Underdrains for Structures.
Note:
All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).

WATERWAY INFORMATION

Existing Overtopping Elev. = 606.74 at Sta. 381+00									
Drainage Area = 12.4 sq. mi. Proposed Overtopping Elev. = 606.87 at Sta. 385+50									
Flood	Freq. Yr.	Q C.F.S.	Opening Ft²		Nat. H.W.E.	Head - Ft.		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
	10	1720	397	495	600.9	0.3	0.2	601.2	601.1
Design	50	2820	468	594	602.3	0.5	0.3	602.8	602.6
Base	100	3310	497	636	602.9	0.5	0.3	603.4	603.2
Scour Design Check	200	3830	527	682	603.5	0.6	0.3	604.1	603.8
Overtop Existing	N/A	-	-	-	-	-	-	-	-
Overtop Proposed	N/A	-	-	-	-	-	-	-	-
Max. Calc.	500	4540	566	743	604.3	1.2	0.8	605.5	605.1

10 Year velocity through existing structure = 4.3 ft./sec.
10 Year velocity through proposed structure = 3.5 ft./sec.

MODEL: 0580137-74368-002
FILE NAME: c:\pwworkspace\glenn.w.stover\illinois.gov\id0613475\0580137-74368.dgn

DESIGNED	-	RYAN P. NEGANGARD
CHECKED	-	DAVID H. RICHTER
DRAWN	-	GLENN W. STOVER
CHECKED	-	R.P.N./ G.R.A.

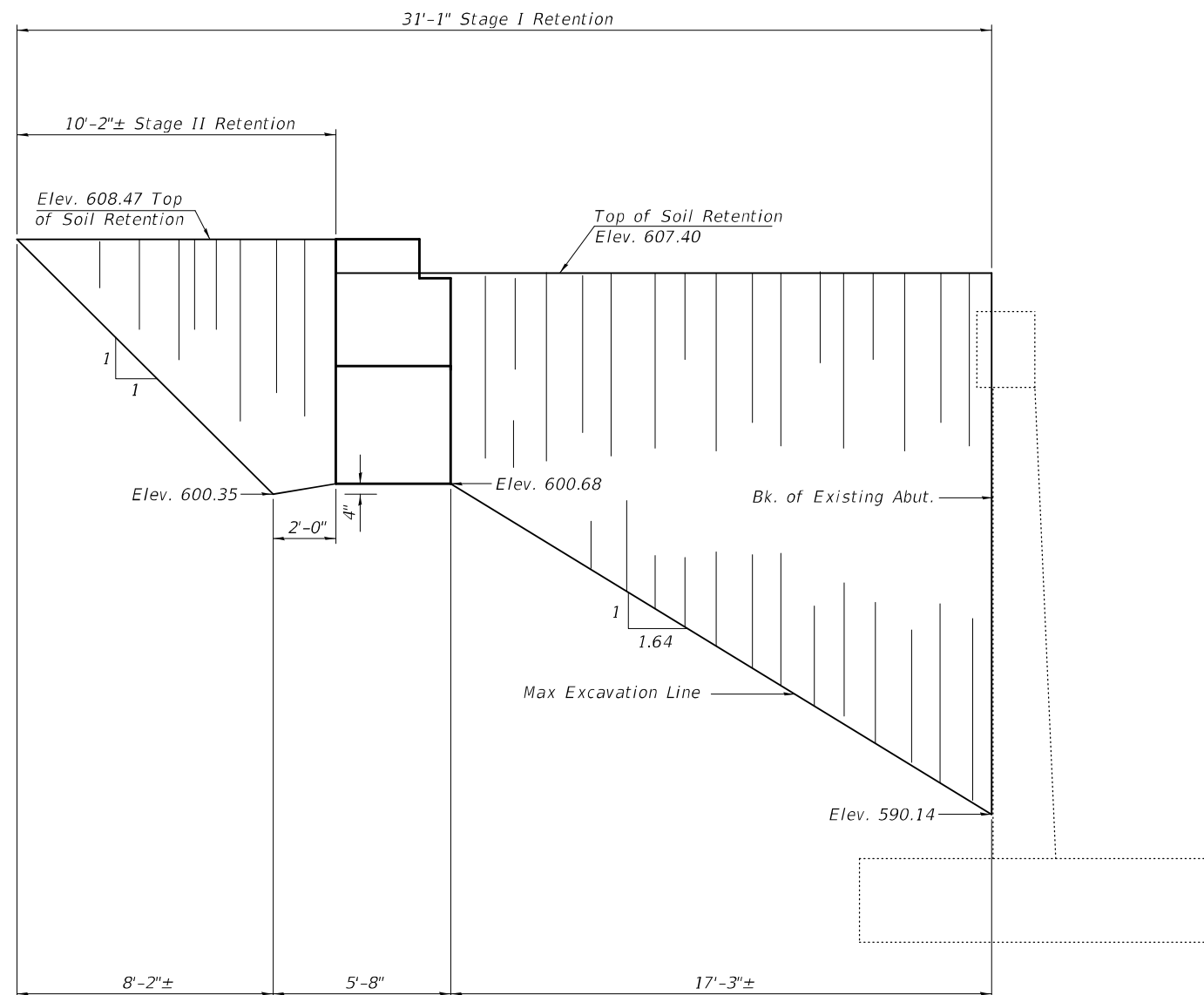
EXAMINED		DATE	-	December 9, 2025
PASSED		REVISED	-	
	ENGINEER OF BRIDGES AND STRUCTURES	REVISED	-	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL DETAILS
STRUCTURE 058-0137

SHEET 2 OF 26 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
714	(128BR-1)B-1	MACON	54	17
CONTRACT NO. 74368				
ILLINOIS FED. AID PROJECT				



TEMPORARY SOIL RETENTION SYSTEM

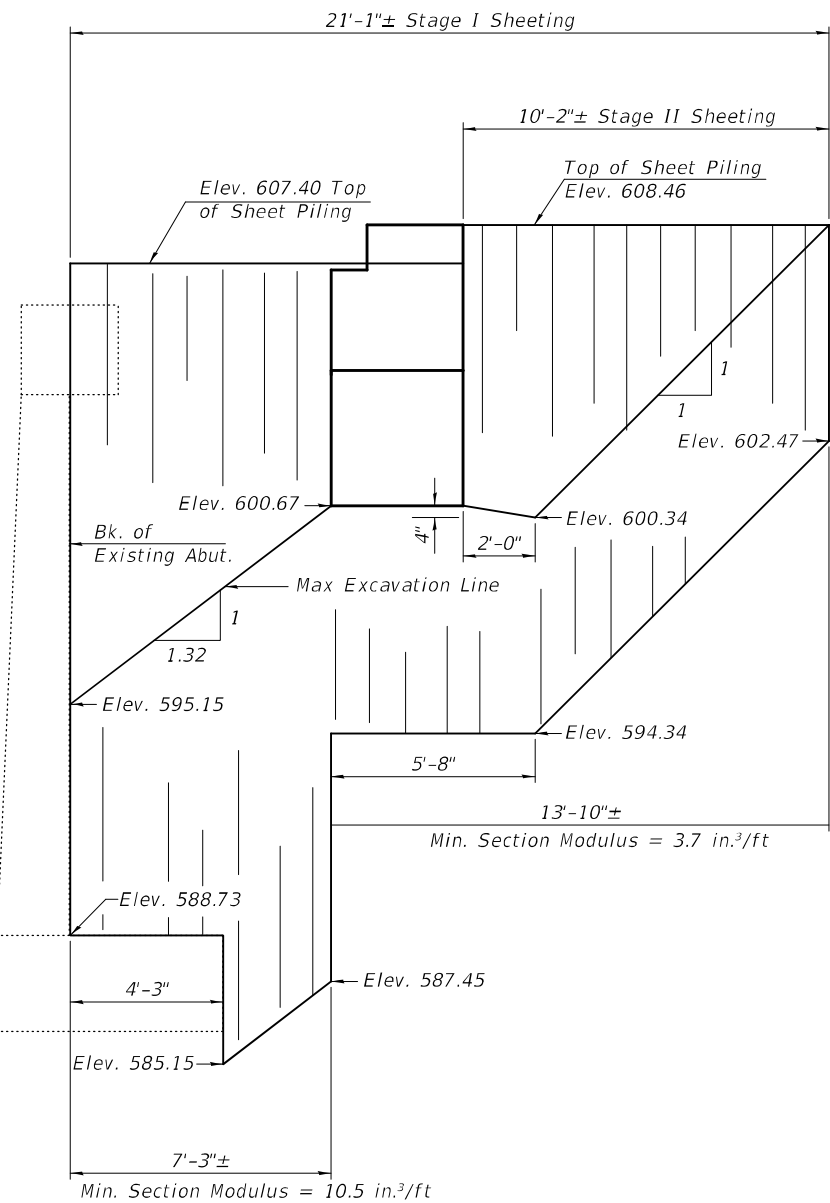
(South Abutment Looking West)

Notes:

If the Contractor chooses to alter the temporary cantilevered sheet piling design requirements shown on the plans, a design submittal including plan details and calculations will be required for review and acceptance by the Engineer. (North Abutment)

The Contractor shall connect the first sheet to the existing abutment wall to ensure stability of sheets driven to the top of the existing footing. This connection shall be reviewed and accepted by the Engineer and included in the cost for Temporary Sheet Piling. (North Abutment)

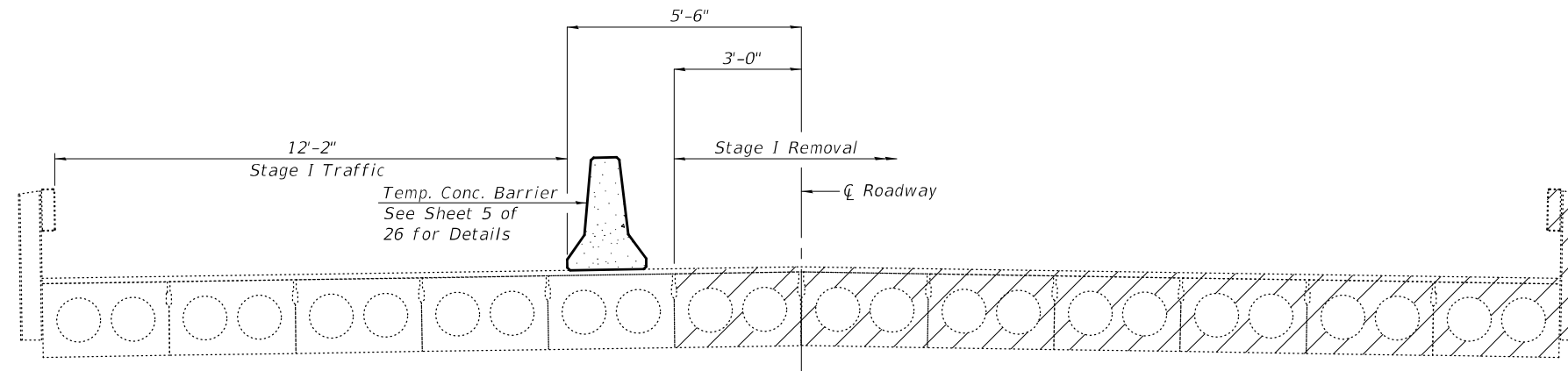
A cantilevered sheet piling design does not appear feasible and additional members or other retention systems may be necessary. The Contractor shall submit a temporary soil retention system design including plan details and calculations for review and acceptance by the Engineer. (South Abutment)



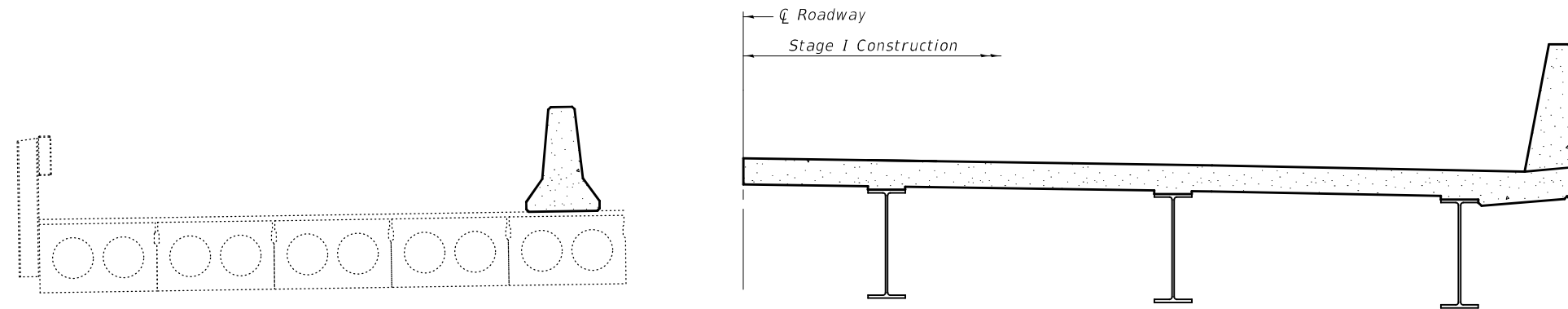
TEMPORARY SHEET PILING

(North Abutment Looking West)

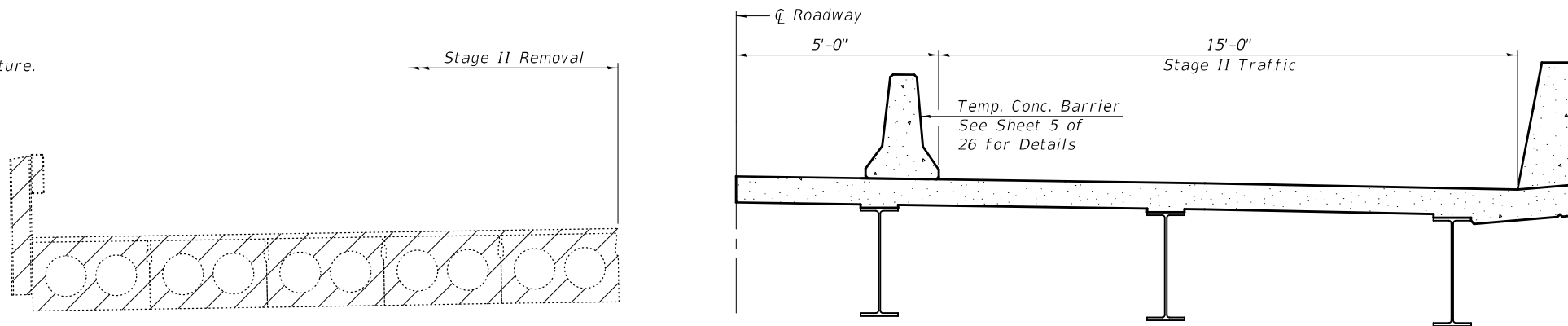
DESIGNED - RYAN P. NEGANGARD	EXAMINED	 ENGINEER OF BRIDGE DESIGN	DATE - December 9, 2025	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TEMPORARY SHEET PILING & T.S.R. SYSTEM STRUCTURE NO. 058-0137	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.			
CHECKED - DAVID H. RICHTER						PASSED	 ENGINEER OF BRIDGES AND STRUCTURES	714	(128BR-1) B-1	MACON	54	18	
DRAWN - GLENN W. STOVER								CONTRACT NO. 74388					
CHECKED - R.P.N./G.R.A.								REVISD -	SHEET 3 OF 26 SHEETS			ILLINOIS FED. AID PROJECT	



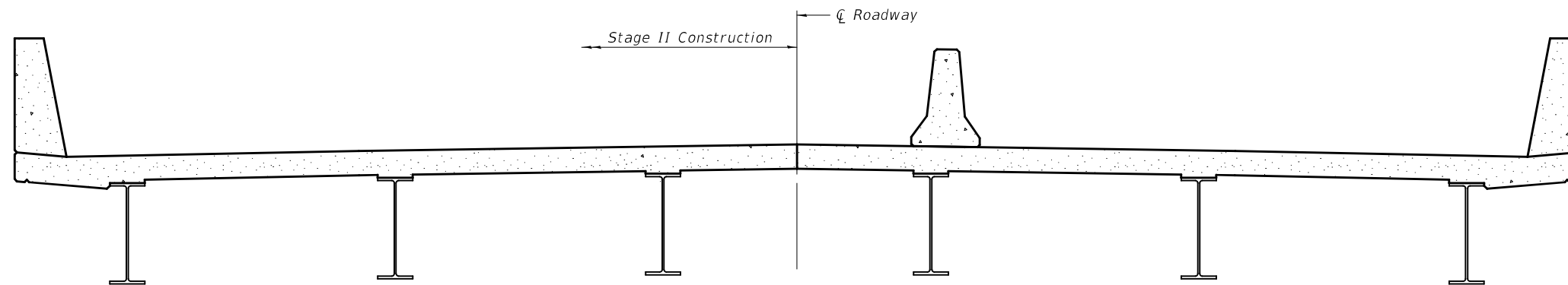
STAGE I REMOVAL



STAGE I CONSTRUCTION



STAGE II REMOVAL



STAGE II CONSTRUCTION

Notes:
All staging cross sections are looking North.
Hatched area indicates removal of existing structure.
For quantity of Temporary Concrete Barrier, see roadway plans.

MODEL: 0580137-74368-004
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12/10/2025 8:24:17 AM

DESIGNED -	RYAN P. NEGANGARD
CHECKED -	DAVID H. RICHTER
DRAWN -	GLENN W. STOVER
CHECKED -	R.P.N./G.R.A.

EXAMINED
PASSED

Mark Shuffin
ENGINEER OF BRIDGE DESIGN
Joanne F. Schaff
ENGINEER OF BRIDGES AND STRUCTURES

DATE -	December 9, 2025
REVISED -	
REVISED -	

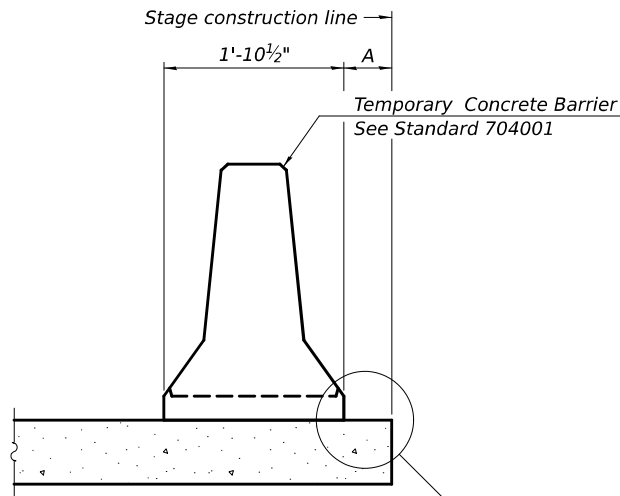
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE CONSTRUCTION DETAILS
STRUCTURE NO. 058-0137

SHEET 4 OF 26 SHEETS

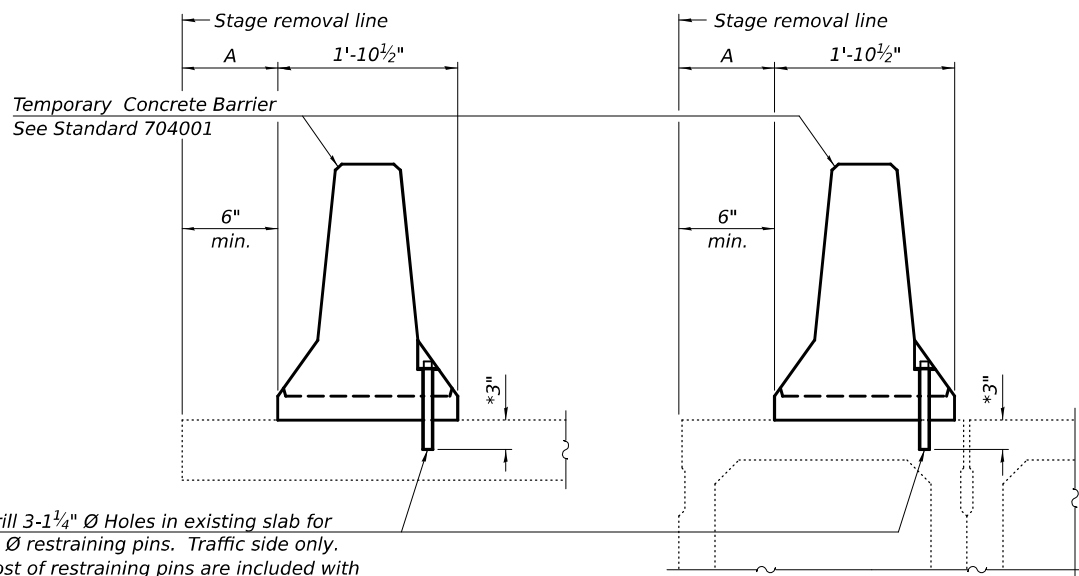
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
714	(126BR-1)B-1	MACON	54	19
CONTRACT NO. 74368				
ILLINOIS FED. AID PROJECT				

MODEL: 0580137-74368-005
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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

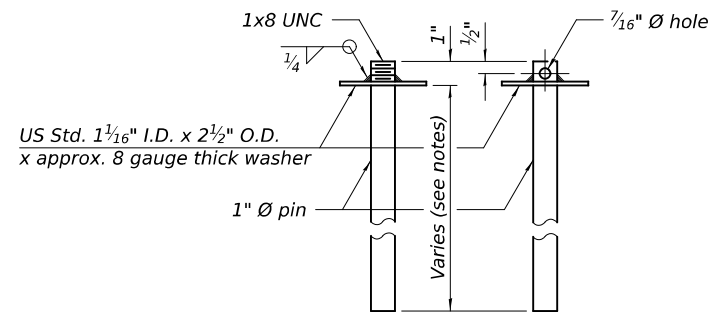


Drill 3-1/4" Ø Holes in existing slab for 1" Ø restraining pins. Traffic side only. Cost of restraining pins is included with Temporary Concrete Barrier. No restraint is required when "A" is greater than 3'-1".

EXISTING SLAB

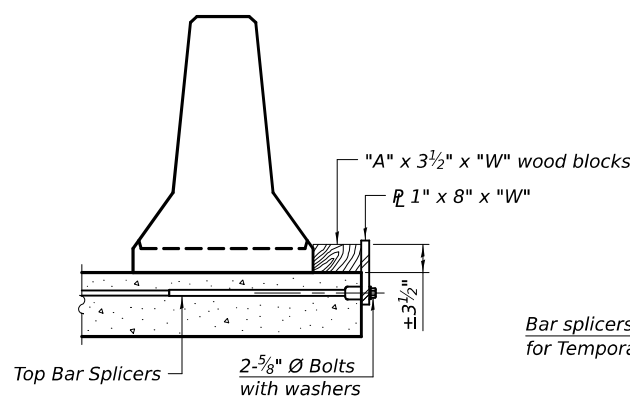
* When hot-mix asphalt wearing surface is present, embedment shall be 3" plus the wearing surface depth.

EXISTING DECK BEAM

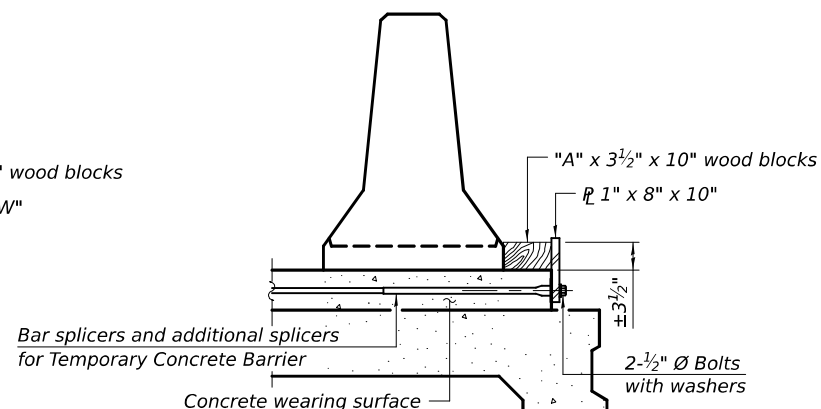


RESTRAINING PIN

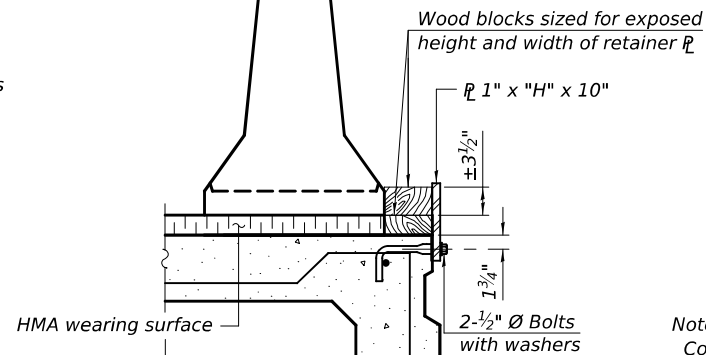
SECTIONS THRU SLAB OR DECK BEAM



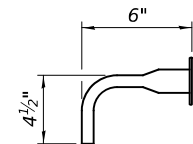
DETAIL I



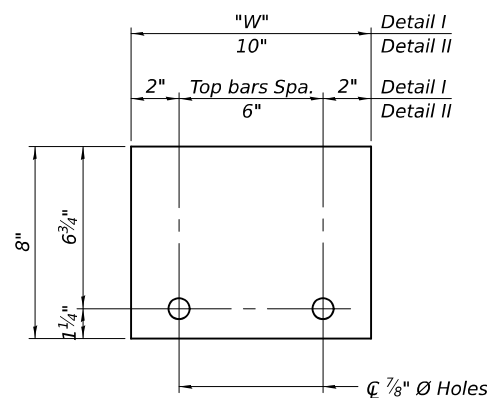
DETAIL II



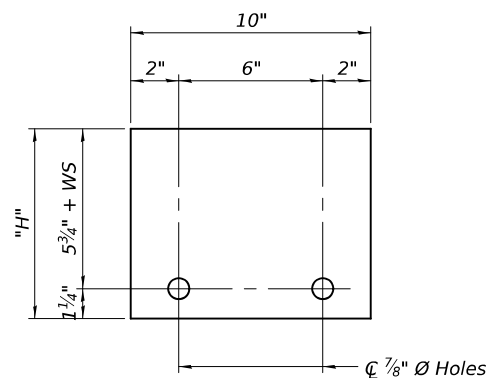
DETAIL III



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)

RAILING CRITERIA

NCHRP 350 Test Level	3
Railing Weight (plf)	440

R-27

5-15-2023

DESIGNED	- RYAN P. NEGANGARD
CHECKED	- DAVID H. RICHTER
DRAWN	- GLENN W. STOVER
CHECKED	- R.P.N. / G.R.A.

EXAMINED

PASSED

Mark Shuffin
ENGINEER OF BRIDGE DESIGN
Jayne F. Shuffin
ENGINEER OF BRIDGES AND STRUCTURES

DATE - December 9, 2025

REVISED -

REVISED -

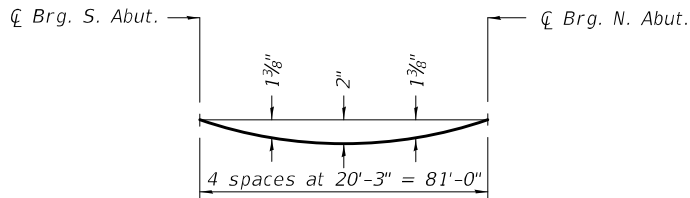
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CONCRETE BARRIER
STRUCTURE NO. 058-0137

SHEET 5 OF 26 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
714	(128BR-1) B-1	MACON	54	20
CONTRACT NO. 74368				
ILLINOIS FED. AID PROJECT				

12/10/2025 8:59:30 AM

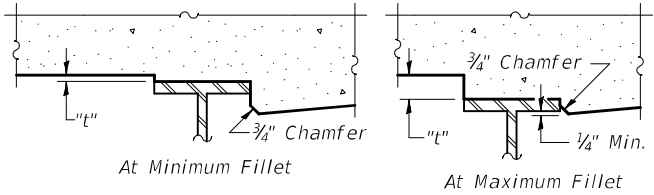


DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only.)

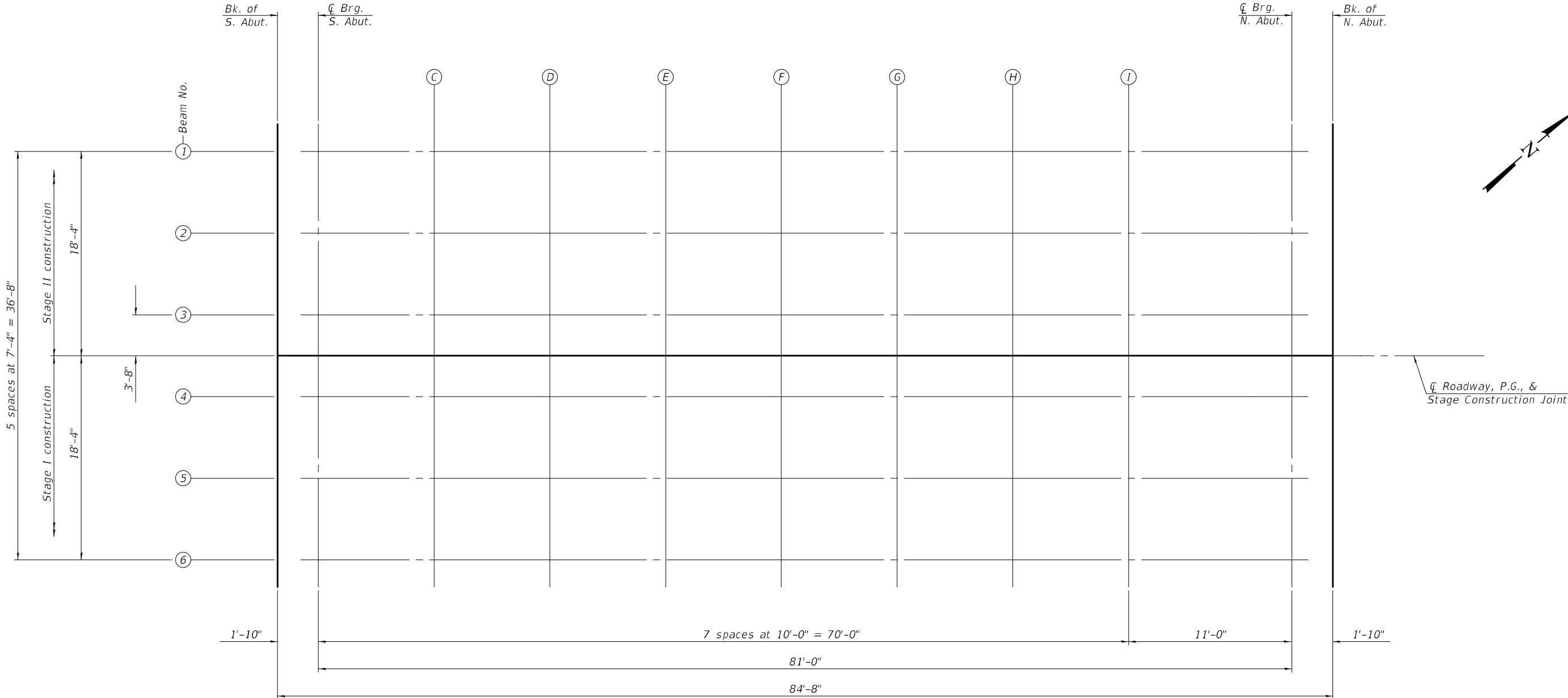
Note:

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 as shown on sheets 7 thru 8 of 26



To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on sheets 7 thru 8 of 26, minus slab thickness, equals the fillet heights "t" above top flange of beams.



FILLET HEIGHTS



PLAN

MODEL: 0580137-74368-006
FILE NAME: c:\pw_work\pwidth\glenn.w.stover@illinois.gov\0613475\0580137-74368.dgn

DESIGNED	-	RYAN P. NEGANGARD
CHECKED	-	DAVID H. RICHTER
DRAWN	-	GLENN W. STOVER
CHECKED	-	R.P.N./G.R.A.

EXAMINED	
PASSED	

DATE	-	December 9, 2025
REVISED	-	
REVISED	-	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS
STRUCTURE NO. 058-0137

SHEET 6 OF 26 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
714	(128BR-1) B-1	MACON	54	21
CONTRACT NO. 74368				
ILLINOIS FED. AID PROJECT				

MODEL: 0580137-74368-007
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12/10/2025 8:24:17 AM

BEAM 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of S. Abut.	381+73.47	-18.33	608.17	608.17
Q Brg. S. Abut.	381+75.30	-18.33	608.17	608.17
C	381+85.30	-18.33	608.19	608.25
D	381+95.30	-18.33	608.21	608.32
E	382+05.30	-18.33	608.22	608.36
F	382+15.30	-18.33	608.22	608.38
G	382+25.30	-18.33	608.22	608.36
H	382+35.30	-18.33	608.21	608.33
I	382+45.30	-18.33	608.19	608.25
Q Brg. N. Abut.	382+56.30	-18.33	608.16	608.16
Bk. of N. Abut.	382+58.13	-18.33	608.16	608.16

BEAM 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of S. Abut.	381+73.47	-11.00	608.31	608.31
Q Brg. S. Abut.	381+75.30	-11.00	608.31	608.31
C	381+85.30	-11.00	608.33	608.39
D	381+95.30	-11.00	608.35	608.47
E	382+05.30	-11.00	608.36	608.50
F	382+15.30	-11.00	608.36	608.53
G	382+25.30	-11.00	608.36	608.50
H	382+35.30	-11.00	608.35	608.47
I	382+45.30	-11.00	608.33	608.40
Q Brg. N. Abut.	382+56.30	-11.00	608.30	608.30
Bk. of N. Abut.	382+58.13	-11.00	608.30	608.30


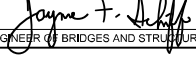
BEAM 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of S. Abut.	381+73.47	-3.67	608.42	608.42
Q Brg. S. Abut.	381+75.30	-3.67	608.42	608.42
C	381+85.30	-3.67	608.44	608.50
D	381+95.30	-3.67	608.46	608.58
E	382+05.30	-3.67	608.47	608.61
F	382+15.30	-3.67	608.47	608.64
G	382+25.30	-3.67	608.47	608.61
H	382+35.30	-3.67	608.46	608.58
I	382+45.30	-3.67	608.44	608.51
Q Brg. N. Abut.	382+56.30	-3.67	608.41	608.41
Bk. of N. Abut.	382+58.13	-3.67	608.41	608.41

Q ROADWAY, P.G., & STAGE CONSTRUCTION JOINT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of S. Abut.	381+73.47	0.00	608.47	608.47
Q Brg. S. Abut.	381+75.30	0.00	608.48	608.48
C	381+85.30	0.00	608.50	608.56
D	381+95.30	0.00	608.52	608.63
E	382+05.30	0.00	608.52	608.66
F	382+15.30	0.00	608.53	608.69
G	382+25.30	0.00	608.52	608.67
H	382+35.30	0.00	608.51	608.63
I	382+45.30	0.00	608.50	608.56
Q Brg. N. Abut.	382+56.30	0.00	608.47	608.47
Bk. of N. Abut.	382+58.13	0.00	608.46	608.46

DESIGNED	-	RYAN P. NEGANGARD
CHECKED	-	DAVID H. RICHTER
DRAWN	-	GLENN W. STOVER
CHECKED	-	R.P.N./G.R.A.

EXAMINED	
PASSED	

DATE	-	December 9, 2025
REVISED	-	
REVISED	-	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS
STRUCTURE NO. 058-0137

SHEET 7 OF 26 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
714	(128BR-1) B-1	MACON	54	22
CONTRACT NO. 74368				
ILLINOIS		FED. AID PROJECT		

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BEAM 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of S. Abut.	381+73.47	3.67	608.42	608.42
Q Brg. S. Abut.	381+75.30	3.67	608.42	608.42
C	381+85.30	3.67	608.44	608.50
D	381+95.30	3.67	608.46	608.58
E	382+05.30	3.67	608.47	608.61
F	382+15.30	3.67	608.47	608.64
G	382+25.30	3.67	608.47	608.61
H	382+35.30	3.67	608.46	608.58
I	382+45.30	3.67	608.44	608.51
Q Brg. N. Abut.	382+56.30	3.67	608.41	608.41
Bk. of N. Abut.	382+58.13	3.67	608.41	608.41



BEAM 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of S. Abut.	381+73.47	11.00	608.31	608.31
Q Brg. S. Abut.	381+75.30	11.00	608.31	608.31
C	381+85.30	11.00	608.33	608.39
D	381+95.30	11.00	608.35	608.47
E	382+05.30	11.00	608.36	608.50
F	382+15.30	11.00	608.36	608.53
G	382+25.30	11.00	608.36	608.50
H	382+35.30	11.00	608.35	608.47
I	382+45.30	11.00	608.33	608.40
Q Brg. N. Abut.	382+56.30	11.00	608.30	608.30
Bk. of N. Abut.	382+58.13	11.00	608.30	608.30

BEAM 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of S. Abut.	381+73.47	18.33	608.17	608.17
Q Brg. S. Abut.	381+75.30	18.33	608.17	608.17
C	381+85.30	18.33	608.19	608.25
D	381+95.30	18.33	608.21	608.32
E	382+05.30	18.33	608.22	608.36
F	382+15.30	18.33	608.22	608.38
G	382+25.30	18.33	608.22	608.36
H	382+35.30	18.33	608.21	608.33
I	382+45.30	18.33	608.19	608.25
Q Brg. N. Abut.	382+56.30	18.33	608.16	608.16
Bk. of N. Abut.	382+58.13	18.33	608.16	608.16

DESIGNED	-	RYAN P. NEGANGARD
CHECKED	-	DAVID H. RICHTER
DRAWN	-	GLENN W. STOVER
CHECKED	-	R.P.N./G.R.A.

EXAMINED	
PASSED	

DATE	-	December 9, 2025
REVISED	-	
REVISED	-	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS
STRUCTURE NO. 058-0137

SHEET 8 OF 26 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
714	(128BR-1) B-1	MACON	54	23
CONTRACT NO. 74368				
		ILLINOIS	FED. AID PROJECT	

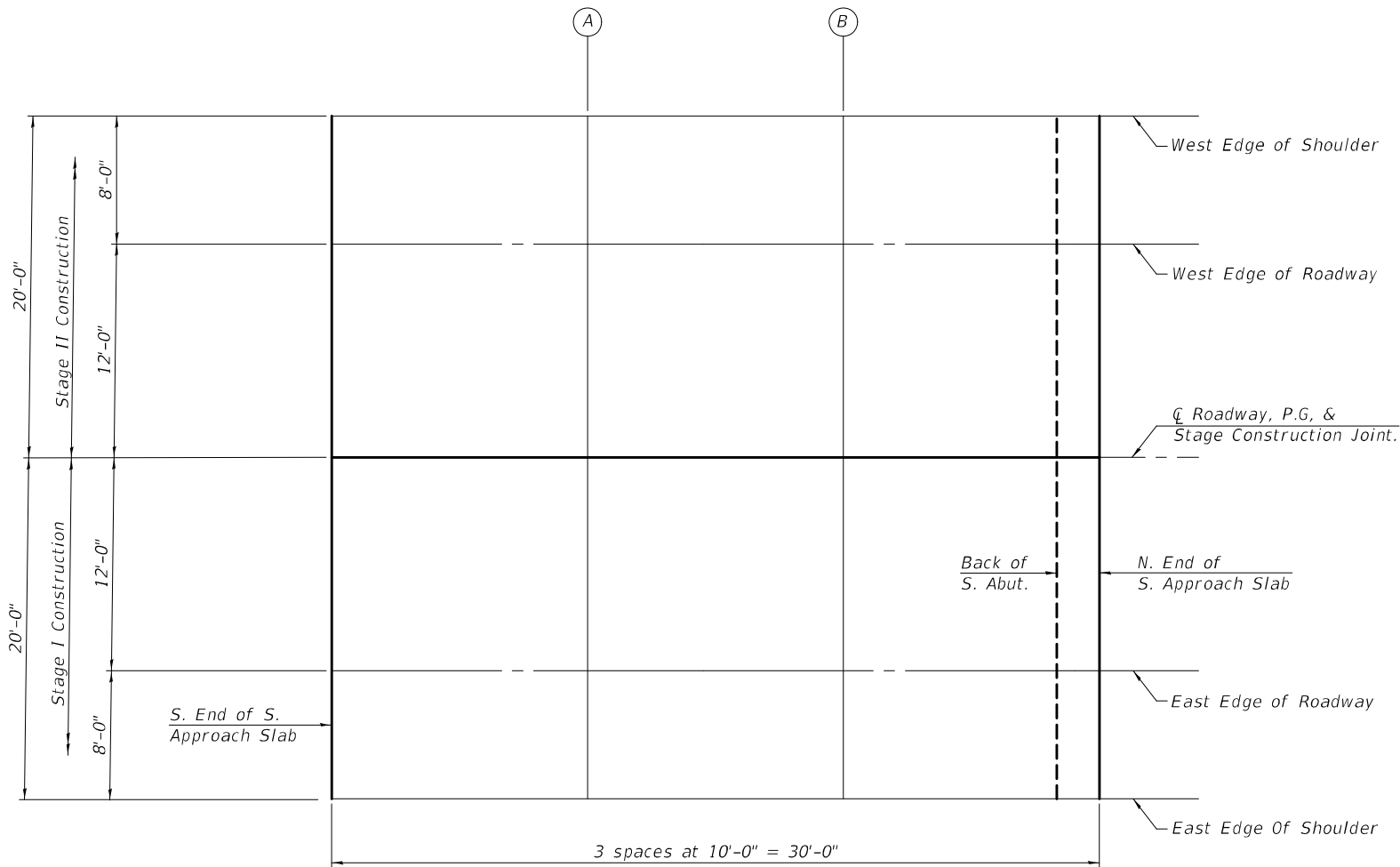
WEST EDGE OF SHOULDER			
Location	Station	Offset	Theoretical Grade Elevations
S. End of S. Aprr.	381+44.47	-20.00	608.03
A	381+54.47	-20.00	608.07
B	381+64.47	-20.00	608.10
N. End of S. Aprr.	381+74.47	-20.00	608.13

WEST EDGE OF ROADWAY			
Location	Station	Offset	Theoretical Grade Elevations
S. End of S. Aprr.	381+44.47	-12.00	608.19
A	381+54.47	-12.00	608.23
B	381+64.47	-12.00	608.26
N. End of S. Aprr.	381+74.47	-12.00	608.29

C ROADWAY, P.G., & STAGE CONST. JOINT			
Location	Station	Offset	Theoretical Grade Elevations
S. End of S. Aprr.	381+44.47	0.00	608.37
A	381+54.47	0.00	608.41
B	381+64.47	0.00	608.44
N. End of S. Aprr.	381+74.47	0.00	608.47

EAST EDGE OF ROADWAY			
Location	Station	Offset	Theoretical Grade Elevations
S. End of S. Aprr.	381+44.47	12.00	608.19
A	381+54.47	12.00	608.23
B	381+64.47	12.00	608.26
N. End of S. Aprr.	381+74.47	12.00	608.29

EAST EDGE OF SHOULDER			
Location	Station	Offset	Theoretical Grade Elevations
S. End of S. Aprr.	381+44.47	20.00	608.03
A	381+54.47	20.00	608.07
B	381+64.47	20.00	608.10
N. End of S. Aprr.	381+74.47	20.00	608.13



PLAN

MODEL: 0580137-74368-009
FILE NAME: c:\pw_work\pwwork\glenn.w.stover@illinois.gov\0613475\0580137-74368.dgn

DESIGNED	-	RYAN P. NEGANGARD
CHECKED	-	DAVID H. RICHTER
DRAWN	-	GLENN W. STOVER
CHECKED	-	R.P.N./G.R.A.

EXAMINED	
PASSED	

DATE	-	December 9, 2025
REVISED	-	
REVISED	-	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SOUTH APPROACH SLAB ELEVATIONS
STRUCTURE NO. 058-0137

SHEET 9 OF 26 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
714	(128BR-1) B-1	MACON	54	24
CONTRACT NO. 74368				
ILLINOIS FED. AID PROJECT				

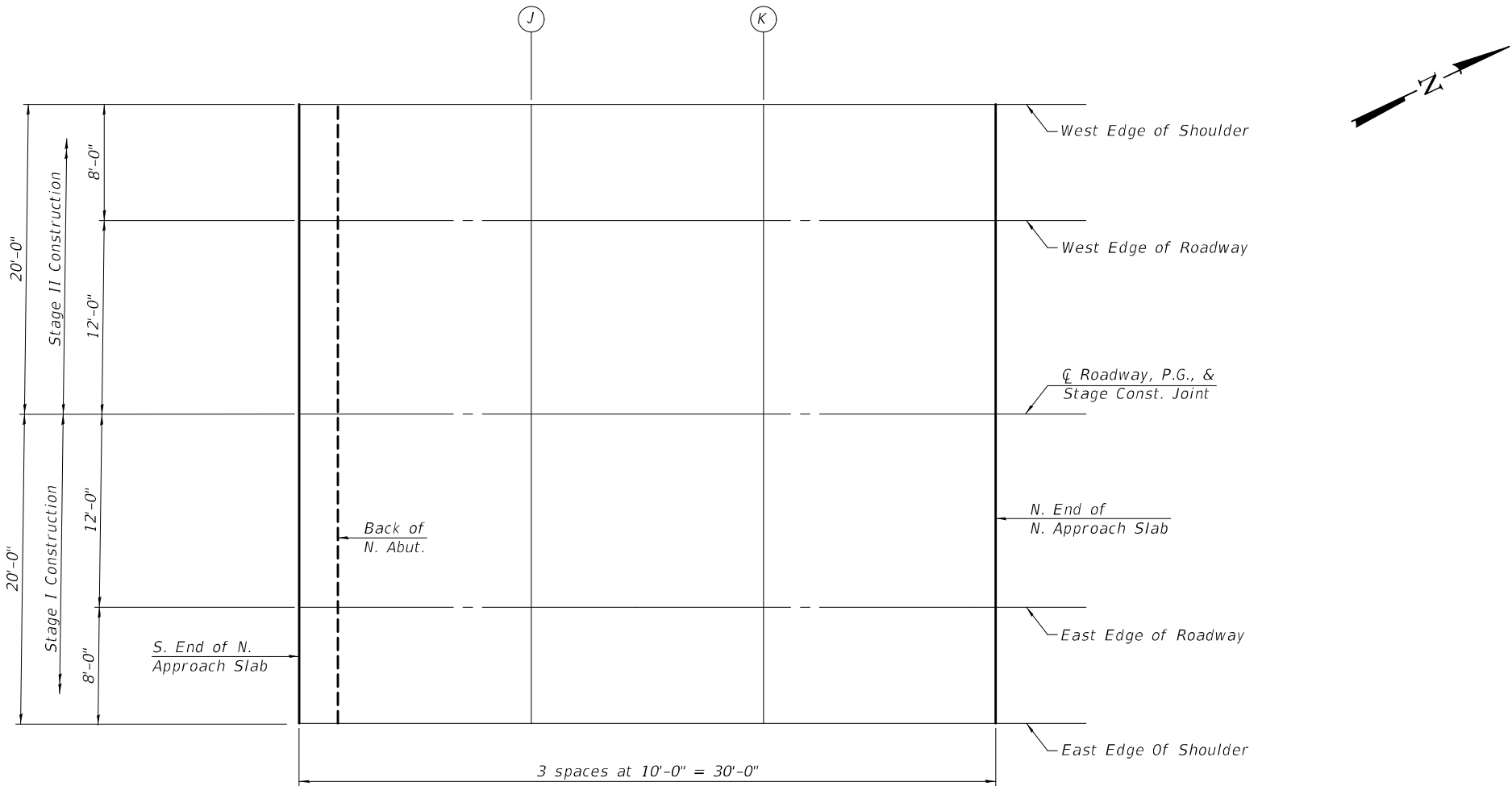
WEST EDGE OF SHOULDER			
Location	Station	Offset	Theoretical Grade Elevations
S. End of N. Appr.	382+57.13	-20.00	608.13
J	382+67.13	-20.00	608.10
K	382+77.13	-20.00	608.06
N. End of N. Appr.	382+87.13	-20.00	608.01

WEST EDGE OF ROADWAY			
Location	Station	Offset	Theoretical Grade Elevations
S. End of N. Appr.	382+57.13	-12.00	608.29
J	382+67.13	-12.00	608.26
K	382+77.13	-12.00	608.22
N. End of N. Appr.	382+87.13	-12.00	608.17

C ROADWAY, P.G., & STAGE CONST. JOINT			
Location	Station	Offset	Theoretical Grade Elevations
S. End of N. Appr.	382+57.13	0.00	608.47
J	382+67.13	0.00	608.44
K	382+77.13	0.00	608.40
N. End of N. Appr.	382+87.13	0.00	608.35

EAST EDGE OF ROADWAY			
Location	Station	Offset	Theoretical Grade Elevations
S. End of N. Appr.	382+57.13	12.00	608.29
J	382+67.13	12.00	608.26
K	382+77.13	12.00	608.22
N. End of N. Appr.	382+87.13	12.00	608.17

EAST EDGE OF SHOULDER			
Location	Station	Offset	Theoretical Grade Elevations
S. End of N. Appr.	382+57.13	20.00	608.13
J	382+67.13	20.00	608.10
K	382+77.13	20.00	608.06
N. End of N. Appr.	382+87.13	20.00	608.01



PLAN

MODEL: 0580137-74368-010
FILE NAME: c:\pw_work\pwwide\glenn.w.stover@illinois.gov\06134750580137-74368.dgn

DESIGNED	-	RYAN P. NEGANGARD
CHECKED	-	DAVID H. RICHTER
DRAWN	-	GLENN W. STOVER
CHECKED	-	R.P.N./G.R.A.

EXAMINED		DATE	-	December 9, 2025
PASSED		REVISED	-	
	ENGINEER OF BRIDGES AND STRUCTURES	REVISED	-	

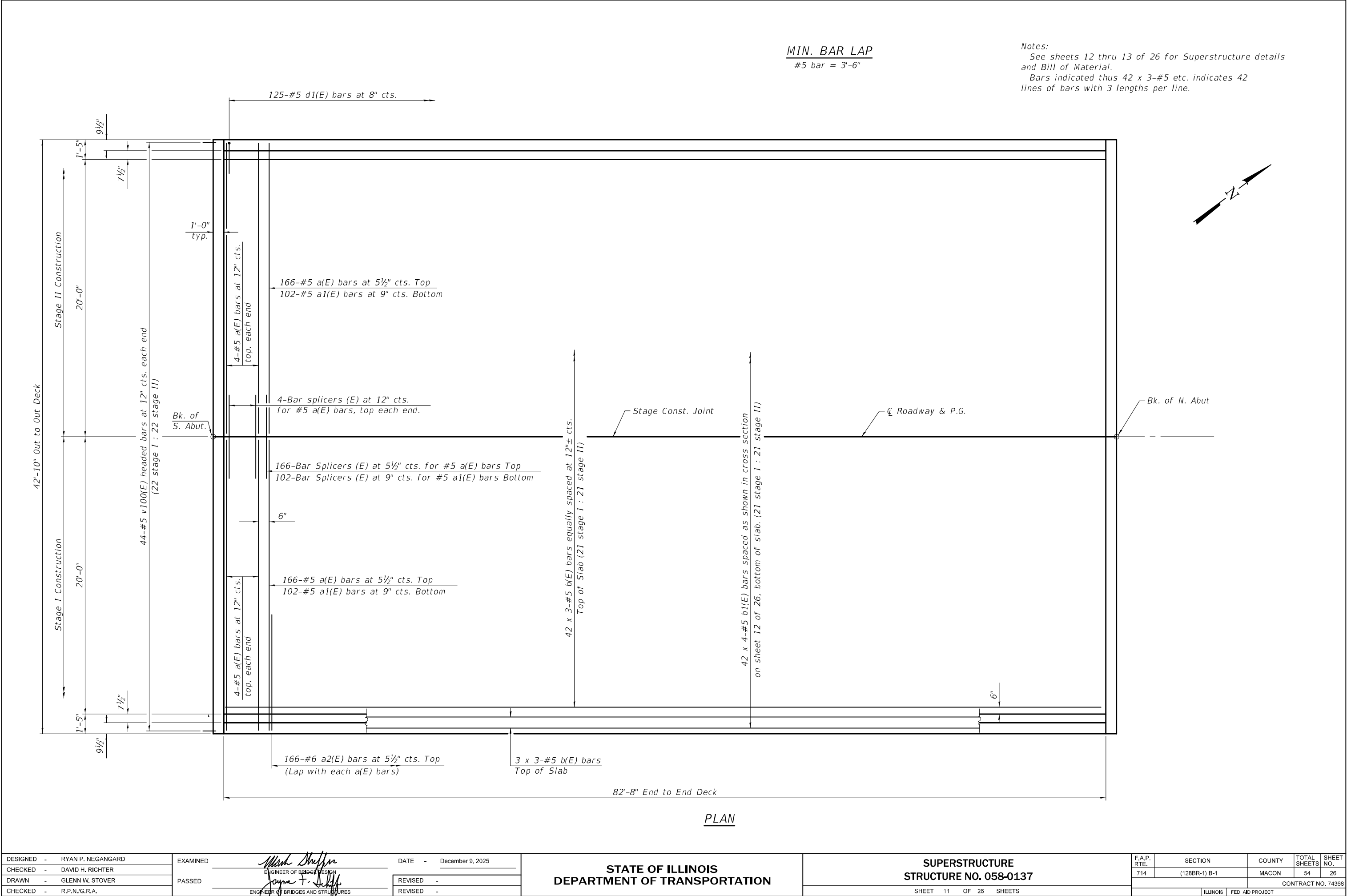
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF NORTH APPROACH SLAB ELEVATIONS
STRUCTURE NO. 058-0137

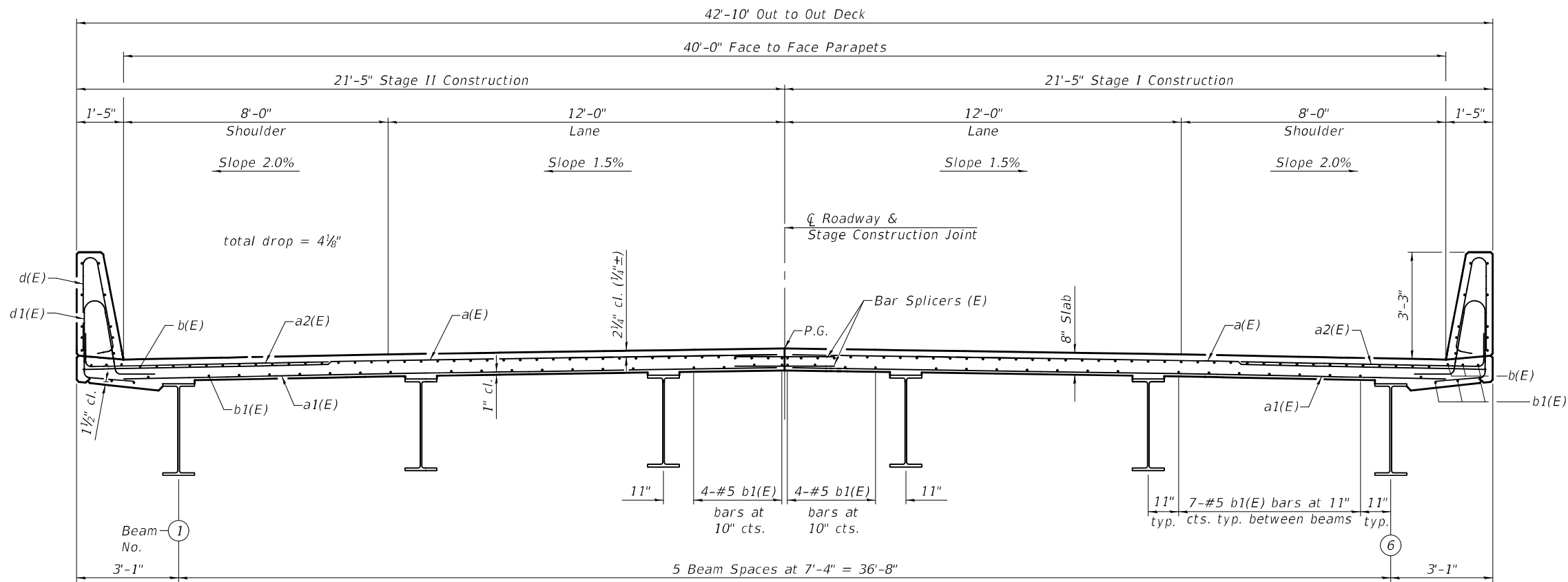
SHEET 10 OF 26 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
714	(128BR-1) B-1	MACON	54	25
CONTRACT NO. 74368				
ILLINOIS FED. AID PROJECT				

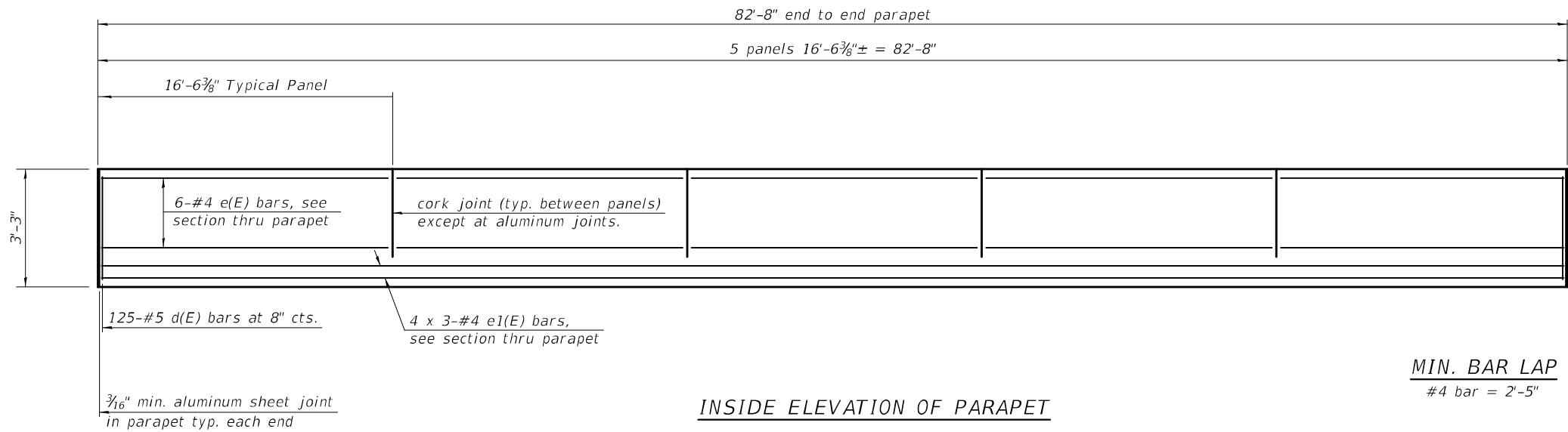
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PLAN



CROSS SECTION
(Looking North)



MIN. BAR LAP
#4 bar = 2'-5"

Notes:
See sheet 13 of 26 for Bar details
and Bill of Material.
Bars indicated thus 4 x 3-#4 etc. indicates 4
lines of bars with 3 lengths per line.

MODEL: 0580137-74368-012
FILE NAME: c:\pw_work\p\w\glenn.w.stover@illinois.gov\0613475\0580137-74368.dgn

DESIGNED	-	RYAN P. NEGANGARD
CHECKED	-	DAVID H. RICHTER
DRAWN	-	GLENN W. STOVER
CHECKED	-	R.P.N./G.R.A.

EXAMINED	<i>Mark Shiffin</i>
PASSED	<i>Jaime F. Shiffin</i>
ENGINEER OF BRIDGES AND STRUCTURES	

DATE	-	December 9, 2025
REVISED	-	
REVISED	-	

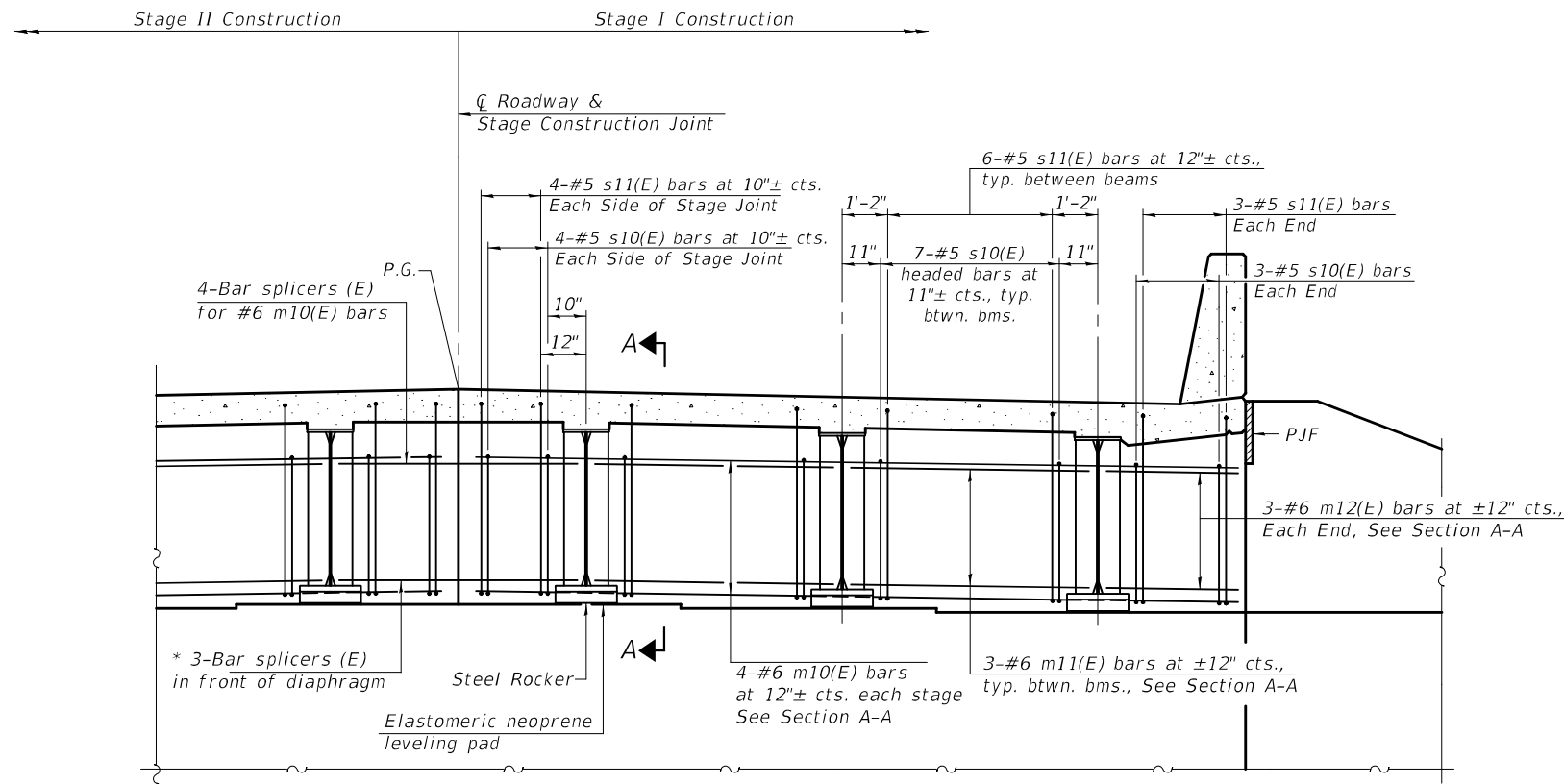
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE DETAILS
STRUCTURE NO. 058-0137

SHEET 12 OF 26 SHEETS

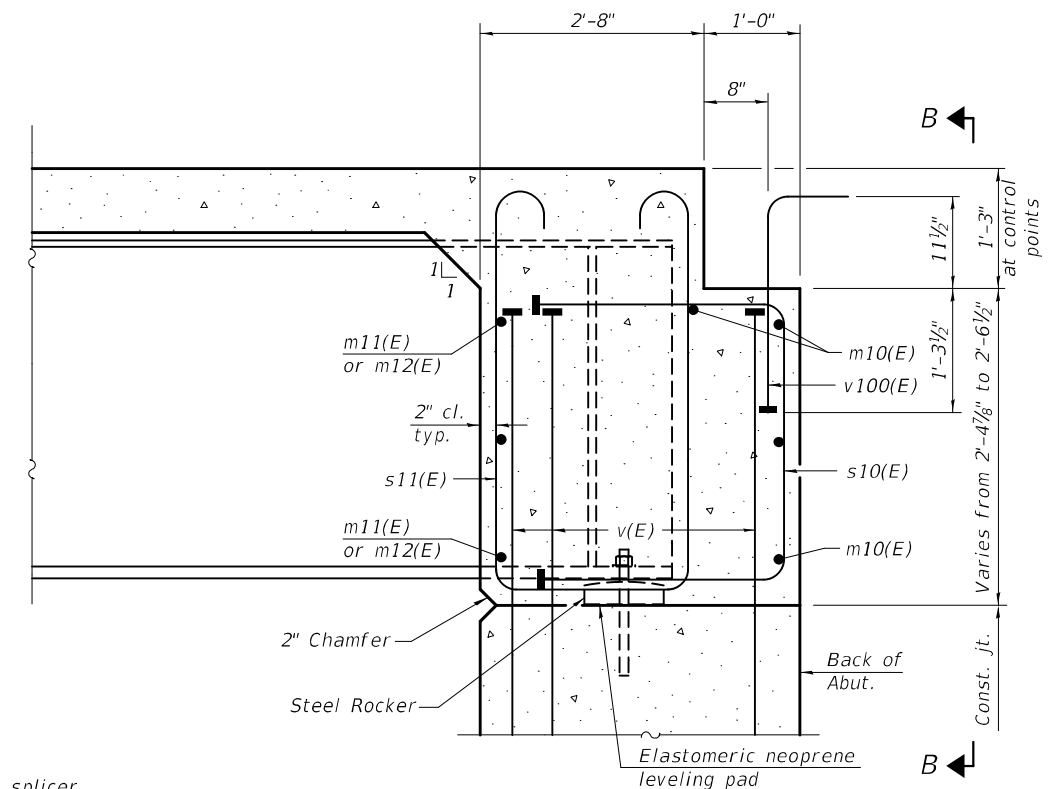
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
714	(128BR-1) B-1	MACON	54	27
CONTRACT NO. 74368				
		ILLINOIS	FED. AID PROJECT	

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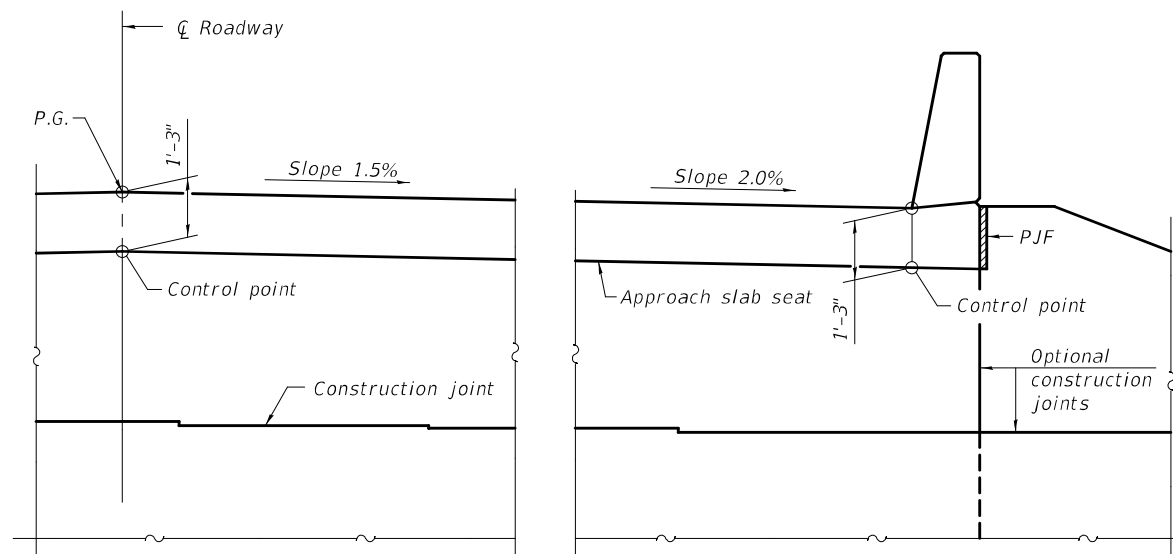


DIAPHRAGM AT ABUTMENT
(Looking North)

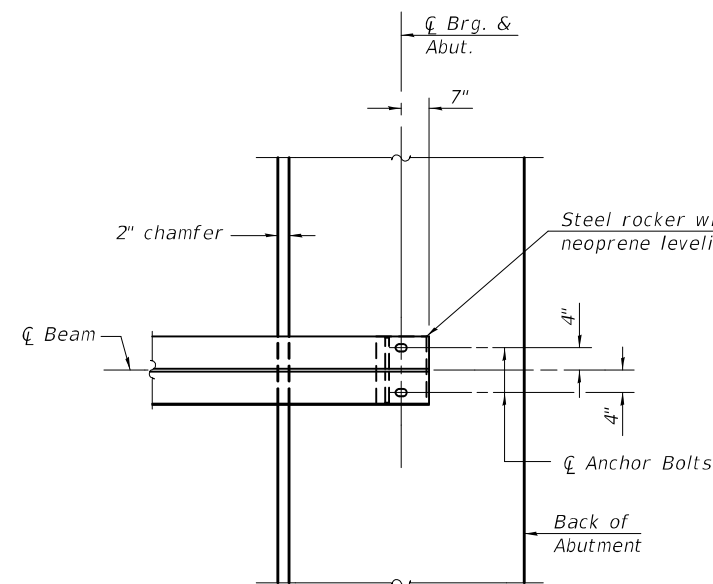
* See sheet 24 of 26 for detail of bar splicer in front face of diaphragm



SECTION A-A



VIEW B-B



PLAN AT ABUTMENT
(Showing bottom flange of beam)

Notes:
See sheet 13 of 26 for superstructure details and Bill of Material.
See sheet 16 of 26 for P.J.F. details.
The approach slab seat shall have a constant slope determined from the control points shown.

MODEL: 0580137-74368-014
FILE NAME: c:\pwworkspace\glenn.w.stover@illinois.gov\134750580137-74368.dgn

DESIGNED	-	RYAN P. NEGANGARD
CHECKED	-	DAVID H. RICHTER
DRAWN	-	GLENN W. STOVER
CHECKED	-	R.P.N./G.R.A.

EXAMINED
PASSED

Mark Shaffer
ENGINEER OF BRIDGE DESIGN
Jaime F. Schaff
ENGINEER OF BRIDGES AND STRUCTURES

DATE - December 9, 2025
REVISED -
REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**DIAPHRAGM DETAILS
STRUCTURE NO. 058-0137**

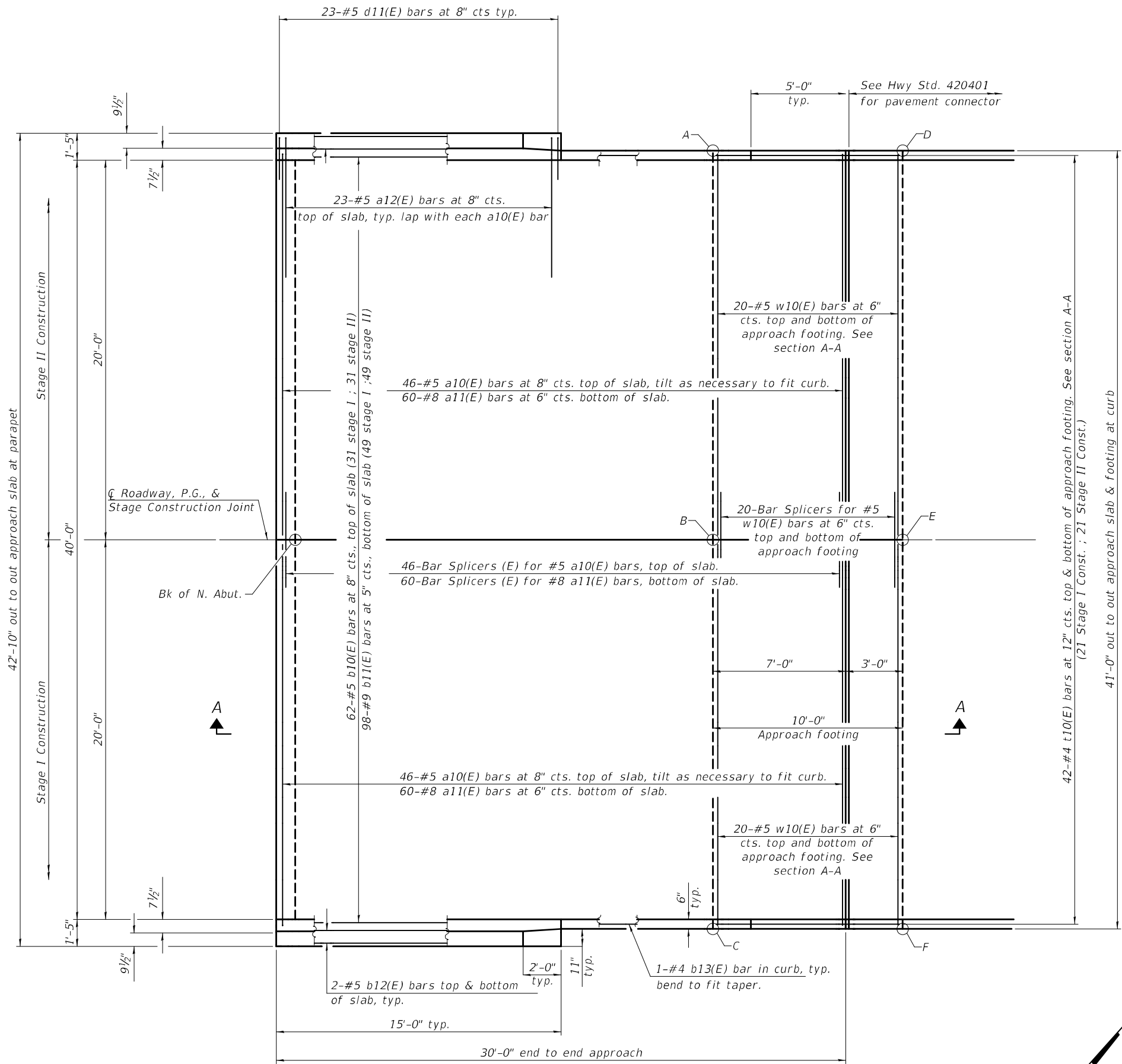
SHEET 14 OF 26 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
714	(128BR-1) B-1	MACON	54	29
CONTRACT NO. 74368				
ILLINOIS FED. AID PROJECT				

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MODEL: 0580137-74368-015
FILE NAME: c:\pwworking\glenn.w.stover\illinois\gov\id0613475\0580137-74368.dgn

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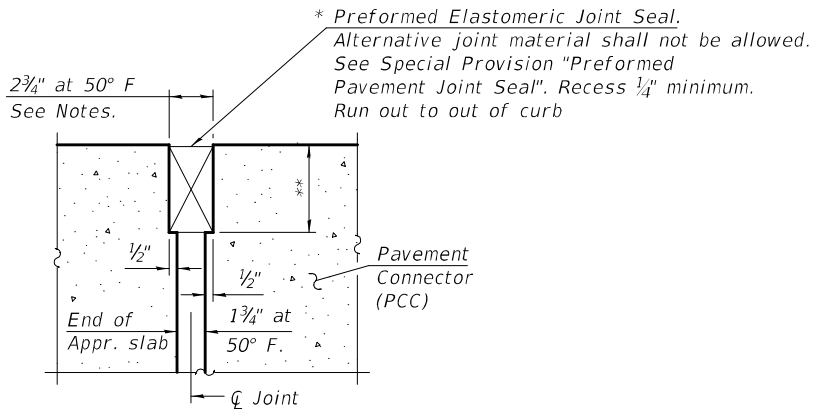


PLAN

(North Approach shown, South Approach similar by 180° rotation)

TOP AND BOTTOM ELEVATIONS
FOR APPROACH FOOTING

Point	South Approach		North Approach	
	Top	Bottom	Top	Bottom
A	606.80	605.97	606.79	605.96
B	607.15	606.32	607.14	606.31
C	606.80	605.97	606.79	605.96
D	606.75	605.92	606.74	605.91
E	607.10	606.27	607.09	606.26
F	606.75	605.92	606.74	605.91





DETAIL A

* Cost included with Concrete Superstructure (Approach Slab).

** Per manufacturer recommendations

DESIGNED	-	RYAN P. NEGANGARD
CHECKED	-	DAVID H. RICHTER
DRAWN	-	GLENN W. STOVER
CHECKED	-	R.P.N./G.R.A.

EXAMINED	
PASSED	

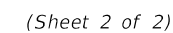
DATE	-	December 9, 2025
REVISED	-	
REVISED	-	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

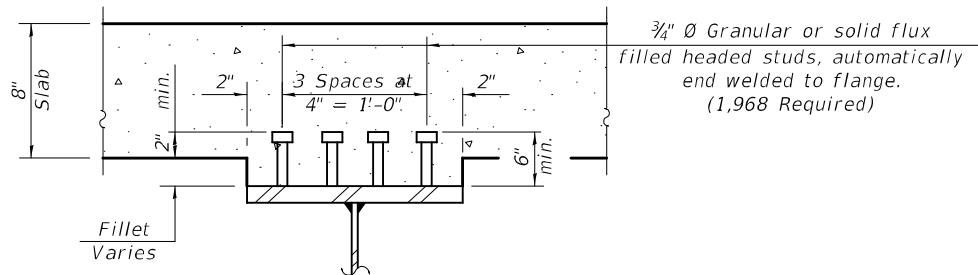
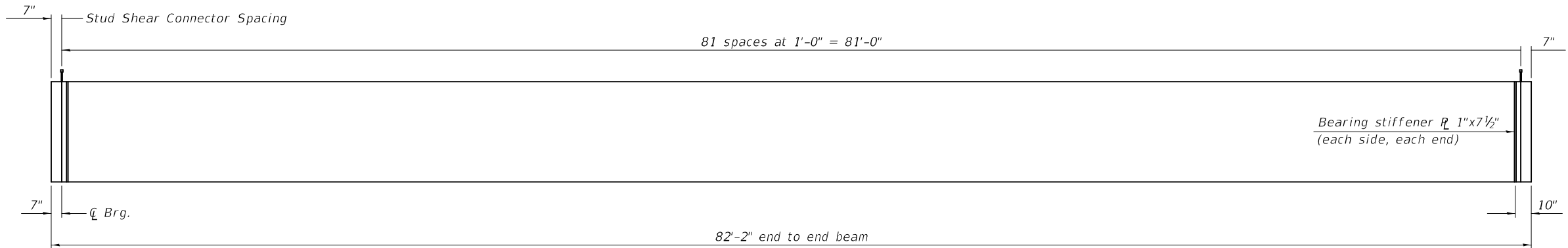
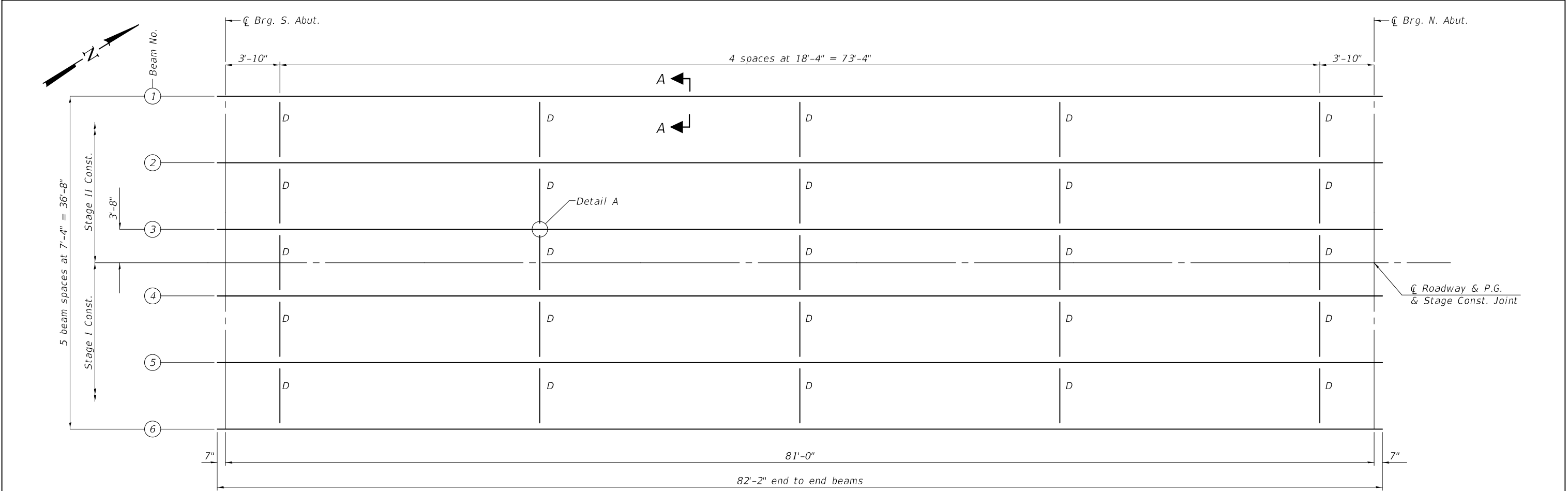
BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 058-0137

SHEET 15 OF 26 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
714	(128BR-1) B-1	MACON	54	30
CONTRACT NO. 74368				
ILLINOIS FED. AID PROJECT				



MODEL: 0580137-74368-017
FILE NAME: c:\pwworkspace\glenn.w.stover\illinois.gov\id0613475\0580137-74368.dgn



Notes:
All diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted.
"CVN" denotes Charpy-V-Notch Impact energy requirements, zone 2.
See sheet 18 of 26 for diaphragm details.

* TOP OF BEAM ELEVATIONS

Location	CL Brg. S. Abut.	CL Brg. N. Abut.
Beam 1	607.46	607.45
Beam 2	607.59	607.58
Beam 3	607.71	607.70
Beam 4	607.71	607.70
Beam 5	607.59	607.58
Beam 6	607.46	607.45

* For fabrication use only.

DESIGNED	-	RYAN P. NEGANGARD
CHECKED	-	DAVID H. RICHTER
DRAWN	-	GLENN W. STOVER
CHECKED	-	R.P.N./G.R.A.

EXAMINED		<i>Mark Shaffer</i>
PASSED		<i>Jaime F. Schaff</i>
		ENGINEER OF BRIDGES AND STRUCTURES

DATE	-	December 9, 2025
REVISED	-	
REVISED	-	

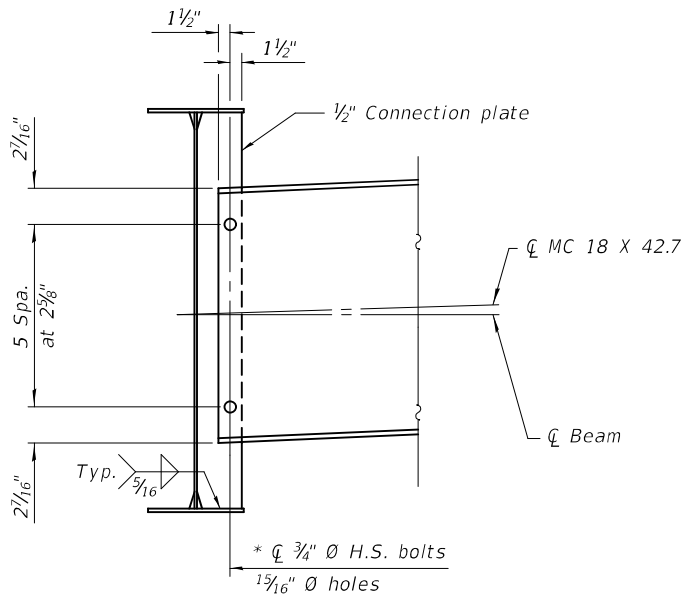
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STRUCTURAL STEEL
STRUCTURE NO. 058-0137

SHEET 17 OF 26 SHEETS

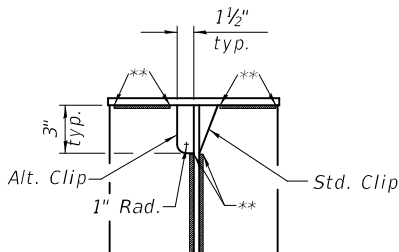
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
714	(128BR-1) B-1	MACON	54	32
CONTRACT NO. 74368				
ILLINOIS FED. AID PROJECT				

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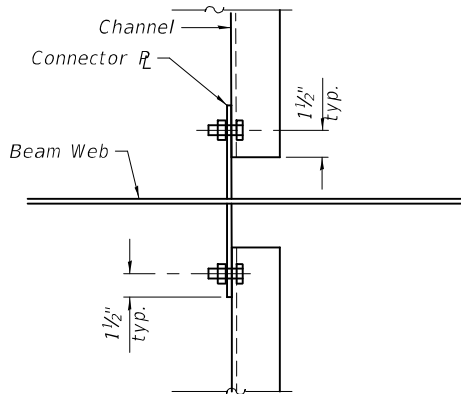
DIAPHRAGM D

* Install only one 7/8" Ø H.S. bolt in center most hole above C of beam at each end of the stage line diaphragm. The bolts shall be finger-tightened prior to deck pour to permit rotation. Install 3/4" Ø H.S. bolts and fully tighten immediately after stage II deck pour is complete.



WELD LIMITS & CLIP DETAILS

** Stop welds 1/4" (±1/8") from edges as shown, typ.



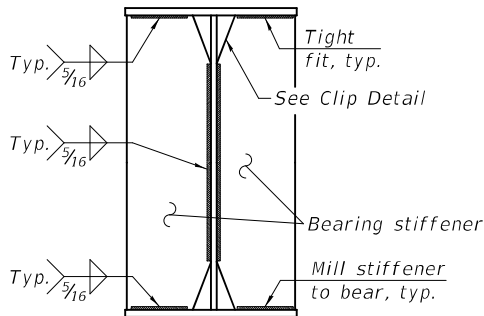
DETAIL A

BEAM REACTION TABLE		
Abut.		
	Interior	Exterior
LLDF	0.767	0.655
OCF	-	-
R_{DC1}	(k) 42.3	39.9
R_{DC2}	(k) 7.1	7.1
R_{DW}	(k) 13.5	13.5
R_L	(k) 68.7	58.7
R_{IM}	(k) 16.2	13.8
R_{TOTAL}	(k) 147.8	133.0

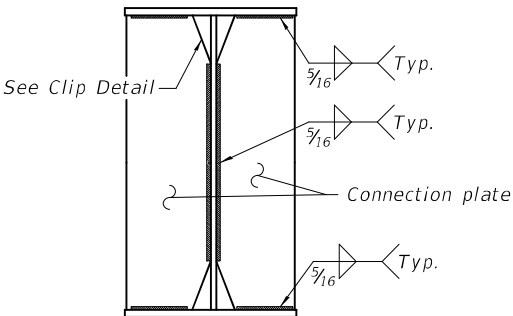
Notes:
Two hardened washers required for each set of oversized holes.
Alternate channels of equal depth and larger weight are permitted to facilitate material acquisition. Alternate channels, if utilized, shall be provided at no additional cost to the Department.
Anchor bolts at all supports shall be installed as each member is erected unless an equivalent temporary means of lateral restraint is used.
All bearing plates and bearing stiffeners shall be AASHTO M270, Grade 50.

BILL OF MATERIAL

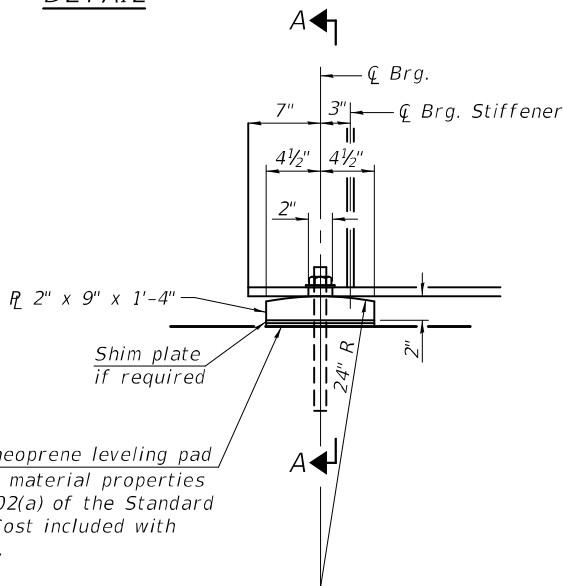
Item	Unit	Total
Anchor Bolts, 1"	Each	24



BEARING STIFFENER
DETAIL



CONNECTION PLATE
DETAIL



ELEVATION AT ABUTMENT

1/8" elastomeric neoprene leveling pad according to the material properties of Article 1052.02(a) of the Standard Specifications. Cost included with Structural Steel.

C 1" Ø x 12" all thread anchor bolts (Grade 55) with 2 1/4" x 2 1/4" x 5/16" R washers under nuts.
1 3/8" x 2" slotted holes in flange.
1 1/2" Ø holes in bearing plate.

SECTION A-A

FIXED BEARING
(12 Required)

INTERIOR BEAM MOMENT TABLE		
0.5 Span 1		
I_s	(in ⁴)	14200
$I_c(n)$	(in ⁴)	33824
$I_c(3n)$	(in ⁴)	24721
$I_c(cr)$	(in ⁴)	-
S_s	(in ³)	830
$S_c(n)$	(in ³)	1144
$S_c(3n)$	(in ³)	1037
$S_c(cr)$	(in ³)	-
$DC1$	(k/')	1.044
M_{DC1}	(k')	856.2
$DC2$	(k/')	0.175
M_{DC2}	(k')	143.5
DW	(k/')	0.333
M_{DW}	(k')	273.1
LLDF		0.585
$M_L + IM$	(k')	1223.6
M_u (Strength I)	(k')	3800.6
$\phi_r M_n$	(k')	5520
$f_s DC1$	(ksi)	12.38
$f_s DC2$	(ksi)	1.66
$f_s DW$	(ksi)	3.16
$f_s (L + IM)$	(ksi)	12.83
f_s (Service II)	(ksi)	33.89
$0.95R_n F_{yf}$	(ksi)	47.5
f_s (Total)(Strength I)	(ksi)	44.75
$\phi_r F_n$	(ksi)	-
V_f	(k)	27.9

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).

$DC1$: 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): Factored design moment (kip-ft.).
 $1.25 (M_{DC1} + M_{DC2}) + 1.5 M_{DW} + 1.75 M_L + IM$

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

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

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

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

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

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

$0.95R_n F_{yf}$: Composite stress capacity for Service II loading according to Article 6.10.4.2 (ksi).

f_s (Total)(Strength I): Sum of stresses as computed below on non-compact section (ksi).
 $1.25 (f_s DC1 + f_s DC2) + 1.5 f_s DW + 1.75 f_s (L + IM)$

$\phi_r F_n$: Non-Compact composite positive or negative stress capacity for Strength I loading according to Article 6.10.7 or 6.10.8 (ksi).

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

OCF: Obtuse Correction Factor applied to non-continuous exterior beam ends and computed according to Article 4.6.2.2.3c-1 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).

DESIGNED	-	RYAN P. NEGANGARD
CHECKED	-	DAVID H. RICHTER
DRAWN	-	GLENN W. STOVER
CHECKED	-	R.P.N./G.R.A.

EXAMINED	
PASSED	

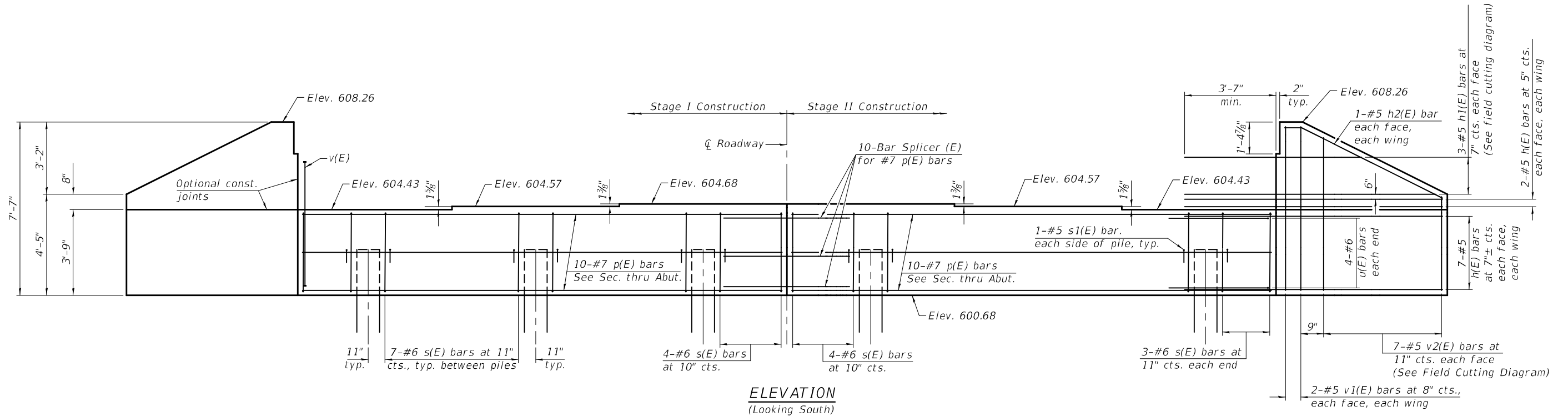
DATE	-	December 9, 2025
REVISED	-	
REVISED	-	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

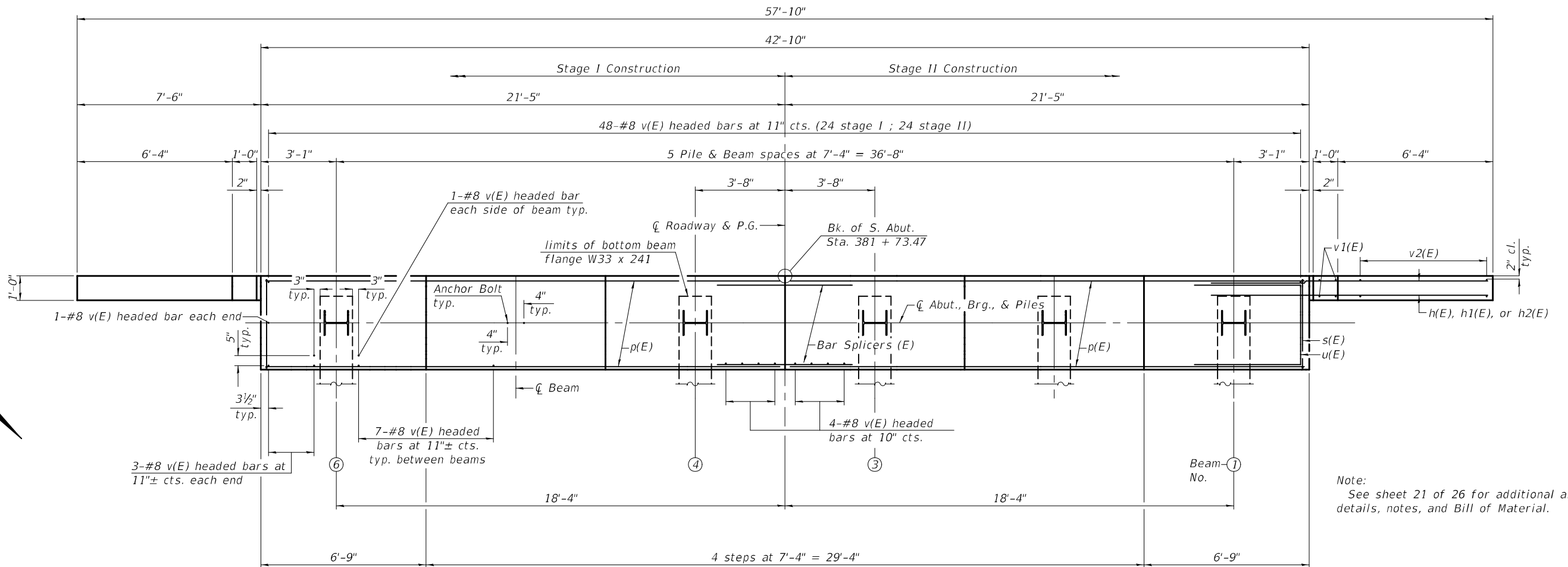
STRUCTURAL STEEL DETAILS
STRUCTURE NO. 058-0137

SHEET 18 OF 26 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
714	(128BR-1)B-1	MACON	54	33
CONTRACT NO. 74368				
ILLINOIS FED. AID PROJECT				



ELEVATION
(Looking South)


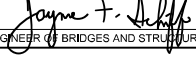


PLAN

Note:
See sheet 21 of 26 for additional abutment details, notes, and Bill of Material.

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DESIGNED	-	RYAN P. NEGANGARD
CHECKED	-	DAVID H. RICHTER
DRAWN	-	GLENN W. STOVER
CHECKED	-	R.P.N./G.R.A.

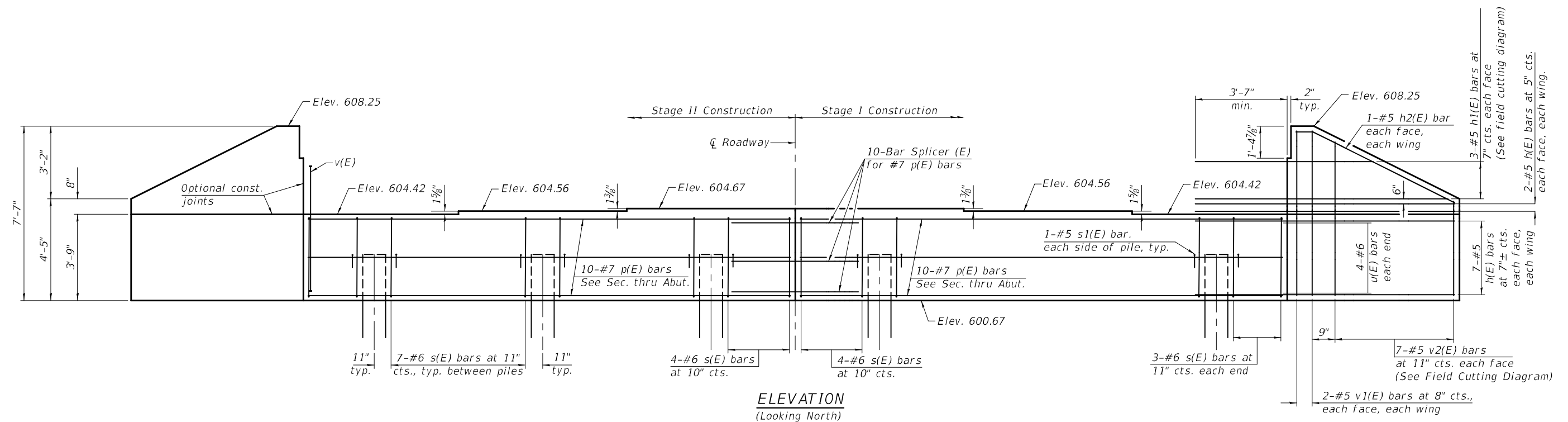
EXAMINED		DATE	-	December 9, 2025
PASSED		REVISED	-	
	ENGINEER OF BRIDGES AND STRUCTURES	REVISED	-	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

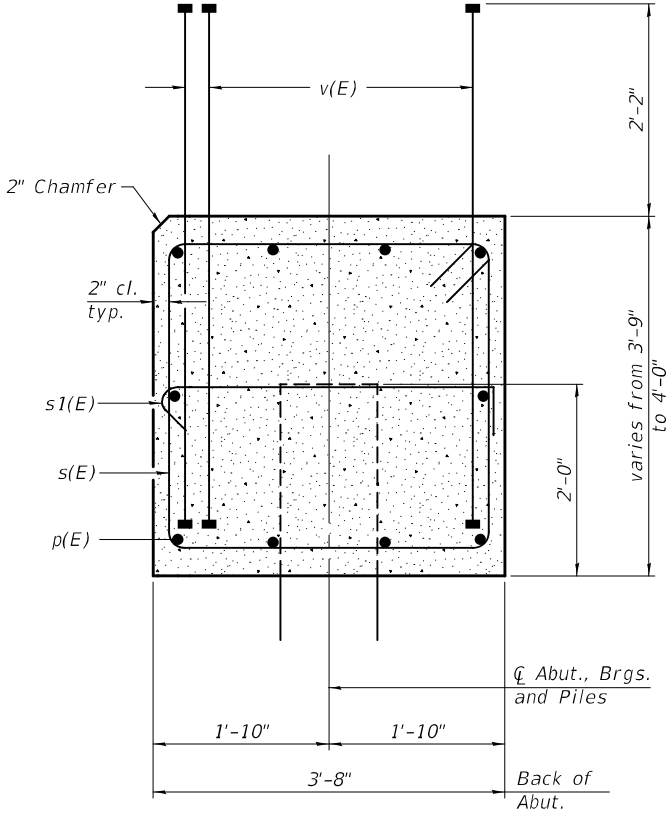
SOUTH ABUTMENT
STRUCTURE NO. 058-0137

SHEET 19 OF 26 SHEETS

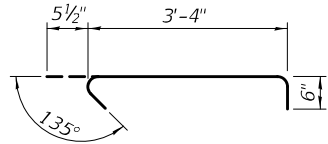
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
714	(128BR-1)B-1	MACON	54	34
CONTRACT NO. 74368				
ILLINOIS		FED. AID PROJECT		



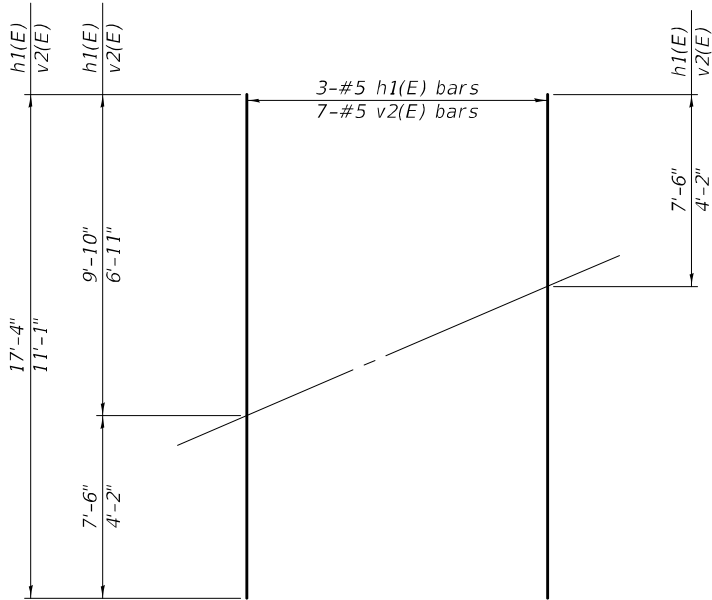
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SECTION THRU
ABUTMENT



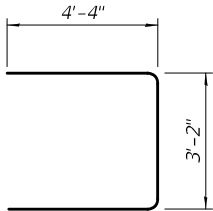
BAR s1(E)



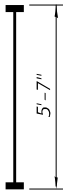
FIELD CUTTING DIAGRAM

Order h1(E) and v2(E) full length. Cut as shown and use remainder of bars in opposite wing.

Notes:
Pour steps monolithically with cap.
Bar terminators, paid for separately. See Total Bill of Material.
For details of piles see sheet 22 of 26.

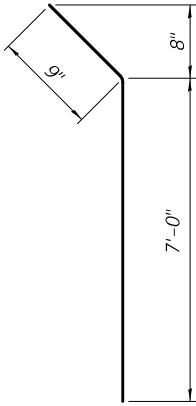


BAR u(E)

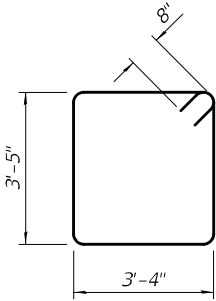


BAR v(E)

(Headed, 416-#8 Bar terminators)



BAR h2(E)



BAR s(E)

SOUTH ABUTMENT
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	36	#5	11'-0"	—
h1(E)	6	#5	17'-4"	—
h2(E)	4	#5	7'-9"	—
p(E)	20	#7	21'-1"	—
s(E)	42	#6	14'-10"	□
s1(E)	12	#5	4'-4"	└┐
u(E)	8	#6	11'-10"	□
v(E)	104	#8	5'-7"	—
v1(E)	8	#5	7'-3"	—
v2(E)	14	#5	11'-1"	—
Structure Excavation			Cu. Yd.	119
Concrete Structures			Cu. Yd.	26.0
Reinforcement Bars, Epoxy Coated			Pound	4,320
Furnishing Steel Piles HP12x63			Foot	324
Driving Piles			Foot	324

SOUTH ABUTMENT
PILE DATA

Type: HP12x63
Nominal Required Bearing: 497 kips
Factored Resistance Available: 273 kips
Est. Length: 54'-0"
No. Production Piles: 6
No. Test Piles: 0

NORTH ABUTMENT
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	36	#5	11'-0"	—
h1(E)	6	#5	17'-4"	—
h2(E)	4	#5	7'-9"	—
p(E)	20	#7	21'-1"	—
s(E)	42	#6	14'-10"	□
s1(E)	12	#5	4'-4"	└┐
u(E)	8	#6	11'-10"	□
v(E)	104	#8	5'-7"	—
v1(E)	8	#5	7'-3"	—
v2(E)	14	#5	11'-1"	—
Structure Excavation			Cu. Yd.	97
Concrete Structures			Cu. Yd.	26.0
Reinforcement Bars, Epoxy Coated			Pound	4,320
Furnishing Steel Piles HP12x63			Foot	280
Driving Piles			Foot	280
Test Pile Steel HP12x63			Each	1

NORTH ABUTMENT
PILE DATA

Type: HP12x63
Nominal Required Bearing: 497 kips
Factored Resistance Available: 273 kips
Est. Length: 56'-0"
No. Production Piles: 5
No. Test Piles: 1

DESIGNED	-	RYAN P. NEGANGARD
CHECKED	-	DAVID H. RICHTER
DRAWN	-	GLENN W. STOVER
CHECKED	-	R.P.N./G.R.A.

EXAMINED	Mark Shaffer
PASSED	Jaime F. Shaffer
ENGINEER OF BRIDGES AND STRUCTURES	

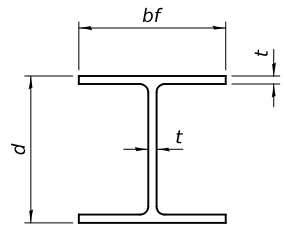
DATE	-	December 9, 2025
REVISED	-	
REVISED	-	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ABUTMENT DETAILS
STRUCTURE NO. 058-0137

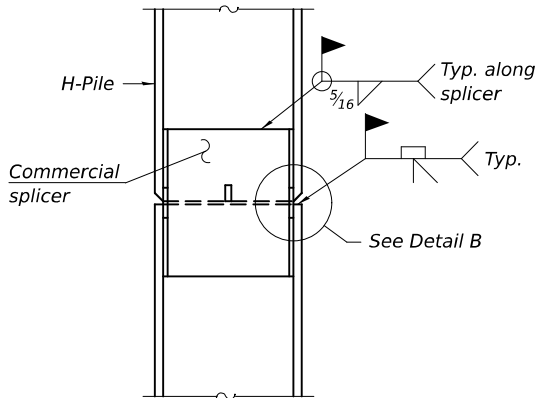
SHEET 21 OF 26 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
714	(128BR-1)B-1	MACON	54	36
CONTRACT NO. 74368				
ILLINOIS		FED. AID PROJECT		

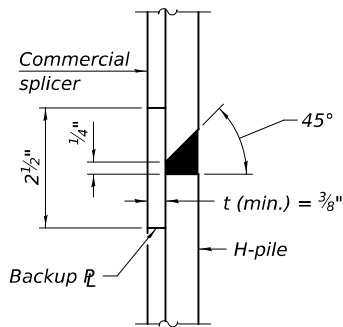


STEEL PILE TABLE

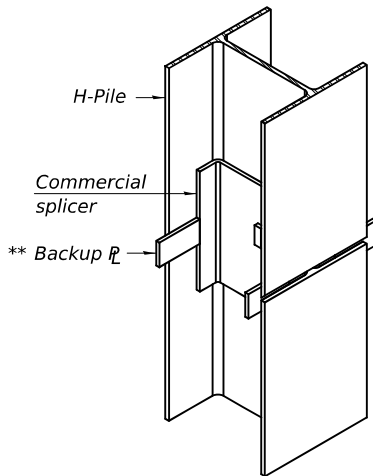
Designation	Depth d	Flange width bf	Web and Flange thickness t	Encasement diameter A
HP 18x181	18	18	1	36"
x157	17 ³ / ₄ "	17 ⁷ / ₈ "	⁷ / ₈ "	36"
x135	17 ¹ / ₂ "	17 ³ / ₄ "	³ / ₄ "	36"
HP 16x183	16 ¹ / ₂ "	16 ¹ / ₂ "	1 ¹ / ₈ "	36"
x162	16 ¹ / ₄ "	16 ¹ / ₈ "	1"	36"
x141	16	16	⁷ / ₈ "	36"
x121	15 ³ / ₄ "	15 ⁵ / ₈ "	³ / ₄ "	36"
HP 14x117	14 ¹ / ₄ "	14 ⁷ / ₈ "	¹³ / ₁₆ "	30"
x102	14"	14 ³ / ₄ "	¹¹ / ₁₆ "	30"
x89	13 ⁷ / ₈ "	14 ³ / ₄ "	⁵ / ₈ "	30"
x73	13 ⁵ / ₈ "	14 ⁵ / ₈ "	¹ / ₂ "	30"
HP 12x84	12 ¹ / ₄ "	12 ¹ / ₄ "	¹¹ / ₁₆ "	24"
x74	12 ¹ / ₈ "	12 ¹ / ₄ "	⁵ / ₈ "	24"
x63	12"	12 ¹ / ₈ "	¹ / ₂ "	24"
x53	11 ³ / ₄ "	12"	⁷ / ₁₆ "	24"
HP 10x57	10"	10 ¹ / ₄ "	⁹ / ₁₆ "	24"
x42	9 ³ / ₄ "	10 ¹ / ₈ "	⁷ / ₁₆ "	24"
HP 8x36	8"	8 ¹ / ₈ "	⁷ / ₁₆ "	18"



ELEVATION

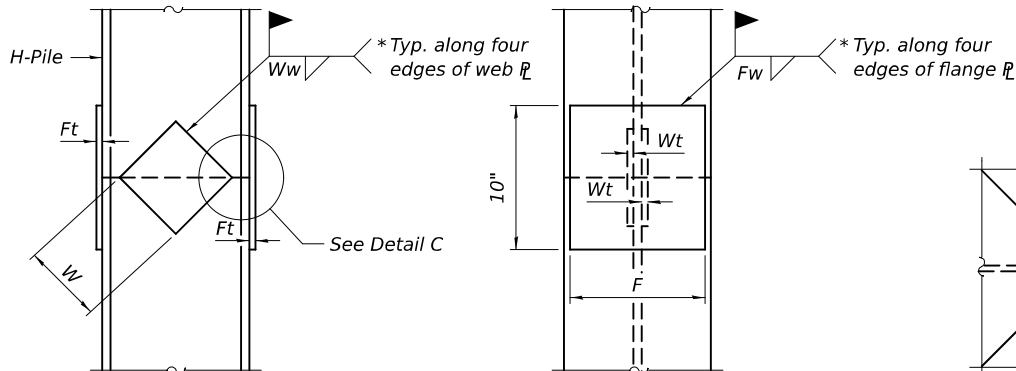


DETAIL B



ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE



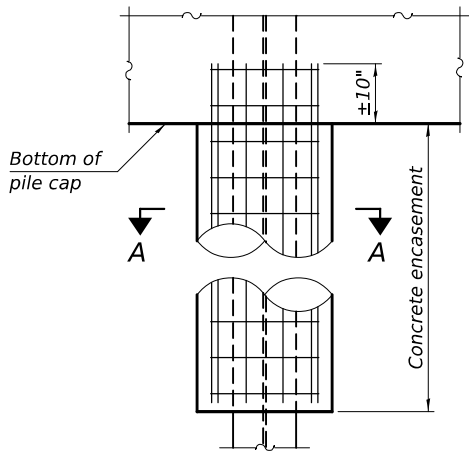
ELEVATION

END VIEW

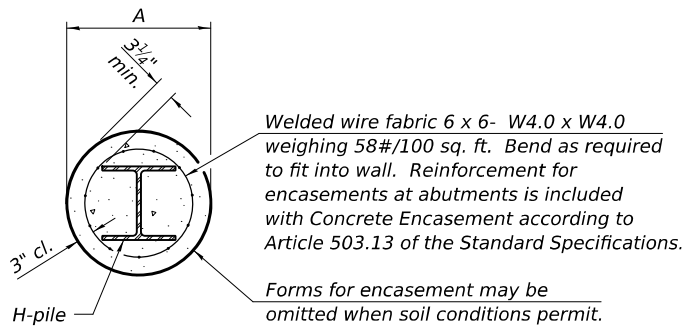
DETAIL C

Designation	F	Ft	Fw	W	Wt	Ww
HP 18x181	15 ¹ / ₂ "	1 ¹ / ₂ "	1"	9 ¹ / ₂ "	⁷ / ₈ "	³ / ₄ "
x157	15 ¹ / ₄ "	1 ¹ / ₄ "	1"	9 ¹ / ₂ "	⁷ / ₈ "	³ / ₄ "
x135	15 ¹ / ₄ "	1 ¹ / ₄ "	1"	9 ¹ / ₂ "	⁷ / ₈ "	³ / ₄ "
HP 16x183	13 ³ / ₄ "	1 ¹ / ₂ "	1"	8 ¹ / ₄ "	⁷ / ₈ "	³ / ₄ "
x162	13 ¹ / ₂ "	1 ¹ / ₂ "	1"	8 ¹ / ₄ "	³ / ₄ "	⁵ / ₈ "
x141	13 ¹ / ₂ "	1 ¹ / ₄ "	⁷ / ₈ "	8 ¹ / ₄ "	³ / ₄ "	⁵ / ₈ "
x121	13 ¹ / ₂ "	1 ¹ / ₄ "	⁷ / ₈ "	8 ¹ / ₄ "	³ / ₄ "	⁵ / ₈ "
HP 14x117	12 ¹ / ₂ "	1 ¹ / ₄ "	⁷ / ₈ "	7 ³ / ₄ "	⁵ / ₈ "	¹ / ₂ "
x102	12 ¹ / ₂ "	1"	³ / ₄ "	7 ³ / ₄ "	⁵ / ₈ "	¹ / ₂ "
x89	12 ¹ / ₂ "	⁷ / ₈ "	¹¹ / ₁₆ "	7 ³ / ₄ "	⁵ / ₈ "	¹ / ₂ "
x73	12 ¹ / ₂ "	³ / ₄ "	⁹ / ₁₆ "	7 ³ / ₄ "	⁵ / ₈ "	¹ / ₂ "
HP 12x84	10"	1"	¹¹ / ₁₆ "	6 ¹ / ₂ "	⁵ / ₈ "	¹ / ₂ "
x74	10"	⁷ / ₈ "	¹¹ / ₁₆ "	6 ¹ / ₂ "	⁵ / ₈ "	¹ / ₂ "
x63	10"	³ / ₄ "	¹ / ₂ "	6 ¹ / ₂ "	¹ / ₂ "	³ / ₈ "
x53	10"	³ / ₄ "	¹ / ₂ "	6 ¹ / ₂ "	¹ / ₂ "	³ / ₈ "
HP 10x57	8"	⁷ / ₈ "	⁹ / ₁₆ "	5 ¹ / ₄ "	¹ / ₂ "	³ / ₈ "
x42	8"	³ / ₄ "	⁹ / ₁₆ "	5 ¹ / ₄ "	¹ / ₂ "	³ / ₈ "
HP 8x36	6 ³ / ₄ "	⁵ / ₈ "	⁷ / ₁₆ "	4"	¹ / ₂ "	³ / ₈ "

WELDED PLATE FIELD SPLICE



ELEVATION



SECTION A-A

INDIVIDUAL PILE
CONCRETE ENCASEMENT
(when specified)

Note:
The steel H-piles shall be according to
AASHTO M270 Grade 50.

WELDED COMMERCIAL SPLICE ALTERNATE

- * Interrupt welds ¹/₄" from end of web and/or each flange.
- ** Remove portions of backup flange's that extend outside the flanges.
- *** Weld size per pile shoe manufacturer (⁵/₁₆" min.).

F-HP

4-4-2025

DESIGNED	-	RYAN P. NEGANGARD
CHECKED	-	DAVID H. RICHTER
DRAWN	-	GLENN W. STOVER
CHECKED	-	R.P.N. / G.R.A.

EXAMINED	-	Mark Shuffin ENGINEER OF BRIDGE DESIGN
PASSED	-	James F. Shuffin ENGINEER OF BRIDGES AND STRUCTURES

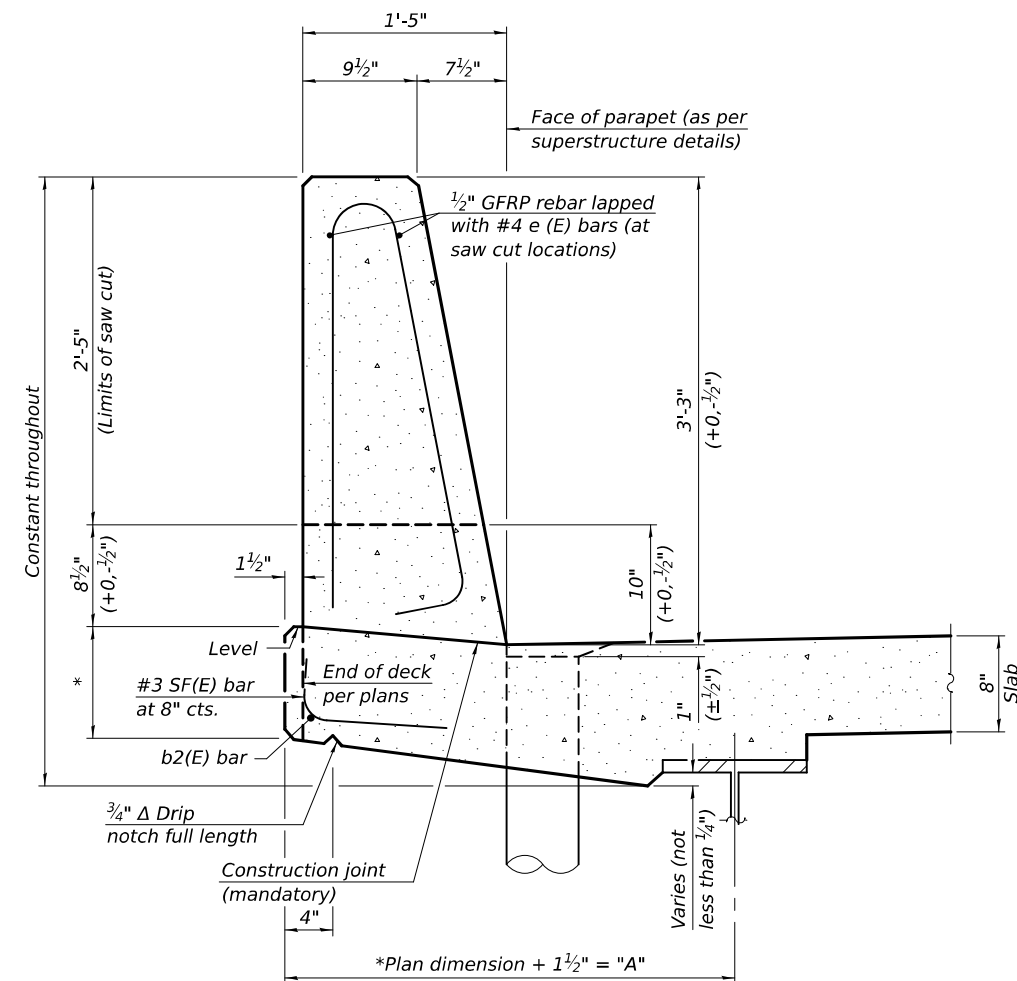
DATE	-	December 9, 2025
REVISED	-	_____
REVISED	-	_____

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

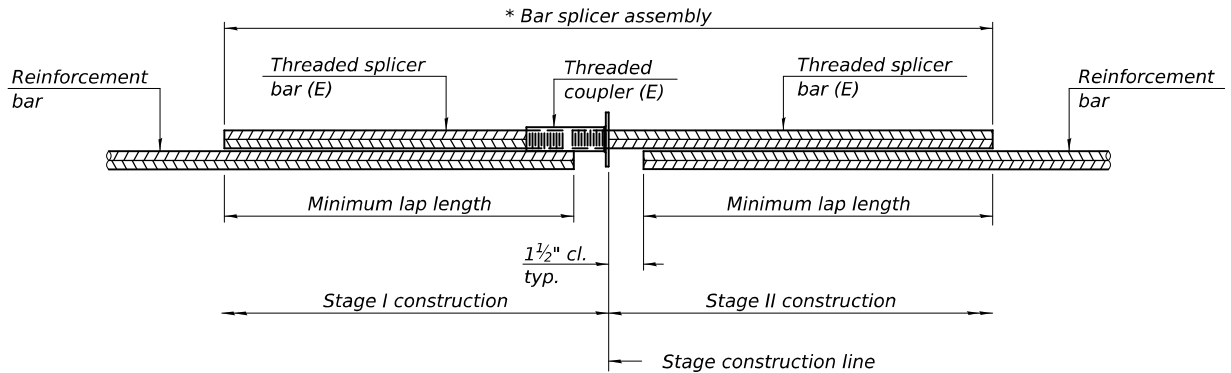
HP PILE DETAILS
STRUCTURE NO. 058-0137

SHEET 22 OF 26 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
714	(128BR-1)B-1	MACON	54	37
CONTRACT NO. 74368				
ILLINOIS FED. AID PROJECT				



MODEL: 0580137-74368-024
FILE NAME: pw:///idiot-pw.bentley.com:FWIDOT/Documents/IDOT O ces/Bureau of Bridges and Structures/OBM Projects/0580137-74368-Design.dgn



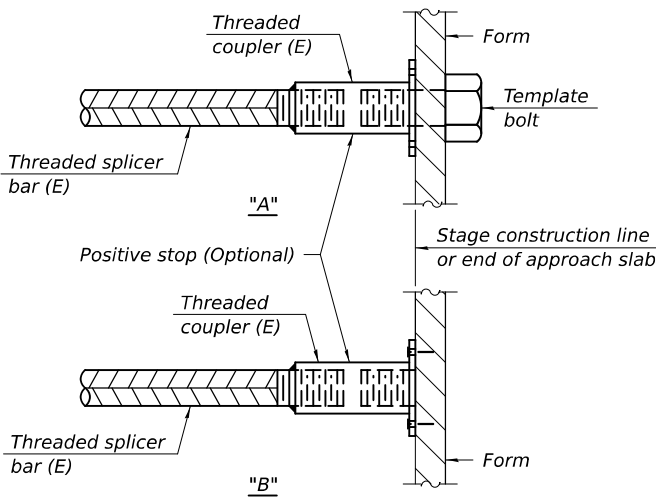
STANDARD BAR SPLICER ASSEMBLY PLAN

Only bar splicer assemblies as presented on the approved QPL list may be used.

Threaded splicer bar length = min. lap length + 1 1/2" + thread length

* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Minimum lap length
Slab	#5	276	3'-6"
Approach Slab Top	#5	92	3'-4"
Approach Slab Bottom	#8	120	4'-9"
Approach Slab Footing	#5	80	3'-2"
Abutment Diaphragm, Back Face	#6	8	4'-0"
Abutment Diaphragm, Front Face	#6	6	See Diaphragm Bar Splicer Detail
Abutment Cap	#7	20	5'-0"

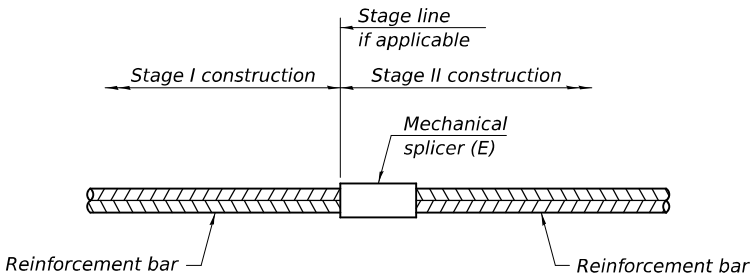


INSTALLATION AND SETTING METHODS

"A" : Set bar splicer assembly by means of a template bolt.

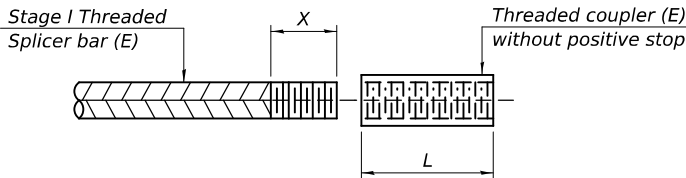
"B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.

(E) : Indicates epoxy coating.



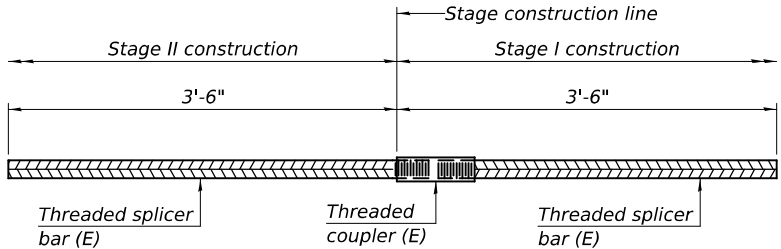
STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required



THREADING OF ASSEMBLIES

The threaded length "X" shall be no more than L/2. The bar should be tightened until 0-1 thread(s) is/are exposed.



DIAPHRAGM BAR SPLICER DETAIL

Notes:
Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.
All reinforcement shall be lapped and tied to the splicer bars.
Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.
See approved list of bar splicer assemblies and mechanical splicers for alternatives.

DESIGNED - RYAN P. NEGANGARD
CHECKED - DAVID H. RICHTER
DRAWN - GLENN W. STOVER
CHECKED - R.P.N. / G.R.A.

EXAMINED	<i>Mark Shuffin</i> ENGINEER OF BRIDGE DESIGN
PASSED	<i>Jaime F. Silva</i> ENGINEER OF BRIDGES AND STRUCTURES

DATE - December 9, 2025
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
STRUCTURE NO. 058-0137

SHEET 24 OF 26 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
714	(128BR-1)B-1	MACON	54	39
CONTRACT NO. 74368				
ILLINOIS FED. AID PROJECT				

[illegible]

 Illinois Department of Transportation Division of Highways IDOT		<h1 style="margin: 0;">SOIL BORING LOG</h1>		Page <u>2</u> of <u>2</u>			
ROUTE	FAP 714	DESCRIPTION	Abutments	LOGGED BY, Sandschafer			
SECTION	(12BR-1)B-1	LOCATION	Mosquito Creek, SEC. 14, TWP. 15N, RNG. 1E, 3rd PM, Latitude N 39.723321, Longitude W 89.097798				
COUNTY	Macon	DRILLING METHOD	Hollow stem auger & split spoon	HAMMER TYPE Auto 140#			
STRUCT. NO.	058-0029 (E) 058-0137 (P)	D E P T H B L O W S U C S M O I S T Qu	Surface Water Elev.	591.40 ft			
Station	382+20.8 (E) 382+15.8 (P)		Stream Bed Elev.	591.02 ft			
BORING NO.1 North Abutment (North)			Groundwater Elev.:				
Station 382+77.8			First Encounter	581.8 ft ▼			
Offset 10.0 ft East			Upon Completion	589.3 ft ▼			
Ground Surface Elev. 606.77 ft			After 24 Hrs.	592.3 ft ▼			
		(ft) (/6")	(tsf)	(%)			
		5-5/8"	NT	5			
		50					
Extent of exploration,		4-3/16"					
		50					
Benchmark: BM 100 brass disk in		3-5/8"					
NE Headwall of Str. No. 058-0029,							
Sta. 382+46, 18.6' RT.							
End of Boring							
		-45					
		-50					
		-55					
		-60					

SOIL BORING 058-0029 SOIL 2018.GPJ IL_DOT.GDT 4/20/20

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer, E-Estimated)
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)

DESIGNED - RYAN P. NEGANGARD	EXAMINED	 ENGINEER OF BRIDGE DESIGN	DATE - December 9, 2025	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SOIL BORING LOGS STRUCTURE NO. 058-0137	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED - DAVID H. RICHTER			PASSED			 ENGINEER OF BRIDGES AND STRUCTURES	REVISED -	714	(128BR-1) B-1	MACON
DRAWN - GLENN W. STOVER	REVISED -	CONTRACT NO. 74368								
CHECKED - R.P.N./G.R.A.	SHEET 25 OF 26 SHEETS									
						ILLINOIS FED. AID PROJECT				

**Illinois Department
of Transportation**
Division of Highways
IDOT

SOIL BORING LOG

Page 1 of 2

Date 8/30/18

ROUTE FAP 714 DESCRIPTION Abutments LOGGED BY Sandschafer

SECTION (12BR-1)B-1 LOCATION Mosquito Creek, SEC. 14, TWP. 15N, RNG. 1E, 3rd PM,
Latitude N 39.723206, Longitude W 89.098092

COUNTY Macon DRILLING METHOD Hollow stem auger & split spoon HAMMER TYPE Auto 140#

STRUCT. NO. 058-0029 (E)
058-0137 (P)
Station 382+20.8 (E) 382+15.8 (P)

BORING NO. 2 South Abutment (South)
Station 381+74.8
Offset 8.0 ft west
Ground Surface Elev. 606.78 ft

D E P T H	B L O W S	U C S	M O I S T	Surface Water Elev.	ft	D E P T H	B L O W S	U C S	M O I S T	
		Qu	T	Stream Bed Elev.	ft					
				Groundwater Elev.:						
				First Encounter	579.8 ft					
				Upon Completion	589.3 ft					
				After 24 Hrs.	592.3 ft					
	(ft)	(/6")	(tsf)	(%)			(ft)	(/6")	(tsf)	(%)
9" Asphalt Pavement.	606.03			Stiff, moist, grey, SILTY CLAY		1	1.2	28		
6" Concrete Pavement.	605.53			LOAM (continued)						
Brown SILTY CLAY				584.78		0				
				Soft, moist, grey, SANDY LOAM		1	0.3	22		
Medium, moist dark grey.	-5	2		Very soft		-25	5			
		3	0.6				8	0.2	15	
		2	B				14	S		
Stiff.		1		579.78		12				
		1	1.4	Very stiff, moist, grey, SANDY		10	3.9	8		
		2	B	CLAY LOAM TILL		13	S			
With organics.	-10	1		Hard, sample reassembled for		-30	29			
		2	1.2	testing.			50	11.5	7	
		2	S				5	15/16"		
							50			
		1					4	1/8"		
		2	1.4							
		4	B							
Soft.	-15	1		Poor sample condition. Sample		-35	40			
		2	1.6	reassembled for testing.			50	5.7	6	
Grey.		3	B				5	5/8"		
							50			
		1					4	3/8"		
		1	0.4							
		2	B							
587.28										
	-20	1		Sample reassembled for testing.		-40	50			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer, E-Estimated)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)

Illinois Department
of Transportation

Division of Highways
IDOT

SOURCE PROJECT INFORMATION

ROUTE FAP 714 DESCRIPTION Abutments LOGGED BY E. Sandschafer

SECTION LOCATION

(12BR-1)B-1 Mosquito Creek, SEC. 14, TWP. 15N, RNG. 1E, 3rd PM,
Latitude N 39.723206, Longitude W 89.098092

COUNTY DRILLING METHOD

Macon Hollow stem auger & split spoon HAMMER TYPE Auto 140#

STRUCT. NO.

058-0029 (E)

Station

058-0137 (P)
382+20.8 (E) 382+15.8 (P)

BORING NO.2 South Abutment (South)

Station 381+74.8
Offset 8.0 ft west
Ground Surface Elev. 606.78 ft

D E P T H

B L O W S

U C S

M O I S T

Qu

(ft) (/6")

(tsf)

(%)

Surface Water Elev. 591.40 ft
Stream Bed Elev. 591.02 ft

Groundwater Elev.:
First Encounter 579.8 ft ▽
Upon Completion 589.3 ft ▽
After 24 Hrs. 592.3 ft ▽

Extent of exploration,

Benchmark: BM 100 brass disk in NE Headwall of Str. No. 058-0029, Sta. 382+46, 18.6' RT.
End of Boring

-45

-50

-55

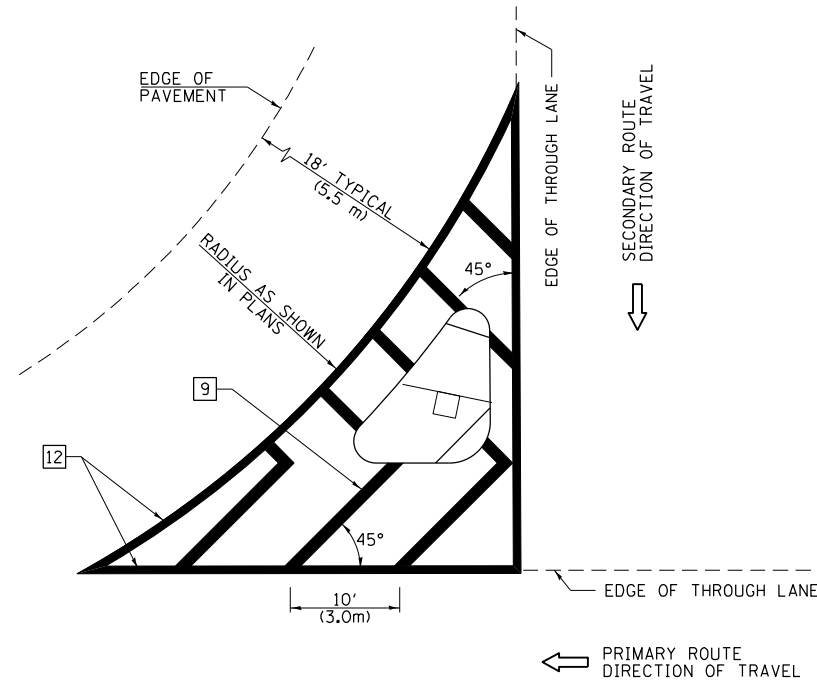
-60

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer, E-Estimated)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

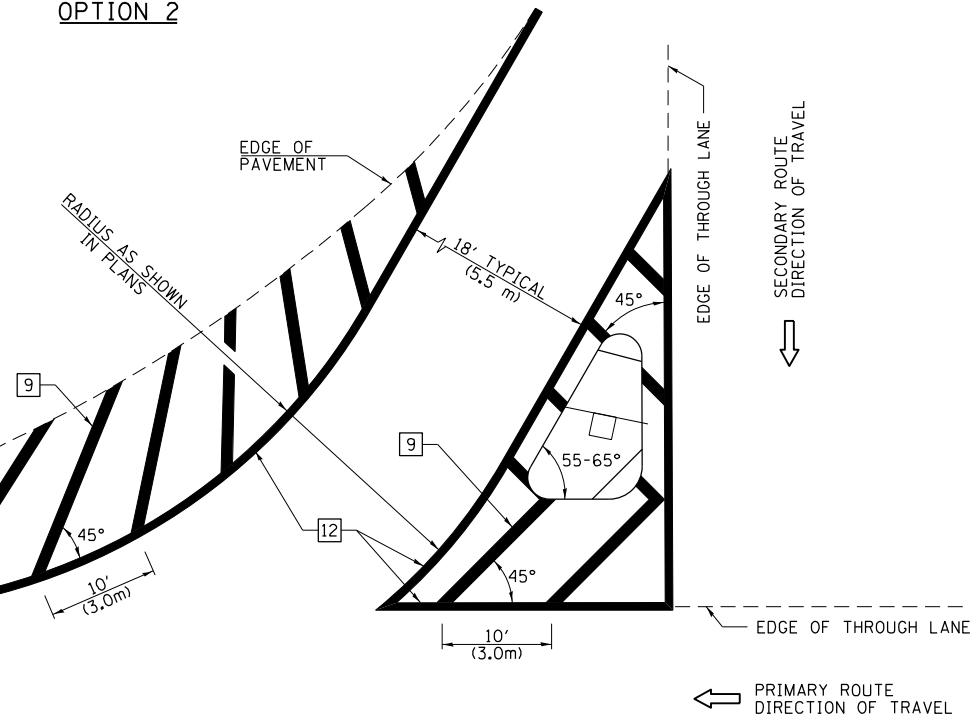
BBS, form 137 (Rev. 8-99)

DESIGNED - RYAN P. NEGANGARD	EXAMINED	 ENGINEER OF BRIDGE DESIGN	DATE - December 9, 2025	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SOIL BORING LOGS STRUCTURE NO. 058-0137	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED - DAVID H. RICHTER			PASSED			 ENGINEER OF BRIDGES AND STRUCTURES	REVISED -	714	(128BR-1) B-1	MACON
DRAWN - GLENN W. STOVER	REVISED -	CONTRACT NO. 74368								
CHECKED - R.P.N./G.R.A.	SHEET 26 OF 26 SHEETS									
							ILLINOIS	FED. AID PROJECT		

OPTION 1

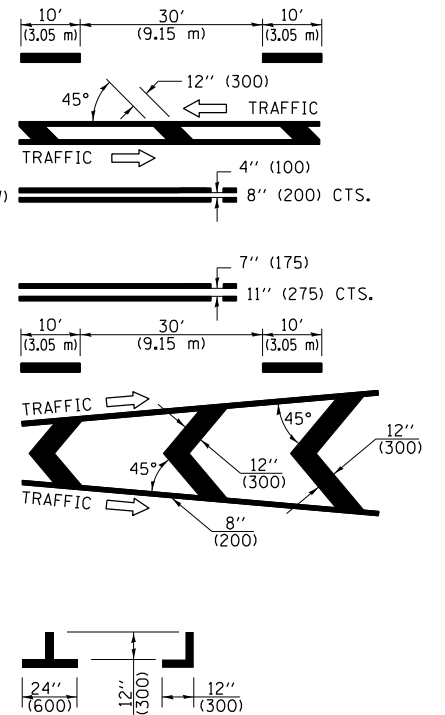


OPTION 2

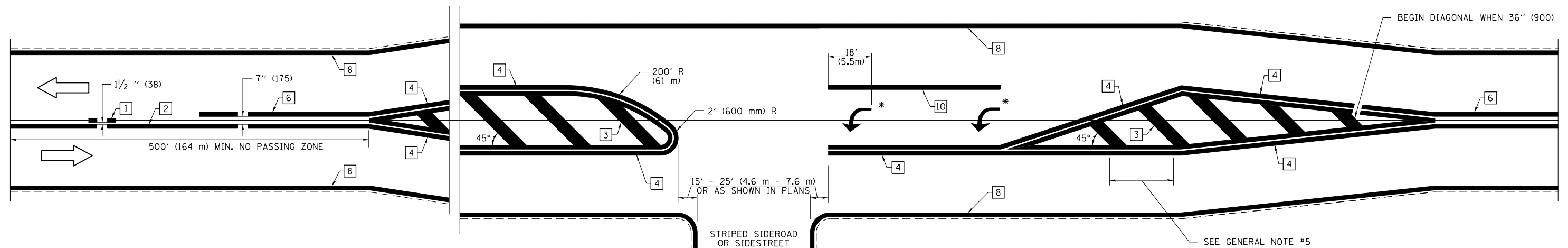


1 4" (100) SKIP-DASH (YELLOW)

- 2 4" (100) SOLID (YELLOW)
- 3 12" (300) DIAGONAL (YELLOW)
- 4 4" (100) DOUBLE YELLOW (NARROW)
- 5 12" (300) SOLID WHITE
- 6 4" (100) DOUBLE YELLOW (WIDE)
- 7 6" (150) SKIP-DASH (WHITE)
- 8 4" (100) SOLID (WHITE)
- 9 12" (300) DIAGONAL (WHITE)
- 10 6" (150) SOLID (WHITE)
- 11 24" (600) STOP BAR (WHITE)
- 12 8" (200) SOLID (WHITE)
- 13 4" (100) PARKING WHITE



RURAL LEFT TURN STRIPING



* PLACE AN ARROW 18' (5.5 m) BACK FROM END OF THE SOLID WHITE LINE. PLACE ANOTHER ARROW EVEN WITH THE BEGINNING OF THE SOLID WHITE LINE. SPACE ADDITIONAL ARROWS EVENLY UP TO 80' (24.4 m) MAXIMUM SPACING. USE MINIMUM OF 2 ARROWS.

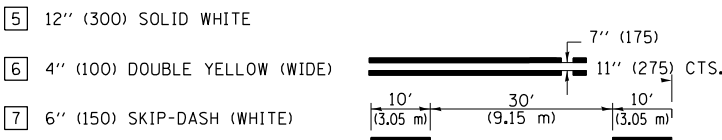
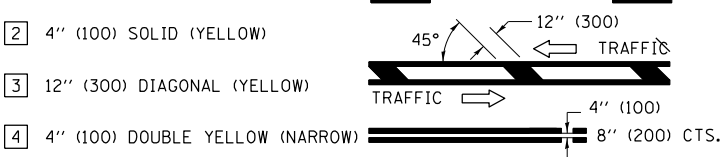
Note: All dimensions are in INCHES
(millimeters) unless otherwise shown.

DISTRICT 7 DETAIL NO. 78000001

FILE NAME =	USER NAME = jessica.hille	DESIGNED -	REVISED - NAS 06/22	<div>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</div>	<div>PAVEMENT MARKING AND RAISED REFLECTIVE PAVEMENT MARKERS (RURAL & URBAN APPLICATIONS)</div>	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
pw:\ildot\pw.bentley.com\PWIDOT\Documents\ILDOT Offices\District 7\Projects\74368\CADD\Drawings\74368-shr-details.dgn	DRAWN	REVIEWED -	REVISOR -			714	(128BR-1)B-1	MACON	54	44	
PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISOR -	DATE			CONTRACT NO. 74368					
PLOT DATE = 12/31/2024	DATE	REVISOR -	DATE			ILLINOIS FED. AID PROJECT					
				SCALE:		SHEET NO. 3 OF 4 SHEETS		STA. TO STA.			

PAVEMENT MARKING LEGEND

1 4" (100) SKIP-DASH (YELLOW)



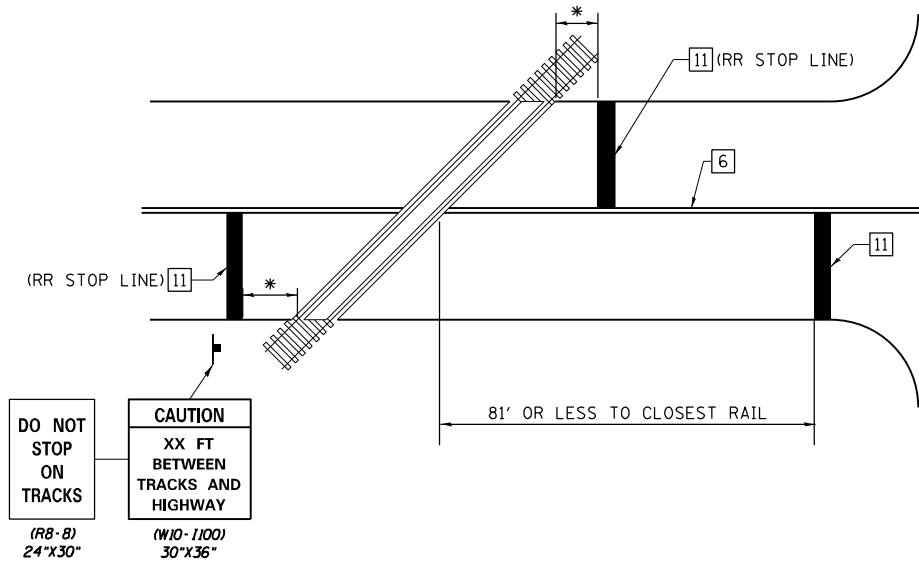
8	4" (100) SOLID (WHITE)
9	12" (300) DIAGONAL (WHITE)
10	6" (150) SOLID (WHITE)
11	24" (600) STOP BAR (WHITE)

11 24" (600) STOP BAR (WHITE)

12 8" (200) SOLID (WHITE)

13 4" (100) PARKING WHITE

RAILROAD CROSSING WITH NON-SIGNALIZED INTERSECTION



GENERAL NOTES

1. SUPPLEMENTAL PAVEMENT MARKINGS TO BE INSTALLED ONLY ON APPROACHES TO INTERSECTIONS CONTROLLED BY TRAFFIC SIGNALS WHICH ARE INTERCONNECTED WITH THE RAILROAD WARNING SIGNALS.
2. EXTEND PAVEMENT MARKINGS TO THE INTERSECTION ONLY WHERE PRE-SIGNALS ARE USED.
3. WHEN PEDESTRIAN SIGNALS ARE PRESENT WITH INTERCONNECTED SIGNALS, WARNING SIGN W10-1101 (18"x24") SHALL BE PLACED NEAR EACH PEDESTRIAN SIGNAL HEAD. COUNTDOWN PEDESTRIAN SIGNAL HEADS SHALL NOT BE UTILIZED ALONG WITH INTERCONNECTED SIGNALS.

CAUTION

**WALK TIME
SHORTENED
WHEN TRAIN
APPROACHES**

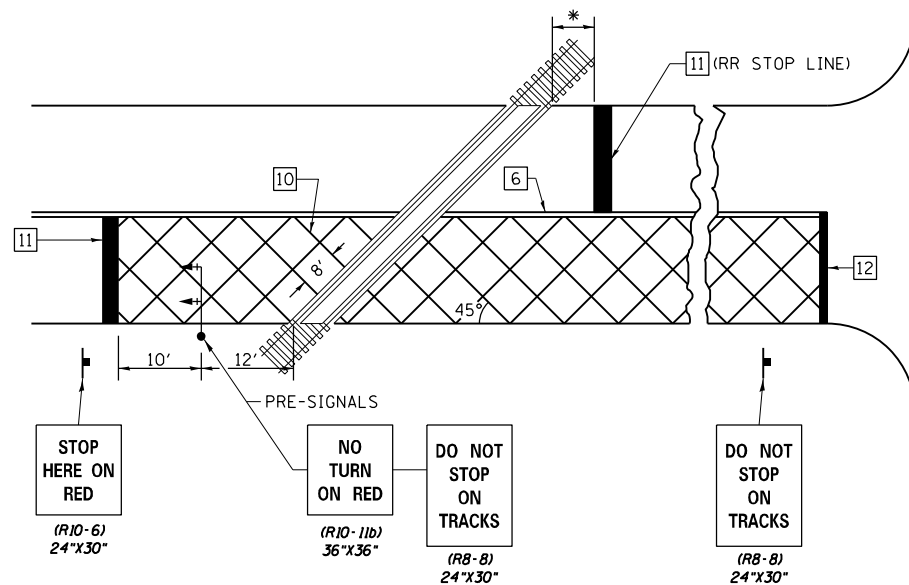
*(W10-1101)
18"x24"*
4. PLEASE REFER TO THE IDOT BUREAU OF OPERATION MEMO OPS T-06 DATED DECEMBER 1, 2020 FOR ADDITIONAL INFORMATION

CAUTION

WALK TIME
SHORTENED
WHEN TRAIN
APPROACHES

WIO-1101)

18"x24"



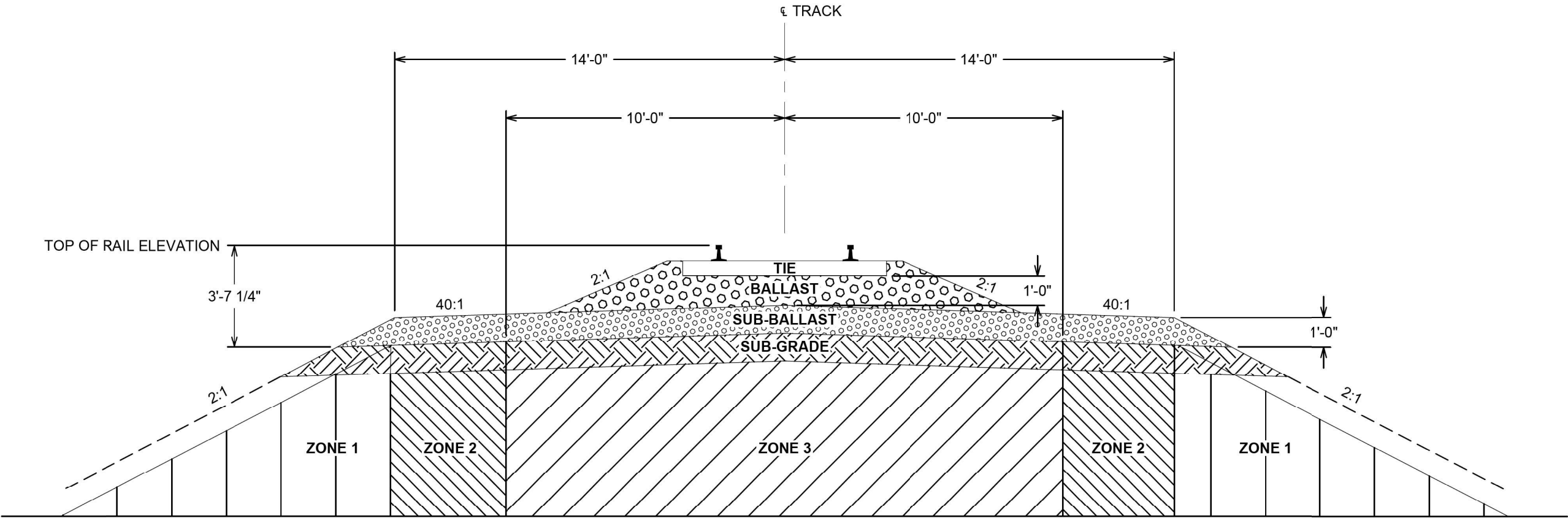
NOT TO SCALE

Note: All dimensions are in INCHES
(millimeters) unless otherwise shown.

DISTRICT 7 DETAIL NO. 78000001

FILE NAME =	USER NAME = jessica.hille	DESIGNED -	REVISED - NAS 06/22	<div>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</div>	<div>PAVEMENT MARKING AND RAISED REFLECTIVE PAVEMENT MARKERS (RURAL & URBAN APPLICATIONS)</div>	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
px\\ildot-pw.bentley.com\PWIDOT\Documents\IDOT Offices\District 7\Projects\74368\CADD\Drawings\74368-shr-details.dgn	REVISIONS	REVISIONS	714			(128BR)-1B-1	MACON	54	45	
PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -	CONTRACT NO. 74368							
PLOT DATE = 12/31/2024	DATE	REVISED -	ILLINOIS FED. AID PROJECT							
				SCALE:	SHEET NO. 4 OF 4 SHEETS	STA. TO STA.				

Filename: P:\LEGACY\USPHL\FP02\DATA\PROJECTS\6248\400 - TECHNICAL\433 - PUBLIC PROJECTS MANUAL STANDARD DRAWINGS\4_SHORING DESIGN GUIDE - SHORING REQUIREMENTS.DWG




ROADBED PROFILE - SHORING REQUIREMENTS (NTS)

- ZONE 1 EXCAVATION WITHIN ZONE 1 WILL REQUIRE SHORING FOR THE PROTECTION OF THE RAILROAD
- ZONE 2 EXCAVATION WITHIN ZONE 2 WILL REQUIRE SHORING CONSISTING OF INTERLOCKING SHEETING FOR THE PROTECTION OF THE RAILROAD
- ZONE 3 NO EXCAVATIONS WILL BE ALLOWED IN ZONE 3

NOTES:

1. EXCAVATIONS OUTSIDE OF ZONE 1 MAY REQUIRE SHORING FOR SAFETY. LATERAL PRESSURES DUE TO TRAIN LOADINGS DO NOT NEED TO BE INCORPORATED IN SHORING DESIGNS WHERE SHORING/EXCAVATION DOES NOT ENCROACH IN ZONES DETAILED ON THIS DRAWING FOR ANY TRACK.
2. REFER TO PUBLIC PROJECTS MANUAL APPENDIX H, SECTION H.1.6. (OVERHEAD BRIDGE) OR SECTION H.2.8 (UNDERPASS BRIDGE) AND APPENDIX H FOR ADDITIONAL SHORING LOCATION REQUIREMENTS.

REVISIONS		
DATE	LTR.	DESCRIPTION



**PUBLIC PROJECTS MANUAL
TYPICAL DRAWINGS**

**SHORING DESIGN GUIDE
SHORING REQUIREMENTS**

REF. NO.: SEC 1 - OHB - 5 - SHT 4

DATE: JANUARY 1, 2022 DRAWING NO.: 4

USER NAME = jessica.wille	DESIGNED -	REVISED -
PLOT SCALE = 100,0000 ' / in.	DRAWN -	REVISED -
PLOT DATE = 12/31/2024	CHECKED -	REVISED -
	DATE -	REVISED -

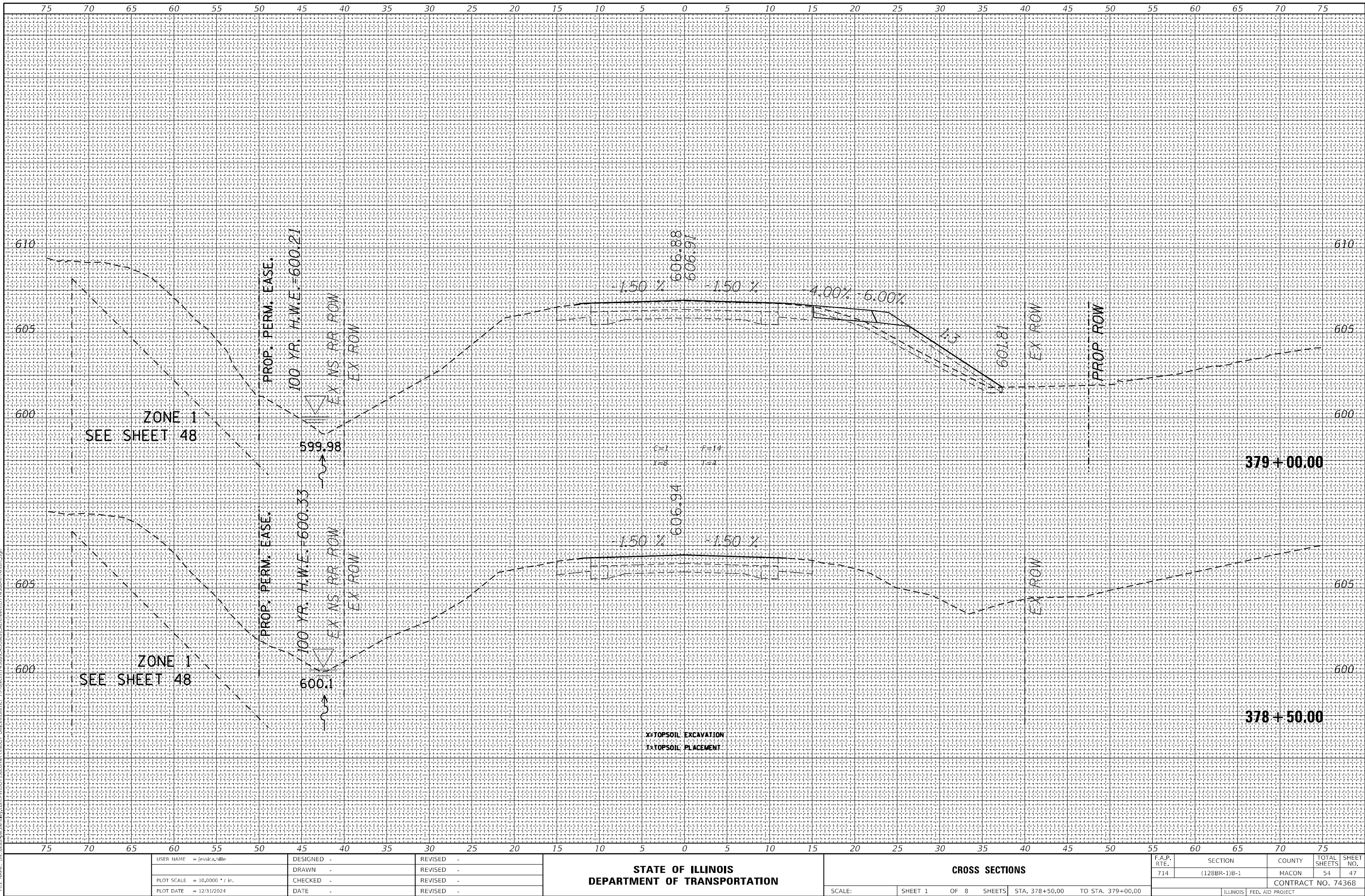
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RAILROAD SHORING REQUIREMENTS			
SCALE:	SHEET	OF SHEETS	STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
714	(128BR-1)B-1	MACON	54	46
CONTRACT NO. 74368				
ILLINOIS FED. AID PROJECT				

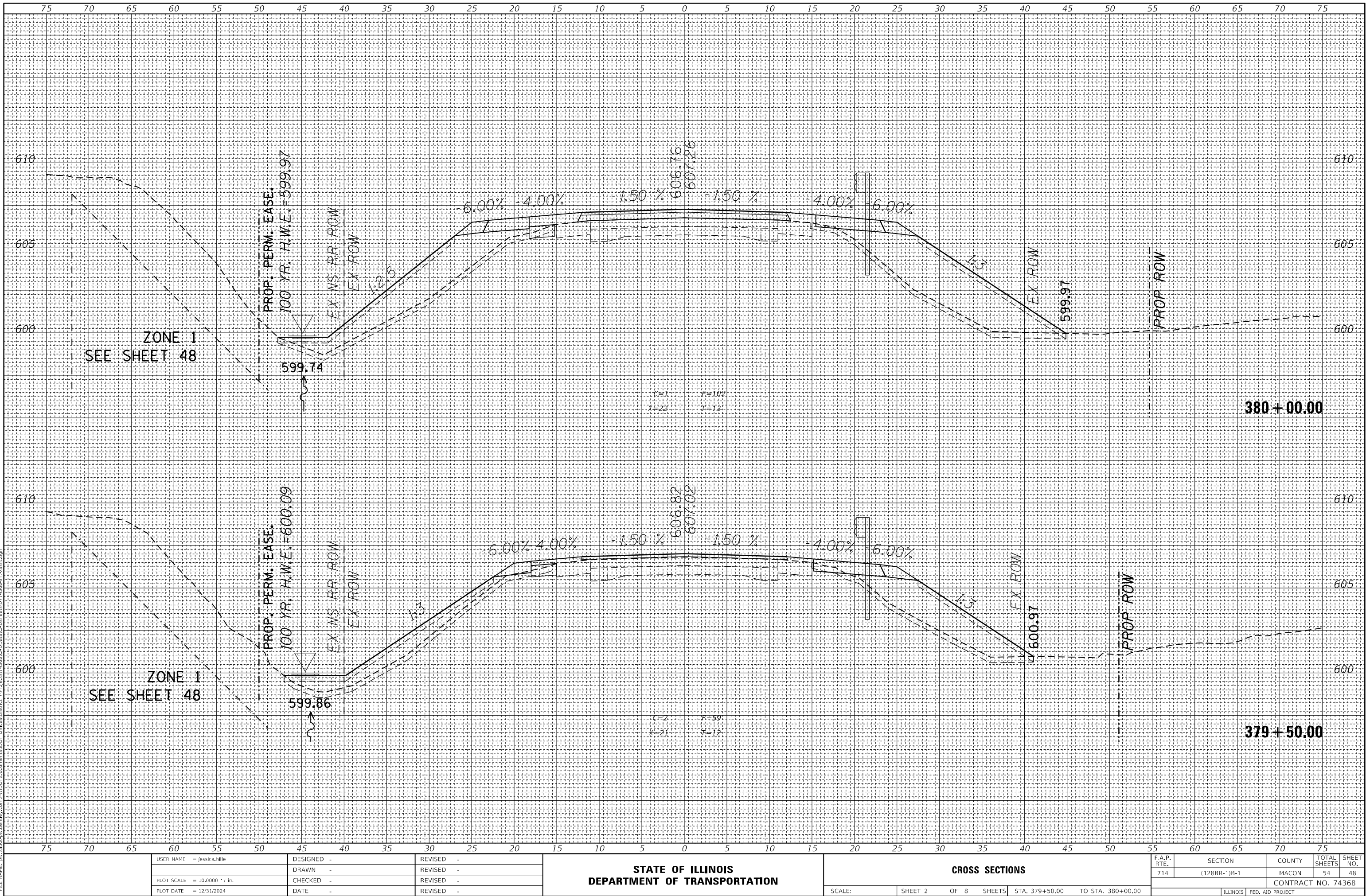
ORIGINAL SURVEY	SURVEYED _____	BY _____	DATE _____
	PLOTTED _____		
NOTE BOOK	TEMPLATE _____		
	AREAS _____		
NO. _____	AREAS CHECKED _____		

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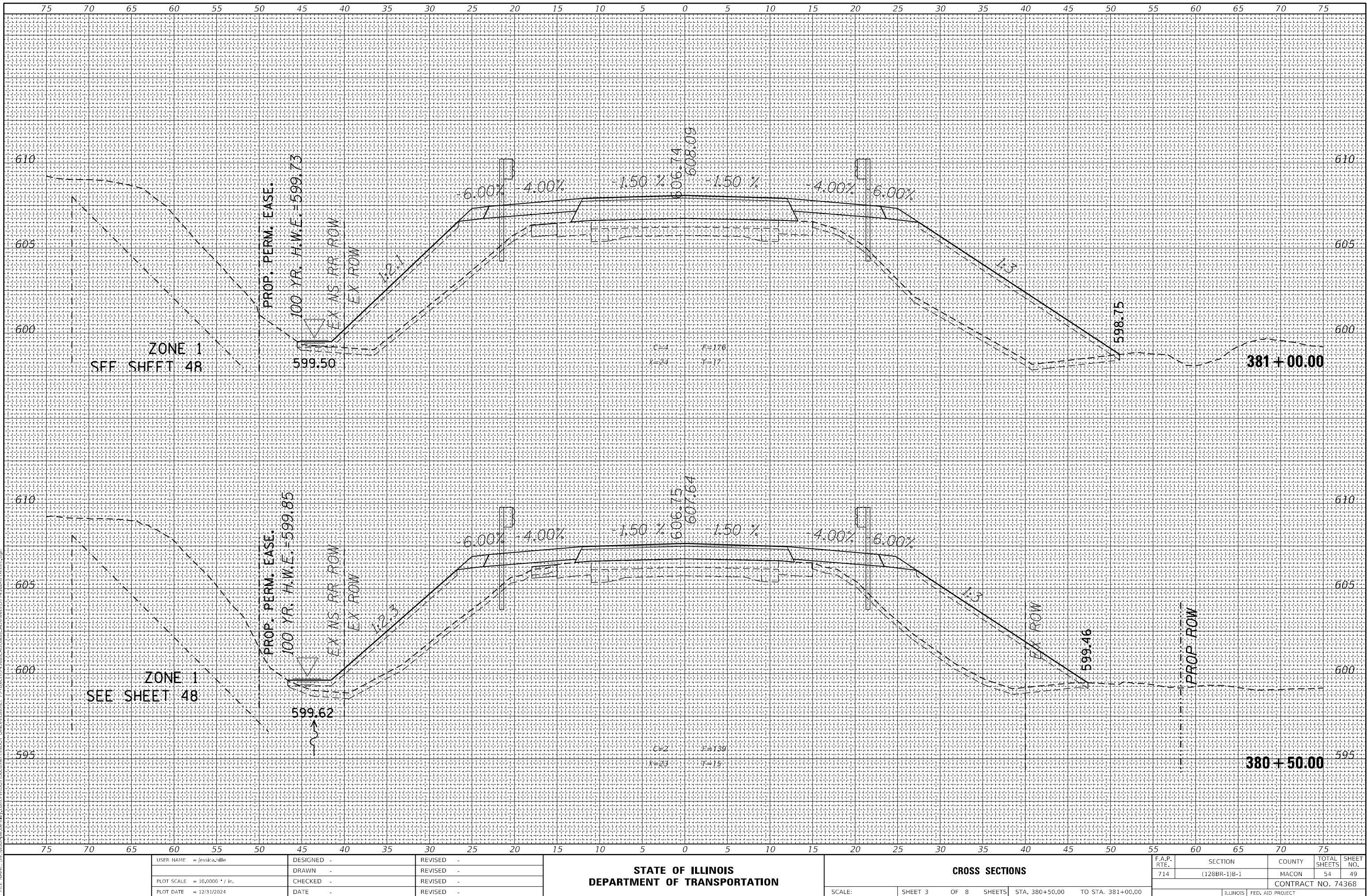
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NOTE BOOK	SURVEYED _____		
	PLOTTED _____		
	TEMPLATE _____		
	AREAS _____		
NO. _____	AREAS CHECKED _____		

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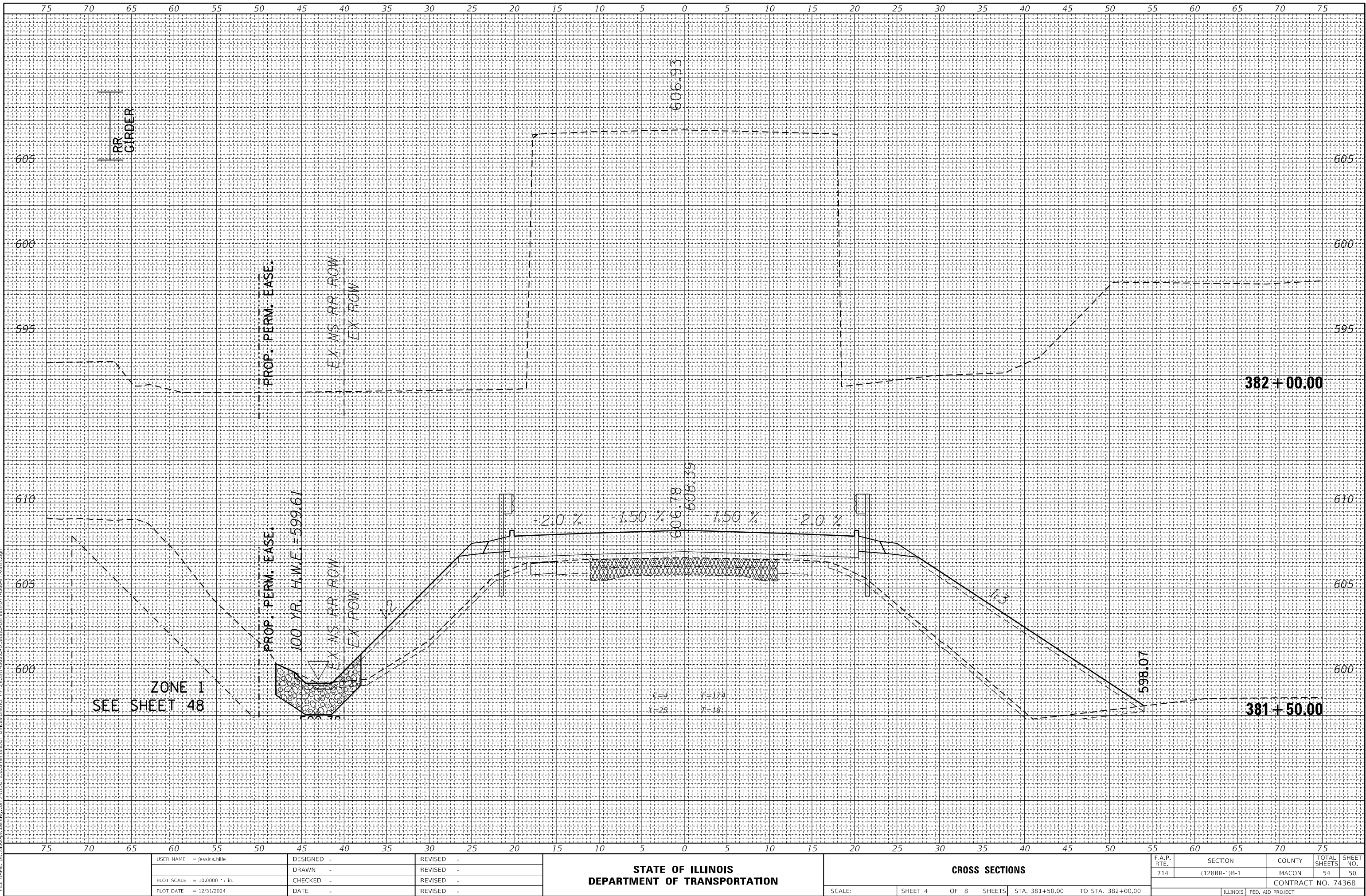
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SURVEY				
PLOTTED				
TEMPERATURE				
AREAS				
AREAS CHECKED				
NO.				

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ORIGINAL SURVEY	SURVEYED _____	BY _____	DATE _____
	PLOTTED _____		
NOTE BOOK	TEMPLATE _____		
	AREAS _____		
NO. _____	AREAS CHECKED _____		

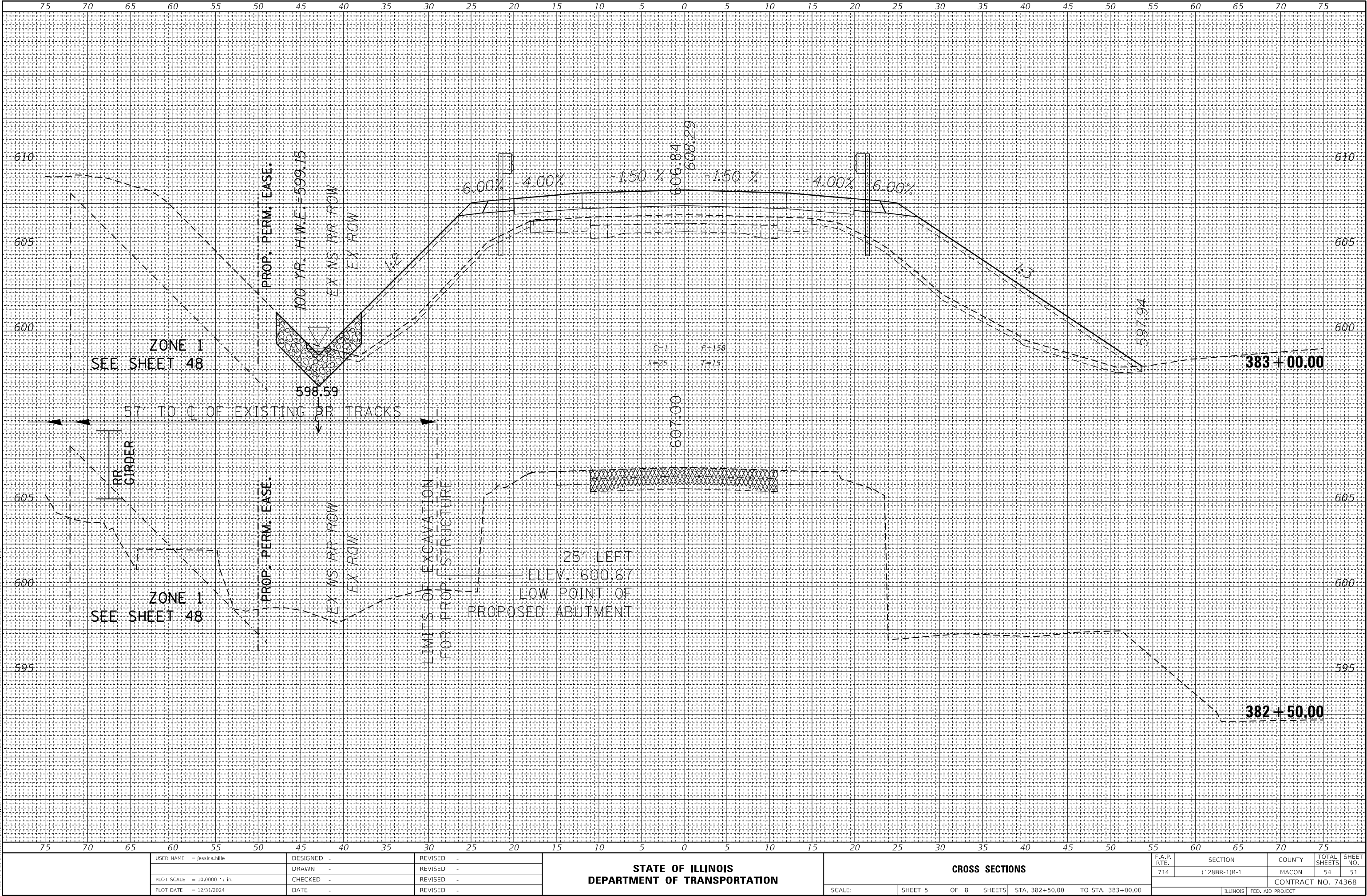
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FINAL	SURVEYED	BY	DATE
SURVEY	PLOTTED		
NOTE BOOK	TEMPLATE		
NO.	AREAS CHECKED		

ORIGINAL	SURVEYED	BY	DATE
SURVEY	PLOTTED		
NOTE BOOK	TEMPLATE		
NO.	AREAS CHECKED		

MODEL: Default
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USER NAME = jessica,ville	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 10,0000' / in.	CHECKED -	REVISED -
PLOT DATE = 12/31/2024	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

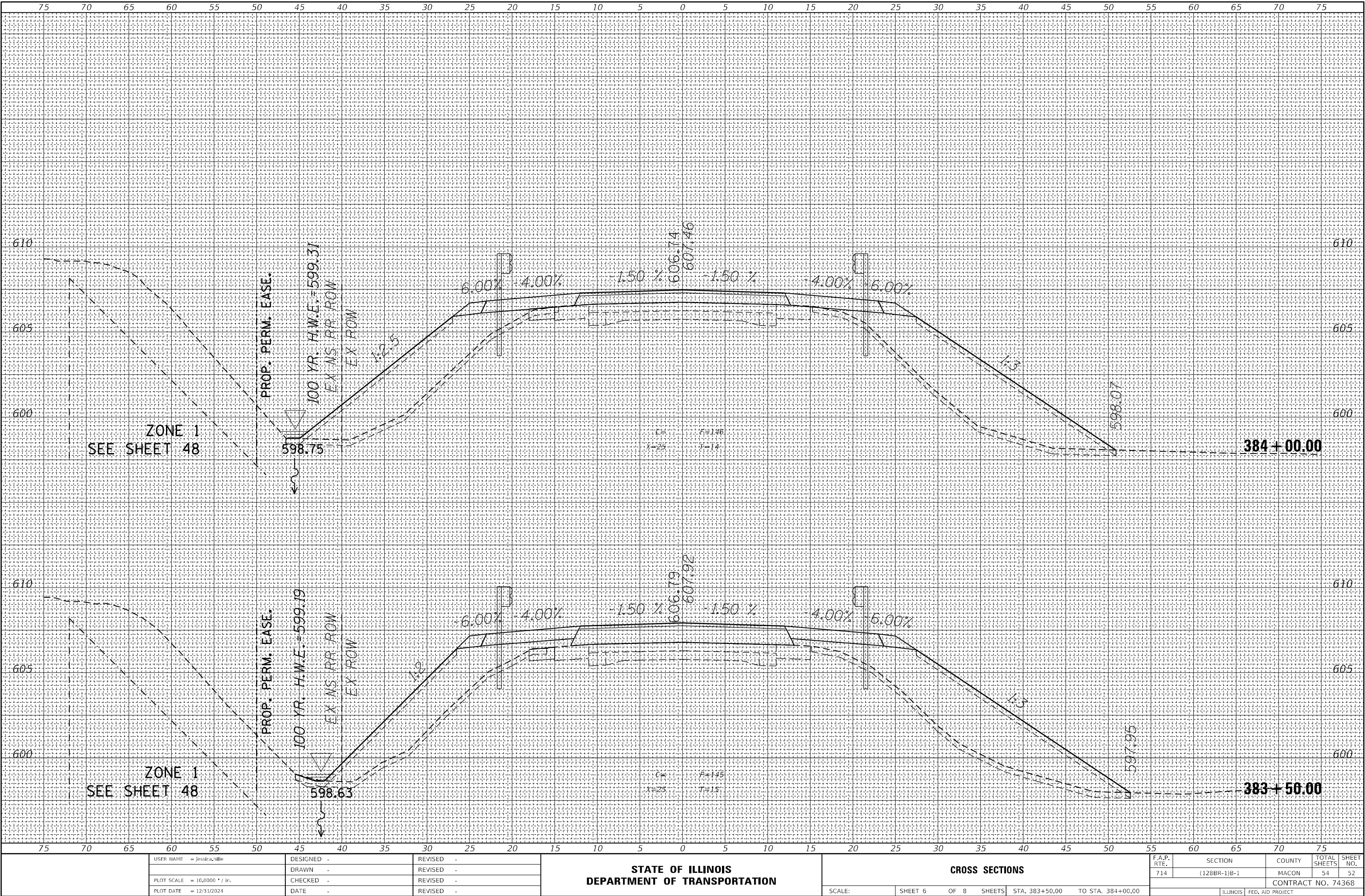
CROSS SECTIONS

SCALE: SHEET 5 OF 8 SHEETS STA. 382+50.00 TO STA. 383+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
714	(128BR-1)B-1	MACON	54	51
CONTRACT NO. 74368				
ILLINOIS FED. AID PROJECT				

ORIGINAL SURVEY		BY _____	DATE _____
NOTE BOOK	SURVEYED _____		
	PLOTTED _____		
	TEMPLATE _____		
	AREAS _____		
NO. _____	AREAS CHECKED _____		

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ORIGINAL SURVEY	SURVEYED _____	BY _____	DATE _____
	PLOTTED _____		
	TEMPLATE _____		
	AREAS _____		
NO. _____	AREAS CHECKED _____		

CROSS SECTIONS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
714	(128BR-1)B-1	MACON	54	53
CONTRACT NO. 74368				

SCALE: SHEET 7 OF 8 SHEETS STA. 384+50.00 TO STA. 385+00.00

ILLINOIS FED. AID PROJECT

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

USER NAME	DESIGNED	REVISED
10/10/2024	10/10/2024	10/10/2024
10/10/2024	10/10/2024	10/10/2024
10/10/2024	10/10/2024	10/10/2024

USER NAME = jessica.willie
DESIGNED -
DRAWN -
CHECKED -
DATE -
REVISED -
REVISED -
REVISED -

ORIGINAL SURVEY	SURVEYED _____	BY _____	DATE _____
	PLOTTED _____		
NOTE BOOK	TEMPLATE _____		
	AREAS _____		
NO. _____	AREAS CHECKED _____		

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