

03-08-2024 LETTING ITEM 122

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1707	(CX-B)B	CLARK	52*	1
ILLINOIS			CONTRACT NO. 74562	

\* 52 + 1 = 53 TOTAL SHEETS

D-97-024-12

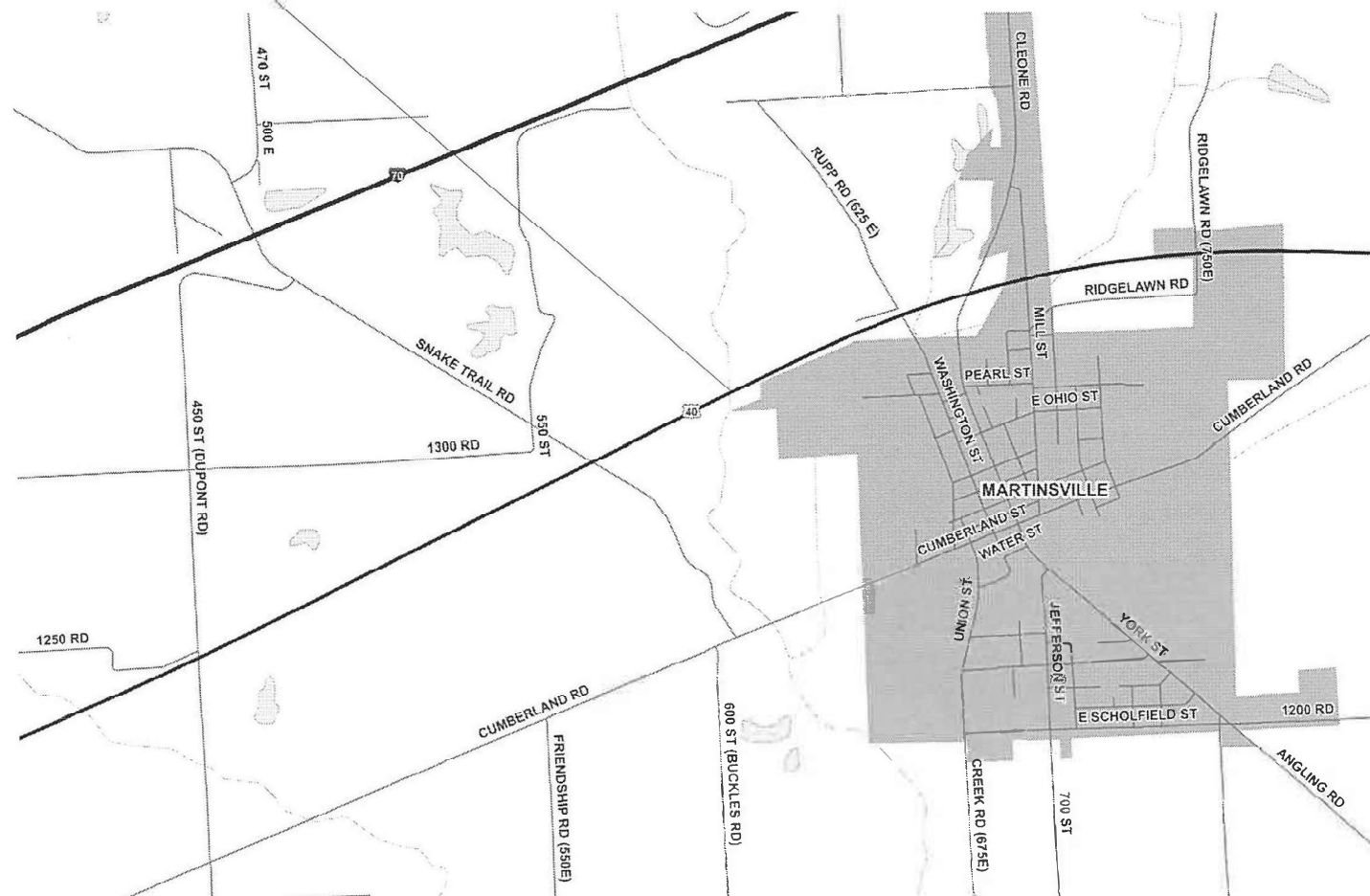
FOR INDEX OF SHEETS, SEE SHEET NO. 2

# PROPOSED HIGHWAY PLANS

FAS ROUTE 1707 (US 40)  
SECTION (CX-B)B  
PROJECT HBFP-878Z(533)  
BRIDGE REPLACEMENT  
CLARK COUNTY

C-97-039-12

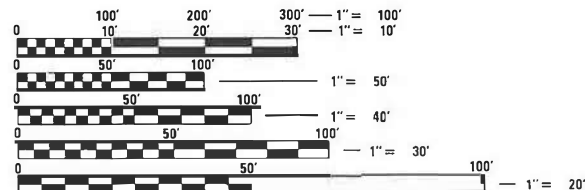
LOCATION OF  
PROPOSED IMPROVEMENT



GROSS LENGTH = 295 FT. = 0.056 MILE  
NET LENGTH = 295 FT. = 0.056 MILE



LOCATION OF SECTION INDICATED THIS: - [thick black line]



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

CONTRACT NO. 74562

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUBMITTED August 23, 2023  
Jeffrey P. Myerles  
REGIONAL ENGINEER

October 13, 2023  
Scott A. Etk  
ENGINEER OF DESIGN AND ENVIRONMENT

October 13, 2023  
Steph McNeill  
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

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OF THE STATE OF ILLINOIS

REV. - MS

## GENERAL NOTES

THIS PROJECT IS LOCATED ON US 40 IN CLARK COUNTY, 0.6 MI WEST OF WASHINGTON ST IN MARTINSVILLE OVER EMBARRAS RIVER. THE WORK INCLUDED IN SECTION (CX-B)B CONSISTS OF COMPLETE STRUCTURE REPLACEMENT.

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

THE QUANTITY OF CHANNEL EXCAVATION INCLUDES ALL EXCAVATION NECESSARY FOR PLACEMENT OF RIPRAP ACCORDING TO THE DETAILS SHOWN IN THE STRUCTURE PLANS.

MATERIAL FOR AGGREGATE SHOULDER, TYPE A SHALL BE CRUSHED STONE OR CRUSHED CONCRETE.

WHEN APPLYING SHORT TERM PAVEMENT MARKINGS, TEMPORARY TAPE SHALL BE USED ON THE SURFACE COURSES AND PAINT SHALL BE USED ON MILLED SURFACES.

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

THE LOCATIONS AND/OR DEPTHS OF UNDERGROUND UTILITIES SHOWN HAVE BEEN TAKEN FROM INFORMATION FURNISHED BY THE UTILITY OWNERS AND MUST BE CONSIDERED APPROXIMATE. FIELD MARKINGS OF FACILITIES IN CRITICAL AREAS MAY BE OBTAINED BY PROVIDING. MINIMUM OF FORTY-EIGHT (48) HOURS ADVANCE NOTICE THROUGH THE J.U.L.I.E. SYSTEM BY CALLING 800-892-0123.

## APPLICATION RATES

THE FOLLOWING APPLICATION RATES WERE USED IN CALCULATING PLAN QUANTITIES AND HAVE BEEN INCLUDED FOR REFERENCE:

BITUMINOUS MATERIALS (TACK COAT)	0.05 LB/SQ FT (ON MILLED SURFACES)
	0.025 LB/SQ FT (ON HMA LIFTS)
RIP-RAP	1.485 TONS/CU YD
AGGREGATE SURFACE COURSE AND SHOULDER	2.05 TON/CU YD

## MIXTURE REQUIREMENTS

THE FOLLOWING MIXTURE REQUIREMENTS ARE APPLICABLE TO THIS PROJECT:

LOCATION(S)	MIXTURE USE(S)	PG	DESIGN AIR VOIDS	MIXTURE COMPOSITION	FRICTION AGGREGATE	MIXTURE WEIGHT	QUALITY MANAGEMENT PROGRAM	SUBLOT SIZE	MATERIAL TRANSFER DEVICE (REQUIRED?)
MAINLINE	HMA SURFACE COURSE, IL-9.5, MIX "C", N70	PG 64-22	4.0% @ N=70	IL - 9.5	MIXTURE C	N70	QC/QA	3000	N/A
MAINLINE	HMA BINDER COURSE, IL-19.0, N70	PG 64-22	4.0% @ N=70	IL - 19.0	N/A	N70	QC/QA	3000	N/A
DETOUR	HMA SURFACE COURSE, IL-9.5, MIX "C", N70	PG 64-22	4.0% @ N=70	IL - 9.5	MIXTURE C	N70	QC/QA	3000	N/A

## INDEX OF SHEETS

SHEET NO.	ITEM
1	COVER SHEET
2	INDEX OF SHEETS, LIST OF STANDARDS, AND GENERAL NOTES
3-4	SUMMARY OF QUANTITIES
5	TYPICAL SECTIONS
6	SCHEDULE OF QUANTITIES
7	PLAN AND PROFILE SHEET
8-39	STRUCTURE PLANS
40-43A	DETOUR SIGNING
44	PAVING DETAIL
45-52	CROSS SECTION SHEETS

THE FOLLOWING STANDARDS ARE A PART OF THESE PLANS AND ARE INCLUDED AFTER SHEET NO. 52:

STANDARD NO.	DESCRIPTION
000001-08	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
420001-10	PAVEMENT JOINTS
420401-13	PAVEMENT CONNECTOR (PCC) FOR BRIDGE APPROACH SLAB
420701-03	PAVEMENT WELDED WIRE REINFORCEMENT
515001-04	NAME PLATE FOR BRIDGES
601001-05	PIPE UNDERDRAINS
601101-02	CONCRETE HEADWALL FOR PIPE UNDERDRAIN
630001-13	STEEL PLATE BEAM GUARDRAIL
630301-09	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
631031-18	TRAFFIC BARRIER TERMINAL, TYPE 6
667101-02	PERMANENT SURVEY MARKERS
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
701011-04	OFF-ROAD MOVING OPERATIONS, 2L, 2W, DAY ONLY
701301-04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701306-04	LANE CLOSURE, 2L, 2W, SLOW MOVING OPERATIONS DAY ONLY, FOR SPEEDS >= 45
701311-03	LANE CLOSURE, 2L, 2W, MOVING OPERATIONS - DAY ONLY
701901-09	TRAFFIC CONTROL DEVICES
725001-01	OBJECT AND TERMINAL MARKERS
780001-05	TYPICAL PAVEMENT MARKINGS
782006-01	GUARDRAIL AND BARRIER WALL REFLECTOR MOUNTING DETAILS
BLR 21-9	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS

REV. - MS

MODEL NUMBER: MAMES  
FILE NAME: 811213

USER NAME = SUSERS	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>GENERAL NOTES &amp; INDEX OF SHEET</b>			F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
PLOT SCALE = SCALES	DRAWN -	REVISED -					1707	(CX-B)B	CLARK	52	2
PLOT DATE = SDATES	CHECKED -	REVISED -		SCALE: GENERAL N SHEET OF SHEETS STA. TO STA.			CONTRACT NO. 74562				
	DATE -	REVISED -					ILLINOIS FED. AID PROJECT				

80% FED  
20% STATE

80% FED  
20% STATE

SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE		
CODE NO	ITEM	UNIT		0010		
20300100	CHANNEL EXCAVATION	CU YD	6782	6782		
28100109	STONE RIPRAP, CLASS A5	SO YD	2032	2032		
28200200	FILTER FABRIC	SO YD	2032	2032		
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	4062	4062		
40600990	TEMPORARY RAMP	SQ YD	27	27		
40603085	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70	TON	169	169		
40604052	HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "C", N70	TON	676	676		
42000060	WELDED WIRE REINFORCEMENT	SO YD	123	123		
42000080	PAVEMENT CONNECTOR (PCC) FOR BRIDGE APPROACH SLAB	SO YD	168	168		
42001300	PROTECTIVE COAT	SO YD	1554	1554		
44000100	PAVEMENT REMOVAL	SO YD	574	574		
44000155	HOT-MIX ASPHALT SURFACE REMOVAL, 1 1/2"	SO YD	7968	7968		
48100100	AGGREGATE SHOULDERS, TYPE A	TON	540	540		
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1	1		

SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE		
CODE NO	ITEM	UNIT		0010		
50104650	SLOPE WALL REMOVAL	SO YD	1240	1240		
50200100	STRUCTURE EXCAVATION	CU YD	287	287		
50300100	FLOOR DRAINS	EACH	26	26		
50300225	CONCRETE STRUCTURES	CU YD	154.8	154.8		
50300255	CONCRETE SUPERSTRUCTURE	CU YD	401.4	401.4		
50300300	PROTECTIVE COAT	SO YD	1554	1554		
50500105	FURNISHING AND ERECTING STRUCTURAL STEEL	L SUM	1	1		
50500505	STUD SHEAR CONNECTORS	EACH	4536	4536		
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	116470	116470		
51200963	FURNISHING METAL SHELL PILES 16" X 0.375"	FOOT	1369	1369		
51202305	DRIVING PILES	FOOT	1369	1369		
51203200	TEST PILE METAL SHELLS	EACH	2	2		
51204650	PILE SHOES	EACH	32	32		
51500100	NAME PLATES	EACH	1	1		

REV. - MS

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PLOT DATE = 8/23/2023	CHECKED -	REVISED -
	DATE -	REVISED -

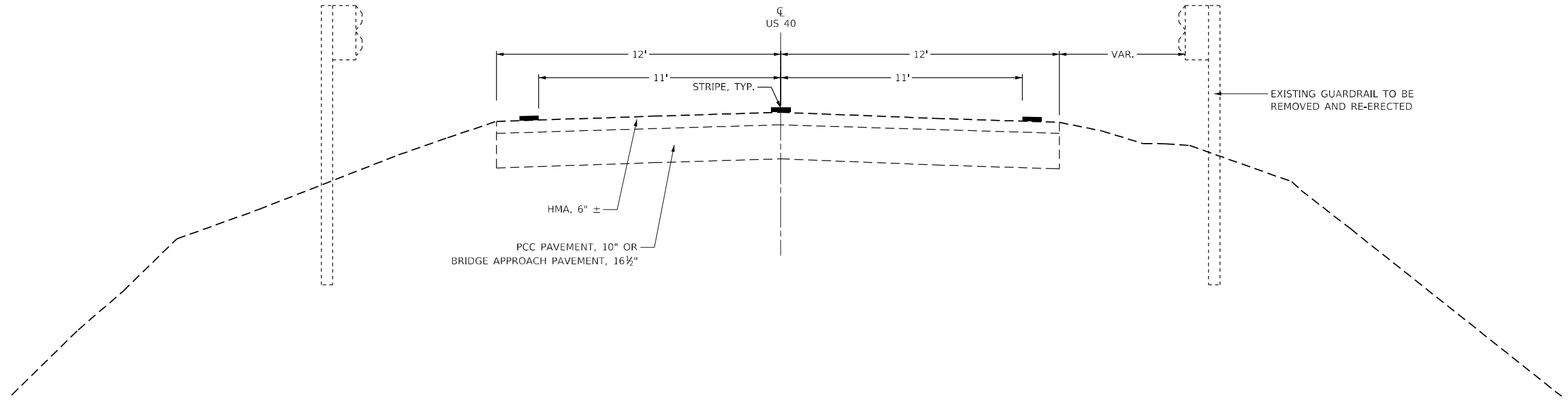
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SUMMARY OF QUANTITIES**

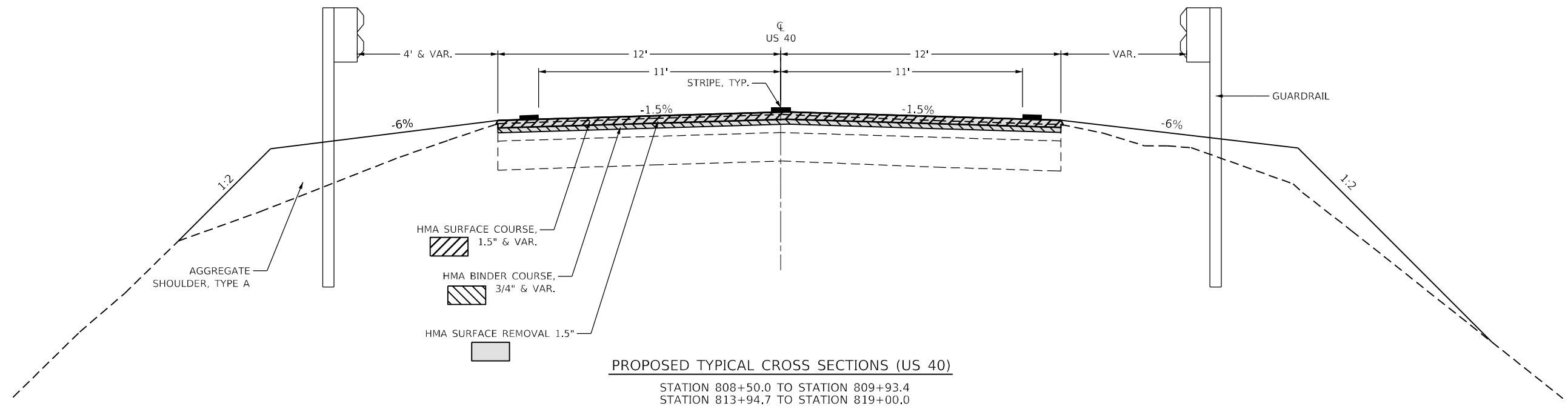
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F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1707	(CX-B)B	CLARK	52	3
CONTRACT NO. 74562			ILLINOIS FED. AID PROJECT	





**EXISTING TYPICAL CROSS SECTIONS (US 40)**  
STATION 808+50.0 TO STATION 819+00.0



**PROPOSED TYPICAL CROSS SECTIONS (US 40)**  
STATION 808+50.0 TO STATION 809+93.4  
STATION 813+94.7 TO STATION 819+00.0

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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TYPICAL SECTIONS**

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F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1707	(CX-B)B	CLARK	52	5
CONTRACT NO. 74562			ILLINOIS FED. AID PROJECT	

GUARDRAIL REMOVAL					
STATION	TO	STATION	SIDE	GUARDRAIL REMOVAL	REMOVE & RE-ERECT STEEL PLATE BEAM GUARDRAIL
			(LT/RT)	(FOOT)	(FOOT)
808+50	TO	809+86	RT		136.0
809+86	TO	810+68	RT	82.0	
813+05	TO	813+87	RT	82.0	
813+87	TO	816+40	RT		253.0
809+09	TO	810+01	LT		92.0
810+01	TO	810+83	LT	82.0	
813+20	TO	814+02	LT	82.0	
814+02	TO	817+40	LT		338.0
TOTALS				328	819.0

REMOVE & RE-ERECT TBT TYPE 1				
STATION	TO	STATION	SIDE	(EACH)
			(LT/RT)	
808+59	TO	809+09	RT	1
816+40	TO	816+90	RT	1
TOTALS				2

TRAFFIC BARRIER TERMINAL TYPE 6				
STATION	TO	STATION	SIDE	(EACH)
			(LT/RT)	
809+86	TO	810+24	RT	1
810+01	TO	810+39	LT	1
813+49	TO	813+87	RT	1
813+64	TO	814+02	LT	1
TOTALS				4

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PLOT DATE = 8/23/2023	DATE -	REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

SCHEDULE OF QUANTITIES			
SCALE:	SHEET	OF	SHEETS
		STA.	TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1707	(CX-B)B	CLARK	52	6
			CONTRACT NO. 74562	
		ILLINOIS	FED. AID PROJECT	



Benchmark D211: Brass disk on wingwall at northwest corner of SN 012-0018, station 810+84, 19.0ft Left of C, Elevation 581.16.

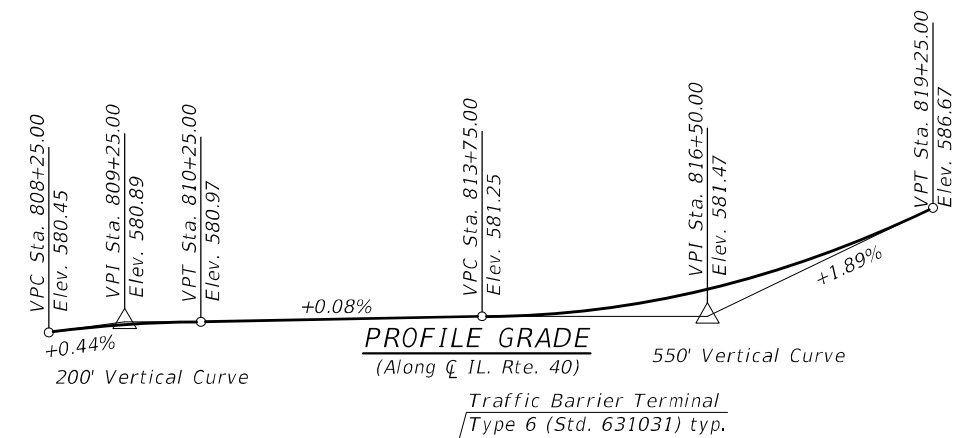
Existing structure: SN 012-0018 was originally constructed in 1954 as a 3-span reinforced concrete haunch T-Beam superstructure with a reinforced concrete deck supported by open, counterfort abutments and solid wall piers on untreated timber pile supported footings. The superstructure is composed of 5 concrete T-Beams integrated with a 7-inch thick reinforced concrete slab. The structure is 239'-6" long from back-to-back of abutment, and 35'-8" wide out-to-out of the deck, with a left forward 25 degree skew. The structure will be removed and replaced under road closure. Survey marker to be salvaged. See General Notes.

**DESIGN SPECIFICATIONS**

2020 AASHTO LRFD Bridge Design Specifications, 9th Edition

**LOADING HL-93**

Allow 50#/sq. ft future wearing surface



**DESIGN STRESSES**

**FIELD UNITS**

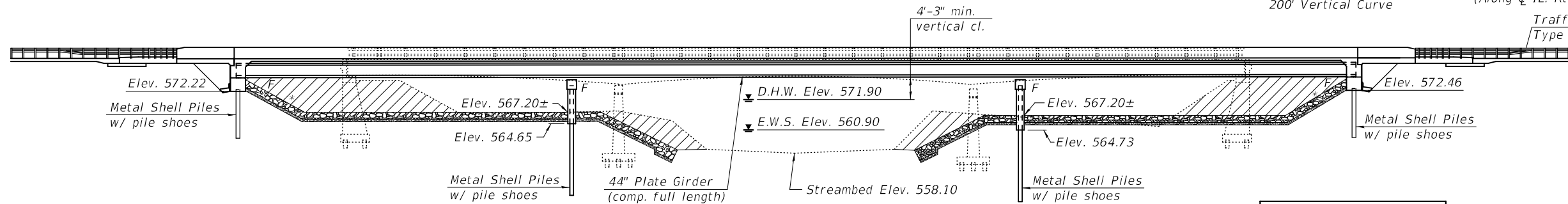
f'c = 4,000 psi (Superstructure)  
 f'c = 3,500 psi (Substructure)  
 fy = 60,000 psi (Reinforcement)  
 fy = 50,000 psi (M270 Grade 50)  
 All structural steel shall be metallized

**SEISMIC DATA**

Seismic Performance Zone (SPZ) = 2  
 Design Spectral Acceleration at 1.0 sec. (SD1) = 0.181g  
 Design Spectral Acceleration at 0.2 sec. (SD5) = 0.385g  
 Soil Site Class = D

STA. 811+94.00  
 BUILT 20 BY  
 STATE OF ILLINOIS  
 F.A.S. Rt. 1707 Sec. (CX-B)B  
 LOADING HL-93  
 STR. NO. 012-0076

**NAME PLATE**  
 See Std. 515001



**ELEVATION**

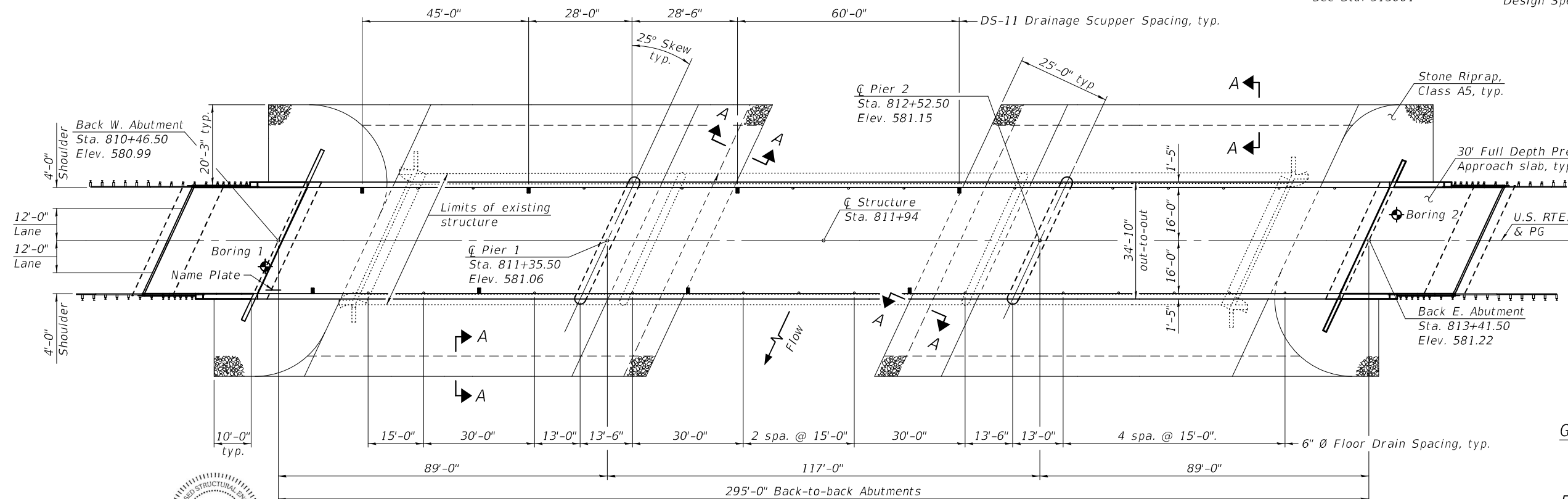
\*1:2 (V:H) at rt L's

**Notes:**

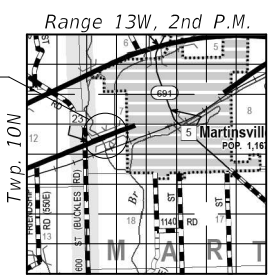
Hatching indicates area of channel excavation.  
 See roadway plans for quantities.  
 For Sect. A-A, see sheet 2 of 32.  
 Up to 1/4 inch to be ground off the bridge deck and the bridge approach slabs. The Profile Grade shows the final grade after grinding.



MODEL: 74562-001  
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**PLAN**



**LOCATION SKETCH**

**GENERAL PLAN AND ELEVATION**  
**U.S. RTE. 40 OVER NORTH**  
**FORK EMBARRAS RIVER**  
**F.A.S. RTE.1707 - SEC. (CX-B)B**  
**CLARK COUNTY**  
**STATION 811+94.00**  
**STRUCTURE NO. 012-0076**

EXPIRES 11-30-2024

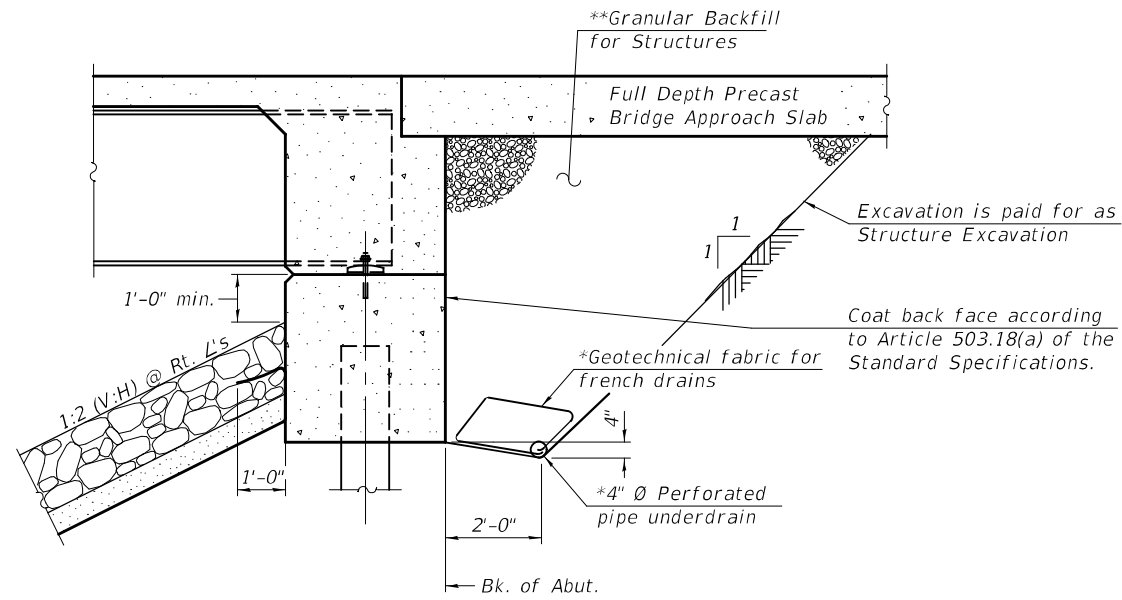
DESIGNED - ZACHARY T. BULVA	EXAMINED - <i>Mark Shuffler</i>	DATE - Oct. 16, 2023
CHECKED - CRYSTAL D. STONE/JOSHUA S. FLAIG	PASSED - <i>Jayme F. Schiff</i>	REVISIONS -
DRAWN - ALAN JOHNSTONE	ENGINEER OF BRIDGES AND STRUCTURES	REVISIONS -
CHECKED - Z.T.B./C.D.S./J.S.F.	ENGINEER OF PROJECT DESIGN	

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

SHEET 1 OF 32 SHEETS

F.A.S. RTE. 1707	SECTION (CX-B)B	COUNTY CLARK	TOTAL SHEETS 52	SHEET NO. 8
CONTRACT NO. 74562				
ILLINOIS FED. AID PROJECT				





**SECTION THRU INTEGRAL ABUTMENT**  
(Horiz. dim. at Rt. L's)

**Notes:**

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).

\*Included in the cost of Pipe Underdrains for Structures.

\*\*Granular Backfill for Structures shall follow Std. Spec. 586 except the Coarse Aggregate shall be Grade CA 7, CA 11, or CA 14. Granular backfill behind the abutments shall be compacted according to Article 205.06 of the Standard Specifications.

**INDEX OF SHEETS**

- 1 General Plan & Elevation
- 2 General Data
- 3-5 Top of Slab Elevations
- 6-7 Top of Approach Slab Elevations
- 8 Superstructure
- 9 Superstructure Details
- 10 Diaphragm Details
- 11-16 Full Depth Precast Bridge Approach Slab Details
- 17 Modified Preformed Joint Strip Seal
- 18 Drainage Scupper, DS-11
- 19 Structural Steel
- 20-21 Structural Steel Details
- 22 Bearing Details
- 23 West Abutment
- 24 East Abutment
- 25 Abutment Details
- 26 Pier 1
- 27 Pier 2
- 28 Pier Details
- 29 Metal Shell Pile Details
- 30 Concrete Parapet Slip-forming Option
- 31-32 Soil Boring Logs

**GENERAL NOTES**

Fasteners shall be ASTM F 3125 Grade A325 Type 1, hot dip galvanized bolts in metallized areas. Bolts 7/8 in. diameter, holes 1 1/16 in. diameter, unless otherwise noted. See special provision for "Metallizing of Structural Steel".  
Calculated weight of Structural Steel = 353,500 lbs. (M270 Grade 50)  
= 21,880 lbs. (M270 Grade 36)

All structural steel shall be metallized. The metallized areas shall be painted with System 1. See Special Provisions for "Metallizing of Structural Steel."

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

Reinforcement bars designated (E) shall be epoxy coated.

Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of 1/8 in. (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimming the bearings.

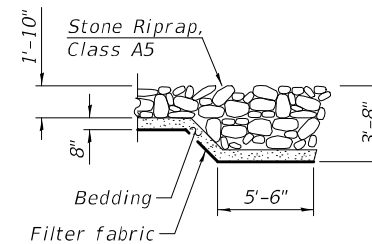
Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.

The embankment configuration shown shall be the minimum that must be placed and compacted prior to construction of the abutments.

The existing bearings contain lead plates. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.

The Contractor is advised that the existing concrete superstructure is a continuous structure and removal must be done in a proper sequence, possibly with falsework support. The sequence of removal and the use of any required falsework is the responsibility of the Contractor.

National Geodetic Survey (NGS) Marker D 211 is a brass disk embedded in the northwest wingwall of existing structure 012-0018. This NGS marker shall be salvaged when the existing structure is removed. The salvaged marker shall be returned to the Chief of Surveys, IDOT District 7.



**SECTION A-A**

**WATERWAY INFORMATION TABLE**

Drainage Area = 88.0 sq. mi.		Existing Overtopping Elev. = 579.60 at Sta. 805 + 87		Proposed Overtopping Elev. = 579.60 at Sta. 805 + 87		Head-ft.		Headwater Elev. ft.	
Flood Event	Freq. Yr.	Discharge Ft <sup>3</sup> /s	Waterway Opening-ft <sup>2</sup> Existing	Waterway Opening-ft <sup>2</sup> Proposed	Natural H.W.E. ft.	Existing	Proposed	Existing	Proposed
Design	10	8,040	1,534	1,871	570.7	0.8	0.7	571.5	571.4
Base	50	12,800	1,745	2,137	571.9	1.4	1.2	573.3	573.1
Scour Design Chk	100	14,900	1,819	2,231	572.2	1.7	1.4	573.9	573.6
Max. Calc.	200	16,200	1,862	2,286	572.5	1.9	1.6	574.4	574.1
	500	20,100	1,979	2,435	573.0	2.6	2.0	575.6	575.0

10 Year velocity through existing bridge = 5.2 ft/s

10 Year velocity through proposed bridge = 4.3 ft/s

**DESIGN SCOUR ELEVATION TABLE**

Event / Limit	Design Scour Elevations (ft.)					Item 113
	State	W. Abut.	Pier 1	Pier 2	E. Abut.	
Q100		572.22	553.6	555.0	572.46	5
Q200		572.22	553.1	554.6	572.46	
Design		572.22	553.6	555.0	572.46	
Check		572.22	553.1	554.6	572.46	

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	SUPER	SUB	TOTAL
Stone Riprap, Class A5	Sq. Yd.		2032	2032
Filter Fabric	Sq. Yd.		2032	2032
Protective Coat	Sq. Yd.	1554		1554
Removal of Existing Structures	Each	1		1
Structure Excavation	Cu. Yd.		287	287
Floor Drains	Each	26		26
Concrete Structures	Cu. Yd.		154.8	154.8
Concrete Superstructure	Cu. Yd.	401.4		401.4
Furnishing and Erecting Structural Steel	L. Sum	1		1
Stud Shear Connectors	Each	4536		4536
Reinforcement Bars, Epoxy Coated	Pound	99750	16720	116470
Furnishing Metal Shell Piles, 16"X0.375"	Foot		1369	1369
Driving Piles	Foot		1369	1369
Test Pile Metal Shells	Each		2	2
Pile Shoes	Each		32	32
Name Plates	Each	1		1
Preformed Joint Strip Seal	Foot	73		73
Anchor Bolts, 1"	Each	48		48
Granular Backfill for Structures	Cu. Yd.		148	148
Pipe Underdrains for Structures 4"	Foot		157	157
Full Depth Precast Bridge Approach Slab	Sq. Ft.	1804		1804
Bridge Deck Grooving (Longitudinal)	Sq. Yd.	941		941
Drainage Scuppers, DS-11	Each	8		8
Diamond Grinding (Bridge Section)	Sq. Yd.	1239		1239

MODEL: 74562-009  
FILE NAME: p:\w\idiot-pw\benley.com\FWIDOT\Documents\IDOT\_Offices\Bureau of Bridges and Structures\Projects\0120076\CADD\_Plans\0120076-74562.dgn

DESIGNED -	ZACHARY T. BULVA
CHECKED -	CRYSTAL D. STONE/JOSHUA S. FLAIG
DRAWN -	ALAN JOHNSTONE
CHECKED -	Z.T.B./C.D.S./J.S.F.

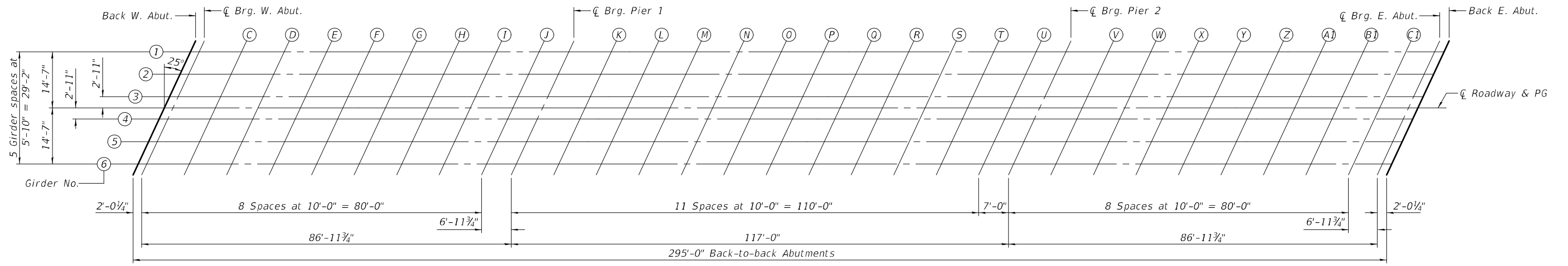
EXAMINED	<i>Mark Shuff</i> ENGINEER OF BRIDGE DESIGN	DATE -	OCTOBER 16, 2023
PASSED	<i>Joey F. [Signature]</i> ENGINEER OF BRIDGES AND STRUCTURES	REVISED -	

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**GENERAL DATA  
STRUCTURE NO. 012-0076**

SHEET 2 OF 32 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1707	(CX-B)B	CLARK	52	9
CONTRACT NO. 74562				
ILLINOIS FED. AID PROJECT				



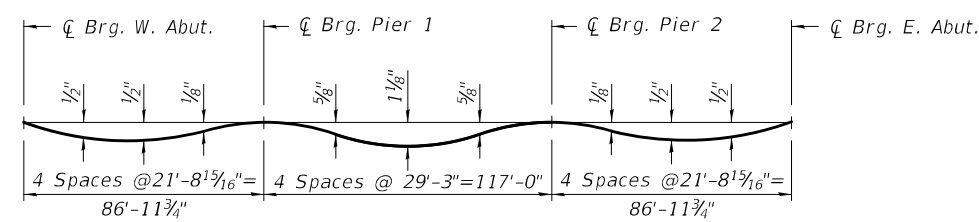
PLAN

GIRDER 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Back W. Abut.	810+53.30	-14.58	580.76	580.78
☐ Brg. W. Abut	810+55.32	-14.58	580.76	580.78
C	810+65.32	-14.58	580.77	580.81
D	810+75.32	-14.58	580.78	580.84
E	810+85.32	-14.58	580.79	580.85
F	810+95.32	-14.58	580.79	580.86
G	811+05.32	-14.58	580.80	580.86
H	811+15.32	-14.58	580.81	580.85
I	811+25.32	-14.58	580.82	580.85
J	811+35.32	-14.58	580.83	580.85
☐ Brg. Pier 1	811+42.30	-14.58	580.83	580.85
K	811+52.30	-14.58	580.84	580.87
L	811+62.30	-14.58	580.85	580.90
M	811+72.30	-14.58	580.86	580.93
N	811+82.30	-14.58	580.86	580.96
O	811+92.30	-14.58	580.87	580.98
P	812+02.30	-14.58	580.88	580.99
Q	812+12.30	-14.58	580.89	580.99
R	812+22.30	-14.58	580.90	580.99
S	812+32.30	-14.58	580.90	580.97
T	812+42.30	-14.58	580.91	580.96
U	812+52.30	-14.58	580.92	580.95
☐ Brg. Pier 2	812+59.30	-14.58	580.93	580.95
V	812+69.30	-14.58	580.93	580.96
W	812+79.30	-14.58	580.94	580.98
X	812+89.30	-14.58	580.95	581.00
Y	812+99.30	-14.58	580.96	581.02
Z	813+09.30	-14.58	580.97	581.03
AI	813+19.30	-14.58	580.97	581.04
B1	813+29.30	-14.58	580.98	581.03
C1	813+39.30	-14.58	580.99	581.02
☐ Brg. E. Abut.	813+46.28	-14.58	581.00	581.02
Back E. Abut.	813+48.30	-14.58	581.00	581.02

GIRDER 2

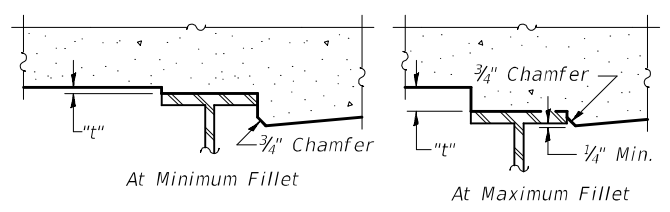
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Back W. Abut.	810+50.58	-8.75	580.86	580.88
☐ Brg. W. Abut	810+52.60	-8.75	580.86	580.88
C	810+62.60	-8.75	580.87	580.91
D	810+72.60	-8.75	580.88	580.93
E	810+82.60	-8.75	580.88	580.95
F	810+92.60	-8.75	580.89	580.96
G	811+02.60	-8.75	580.90	580.96
H	811+12.60	-8.75	580.91	580.95
I	811+22.60	-8.75	580.92	580.95
J	811+32.60	-8.75	580.92	580.95
☐ Brg. Pier 1	811+39.58	-8.75	580.93	580.95
K	811+49.58	-8.75	580.94	580.97
L	811+59.58	-8.75	580.95	581.00
M	811+69.58	-8.75	580.95	581.03
N	811+79.58	-8.75	580.96	581.06
O	811+89.58	-8.75	580.97	581.08
P	811+99.58	-8.75	580.98	581.09
Q	812+09.58	-8.75	580.99	581.09
R	812+19.58	-8.75	580.99	581.08
S	812+29.58	-8.75	581.00	581.07
T	812+39.58	-8.75	581.01	581.06
U	812+49.58	-8.75	581.02	581.05
☐ Brg. Pier 2	812+56.58	-8.75	581.02	581.04
V	812+66.58	-8.75	581.03	581.05
W	812+76.58	-8.75	581.04	581.07
X	812+86.58	-8.75	581.05	581.09
Y	812+96.58	-8.75	581.06	581.12
Z	813+06.58	-8.75	581.06	581.13
AI	813+16.58	-8.75	581.07	581.14
B1	813+26.58	-8.75	581.08	581.13
C1	813+36.58	-8.75	581.09	581.12
☐ Brg. E. Abut.	813+43.56	-8.75	581.09	581.11
Back E. Abut.	813+45.58	-8.75	581.10	581.12



DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only.)

Note:  
The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections and grinding as shown on this sheet and on sheets 4 & 5 of 32.



FILLET HEIGHTS

To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown above. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection and Grinding" shown on this sheet and on sheets 4 & 5 of 32, minus initial slab thickness prior to grinding, equals the fillet heights "t" above top flange of beams.  
The slab is to be ground after curing to achieve smoothness, but the slab is not to be ground to elevations below the "Theoretical Grade Elevations" shown on this sheet and sheets 4 & 5 of 32. For grinding the deck, see Special Provision.

MODEL: 74562-010  
FILE NAME: p:\w\idol-rpw\benley.com\FWIDOT\Documents\DOT Offices\Bureau of Bridges and Structures\Projects\0120076\CADD Plans\0120076-74562.dgn

DESIGNED - ZACHARY T. BULVA	EXAMINED - <i>Mark Shuffler</i>	DATE - OCTOBER 16, 2023
CHECKED - CRYSTAL D. STONE/JOSHUA S. FLAIG	ENGINEER OF BRIDGE DESIGN	
DRAWN - ALAN JOHNSTONE	PASSED - <i>Joanne F. Hoff</i>	REVISED -
CHECKED - Z.T.B./C.D.S./J.S.F.	ENGINEER OF BRIDGES AND STRUCTURES	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS  
STRUCTURE NO. 012-0076

SHEET 3 OF 32 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1707	(CX-B)B	CLARK	52	10
CONTRACT NO. 74562				
ILLINOIS FED. AID PROJECT				

**GIRDER 3**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Back W. Abut.	810+47.86	-2.92	580.94	580.97
☐ Brg. W. Abut	810+49.88	-2.92	580.95	580.97
C	810+59.88	-2.92	580.95	580.99
D	810+69.88	-2.92	580.96	581.02
E	810+79.88	-2.92	580.97	581.04
F	810+89.88	-2.92	580.98	581.04
G	810+99.88	-2.92	580.99	581.04
H	811+09.88	-2.92	580.99	581.04
I	811+19.88	-2.92	581.00	581.03
J	811+29.88	-2.92	581.01	581.03
☐ Brg. Pier 1	811+36.86	-2.92	581.02	581.04
K	811+46.86	-2.92	581.02	581.06
L	811+56.86	-2.92	581.03	581.08
M	811+66.86	-2.92	581.04	581.11
N	811+76.86	-2.92	581.05	581.14
O	811+86.86	-2.92	581.06	581.16
P	811+96.86	-2.92	581.06	581.18
Q	812+06.86	-2.92	581.07	581.18
R	812+16.86	-2.92	581.08	581.17
S	812+26.86	-2.92	581.09	581.16
T	812+36.86	-2.92	581.10	581.14
U	812+46.86	-2.92	581.10	581.13
☐ Brg. Pier 2	812+53.86	-2.92	581.11	581.13
V	812+63.86	-2.92	581.12	581.14
W	812+73.86	-2.92	581.13	581.16
X	812+83.86	-2.92	581.13	581.18
Y	812+93.86	-2.92	581.14	581.20
Z	813+03.86	-2.92	581.15	581.22
A1	813+13.86	-2.92	581.16	581.22
B1	813+23.86	-2.92	581.17	581.22
C1	813+33.86	-2.92	581.17	581.21
☐ Brg. E. Abut.	813+40.84	-2.92	581.18	581.20
Back E. Abut.	813+42.86	-2.92	581.18	581.20



**☐ ROADWAY & PG**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Back W. Abut.	810+46.50	0.00	580.99	581.01
☐ Brg. W. Abut	810+48.52	0.00	580.99	581.01
C	810+58.52	0.00	581.00	581.04
D	810+68.52	0.00	581.00	581.06
E	810+78.52	0.00	581.01	581.08
F	810+88.52	0.00	581.02	581.09
G	810+98.52	0.00	581.03	581.08
H	811+08.52	0.00	581.04	581.08
I	811+18.52	0.00	581.04	581.07
J	811+28.52	0.00	581.05	581.07
☐ Brg. Pier 1	811+35.50	0.00	581.06	581.08
K	811+45.50	0.00	581.07	581.10
L	811+55.50	0.00	581.07	581.13
M	811+65.50	0.00	581.08	581.16
N	811+75.50	0.00	581.09	581.19
O	811+85.50	0.00	581.10	581.21
P	811+95.50	0.00	581.11	581.22
Q	812+05.50	0.00	581.11	581.22
R	812+15.50	0.00	581.12	581.21
S	812+25.50	0.00	581.13	581.20
T	812+35.50	0.00	581.14	581.18
U	812+45.50	0.00	581.15	581.17
☐ Brg. Pier 2	812+52.50	0.00	581.15	581.17
V	812+62.50	0.00	581.16	581.18
W	812+72.50	0.00	581.17	581.20
X	812+82.50	0.00	581.18	581.22
Y	812+92.50	0.00	581.18	581.24
Z	813+02.50	0.00	581.19	581.26
A1	813+12.50	0.00	581.20	581.26
B1	813+22.50	0.00	581.21	581.26
C1	813+32.50	0.00	581.22	581.25
☐ Brg. E. Abut.	813+39.48	0.00	581.22	581.24
Back E. Abut.	813+41.50	0.00	581.22	581.24

**GIRDER 4**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Back W. Abut.	810+45.14	2.92	580.94	580.96
☐ Brg. W. Abut	810+47.16	2.92	580.94	580.96
C	810+57.16	2.92	580.95	580.99
D	810+67.16	2.92	580.96	581.02
E	810+77.16	2.92	580.97	581.03
F	810+87.16	2.92	580.98	581.04
G	810+97.16	2.92	580.98	581.04
H	811+07.16	2.92	580.99	581.03
I	811+17.16	2.92	581.00	581.03
J	811+27.16	2.92	581.01	581.03
☐ Brg. Pier 1	811+34.14	2.92	581.01	581.03
K	811+44.14	2.92	581.02	581.05
L	811+54.14	2.92	581.03	581.08
M	811+64.14	2.92	581.04	581.11
N	811+74.14	2.92	581.05	581.14
O	811+84.14	2.92	581.05	581.16
P	811+94.14	2.92	581.06	581.17
Q	812+04.14	2.92	581.07	581.17
R	812+14.14	2.92	581.08	581.17
S	812+24.14	2.92	581.09	581.15
T	812+34.14	2.92	581.09	581.14
U	812+44.14	2.92	581.10	581.13
☐ Brg. Pier 2	812+51.14	2.92	581.11	581.13
V	812+61.14	2.92	581.12	581.14
W	812+71.14	2.92	581.12	581.16
X	812+81.14	2.92	581.13	581.18
Y	812+91.14	2.92	581.14	581.20
Z	813+01.14	2.92	581.15	581.21
A1	813+11.14	2.92	581.16	581.22
B1	813+21.14	2.92	581.16	581.22
C1	813+31.14	2.92	581.17	581.21
☐ Brg. E. Abut.	813+38.12	2.92	581.18	581.20
Back E. Abut.	813+40.14	2.92	581.18	581.20

MODEL: 74562-011  
FILE NAME: p:\w\idol-pw\benley.com\FWIDOT\Documents\DOT Offices\Bureau of Bridges and Structures\Projects\0120076\CADD Plans\0120076-74562.dgn  
10/18/2023 9:05:03 AM

DESIGNED - ZACHARY T. BULVA	EXAMINED - 	DATE - OCTOBER 16, 2023
CHECKED - CRYSTAL D. STONE/JOSHUA S. FLAIG	PASSED - 	REVISED -
DRAWN - ALAN JOHNSTONE	ENGINEER OF BRIDGES AND STRUCTURES	REVISED -
CHECKED - Z.T.B./C.D.S./J.S.F.		

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TOP OF SLAB ELEVATIONS  
STRUCTURE NO. 012-0076**

SHEET 4 OF 32 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1707	(CX-B)B	CLARK	52	11
CONTRACT NO. 74562				
ILLINOIS		FED. AID PROJECT		

**GIRDER 5**



Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Back W. Abut.	810+42.42	8.75	580.85	580.87
☉ Brg. W. Abut	810+44.44	8.75	580.85	580.88
C	810+54.44	8.75	580.86	580.90
D	810+64.44	8.75	580.87	580.93
E	810+74.44	8.75	580.88	580.94
F	810+84.44	8.75	580.89	580.95
G	810+94.44	8.75	580.89	580.95
H	811+04.44	8.75	580.90	580.95
I	811+14.44	8.75	580.91	580.94
J	811+24.44	8.75	580.92	580.94
☉ Brg. Pier 1	811+31.42	8.75	580.92	580.94
K	811+41.42	8.75	580.93	580.96
L	811+51.42	8.75	580.94	580.99
M	811+61.42	8.75	580.95	581.02
N	811+71.42	8.75	580.96	581.05
O	811+81.42	8.75	580.96	581.07
P	811+91.42	8.75	580.97	581.08
Q	812+01.42	8.75	580.98	581.09
R	812+11.42	8.75	580.99	581.08
S	812+21.42	8.75	581.00	581.06
T	812+31.42	8.75	581.00	581.05
U	812+41.42	8.75	581.01	581.04
☉ Brg. Pier 2	812+48.42	8.75	581.02	581.04
V	812+58.42	8.75	581.03	581.05
W	812+68.42	8.75	581.03	581.07
X	812+78.42	8.75	581.04	581.09
Y	812+88.42	8.75	581.05	581.11
Z	812+98.42	8.75	581.06	581.12
A1	813+08.42	8.75	581.07	581.13
B1	813+18.42	8.75	581.07	581.13
C1	813+28.42	8.75	581.08	581.12
☉ Brg. E. Abut.	813+35.40	8.75	581.09	581.11
Back E. Abut.	813+37.42	8.75	581.09	581.11

**GIRDER 6**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Back W. Abut.	810+39.70	14.58	580.75	580.77
☉ Brg. W. Abut	810+41.72	14.58	580.75	580.77
C	810+51.72	14.58	580.76	580.80
D	810+61.72	14.58	580.77	580.82
E	810+71.72	14.58	580.78	580.84
F	810+81.72	14.58	580.78	580.85
G	810+91.72	14.58	580.79	580.85
H	811+01.72	14.58	580.80	580.84
I	811+11.72	14.58	580.81	580.84
J	811+21.72	14.58	580.82	580.84
☉ Brg. Pier 1	811+28.70	14.58	580.82	580.84
K	811+38.70	14.58	580.83	580.86
L	811+48.70	14.58	580.84	580.89
M	811+58.70	14.58	580.85	580.92
N	811+68.70	14.58	580.85	580.95
O	811+78.70	14.58	580.86	580.97
P	811+88.70	14.58	580.87	580.98
Q	811+98.70	14.58	580.88	580.98
R	812+08.70	14.58	580.89	580.97
S	812+18.70	14.58	580.89	580.96
T	812+28.70	14.58	580.90	580.95
U	812+38.70	14.58	580.91	580.94
☉ Brg. Pier 2	812+45.70	14.58	580.91	580.94
V	812+55.70	14.58	580.92	580.95
W	812+65.70	14.58	580.93	580.96
X	812+75.70	14.58	580.94	580.99
Y	812+85.70	14.58	580.95	581.01
Z	812+95.70	14.58	580.95	581.02
A1	813+05.70	14.58	580.96	581.03
B1	813+15.70	14.58	580.97	581.02
C1	813+25.70	14.58	580.98	581.01
☉ Brg. E. Abut.	813+32.68	14.58	580.98	581.01
Back E. Abut.	813+34.70	14.58	580.99	581.01

MODEL: 74562-012  
FILE NAME: p:\w\idol-pw\benley.com\FWIDOT Documents\DOT Offices\Bureau of Bridges and Structures\Projects\0120076\CADD Plans\0120076-74562.dgn

DESIGNED -	ZACHARY T. BULVA
CHECKED -	CRYSTAL D. STONE/JOSHUA S. FLAIG
DRAWN -	ALAN JOHNSTONE
CHECKED -	Z.T.B./C.D.S./J.S.F.

EXAMINED		DATE -	OCTOBER 16, 2023
PASSED		REVISED -	
	ENGINEER OF BRIDGES AND STRUCTURES	REVISED -	

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TOP OF SLAB ELEVATIONS  
STRUCTURE NO. 012-0076**

SHEET 5 OF 32 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1707	(CX-B)B	CLARK	52	12
CONTRACT NO. 74562				
		ILLINOIS	FED. AID PROJECT	

**NORTH EDGE OF SHOULDER**

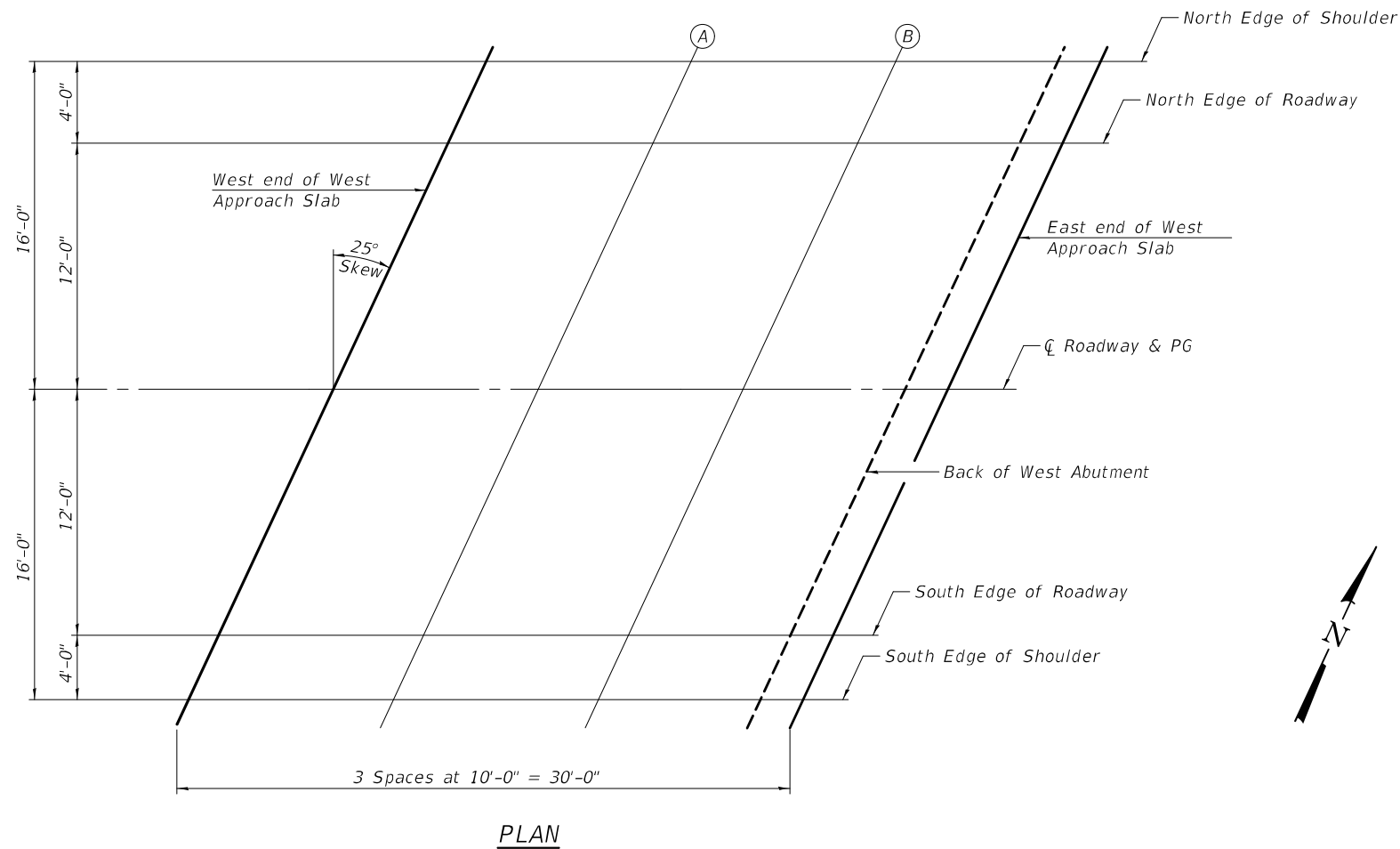
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
W. End of W. Appr. Slab	810+25.06	-16.00	580.71	580.73
A	810+35.06	-16.00	580.72	580.74
B	810+45.06	-16.00	580.73	580.75
E. End of W. Appr. Slab	810+55.06	-16.00	580.73	580.75

**NORTH EDGE OF ROADWAY**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
W. End of W. Appr. Slab	810+23.20	-12.00	580.79	580.81
A	810+33.20	-12.00	580.80	580.82
B	810+43.20	-12.00	580.80	580.83
E. End of W. Appr. Slab	810+53.20	-12.00	580.81	580.83

**CL ROADWAY & PG**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
W. End of W. Appr. Slab	810+17.60	0.00	580.96	580.98
A	810+27.60	0.00	580.97	580.99
B	810+37.60	0.00	580.98	581.00
E. End of W. Appr. Slab	810+47.60	0.00	580.99	581.01



**SOUTH EDGE OF ROADWAY**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
W. End of W. Appr. Slab	810+12.01	12.00	580.78	580.80
A	810+22.01	12.00	580.79	580.81
B	810+32.01	12.00	580.80	580.82
E. End of W. Appr. Slab	810+42.01	12.00	580.80	580.82

**SOUTH EDGE OF SHOULDER**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
W. End of W. Appr. Slab	810+10.14	16.00	580.70	580.72
A	810+20.14	16.00	580.71	580.73
B	810+30.14	16.00	580.71	580.73
E. End of W. Appr. Slab	810+40.14	16.00	580.72	580.74

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E-AS1

2-17-2017

DESIGNED - ZACHARY T. BULVA	EXAMINED - <i>Mark Shuffin</i>	DATE - OCTOBER 16, 2023
CHECKED - CRYSTAL D. STONE/JOSHUA S. FLAIG	PASSED - <i>Jayne F. [Signature]</i>	REVISED -
DRAWN - ALAN JOHNSTONE		REVISED -
CHECKED - Z.T.B./C.D.S./J.S.F.		

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TOP OF WEST APPROACH SLAB ELEVATIONS  
STRUCTURE NO. 012-0076**

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1707	(CX-B)B	CLARK	52	13
CONTRACT NO. 74562				

SHEET 6 OF 32 SHEETS

ILLINOIS FED. AID PROJECT

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NORTH EDGE OF SHOULDER

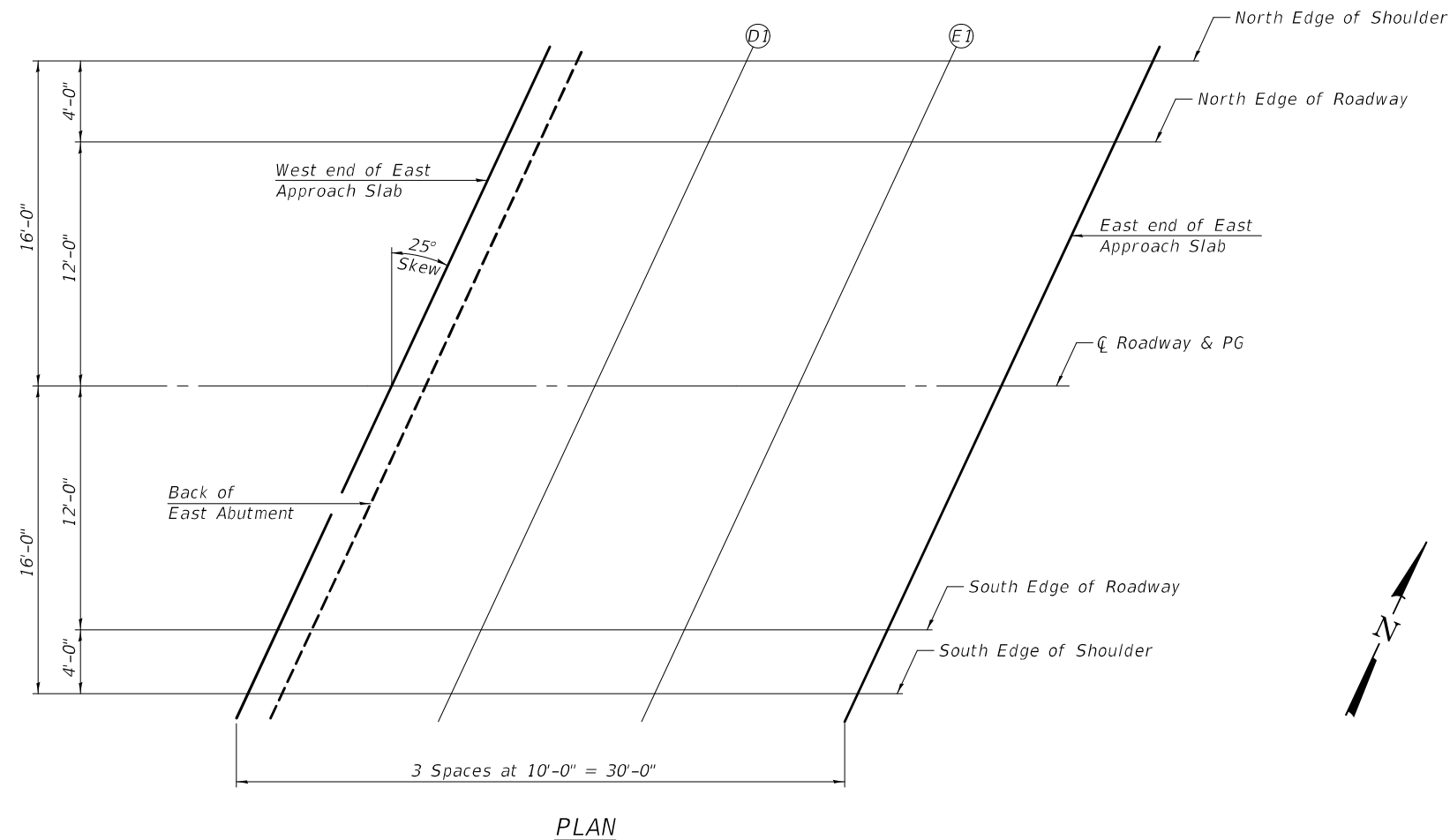
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
W. End of E. Appr. Slab	813+47.86	-16.00	580.97	580.99
D1	813+57.86	-16.00	580.98	581.00
E1	813+67.86	-16.00	580.98	581.01
E. End of E. Appr. Slab	813+77.86	-16.00	580.99	581.01

NORTH EDGE OF ROADWAY

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
W. End of E. Appr. Slab	813+45.99	-12.00	581.05	581.07
D1	813+55.99	-12.00	581.05	581.08
E1	813+65.99	-12.00	581.06	581.08
E. End of E. Appr. Slab	813+75.99	-12.00	581.07	581.09

CL ROADWAY & PG

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
W. End of E. Appr. Slab	813+40.40	0.00	581.22	581.24
D1	813+50.40	0.00	581.23	581.25
E1	813+60.40	0.00	581.24	581.26
E. End of E. Appr. Slab	813+70.40	0.00	581.25	581.27



SOUTH EDGE OF ROADWAY

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
W. End of E. Appr. Slab	813+34.80	12.00	581.04	581.06
D1	813+44.80	12.00	581.05	581.07
E1	813+54.80	12.00	581.05	581.07
E. End of E. Appr. Slab	813+64.80	12.00	581.06	581.08

SOUTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
W. End of E. Appr. Slab	813+32.94	16.00	580.96	580.98
D1	813+42.94	16.00	580.96	580.99
E1	813+52.94	16.00	580.97	580.99
E. End of E. Appr. Slab	813+62.94	16.00	580.98	581.00

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E-AS1

2-17-2017

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CHECKED - CRYSTAL D. STONE/JOSHUA S. FLAIG  
DRAWN - ALAN JOHNSTONE  
CHECKED - Z.T.B./C.D.S./J.S.F.

EXAMINED  
PASSED  
*Mark Shuffler*  
ENGINEER OF BRIDGE DESIGN  
*Jaime F. [Signature]*  
ENGINEER OF BRIDGES AND STRUCTURES

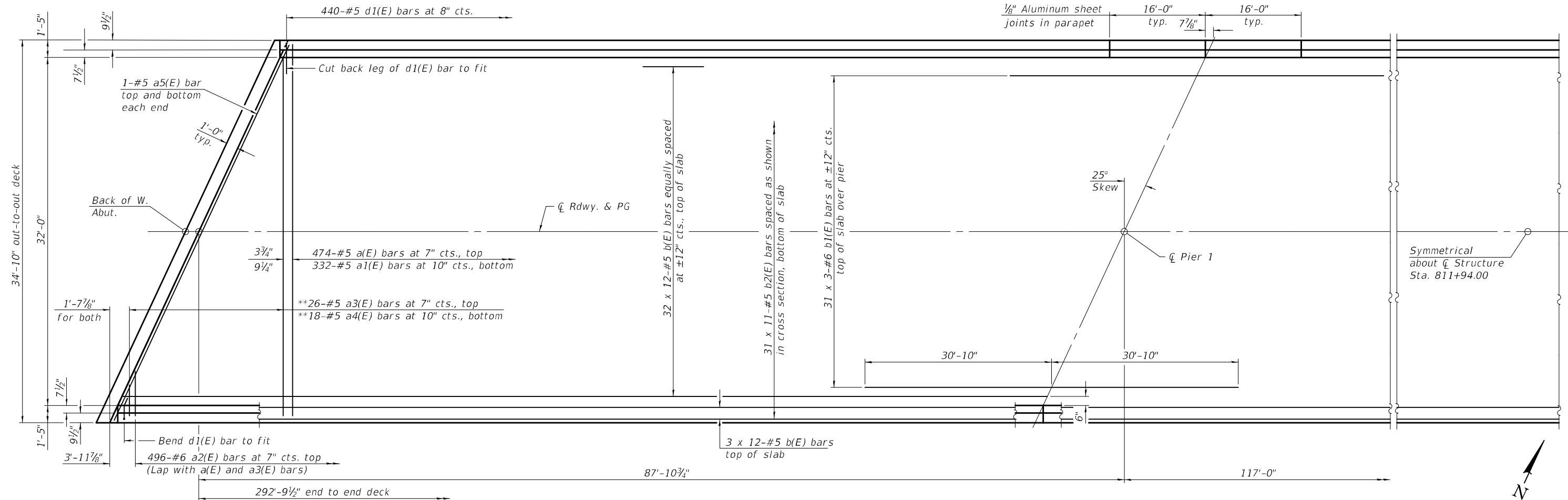
DATE - OCTOBER 16, 2023  
REVISED -  
REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TOP OF EAST APPROACH SLAB ELEVATIONS  
STRUCTURE NO. 012-0076

SHEET 7 OF 32 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1707	(CX-B)B	CLARK	52	14
CONTRACT NO. 74562				
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**PARTIAL PLAN**

(West end shown; East end similar by 180 degree rotation)

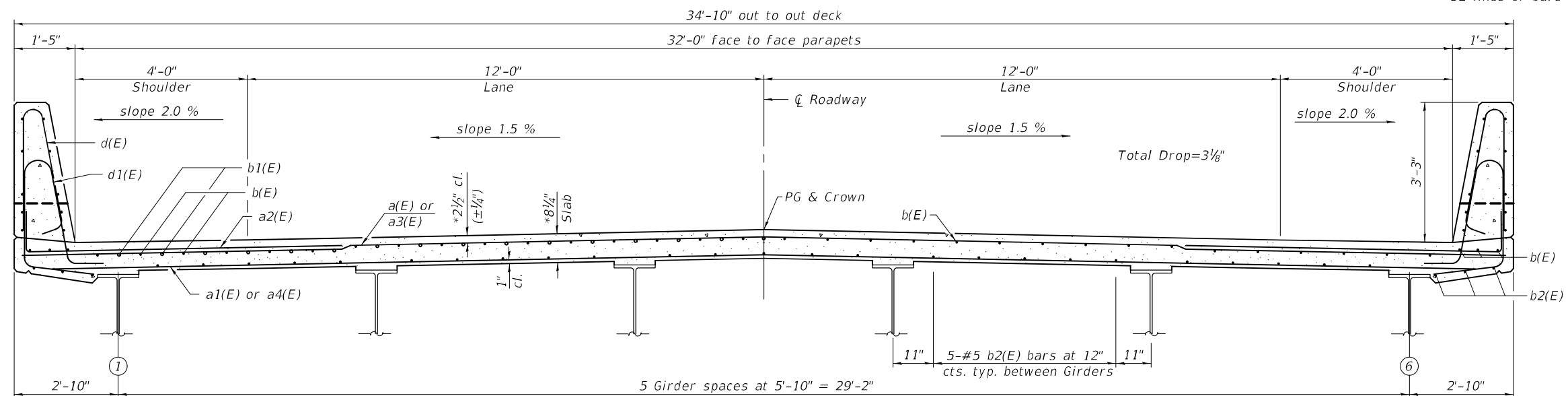
**MINIMUM BAR LAP**

#5 bar = 3'-6"  
#6 bar = 3'-7"

\*\* See Field Cutting Diagram on sheet 9 of 32.

**Notes:**

See sheet 9 of 32 for superstructure details and Bill of Material.  
Bars indicated thus 32 x 12-#5 etc. indicates 32 lines of bars with 12 lengths per line.



NEAR PIER

**CROSS SECTION**  
(Looking East)

NEAR MIDSPAN

MODEL: 74562-015  
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CHECKED -	CRYSTAL D. STONE/JOSHUA S. FLAIG
DRAWN -	ALAN JOHNSTONE
CHECKED -	Z.T.B./C.D.S./J.S.F.

EXAMINED	<i>Mark Shuffler</i> ENGINEER OF BRIDGE DESIGN
PASSED	<i>Joey F. [Signature]</i> ENGINEER OF BRIDGES AND STRUCTURES

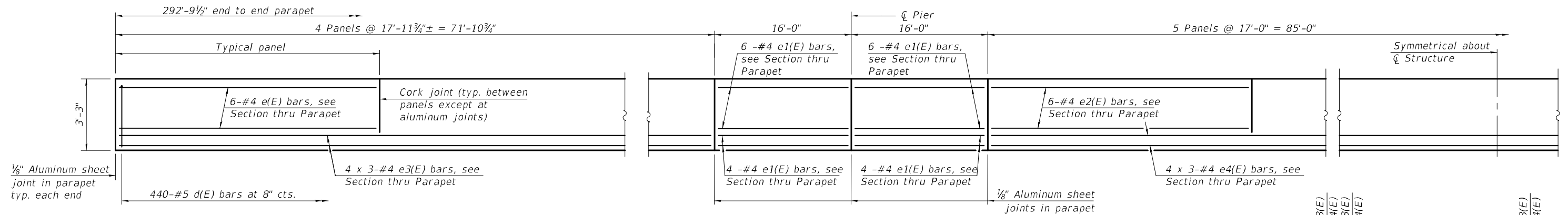
DATE -	OCTOBER 16, 2023
REVISED -	
REVISED -	

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

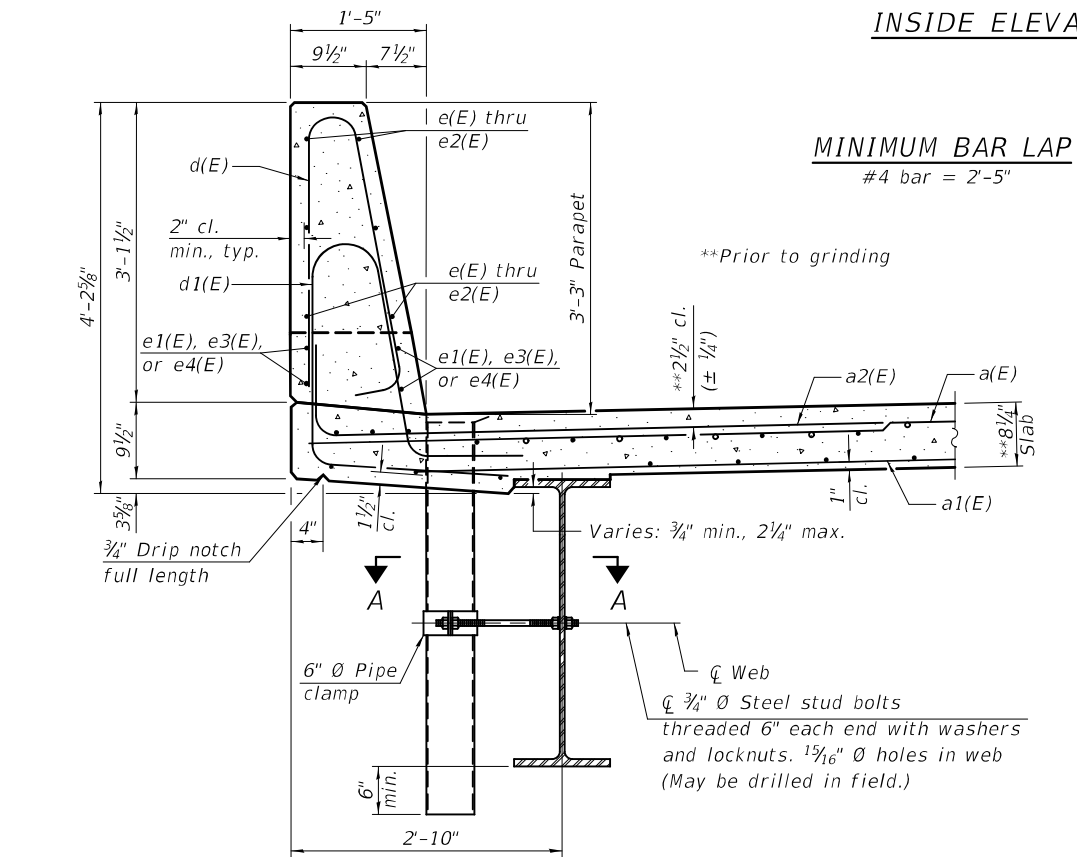
**SUPERSTRUCTURE**  
**STRUCTURE NO. 012-0076**

SHEET 8 OF 32 SHEETS

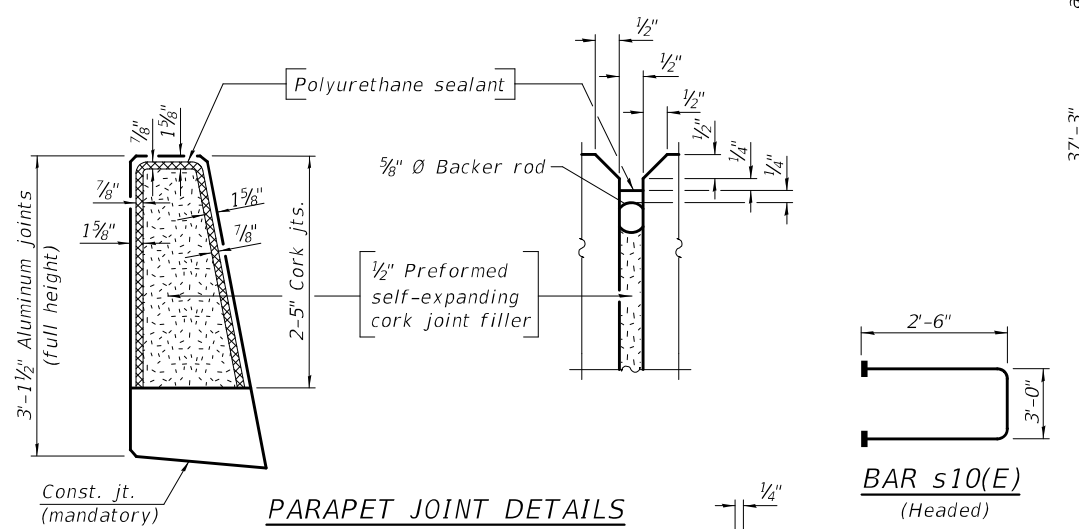
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1707	(CX-B)B	CLARK	52	15
CONTRACT NO. 74562				
ILLINOIS FED. AID PROJECT				



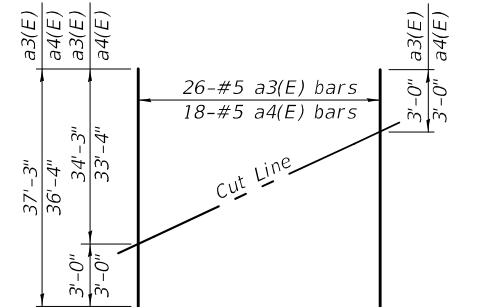
**INSIDE ELEVATION OF PARAPET**



**MINIMUM BAR LAP**  
#4 bar = 2'-5"

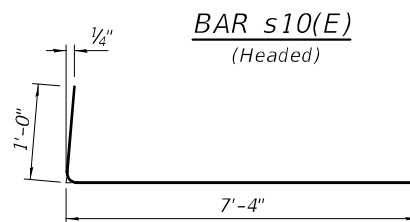


**PARAPET JOINT DETAILS**

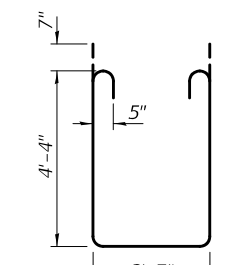


**FIELD CUTTING DIAGRAM**

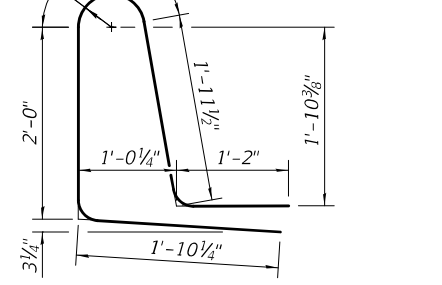
Order a3(E) and a4(E) bars full length. Cut as shown and use remainder of bars in opposite end of deck.



**BAR a2(E)**



**BAR s11(E)**



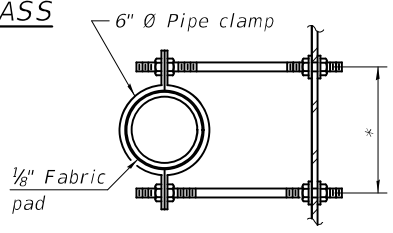
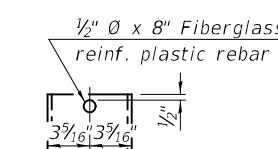
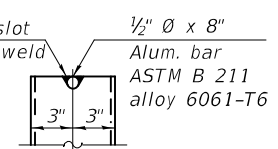
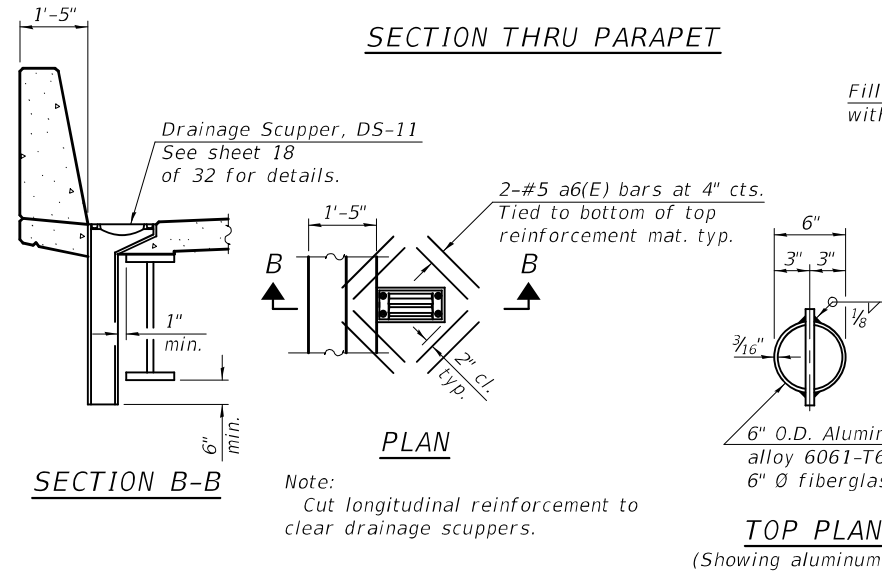
**BAR d(E)**

**BAR d1(E)**

**SUPERSTRUCTURE BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a(E)	474	#5	34'-6"	—
a1(E)	332	#5	34'-6"	—
a2(E)	992	#6	8'-4"	L
a3(E)	26	#5	37'-3"	—
a4(E)	18	#5	36'-4"	—
a5(E)	4	#5	38'-1"	—
a6(E)	64	#5	1'-6"	—
b(E)	456	#5	28'-0"	—
b1(E)	186	#6	23'-0"	—
b2(E)	341	#5	30'-0"	—
d(E)	880	#5	6'-5"	L
d1(E)	880	#5	8'-0"	L
e(E)	96	#4	17'-7"	—
e1(E)	80	#4	15'-8"	—
e2(E)	60	#4	16'-8"	—
e3(E)	48	#4	25'-6"	—
e4(E)	24	#4	29'-10"	—
m10(E)	10	#6	38'-1"	—
m11(E)	40	#6	6'-0"	—
m12(E)	16	#6	2'-9"	—
s10(E)	62	#5	8'-0"	U
s11(E)	62	#5	12'-5"	U
Reinforcement Bars, Epoxy Coated		Pound	93260	
Concrete Superstructure		Cu. Yds.	393.2	

**Notes:**  
 Fiberglass pipe shall conform to ASTM D2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum.  
 Exterior surfaces of floor drains shall be pigmented or painted to match the color of the adjacent beam.  
 The top portion of aluminum floor drains shall be coated to minimize reaction with wet concrete.  
 The clamping device shall be galvanized according to AASHTO M 232. Cost of clamping device included with Floor Drains.  
 The 1/8" aluminum sheet shall be ASTM B 209 alloy 3003-H14 and coated to minimize reaction with wet concrete. Cost included with Concrete Superstructure.  
 The polyurethane sealant shall be according to Article 1050.04 of the Std. Spec. and the color shall be gray.  
 Headed bars shall conform to ASTM A970 with threaded attachment; Class HA; and reinforcement bars conforming to ASTM A706. Cost included with Reinforcement Bars, Epoxy Coated.



\*Dimension as required by pipe clamp

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DESIGNED - ZACHARY T. BULVA	EXAMINED - <i>Mark Shuffler</i>	DATE - OCTOBER 16, 2023
CHECKED - CRYSTAL D. STONE/JOSHUA S. FLAIG	PASSED - <i>James F. Hoff</i>	REVISIONS -
DRAWN - ALAN JOHNSTONE	ENGINEER OF BRIDGES AND STRUCTURES	REVISIONS -
CHECKED - Z.T.B./C.D.S./J.S.F.		

**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**

**SUPERSTRUCTURE DETAILS STRUCTURE NO. 012-0076**

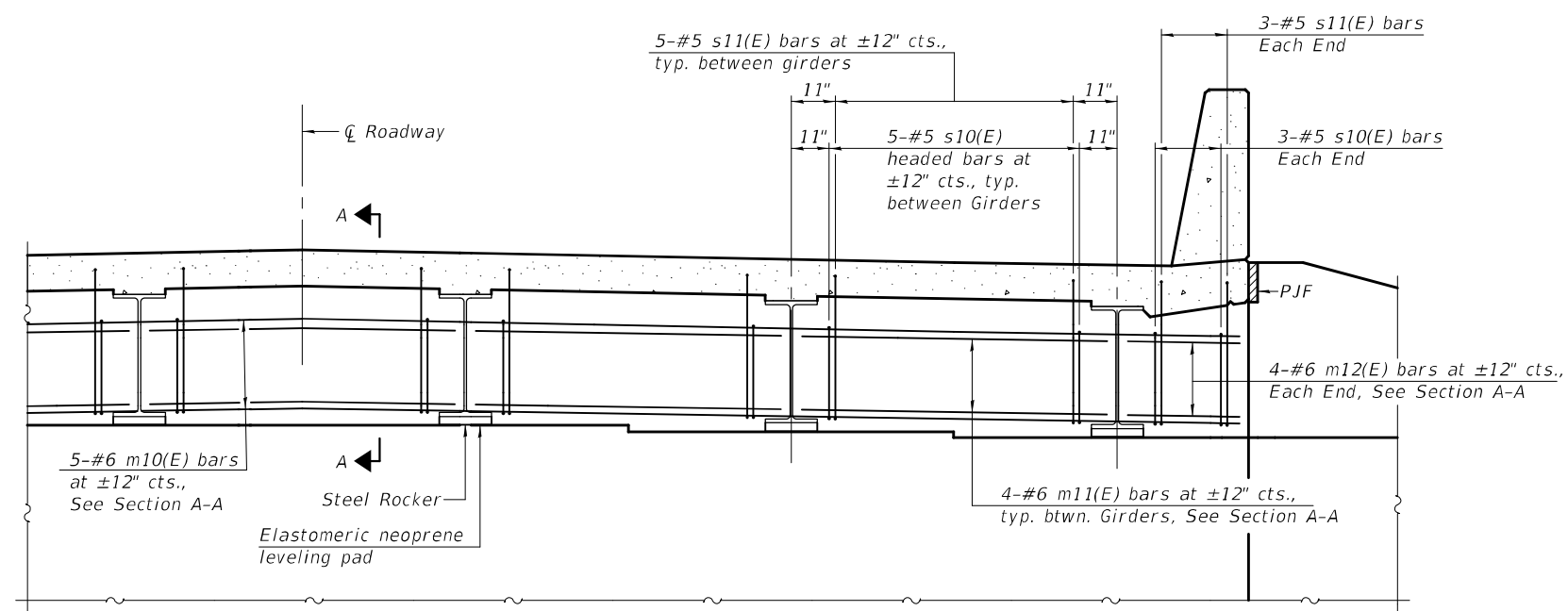
SHEET 9 OF 32 SHEETS

F.A.S. RTE. 1707	SECTION (CX-B)B	COUNTY CLARK	TOTAL SHEETS 52	SHEET NO. 16
CONTRACT NO. 74562			ILLINOIS FED. AID PROJECT	

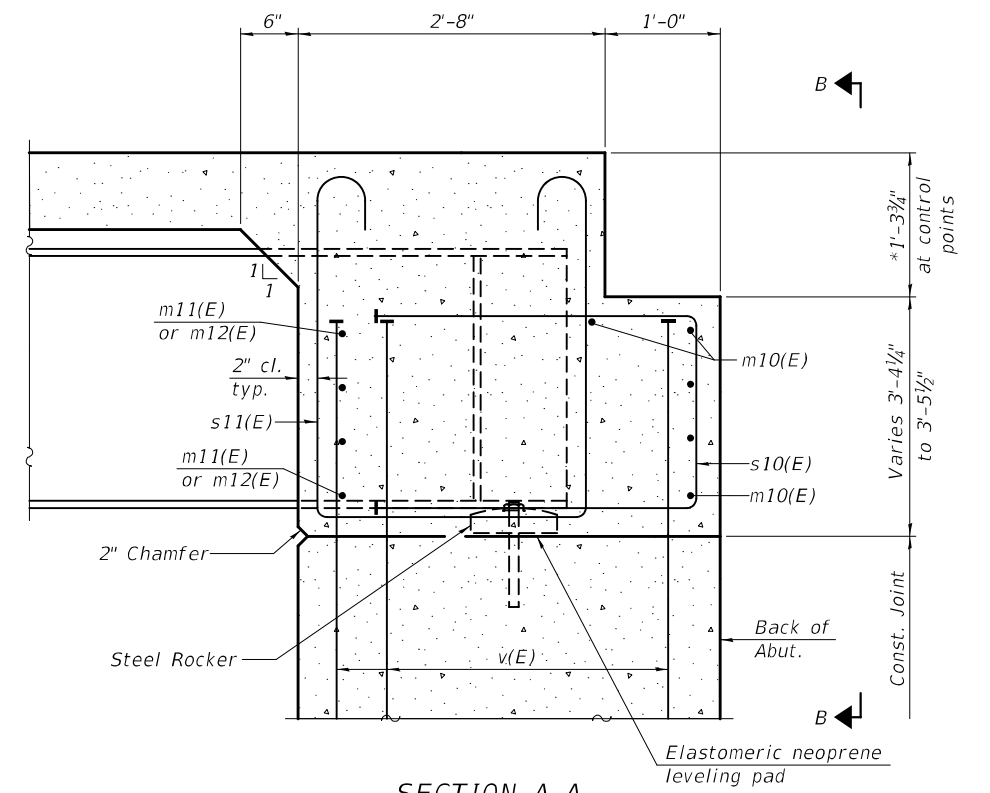
Bars indicated thus 4 x 3-#4 etc. indicates 4 line of bars with 3 lengths per line.



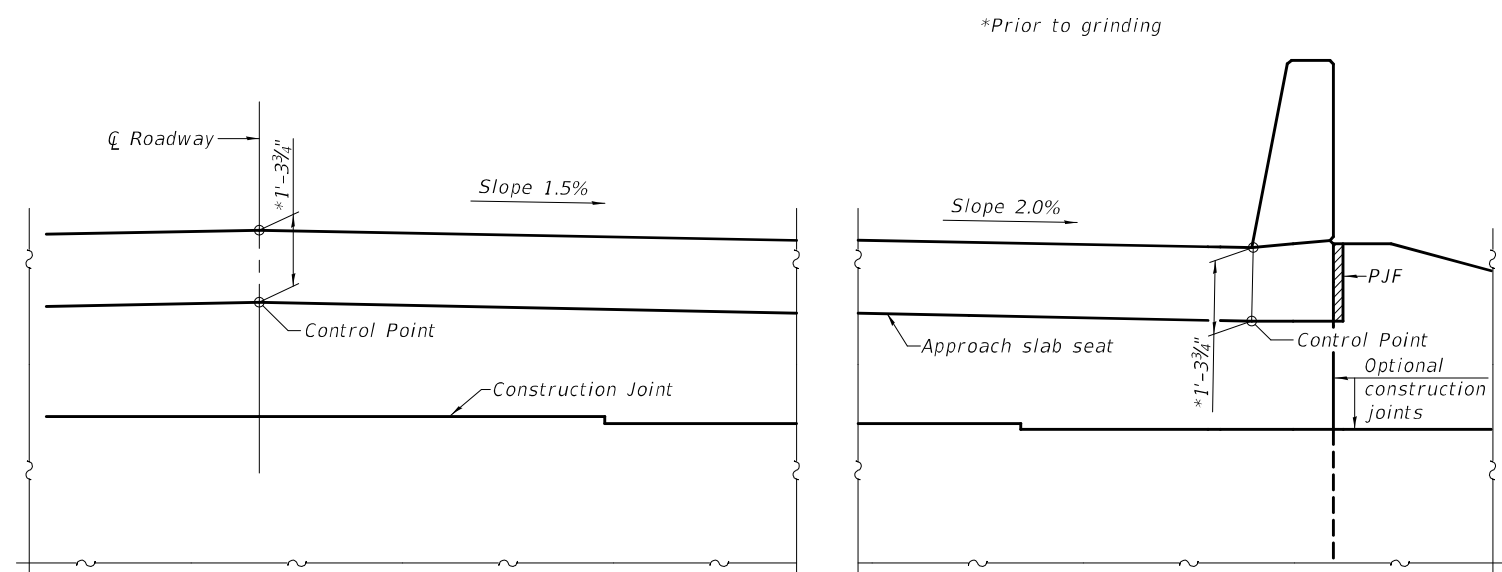
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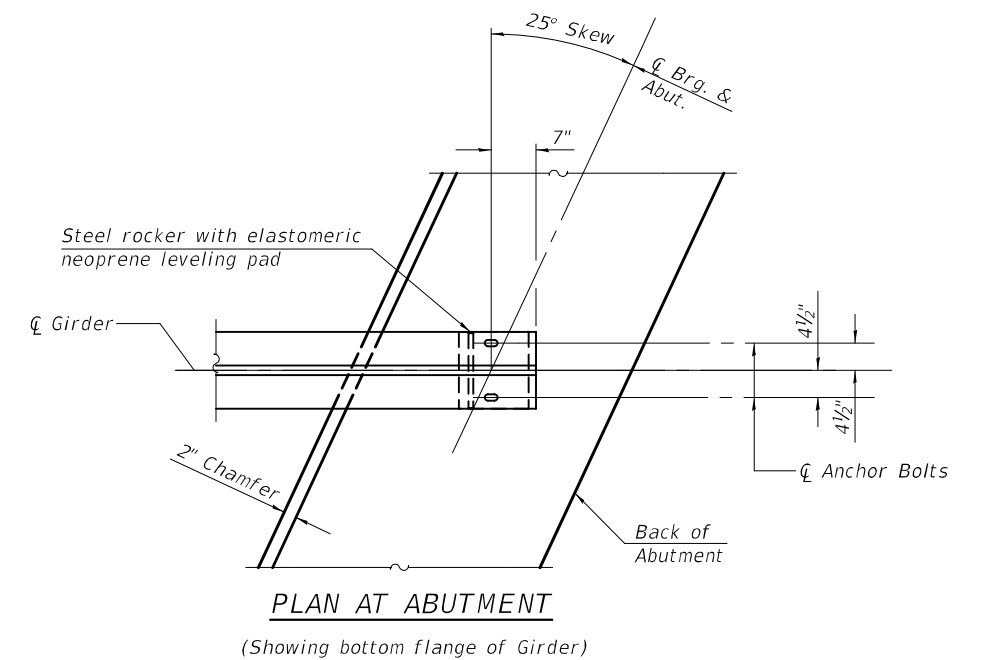
**DIAPHRAGM AT ABUTMENT**



**SECTION A-A**  
(at Rt. L's)



**VIEW B-B**



**PLAN AT ABUTMENT**  
(Showing bottom flange of Girder)

**Notes:**  
 See sheet 9 of 32 for superstructure details and Bill of Material.  
 See sheet 12 of 32 for P.J.F details.  
 The s10(E) and s11(E) bars shall be placed parallel to the girders.  
 Spacing for these bars shall be at right angles to the girders.  
 The approach slab seat shall have a constant slope determined from the control points shown.

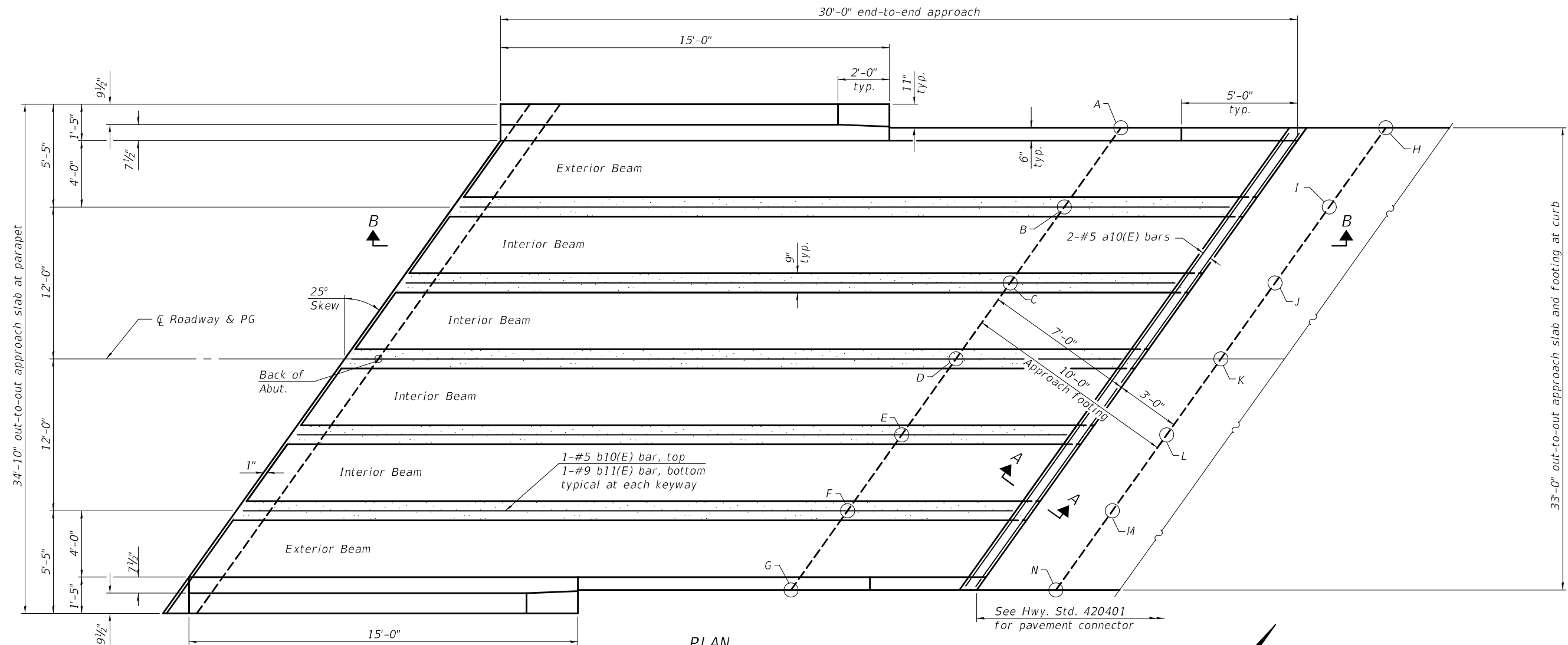
DESIGNED - ZACHARY T. BULVA	EXAMINED - <i>Mark Shuffan</i>	DATE - OCTOBER 16, 2023
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DRAWN - ALAN JOHNSTONE	ENGINEER OF BRIDGES AND STRUCTURES	REVISER -
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**STATE OF ILLINOIS**  
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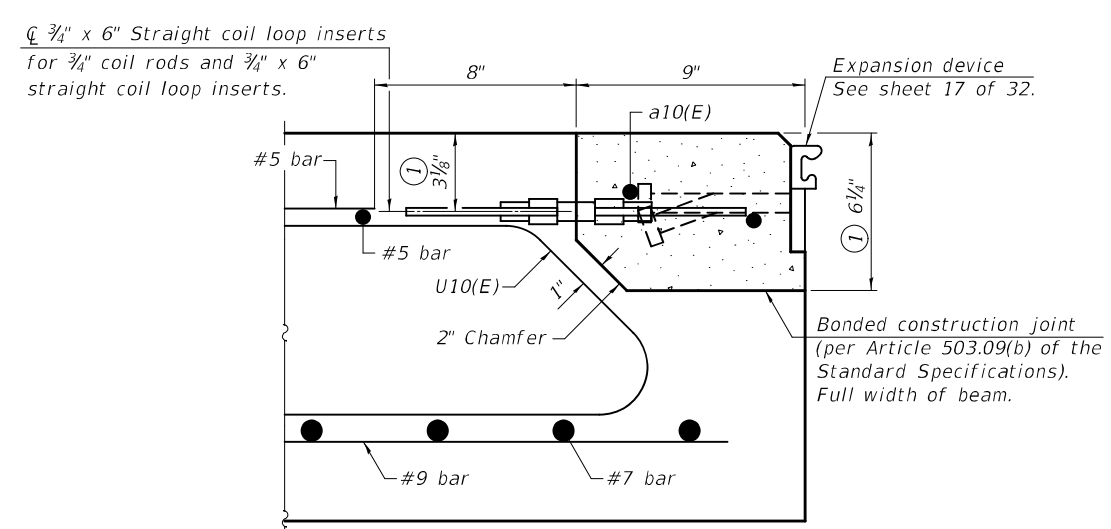
**DIAPHRAGM DETAILS**  
**STRUCTURE NO. 012-0076**

SHEET 10 OF 32 SHEETS

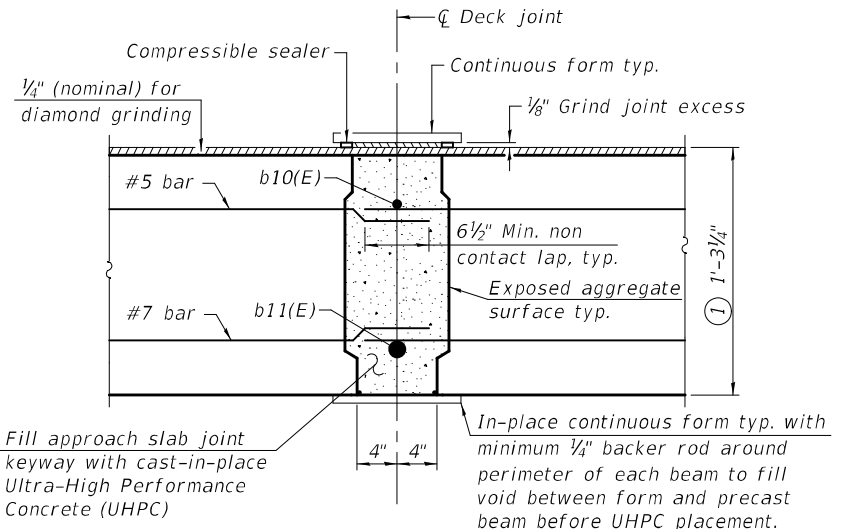
F.A.S. RTE. 1707	SECTION (CX-B)B	COUNTY CLARK	TOTAL SHEETS 52	SHEET NO. 17
CONTRACT NO. 74562				
ILLINOIS FED. AID PROJECT				



**PLAN**  
(East approach slab shown; West approach slab similar by 180° rotation; except footing elevations)



**SECTION A-A**



**DETAIL A**

(Transverse bars protruding into the shear keys along adjacent beams shall be staggered for proper fit-up in the field.  
Shear Key cross sectional area = 1.06 sq. ft.)

**ELEVATION OF TOP AND BOTTOM OF CAST-IN-PLACE BRIDGE APPROACH FOOTING**

West Approach			East Approach		
Point/Location	Top	Bottom	Point/Location	Top	Bottom
A - NW	579.39	578.55	A - NW	579.66	578.83
B - NW	579.47	578.64	B - NW	579.75	578.92
C - NW	579.56	578.73	C - NW	579.84	579.01
D - W C	579.65	578.81	D - W C	579.93	579.09
E - SW	579.56	578.72	E - SW	579.84	579.00
F - SW	579.46	578.63	F - SW	579.74	578.91
G - SW	579.37	578.54	G - SW	579.65	578.82
H - NE	579.39	578.56	H - NE	579.67	578.84
I - NE	579.48	578.65	I - NE	579.76	578.93
J - NE	579.57	578.74	J - NE	579.85	579.02
K - E C	579.66	578.82	K - E C	579.94	579.10
L - SE	579.57	578.73	L - SE	579.84	579.01
M - SE	579.47	578.64	M - SE	579.75	578.92
N - SE	579.38	578.55	N - SE	579.66	578.83

(Sheet 1 of 6)

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DESIGNED - ZACHARY T. BULVA	EXAMINED - <i>Mark Shuffler</i>	DATE - OCTOBER 16, 2023
CHECKED - CRYSTAL D. STONE/JOSHUA S. FLAIG	PASSED - <i>Joey F. [Signature]</i>	REVISER -
DRAWN - ALAN JOHNSTONE	ENGINEER OF BRIDGES AND STRUCTURES	REVISER -
CHECKED - Z.T.B./C.D.S./J.S.F.		

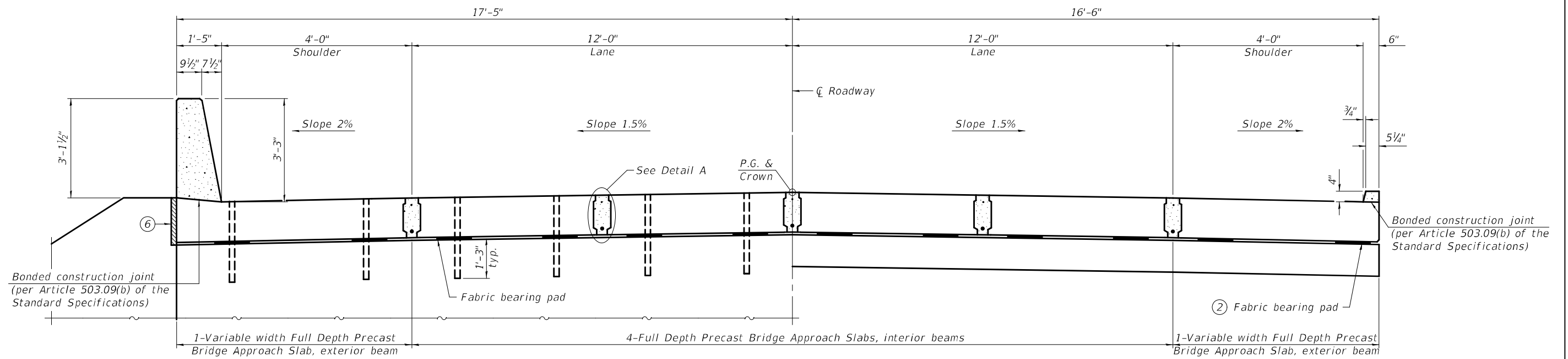
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**FULL DEPTH PRECAST BRIDGE APPROACH SLAB**  
**STRUCTURE NO. 012-0076**

F.A.S. RTE. 1707	SECTION (CX-B)B	COUNTY CLARK	TOTAL SHEETS 52	SHEET NO. 18
CONTRACT NO. 74562				
ILLINOIS FED. AID PROJECT				

SHEET 11 OF 32 SHEETS

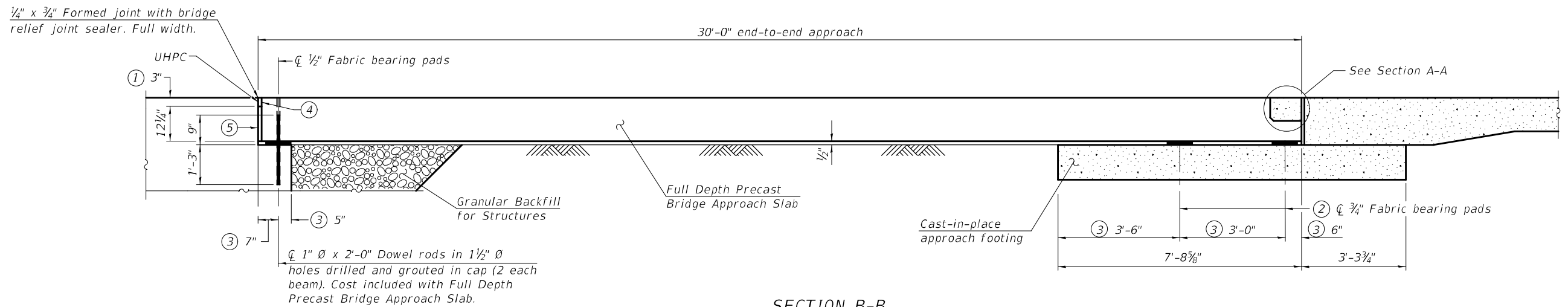
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NEAR ABUTMENT

NEAR APPROACH FOOTING

**CROSS SECTION**  
(Looking East)



- ① Prior to grinding
- ② Fabric bearing pads at the expansion end shall be recessed 1/4" into the approach footing and bonded. Adjusting shims, when required, shall be bonded to the top of the fabric bearing pads.
- ③ At right angles
- ④ Exposed aggregate, top 3", full width of beam, see notes on sheet 6 of 6.
- ⑤ 12 1/4" deep Cellular polystyrene according to ASTM C 578 (Types V, VII, or XV), full width of bridge. Provide slightly thicker piece than measured gap to tightly fill the area between abutment cap and end of beam.
- ⑥ 2" PJF (per Article 1051.09 of the Standard Specifications) bonded to wingwall with suitable adhesive as recommended by supplier.
- ⑦ Straight coil loops shall be placed to miss the adjacent strip seal joint studs.

(Sheet 2 of 6)

MODEL: 74562-019  
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CHECKED -	CRYSTAL D. STONE/JOSHUA S. FLAIG
DRAWN -	ALAN JOHNSTONE
CHECKED -	Z.T.B./C.D.S./J.S.F.

EXAMINED	<i>Mark Shuffler</i> ENGINEER OF BRIDGE DESIGN
PASSED	<i>Jayne F. [Signature]</i> ENGINEER OF BRIDGES AND STRUCTURES

DATE -	OCTOBER 16, 2023
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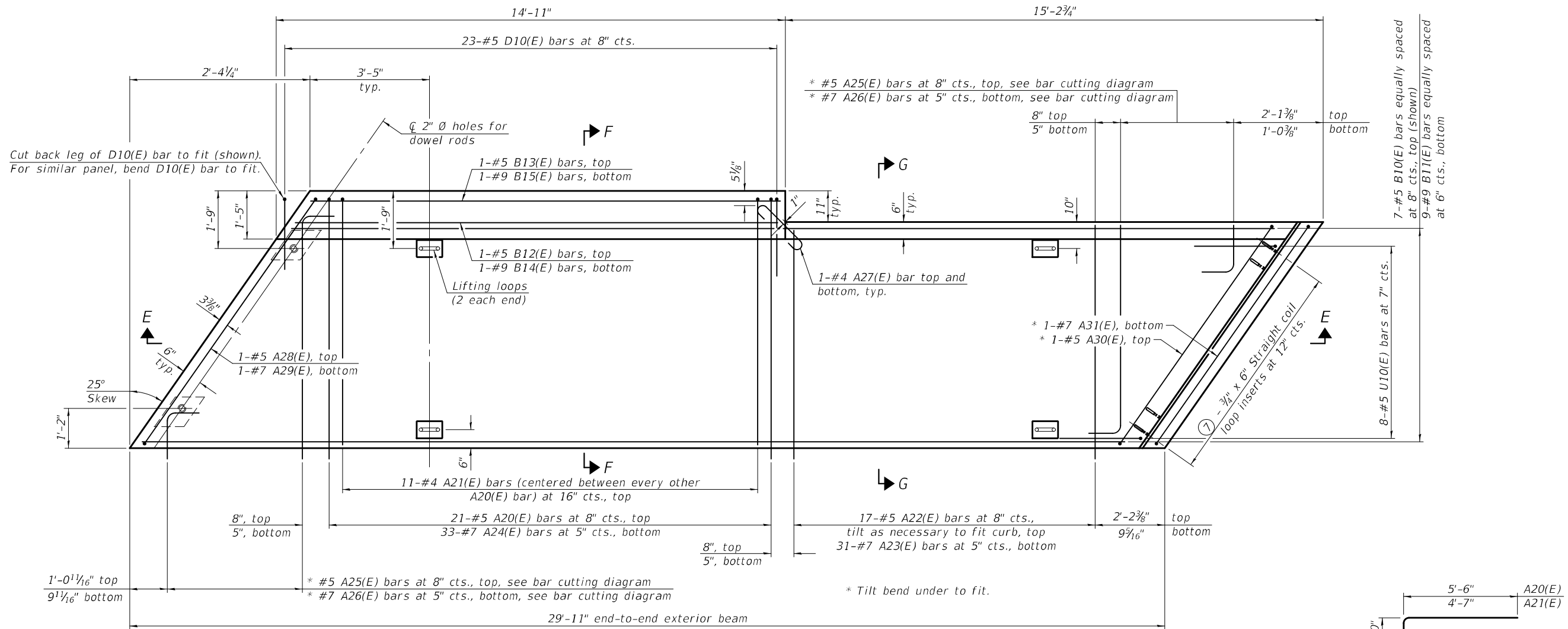
**FULL DEPTH PRECAST BRIDGE APPROACH SLAB**  
**STRUCTURE NO. 012-0076**

SHEET 12 OF 32 SHEETS

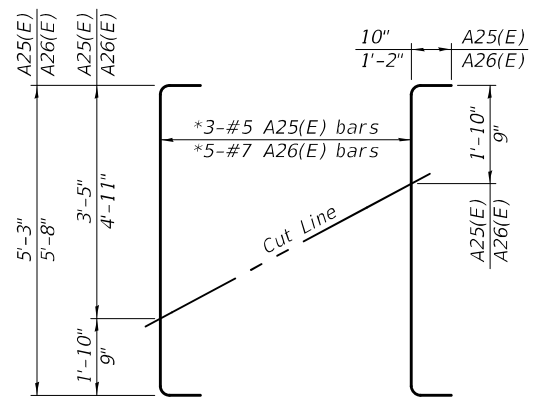
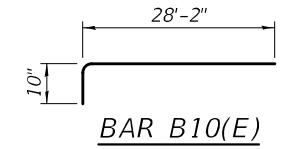
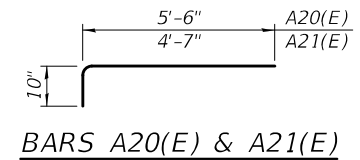
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1707	(CX-B)B	CLARK	52	19
CONTRACT NO. 74562				
ILLINOIS FED. AID PROJECT				

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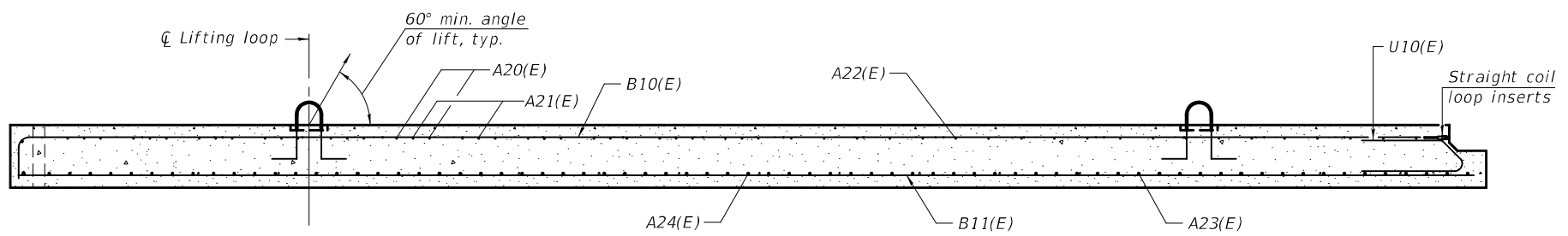




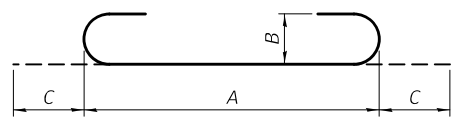
**PLAN - EXTERIOR BEAM**  
 (North beam shown; South beam similar.)  
 Flanges not shown in plan view for clarity.)



**BAR CUTTING DIAGRAM**  
 (Order A25(E) and A26(E) bars full length.  
 Cut as shown and use remainder of  
 bars in opposite end of beam.)



**SECTION E-E**



**BARS A27(E) thru A31(E)**  
 (See Table of Dimensions)

**TABLE OF DIMENSIONS**

Bar	"A"	"B"	"C"
A27(E)	1'-9"	4"	6"
A28(E)	5'-2"	5"	7"
A29(E)	5'-2"	7"	10"
A30(E)	4'-2"	5"	7"
A31(E)	4'-2"	7"	10"

(Sheet 4 of 6)

MODEL: 74562-021  
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 10/18/2023 9:05:06 AM

DESIGNED - ZACHARY T. BULVA  
 CHECKED - CRYSTAL D. STONE/JOSHUA S. FLAIG  
 DRAWN - ALAN JOHNSTONE  
 CHECKED - Z.T.B./C.D.S./J.S.F.

EXAMINED  
 PASSED  
 Mark Shuffler  
 ENGINEER OF BRIDGE DESIGN  
 Jayne F. [Signature]  
 ENGINEER OF BRIDGES AND STRUCTURES

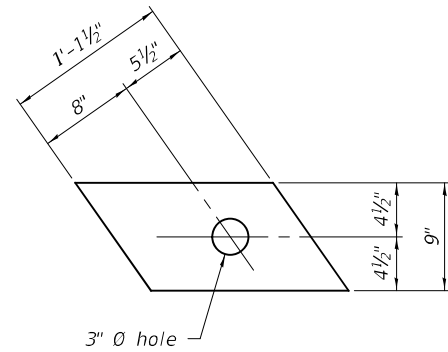
DATE - OCTOBER 16, 2023  
 REVISED -  
 REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**FULL DEPTH PRECAST BRIDGE APPROACH SLAB**  
**STRUCTURE NO. 012-0076**

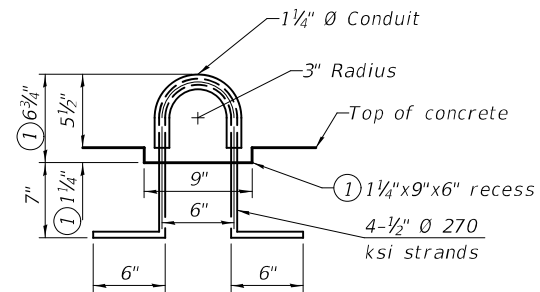
SHEET 14 OF 32 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1707	(CX-B)B	CLARK	52	21
CONTRACT NO. 74562				
ILLINOIS FED. AID PROJECT				



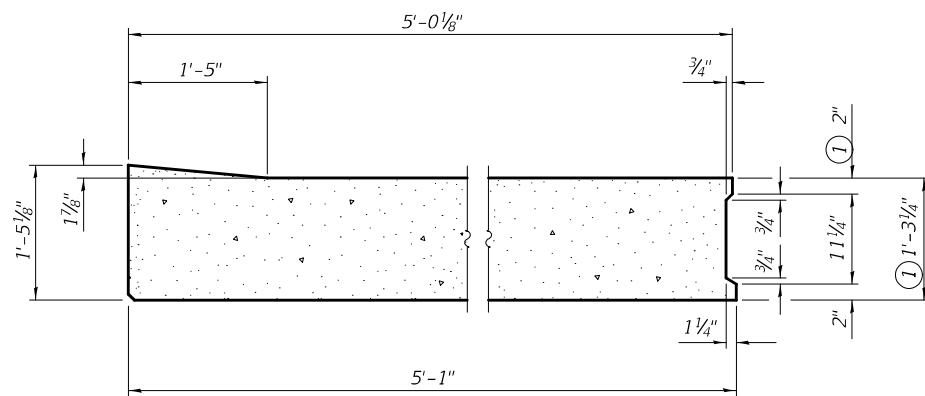
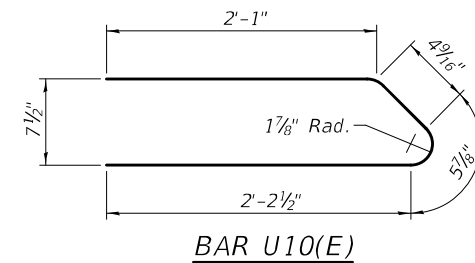
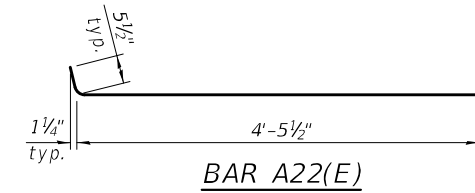
**FABRIC BEARING PAD**

(Bearing pads at fixed ends shall be 1/2" thick and bearing pads at expansion end shall be 3/4" thick. Omit holes for fabric bearing pads at approach slab footing end of beams. Expansion fabric bearing pad shall be bonded to the approach slab footing.)

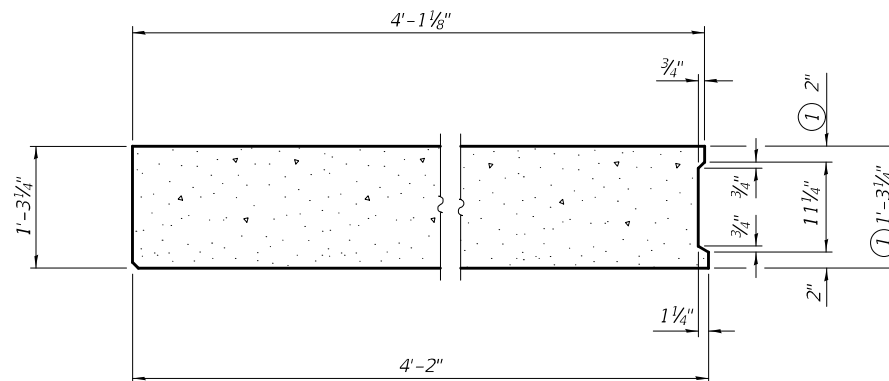


**LIFTING LOOP DETAIL**

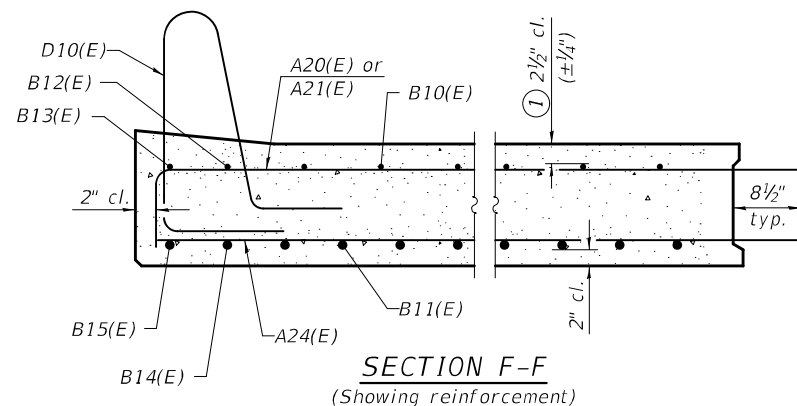
(All lifting loops shall be recessed 1 1/4" minimum below the surface of the slab to allow for a minimum grout cover of 1" cover after maximum 1/4" diamond grinding. Recess shall be filled with Ultra-High Performance Concrete (UHPC).)



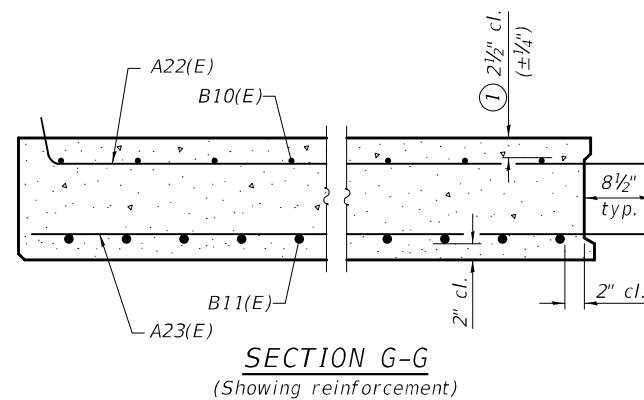
**SECTION F-F**  
(Showing dimensions)



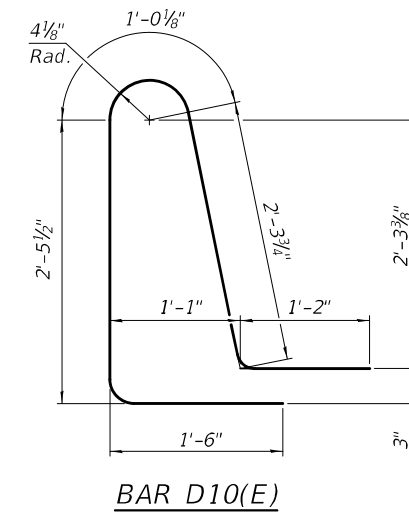
**SECTION G-G**  
(Showing dimensions)



**SECTION F-F**  
(Showing reinforcement)



**SECTION G-G**  
(Showing reinforcement)



**BAR D10(E)**

**BAR LIST**  
**EACH EXTERIOR BEAM**

(For information only)

Bar	No.	Size	Length	Shape
A20(E)	21	#5	6'-4"	┌──┐
A21(E)	11	#4	5'-5"	┌──┐
A22(E)	17	#5	4'-11"	┌──┐
A23(E)	31	#7	4'-7"	┌──┐
A24(E)	33	#7	5'-6"	┌──┐
A25(E)	3	#5	6'-11"	┌──┐
A26(E)	5	#7	8'-0"	┌──┐
A27(E)	2	#4	2'-9"	┌──┐
A28(E)	1	#5	6'-4"	┌──┐
A29(E)	1	#7	6'-10"	┌──┐
A30(E)	1	#5	5'-4"	┌──┐
A31(E)	1	#7	5'-10"	┌──┐
B10(E)	7	#5	29'-0"	┌──┐
B11(E)	9	#9	29'-7"	┌──┐
B12(E)	1	#5	14'-6"	┌──┐
B13(E)	1	#5	14'-0"	┌──┐
B14(E)	1	#9	14'-6"	┌──┐
B15(E)	1	#9	14'-0"	┌──┐
D10(E)	23	#5	8'-6"	┌──┐
U10(E)	8	#5	5'-2"	┌──┐

(Sheet 5 of 6)

MODEL: 74562-022  
FILE NAME: p:\w\idol-pw\benley.com\FWIDOT\Documents\DOT Offices\Bureau of Bridges and Structures\Projects\0120076\CADD Plans\0120076-74562.dgn

DESIGNED - ZACHARY T. BULVA  
CHECKED - CRYSTAL D. STONE/JOSHUA S. FLAIG  
DRAWN - ALAN JOHNSTONE  
CHECKED - Z.T.B./C.D.S./J.S.F.

EXAMINED  
PASSED

*Mark Shuffler*  
ENGINEER OF BRIDGE DESIGN  
*Jaime F. ...*  
ENGINEER OF BRIDGES AND STRUCTURES

DATE - OCTOBER 16, 2023  
REVISED -  
REVISED -

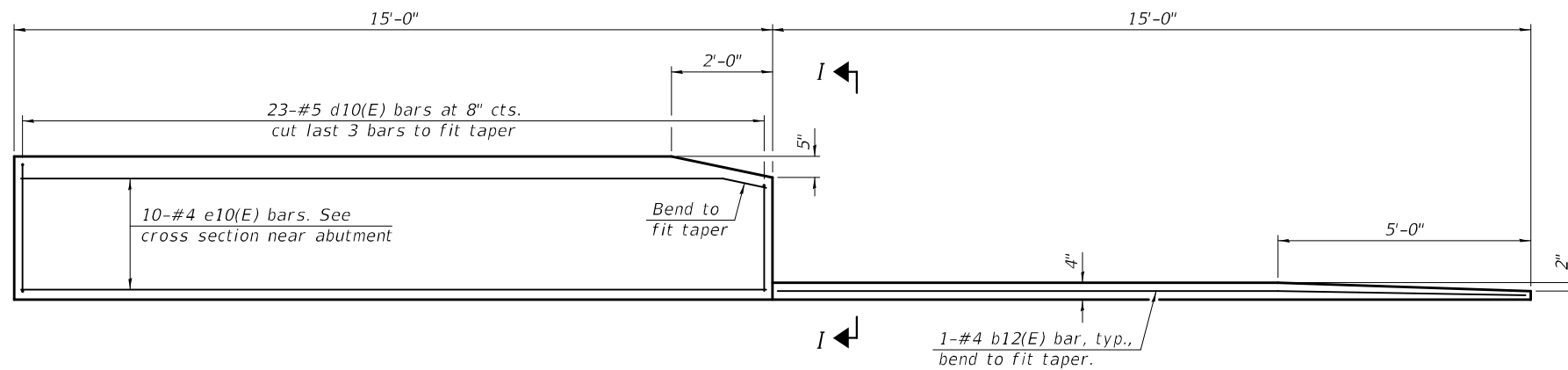
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**FULL DEPTH PRECAST BRIDGE APPROACH SLAB**  
**STRUCTURE NO. 012-0076**

SHEET 15 OF 32 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1707	(CX-B)B	CLARK	52	22
CONTRACT NO. 74562				
ILLINOIS FED. AID PROJECT				

10/18/2023 9:05:06 AM



**INSIDE ELEVATION OF CAST-IN-PLACE  
PARAPET AND CAST-IN-PLACE CURB**

**Notes:**

The Full Depth Precast Bridge Approach Slab shall be according to Section 504 of the Standard Specifications and shall be paid for at the contract unit price per square foot for Full Depth Precast Bridge Approach Slab. Cost includes reinforcement bars (epoxy coated), fabric adjusting shims, bearing pads, dowel rods, cellular polystyrene, grout, and Ultra-High Performance Concrete.

Cast-in-place substitution or Precast Bridge Approach Slab substitution for Full Depth Precast Bridge Approach Slab is not allowed.

The beams shall be cast with PC concrete according to Section 504, 1020 and 1042 of the Standard Specifications. Self-Consolidating Concrete (SCC) may be used for interior beams. SCC may be used for monolithic casting of the exterior beams, subject to the approval of the Bureau of Bridges and Structures. Shop drawings for exterior beams using SCC shall include lifting and handling procedures accompanied with calculations sealed by a Structural Engineer.

After Full Depth Precast Bridge Approach Slabs have been erected, holes shall be drilled into abutment and anchor dowels placed. Dowel holes shall be filled with non-shrink grout to top of precast slab and cured according to Article 1020.13(a)(3) or 1020.13(a)(5) of the Standard Specifications for a minimum of 24 hours before casting the longitudinal joints.

Two 1/8" fabric adjusting shims of the dimensions of the bearing pad shall be provided for each bearing pad location.

A minimum of two 1/2" Ø lifting pins shall be used to engage the lifting loops during handling.

The joint opening shall be adjusted for temperature per Article 520.04 of the Standard Specifications. However, since this detail is for jointless structures, the length of the bridge used to calculate the adjustment shall be equal to half the total bridge length plus the length of the bridge approach slab.

Compressive strength of precast concrete, f'c, shall be 5000 psi.

The bridge approach footing maximum applied service bearing pressure Qmax = 2.0 ksf.

For Granular Backfill for Structures and drainage treatment details, see sheet 2 of 32.

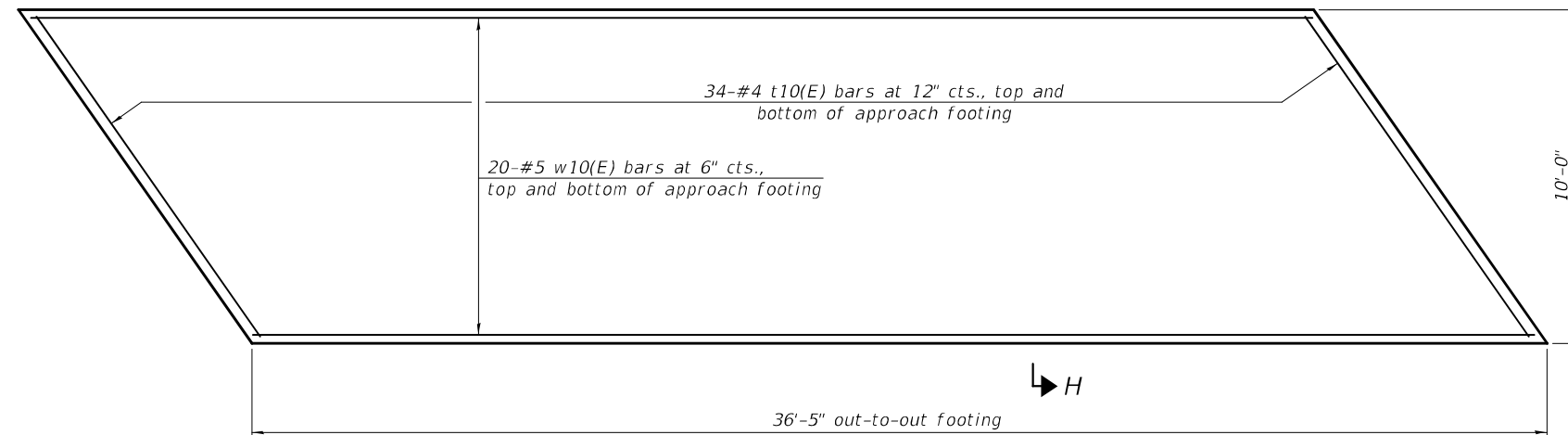
Parapet and curb concrete shall be paid for as Concrete Superstructures.

Approach footing concrete shall be paid for as Concrete Structures.

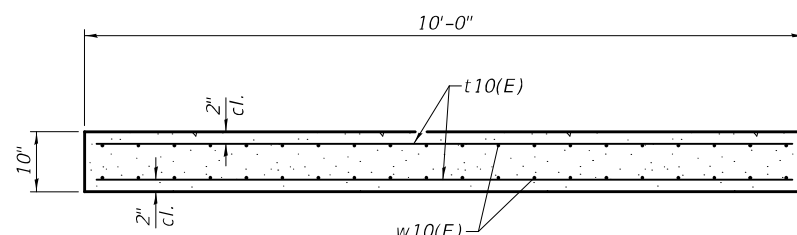
Cost of excavation for approach footing included with Concrete Structures.

The strip seal shall extend 6" beyond the edge of the approach slab on each end.

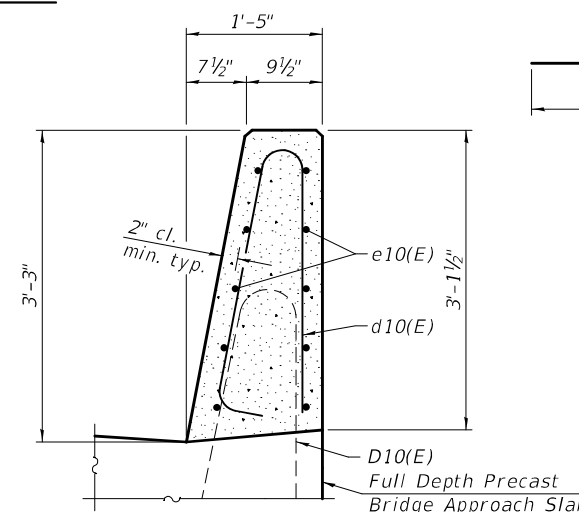
Any precast surface to be bonded with UHPC shall be prepared at the production facility by washing with water under pressure or by sandblasting to expose clean, well bonded aggregate to an amplitude of 1/4" in. (6mm). To facilitate the removal of the cement paste, the forms in contact with the surface shall be thoroughly covered with a surface retarder suitable for vertical surfaces, that delays the set of concrete and shall be approved by the Engineer.



**PLAN**

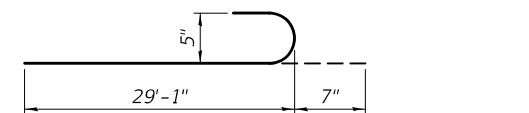


**SECTION H-H**

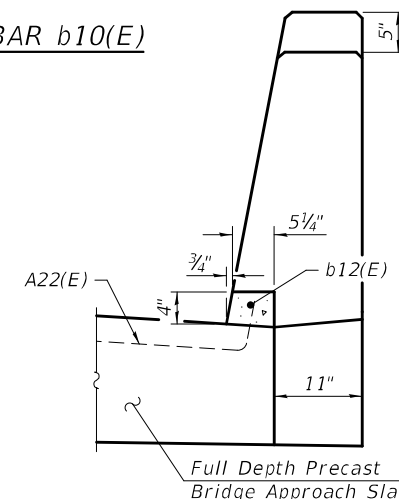


**SECTION THRU  
CAST-IN-PLACE PARAPET**

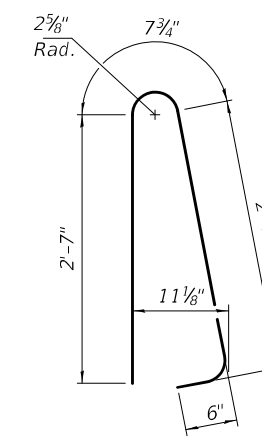
Bar D10(E) is cast in precast approach slab, bridge parapet shall be cast in place after UHPC has been adequately cured.



**BAR b10(E)**



**SECTION I-I**



**BAR d10(E)**

**TWO APPROACHES  
BILL OF MATERIALS**

Bar	No.	Size	Length	Shape
a10(E)	4	#5	36'-0"	—
b10(E)	10	#5	29'-8"	—
b11(E)	10	#9	29'-7"	—
b12(E)	4	#4	14'-8"	—
d10(E)	92	#5	6'-5"	—
e10(E)	40	#4	14'-8"	—
t10(E)	136	#4	10'-8"	—
w10(E)	80	#5	36'-1"	—
Concrete Structures			Cu. Yd.	22.6
Concrete Superstructure			Cu. Yd.	8.2
Reinforcement Bars, Epoxy Coated			Pound	6490
Full Depth Precast Bridge Approach Slab			Sq. Ft.	1804

(Sheet 6 of 6)

MODEL: 74562-023  
FILE NAME: p:\w\idol-pw\wendley.com\FWIDOT\Documents\Bureau of Bridges and Structures\Projects\0120076\CADD Plans\0120076-74562.dgn

DESIGNED -	ZACHARY T. BULVA
CHECKED -	CRYSTAL D. STONE/JOSHUA S. FLAIG
DRAWN -	ALAN JOHNSTONE
CHECKED -	Z.T.B./C.D.S./J.S.F.

EXAMINED	<i>Mark Shuffler</i> ENGINEER OF BRIDGE DESIGN
PASSED	<i>Jayne F. Hoff</i> ENGINEER OF BRIDGES AND STRUCTURES

DATE -	OCTOBER 16, 2023
REVISED -	
REVISED -	

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

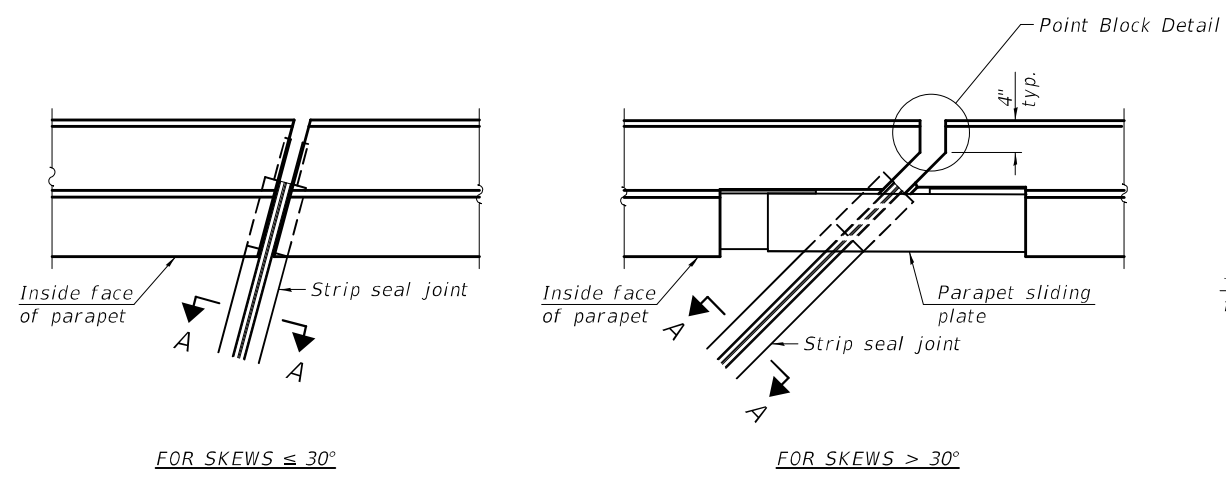
**FULL DEPTH PRECAST BRIDGE APPROACH SLAB  
STRUCTURE NO. 012-0076**

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1707	(CX-B)B	CLARK	52	23
CONTRACT NO. 74562				
ILLINOIS FED. AID PROJECT				

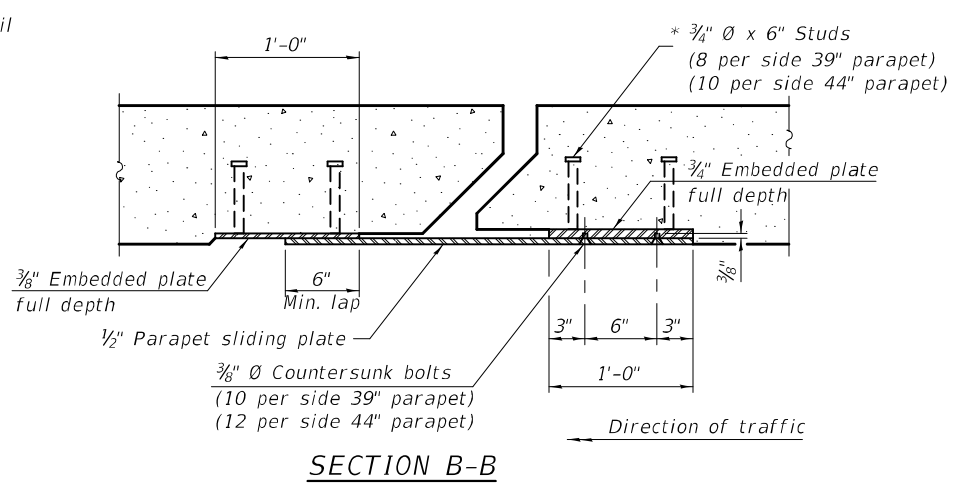
SHEET 16 OF 32 SHEETS

10/18/2023 9:05:07 AM

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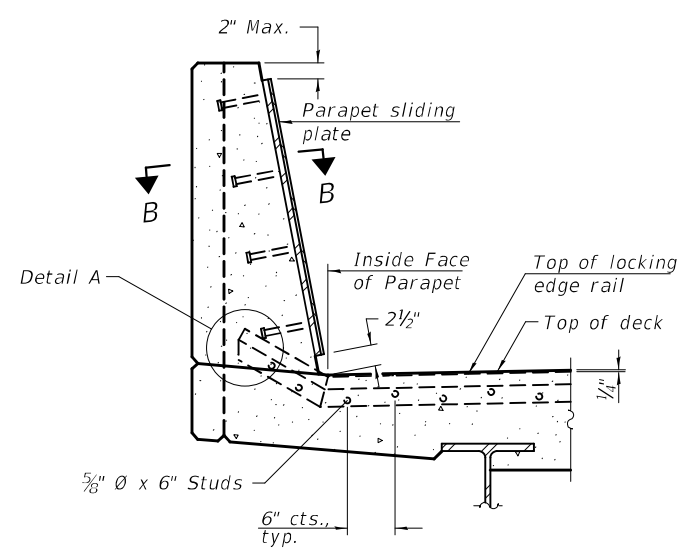


**PLAN AT PARAPET**



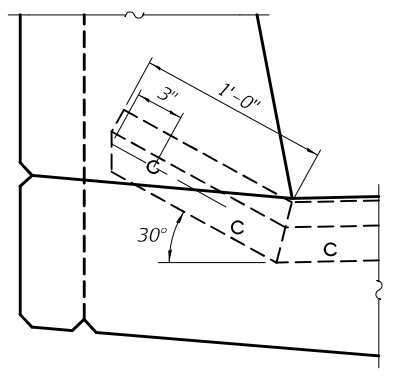
**SECTION B-B**

**Notes:**  
 The strip seal shall be made continuous and shall have a minimum thickness of 1/4". The configuration of the strip seal shall match the configuration of the locking edge rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches.  
 The locking edge rails depicted are configured for typical applications and are conceptual only. The actual configuration of the locking edge rails and matching strip seal may vary from manufacturer to manufacturer provided they fit the application and meet the minimum anchorage shown. Flanged edge rails, however, will not be allowed. Locking edge rails may exceed the 4 1/2" maximum depth provided the anchorage system is revised according to the manufacturer's recommendation.  
 The manufacturer's recommended installation methods shall be followed.  
 All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.  
 The Maximum space between locking edge rail segments shall be 3/16" and sealed with a suitable sealant; however, any rail joint within 10' measured perpendicular to the face of the curb or parapet shall be welded as shown in the locking edge rail splice detail.  
 Cost of parapet sliding plates, embedded plates, and anchorage studs included with Preformed Joint Strip Seal.  
 39" constant slope barrier shown, 44" constant slope barrier similar as noted.  
 The concrete opening below the strip seal will vary based on the locking edge rail chosen by the Contractor. Deck and parapet lengths shown elsewhere in the plans are dimensioned to the concrete opening, not the joint opening, and are based on the rolled locking edge rail. If the Contractor elects to use a different locking edge rail, dimensional adjustments may be required. One exception to this would be the strip seal joint at the end of the precast bridge approach slab. For these cases the pavement connector length shall be adjusted, not the length of the bridge approach slab.

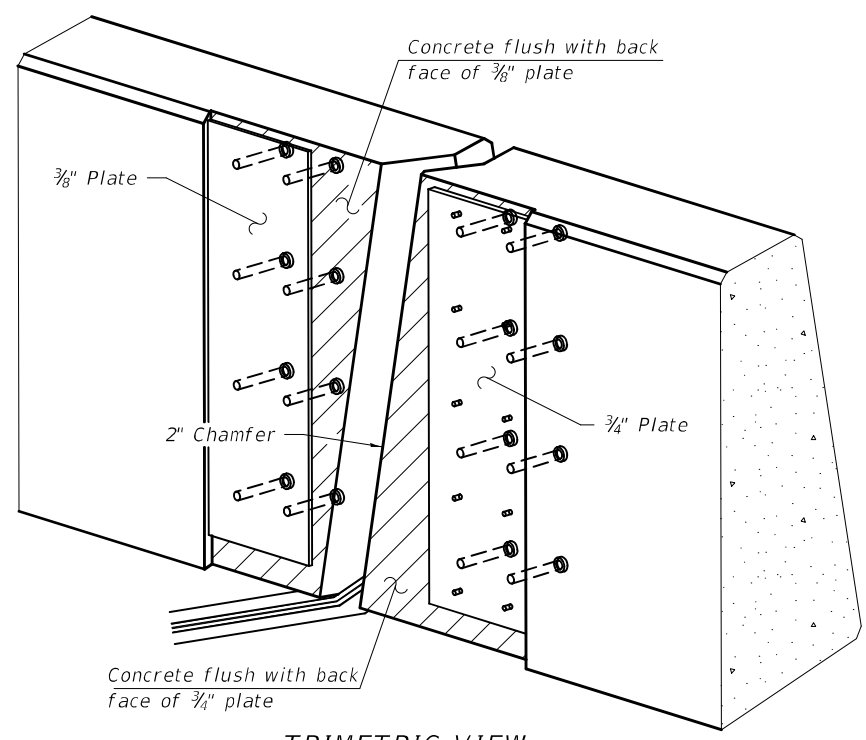


**SECTION AT PARAPET**

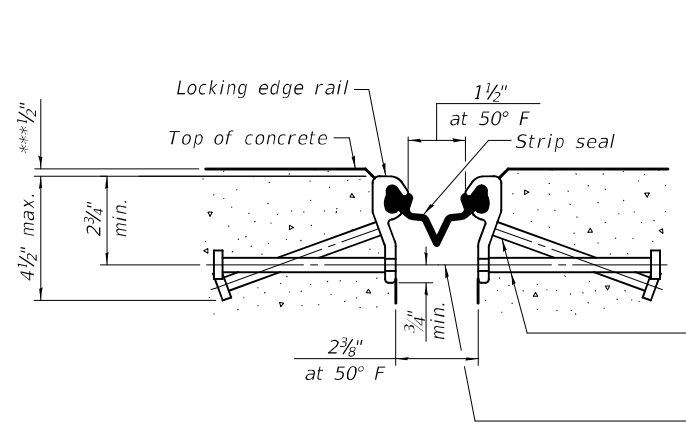
(Skews > 30° shown. Skews ≤ 30° similar except as shown in plan view.)



**DETAIL A**



**TRIMETRIC VIEW**  
(Showing embedded plates only)

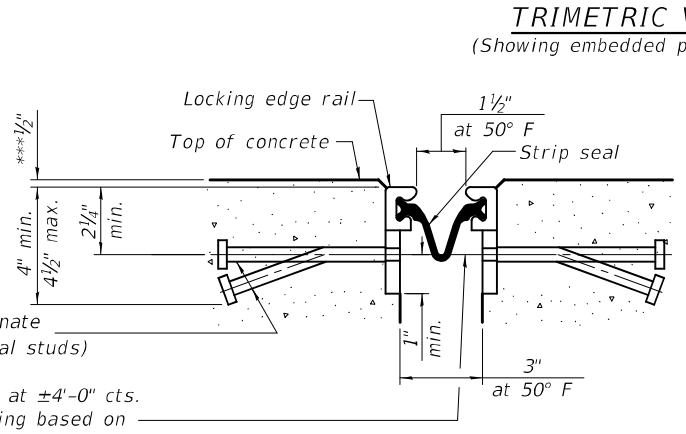


**SHOWING ROLLED RAIL JOINT**

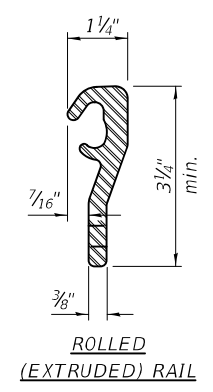
\* 5/8" Ø x 6" studs @ 6" cts. (alternate angled/bent studs with horizontal studs)  
 3/8" Ø threaded rods in 1/16" Ø holes at ±4'-0" cts. for holding the proper joint opening based on the temperature during the deck pour. Place to miss studs. All rods shall be burned, or sawed off flush with the plates after concrete is set.

**SECTION A-A**

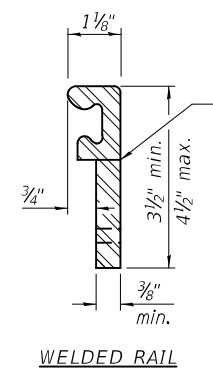
\* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.



**SHOWING WELDED RAIL JOINT**



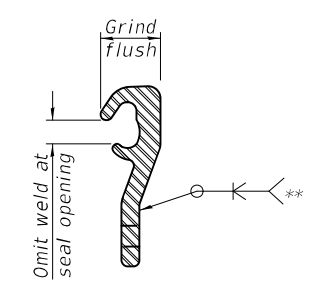
**ROLLED (EXTRUDED) RAIL**



**WELDED RAIL**

**LOCKING EDGE RAILS**

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



**LOCKING EDGE RAIL SPLICE**

The inside of the locking edge rail groove shall be free of weld residue. Rolled rail shown, welded rail similar.

**BILL OF MATERIAL**

Item	Unit	Total
Preformed Joint Strip Seal	Foot	73

DESIGNED - ZACHARY T. BULVA	EXAMINED - <i>Mark Shuffler</i>
CHECKED - CRYSTAL D. STONE/JOSHUA S. FLAIG	PASSED - <i>Jayne F. Hoff</i>
DRAWN - ALAN JOHNSTONE	
CHECKED - Z.T.B./C.D.S./J.S.F.	

DATE - OCTOBER 16, 2023
REVISIONS
REVISIONS

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**MODIFIED PREFORMED JOINT STRIP SEAL**  
**STRUCTURE NO. 012-0076**

SHEET 17 OF 32 SHEETS

F.A.S. RTE. 1707	SECTION (CX-B)B	COUNTY CLARK	TOTAL SHEETS 52	SHEET NO. 24
CONTRACT NO. 74562				
ILLINOIS FED. AID PROJECT				

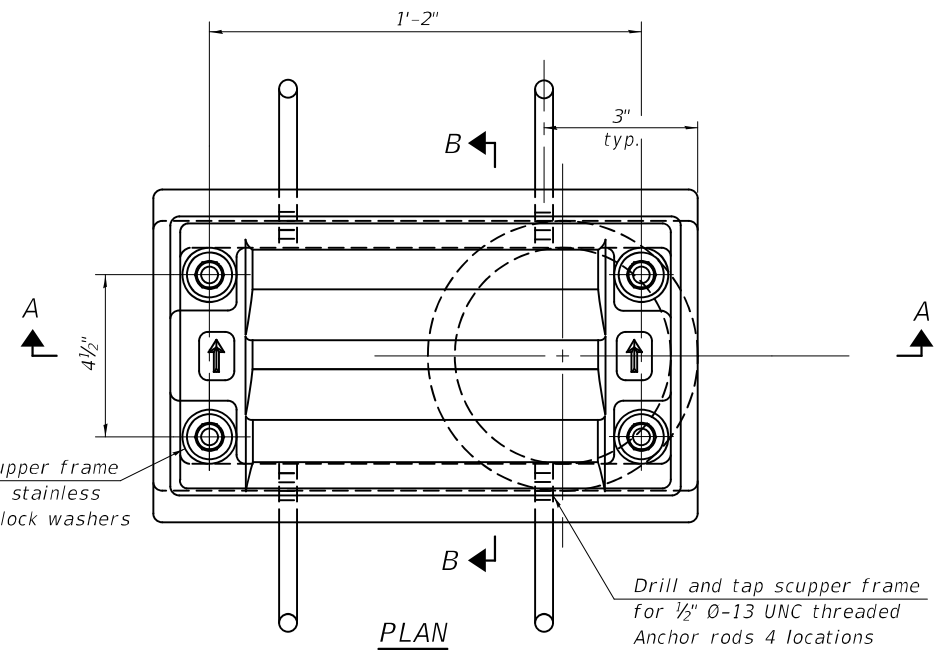


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DS-11

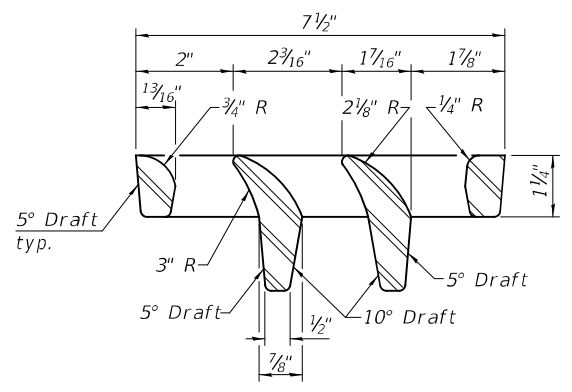
2-1-2023

Drill and tap scupper frame for 1/2" Ø-13 UNC stainless steel bolts with lock washers 4 locations

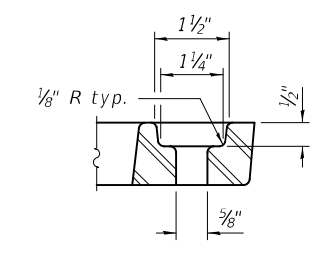


PLAN

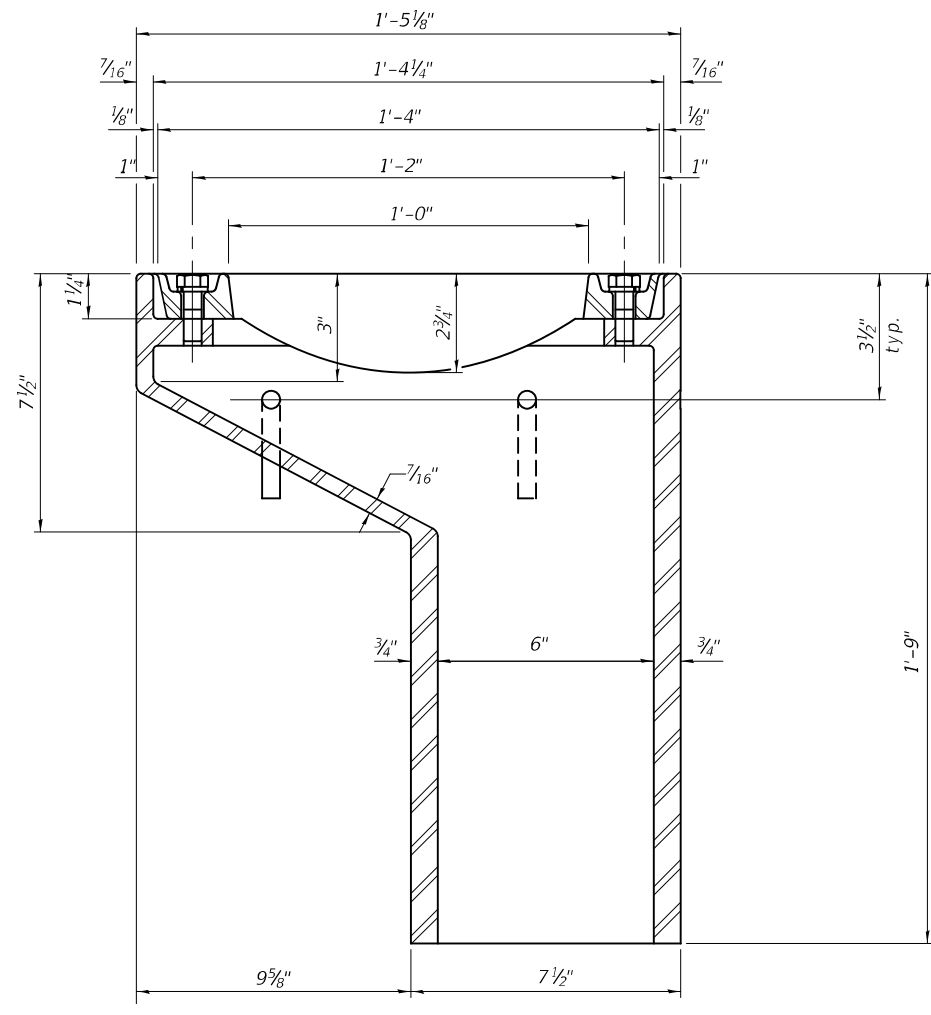
Drill and tap scupper frame for 1/2" Ø-13 UNC threaded Anchor rods 4 locations



VANE GRATE DETAIL

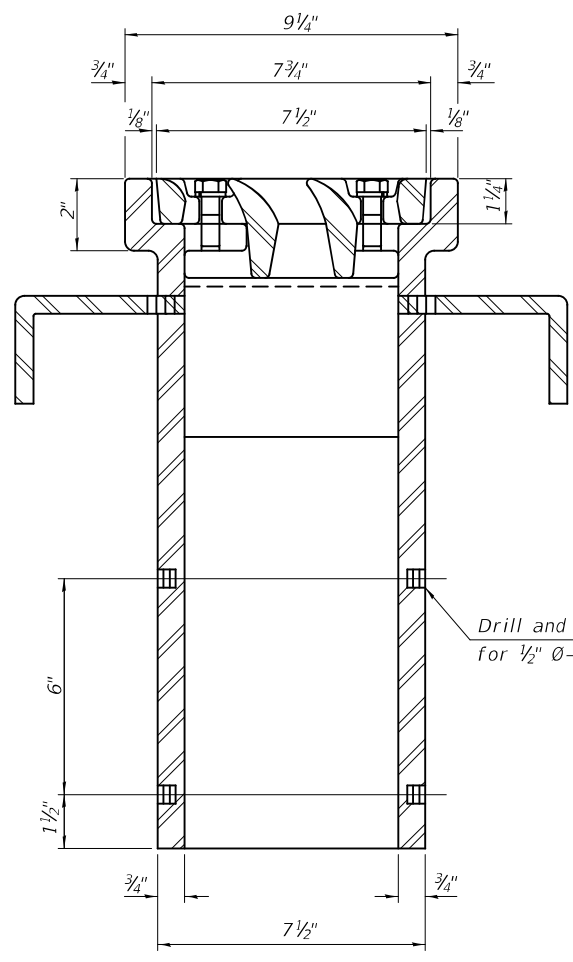


GRATE BOLT HOLE DETAIL



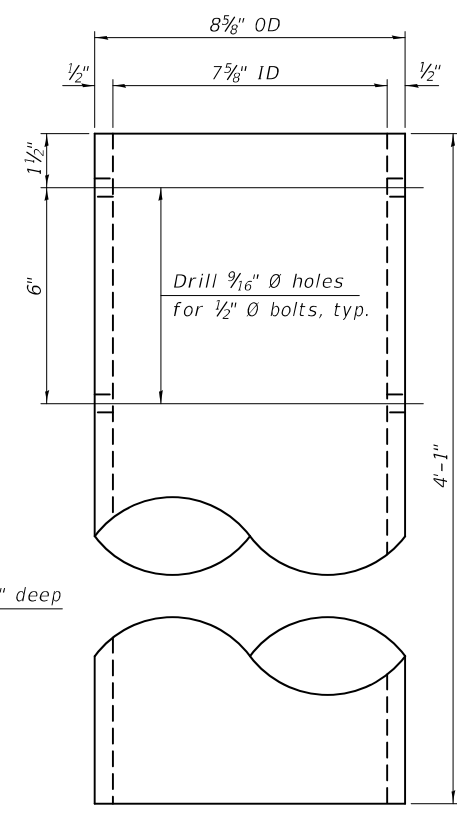
SECTION A-A

See sheet 9 of 32 for scupper location relative to parapet.

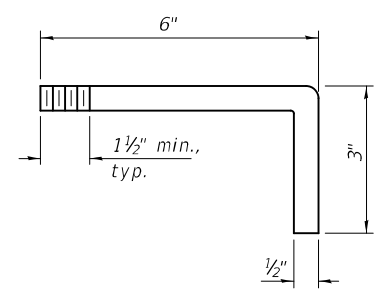


SECTION B-B

Drill and tap 4 holes 1/2" deep for 1/2" Ø-13 UNC bolts.



DOWNSPOUT



ANCHOR ROD DETAIL

Notes:  
 All cast iron parts shall be gray iron conforming to the requirements of AASHTO M105, Class 35B and AASHTO M306.  
 Bolts, anchor rods, nuts and washers shall be according to ASTM A307 and shall be galvanized according to AASHTO M232. As an alternate stainless steel may be used.  
 Stainless steel hardware shall be according to Article 1006.29(d) of the Standard Specifications.  
 Structural steel weldments of equal sections and of the same configuration may be substituted for the cast iron scupper frames and downspouts; however, the scupper grates shall remain cast iron. Fillet or full penetration welds shall be used for the weldments. Details shall be submitted to the Engineer for approval.  
 Structural steel scupper frames and downspouts, when utilized, shall be galvanized according to AASHTO M111.  
 As an alternate, fiberglass may be used for downspouts according to ASTM D2996 with a short-time rupture strength hoop tensile stress of 30,000 psi min. in lieu of the cast iron or structural steel.  
 Exterior surfaces of downspouts and exterior exposed surfaces of the scupper frame below deck shall be pigmented or painted to match the color of the adjacent beam.  
 The Contractor shall take appropriate measures to assure that Protective Coat is not applied to the scupper.  
 Cost of the grate, frame, downspout, anchor rods, nuts and washers including complete installation of the scupper shall be paid for at the contract unit price for Drainage Scuppers, DS-11.

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Drainage Scuppers, DS-11	Each	8

DESIGNED - ZACHARY T. BULVA  
 CHECKED - CRYSTAL D. STONE/JOSHUA S. FLAIG  
 DRAWN - ALAN JOHNSTONE  
 CHECKED - Z.T.B./C.D.S./J.S.F.

EXAMINED  
 PASSED  
 Mark Shuffler  
 ENGINEER OF BRIDGE DESIGN  
 Jayne F. Schuff  
 ENGINEER OF BRIDGES AND STRUCTURES

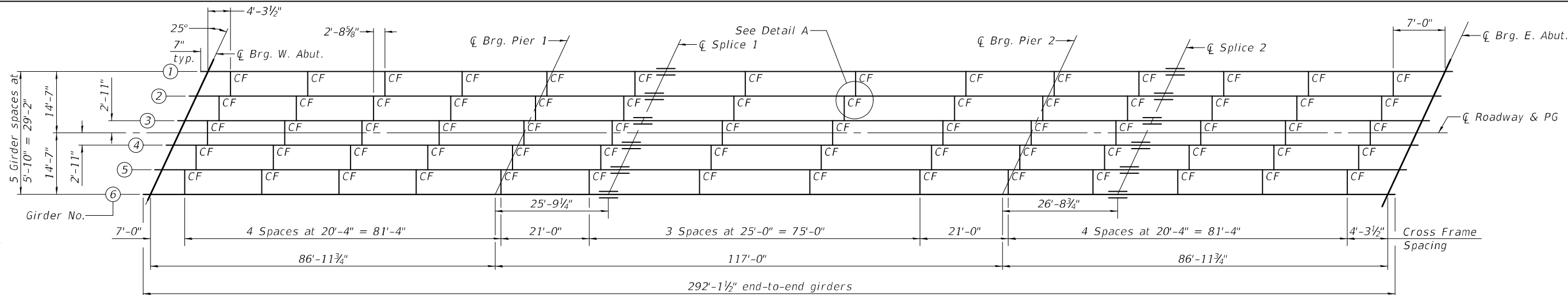
DATE - OCTOBER 16, 2023  
 REVISED -  
 REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

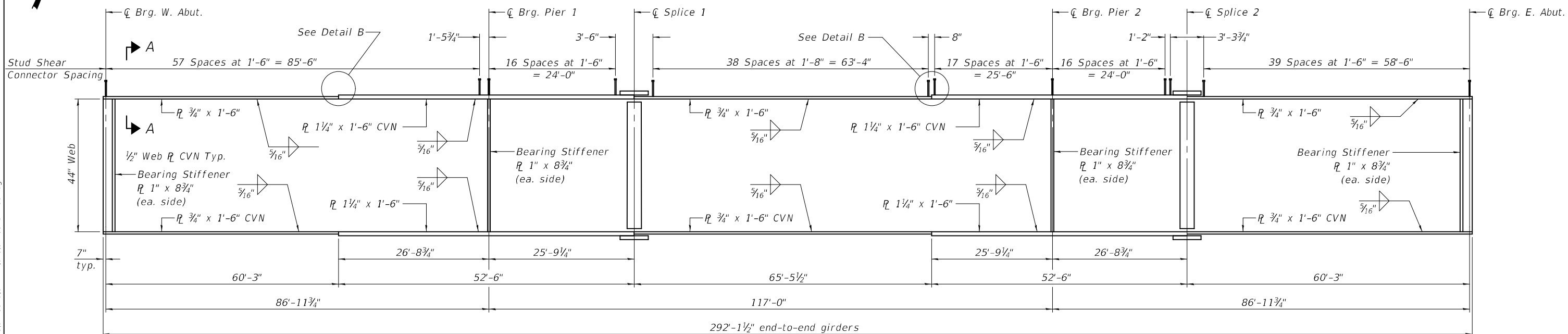
DRAINAGE SCUPPER, DS-11  
 STRUCTURE NO. 012-0076

SHEET 18 OF 32 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1707	(CX-B)B	CLARK	52	25
CONTRACT NO. 74562				
ILLINOIS FED. AID PROJECT				



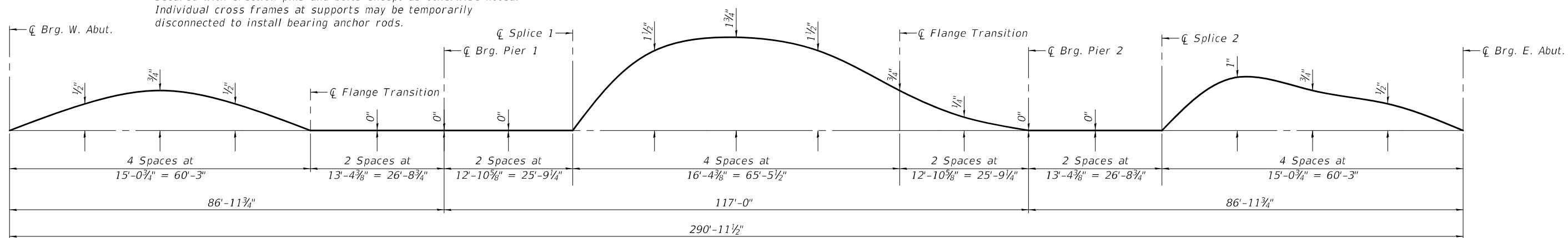
PLAN



GIRDER ELEVATION

Notes:  
 All girder plates, including bearing stiffeners, shall be AASHTO M270, Grade 50.  
 See sheet 20 of 32 for Detail A, Detail B and Section A-A.  
 All cross frames shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted.  
 Individual cross frames at supports may be temporarily disconnected to install bearing anchor rods.

CVN denotes Charpy-V-Notch impact energy requirements, zone 2.



CAMBER DIAGRAM

MODEL: 74562-026  
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 10/18/2023 9:05:08 AM

DESIGNED -	ZACHARY T. BULVA
CHECKED -	CRYSTAL D. STONE/JOSHUA S. FLAIG
DRAWN -	ALAN JOHNSTONE
CHECKED -	Z.T.B./C.D.S./J.S.F.

EXAMINED	<i>Mark Shuffler</i> ENGINEER OF BRIDGE DESIGN
PASSED	<i>James F. ...</i> ENGINEER OF BRIDGES AND STRUCTURES

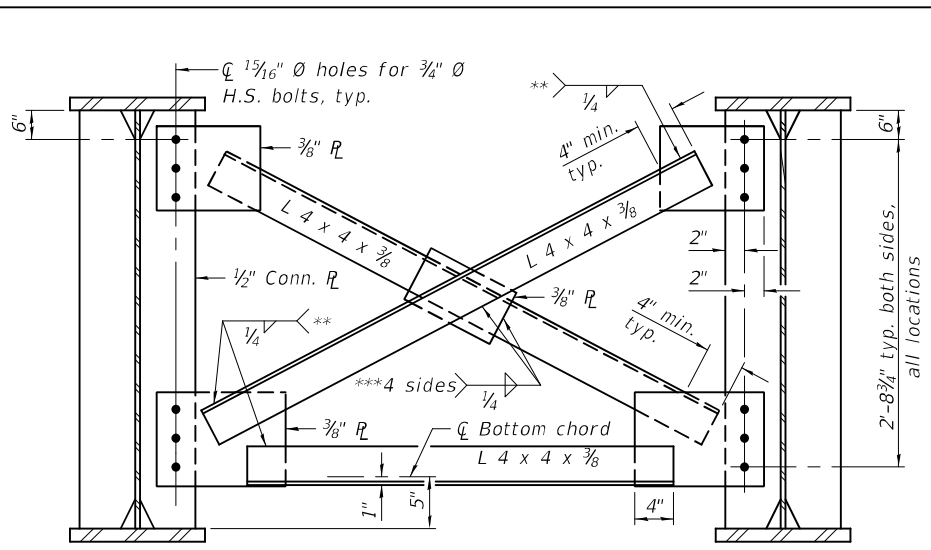
DATE -	OCTOBER 16, 2023
REVISED -	
REVISED -	

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

STRUCTURAL STEEL  
 STRUCTURE NO. 012-0076

SHEET 19 OF 32 SHEETS

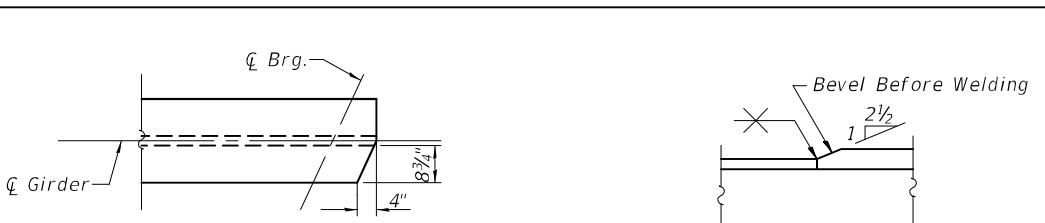
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1707	(CX-B)B	CLARK	52	26
CONTRACT NO. 74562				
ILLINOIS FED. AID PROJECT				



**CROSS-FRAME (CF)**

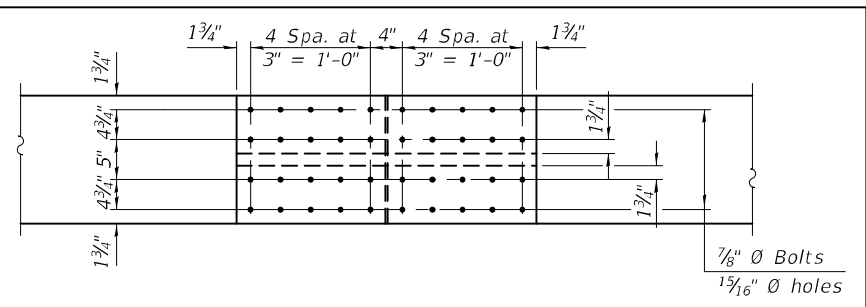
(70 required)

\*\*Fillet weld angles along 3 sides on one face of gusset plate; however, if cross-frames are galvanized, weld all around.  
 \*\*\*If cross-frames are galvanized, weld all-around.

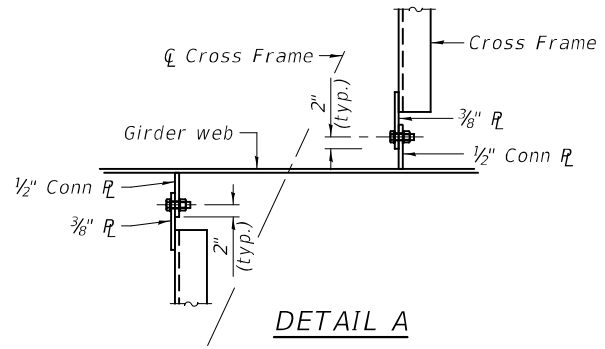


**TOP FLANGE CLIP DETAIL**

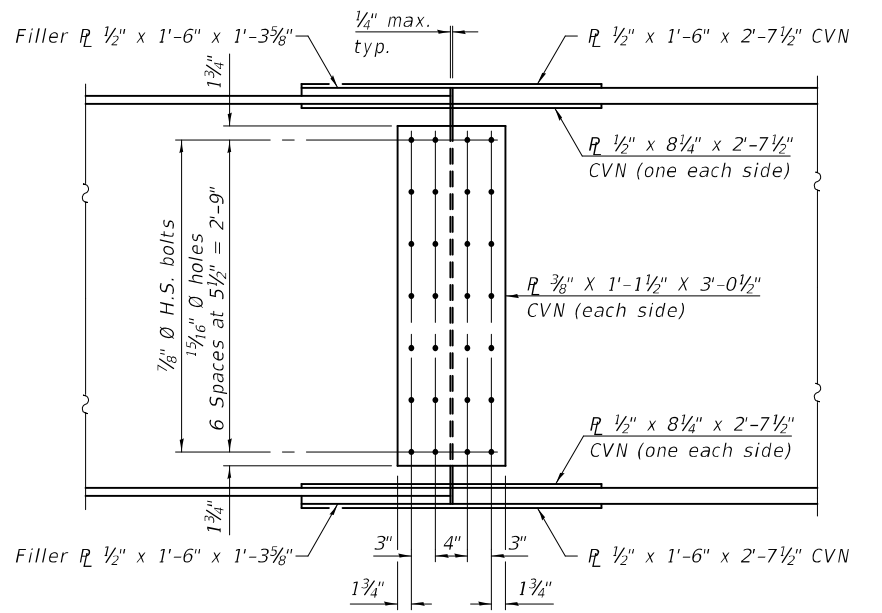
**DETAIL B**



**TOP AND BOTTOM VIEW**



**DETAIL A**

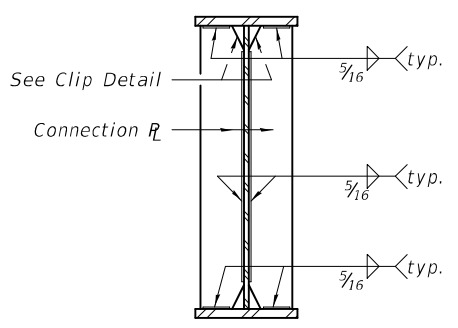


**ELEVATION**

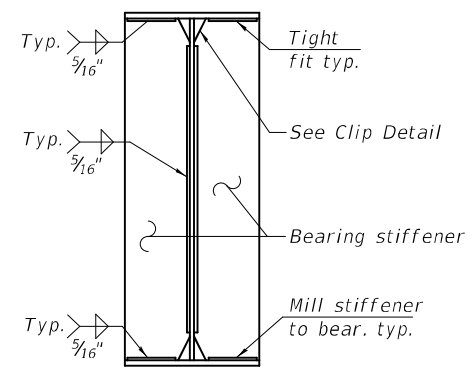
**FIELD SPLICE DETAIL**

(12 Required)

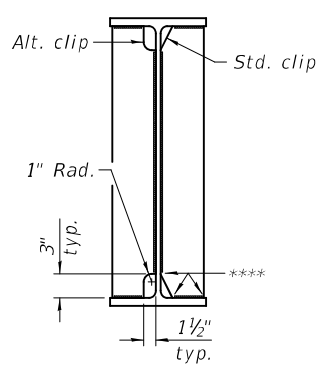
Load carrying components designated "CVN" shall conform to the Charpy-V-Notch Impact Energy Requirement, Zone 2.



**CONNECTION PLATE DETAIL**

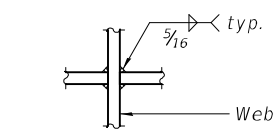


**BEARING STIFFENER DETAIL**

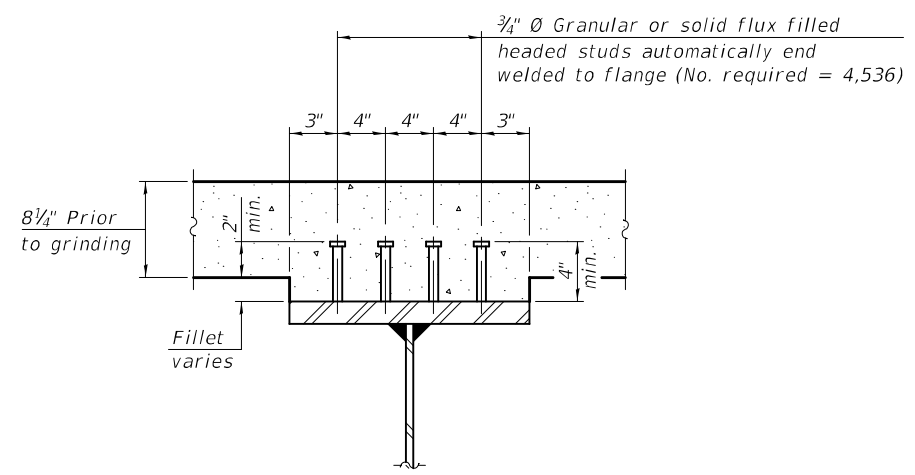


**WELD LIMITS AND CLIP DETAILS**

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



**WEB WELD DETAIL**



**SECTION A-A**

Notes:  
 Two hardened washers required for each set of oversized holes.  
 Omit connection plates on exterior side of exterior girders.

**\* TOP OF WEB ELEVATIONS**

Location	Ø Brg. W. Abut.	Ø Brg. Pier 1	Ø Splice 1	Ø Brg. Pier 2	Ø Splice 2	Ø Brg. E. Abut.
Girder 1	579.97	579.99	580.00	580.08	580.10	580.20
Girder 2	580.07	580.09	580.10	580.17	580.20	580.30
Girder 3	580.15	580.17	580.18	580.26	580.28	580.39
Girder 4	580.15	580.17	580.18	580.26	580.28	580.39
Girder 5	580.06	580.08	580.09	580.17	580.19	580.30
Girder 6	579.96	579.98	579.99	580.07	580.09	580.19

\* For Fabrication use only

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 FILE NAME: p:\w\idol-pw\benley.com\FWIDOT Documents\DOT Offices\Bureau of Bridges and Structures\Projects\0120076\CADD Plans\0120076-74562.dgn

DESIGNED - ZACHARY T. BULVA	EXAMINED - <i>Mark Shuffler</i> ENGINEER OF BRIDGE DESIGN	DATE - OCTOBER 16, 2023
CHECKED - CRYSTAL D. STONE/JOSHUA S. FLAIG	PASSED - <i>James F. ...</i> ENGINEER OF BRIDGES AND STRUCTURES	REVISED -
DRAWN - ALAN JOHNSTONE		REVISED -
CHECKED - Z.T.B./C.D.S./J.S.F.		

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**STRUCTURAL STEEL DETAILS  
 STRUCTURE NO. 012-0076**

SHEET 20 OF 32 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1707	(CX-B)B	CLARK	52	27
CONTRACT NO. 74562				
ILLINOIS FED. AID PROJECT				

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MODEL: 74562-028  
 FILE NAME: p:\w\idol-pw\benley.com\FWIDOT\Documents\DOT Offices\Bureau of Bridges and Structures\Projects\0120076\CADD Plans\0120076-74562.dgn

INTERIOR GIRDER MOMENT TABLE						
	0.4 Span 1	Pier 1	0.5 Span 2	Pier 2	0.6 Span 3	
$I_s$	(in <sup>4</sup> )	17,068	26,590	17,068	26,590	17,068
$I_c(n)$	(in <sup>4</sup> )	40,128	55,094	40,128	55,094	40,128
$I_c(3n)$	(in <sup>4</sup> )	29,946	41,280	29,946	41,280	29,946
$I_c(cr)$	(in <sup>4</sup> )	-	30,807	-	30,807	-
$S_s$	(in <sup>3</sup> )	750	1,144	750	1,144	750
$S_c(n)$	(in <sup>3</sup> )	1,014	1,441	1,014	1,441	1,014
$S_c(3n)$	(in <sup>3</sup> )	930	1,331	930	1,331	930
$S_c(cr)$	(in <sup>3</sup> )	-	1,208	-	1,208	-
$S_x$	(in <sup>3</sup> )	971	-	961	-	971
DC1	(k/')	0.807	0.878	0.807	0.878	0.807
M <sub>DC1</sub>	(k)	351.6	978.1	427.3	978.1	351.6
DC2	(k/')	0.175	0.175	0.175	0.175	0.175
M <sub>DC2</sub>	(k)	78.0	202.2	97.3	202.2	78.0
DW	(k/')	0.292	0.292	0.292	0.292	0.292
M <sub>DW</sub>	(k)	130.1	337.4	162.4	337.4	130.1
LLDF		0.518	0.506	0.493	0.506	0.518
M <sub>ℓ + IM</sub>	(k)	968.4	1,221.3	985.8	1,221.3	968.4
$f_t$ (Strength I)	(ksi)	0.0	0.0	0.0	0.0	0.0
M <sub>u</sub> + 1/3 f <sub>t</sub> S <sub>x</sub>	(k)	2,426.9	-	2,624.5	-	2,426.9
∅ <sub>r</sub> M <sub>n</sub>	(k)	4,970.7	-	4,970.7	-	4,970.7
f <sub>s</sub> DC1	(ksi)	5.62	10.26	6.83	10.26	5.62
f <sub>s</sub> DC2	(ksi)	1.01	2.01	1.26	2.01	1.01
f <sub>s</sub> DW	(ksi)	1.68	3.35	2.10	3.35	1.68
f <sub>s</sub> (ℓ+IM)	(ksi)	11.46	12.13	11.66	12.13	11.46
f <sub>t</sub> (Service II)	(ksi)	0.00	0.00	0.00	0.00	0.00
f <sub>s</sub> + f <sub>t</sub> /2 (Service II)	(ksi)	23.20	31.40	25.35	31.40	23.20
Service II Resistance	(ksi)	47.50	47.50	47.50	47.50	47.50
f <sub>s</sub> + f <sub>t</sub> /3 (Strength I)	(ksi)	-	41.60	-	41.60	-
∅ <sub>r</sub> F <sub>n</sub>	(ksi)	-	50.00	-	50.00	-
V <sub>r</sub>	(k)	30.88	30.96	21.12	30.96	30.88

GIRDER REACTION TABLE				
	W. Abut.	Pier 1	Pier 2	E. Abut.
LLDF	0.658	0.658	0.658	0.658
OCF	1.093	-	-	1.093
R <sub>DC1</sub>	(k)	24.1	97.0	24.1
R <sub>DC2</sub>	(k)	5.3	20.2	5.3
R <sub>DW</sub>	(k)	8.8	33.7	8.8
R <sub>ℓ</sub>	(k)	63.1	113.2	63.1
R <sub>IM</sub>	(k)	14.8	22.0	14.8
R <sub>Total</sub> (Strength I)(Impact)	(k)	186.3	433.7	186.3
R <sub>Total</sub> (Strength I)(No Impact)	(k)	160.4	395.2	160.4

$I_s, S_s$  : 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.<sup>4</sup> and in.<sup>3</sup>).

$I_c(n), S_c(n)$ : 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.<sup>4</sup> and in.<sup>3</sup>).

$I_c(3n), S_c(3n)$ : 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.<sup>4</sup> and in.<sup>3</sup>).

$I_c(cr), S_c(cr)$ : 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.<sup>4</sup> and in.<sup>3</sup>).

$S_x$  : Section modulus about the major axis of a section to the controlling flange, tension or compression, taken as yield moment with respect to the controlling flange over the yield strength of the controlling flange (in.<sup>3</sup>).

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

M<sub>DC1</sub>: 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<sub>DC2</sub>: 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<sub>DW</sub>: 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<sub>ℓ + IM</sub>: Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).

M<sub>u</sub>: Strength I load combination of factored design moments (kip-ft.).  
 1.25 (M<sub>DC1</sub> + M<sub>DC2</sub>) + 1.5 M<sub>DW</sub> + 1.75 M<sub>ℓ + IM</sub>

f<sub>t</sub>: Factored calculated flange lateral bending stress as calculated using Article 6.10.1.6 and as further simplified by IDOT provisions (ksi).

∅<sub>r</sub>F<sub>n</sub>: Factored nominal flexural resistance of the section determined as specified in Article 6.10.7.1 or A6 as applicable (kip-ft.).

f<sub>s</sub> DC1: Un-factored stress at edge of flange for controlling steel flange due to vertical non-composite dead loads as calculated below (ksi).  
 M<sub>DC1</sub> / S<sub>s</sub>

f<sub>s</sub> DC2: Un-factored stress at edge of flange for controlling steel flange due to vertical composite dead loads as calculated below (ksi).  
 M<sub>DC2</sub> / S<sub>c(3n)</sub> or M<sub>DC2</sub> / S<sub>c(cr)</sub> as applicable.

f<sub>s</sub> 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<sub>DW</sub> / S<sub>c(3n)</sub> or M<sub>DW</sub> / S<sub>c(cr)</sub> as applicable.

f<sub>s</sub> (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<sub>ℓ + IM</sub> / S<sub>c(n)</sub> or M<sub>ℓ + IM</sub> / S<sub>c(cr)</sub> as applicable.

f<sub>s</sub> + f<sub>t</sub>/2 (Service II): Sum of stresses as computed below (ksi).  
 f<sub>s</sub> DC1 + f<sub>s</sub> DC2 + f<sub>s</sub> DW + 1.3 f<sub>s</sub> (ℓ + IM) + f<sub>t</sub>/2

Service II Resistance: Composite (0.95R<sub>n</sub>F<sub>y</sub>r) or noncomposite (0.80R<sub>n</sub>F<sub>y</sub>r) stress capacity according to Article 6.10.4.2 (ksi).

f<sub>s</sub> + f<sub>t</sub>/3 (Strength I): Sum of stresses as computed below on non-compact sections (ksi).  
 1.25 (f<sub>s</sub> DC1 + f<sub>s</sub> DC2) + 1.5 f<sub>s</sub> DW + 1.75 f<sub>s</sub> (ℓ + IM) + f<sub>t</sub>/3


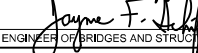
∅<sub>r</sub>F<sub>n</sub>: Factored nominal flexural resistance of the section as specified in Article 6.10.7.2 or 6.10.8 as applicable (ksi).  
 V<sub>r</sub>: Maximum factored shear range in span computed according to Article 6.10.10.

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

R<sub>DC1</sub>: Un-factored reaction due to non-composite dead load (kip).  
 R<sub>DC2</sub>: Un-factored reaction due to long-term composite (superimposed excluding future wearing surface) dead load (kip).  
 R<sub>DW</sub>: Un-factored reaction due to long-term composite (superimposed future wearing surface only) dead load (kip).  
 R<sub>ℓ</sub>: Un-factored live load reaction (kip).  
 R<sub>IM</sub>: Un-factored dynamic load allowance (impact) (kip).

R<sub>Total</sub> (Strength I)(Impact): Strength I load combination of factored design reactions (kip).  
 1.25 (R<sub>DC1</sub> + R<sub>DC2</sub>) + 1.5R<sub>DW</sub> + 1.75 (R<sub>ℓ</sub> + R<sub>IM</sub>)

R<sub>Total</sub> (Strength I)(No Impact): Strength I load combination of factored design reactions, not including dynamic load allowance (Impact) (kip).  
 1.25 (R<sub>DC1</sub> + R<sub>DC2</sub>) + 1.5R<sub>DW</sub> + 1.75 (R<sub>ℓ</sub>)

DESIGNED - ZACHARY T. BULVA	EXAMINED	DATE - OCTOBER 16, 2023
CHECKED - CRYSTAL D. STONE/JOSHUA S. FLAIG		
DRAWN - ALAN JOHNSTONE	PASSED	REVISER -
CHECKED - Z.T.B./C.D.S./J.S.F.		REVISER -

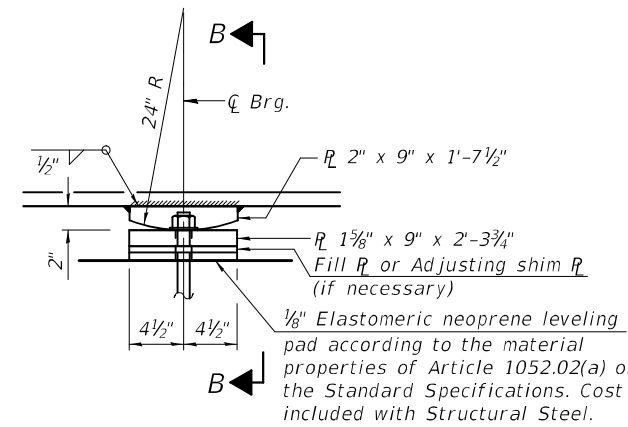
STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

STRUCTURAL STEEL DETAILS  
 STRUCTURE NO. 012-0076

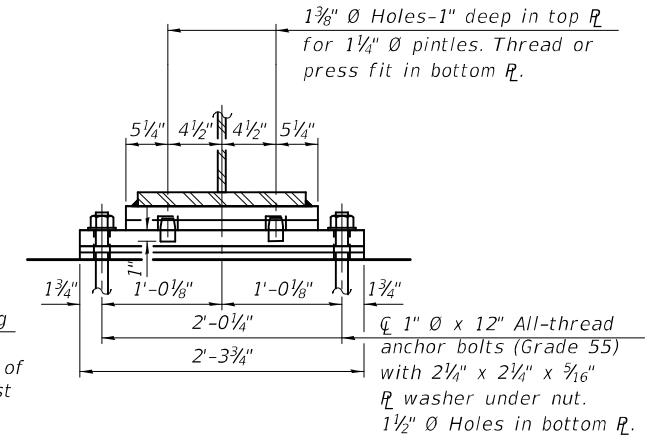
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1707	(CX-B)B	CLARK	52	28
CONTRACT NO. 74562				
SHEET 21 OF 32 SHEETS		ILLINOIS FED. AID PROJECT		

FILL PLATE THICKNESS TABLE

Location	Girder 1	Girder 2	Girder 3	Girder 4	Girder 5	Girder 6
West Abut.	1/8"	1/8"	1/8"	1/8"	1/8"	0
Pier 1	1/8"	1/8"	1/8"	1/8"	0	0
Pier 2	1/8"	1/8"	1/8"	0	0	0
East Abut.	1/8"	1/8"	1/8"	1/8"	0	0

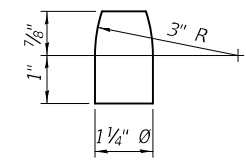


ELEVATION AT PIER

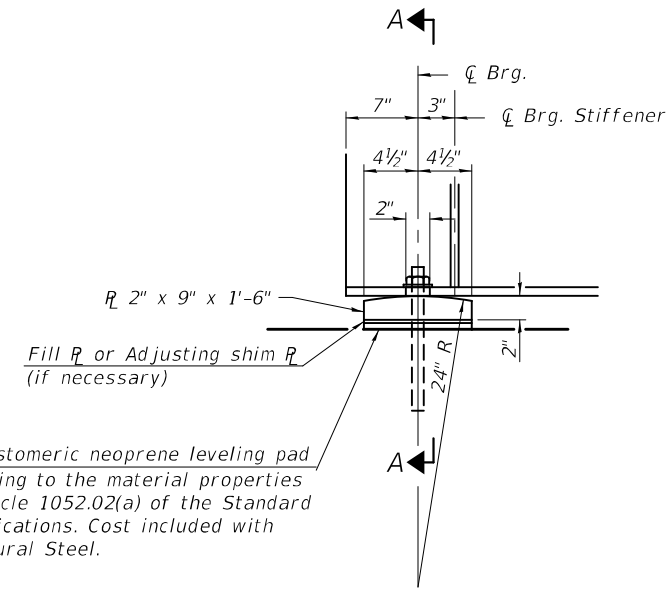


SECTION B-B

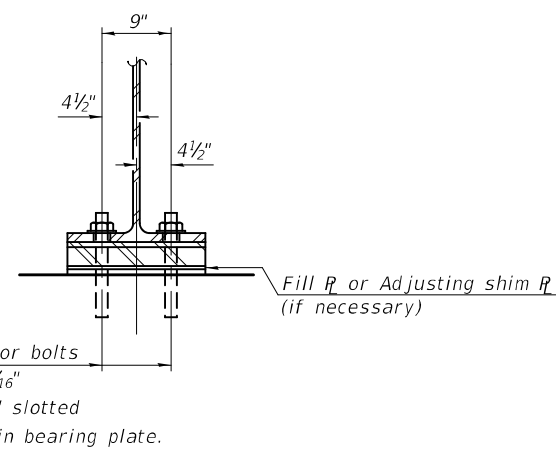
FIXED BEARING  
(12 Required)



PINTLE



ELEVATION AT ABUTMENT



SECTION A-A

FIXED ABUTMENT BEARING  
(12 Required)

Notes:  
 Anchor bolts at all supports shall be installed as each member is erected unless an equivalent temporary means of lateral restraint is used.  
 Two 1/8 in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.  
 The structural steel plates and pintles shall be AASHTO M270, Grade 50.  
 All bearing plates, shim and fill plates, anchor bolts, nuts, washers and pintles shall be galvanized according to AASHTO M111 or M232 as applicable.  
 The anchor bolt sizes and grades shown constitute a calculated seismic structural fuse. Substitution of higher diameter and/or grade anchor bolts will not be allowed.

BILL OF MATERIAL

Item	Unit	Total
Anchor Bolts, 1"	Each	48

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DESIGNED - ZACHARY T. BULVA	EXAMINED
CHECKED - CRYSTAL D. STONE/JOSHUA S. FLAIG	PASSED
DRAWN - ALAN JOHNSTONE	
CHECKED - Z.T.B./C.D.S./J.S.F.	

DATE - OCTOBER 16, 2023  
 Mark Shuffler  
 ENGINEER OF BRIDGE DESIGN  
 Jayne F. [Signature]  
 ENGINEER OF BRIDGES AND STRUCTURES

REVISD -
REVISD -

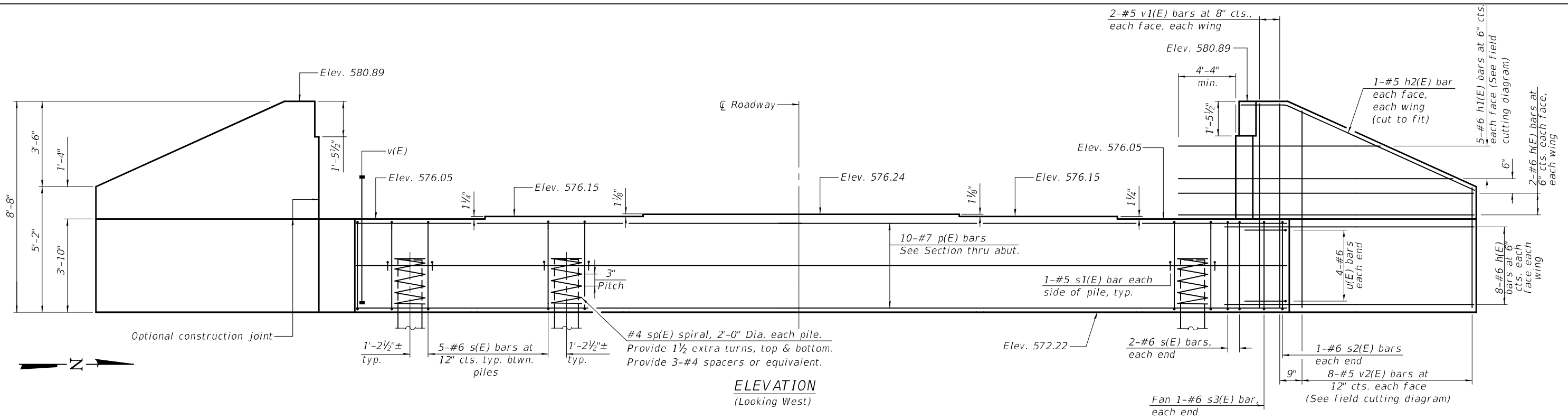
STATE OF ILLINOIS  
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BEARING DETAILS  
 STRUCTURE NO. 012-0076

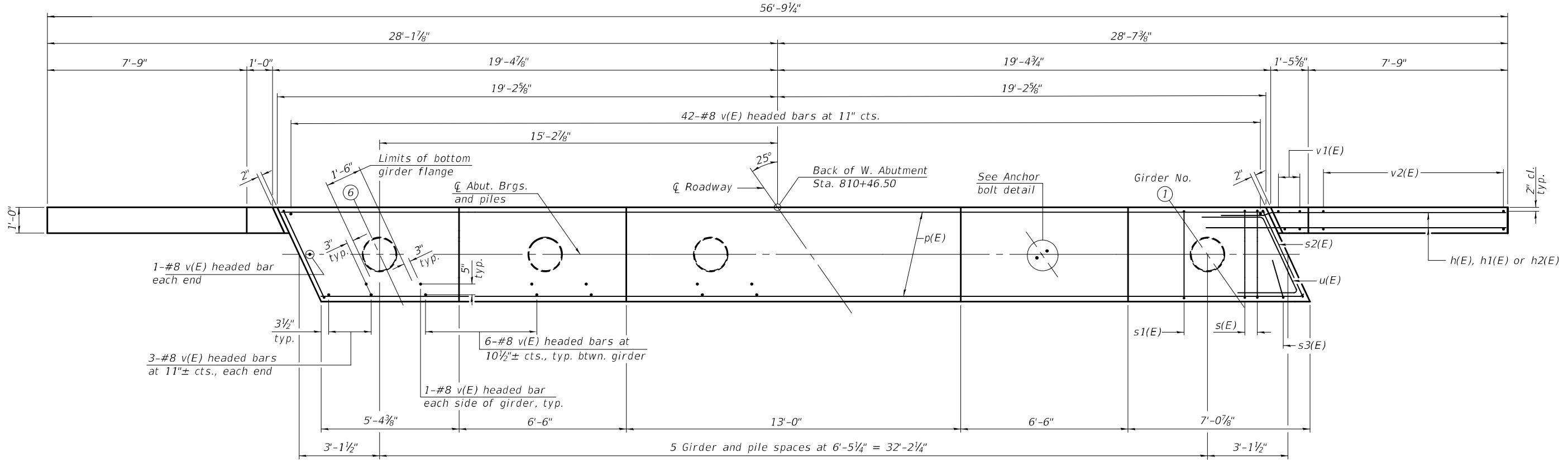
SHEET 22 OF 32 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1707	(CX-B)	CLARK	52	29
CONTRACT NO. 74562				
ILLINOIS FED. AID PROJECT				

10/18/2023 9:05:09 AM



**ELEVATION**  
(Looking West)



**PLAN**

**PILE DATA**  
 Type: MS16x0.375 w/Pile Shoes  
 Nominal Required Bearing: 454k  
 Factored Resistance Available: 250k  
 Est. Length: 35'-0"  
 No. Production Piles: 6  
 No. Test Piles: 0

MODEL: 74562-030  
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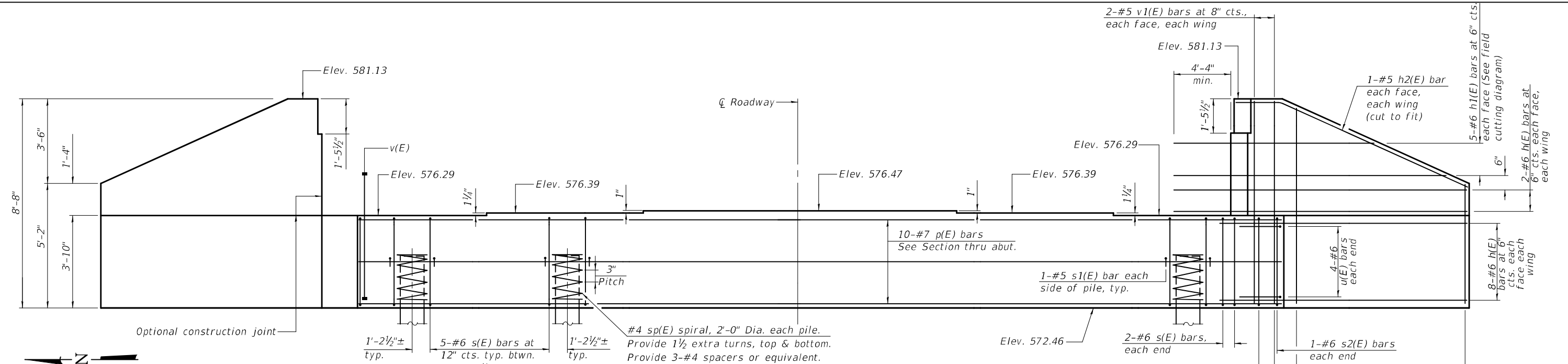
DESIGNED - ZACHARY T. BULVA	EXAMINED - <i>Mark Shuffler</i> ENGINEER OF BRIDGE DESIGN	DATE - OCTOBER 16, 2023
CHECKED - CRYSTAL D. STONE/JOSHUA S. FLAG	PASSED - <i>Jaime F. ...</i> ENGINEER OF BRIDGES AND STRUCTURES	REVISED -
DRAWN - ALAN JOHNSTONE		REVISED -
CHECKED - Z.T.B./C.D.S./J.S.F.		

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

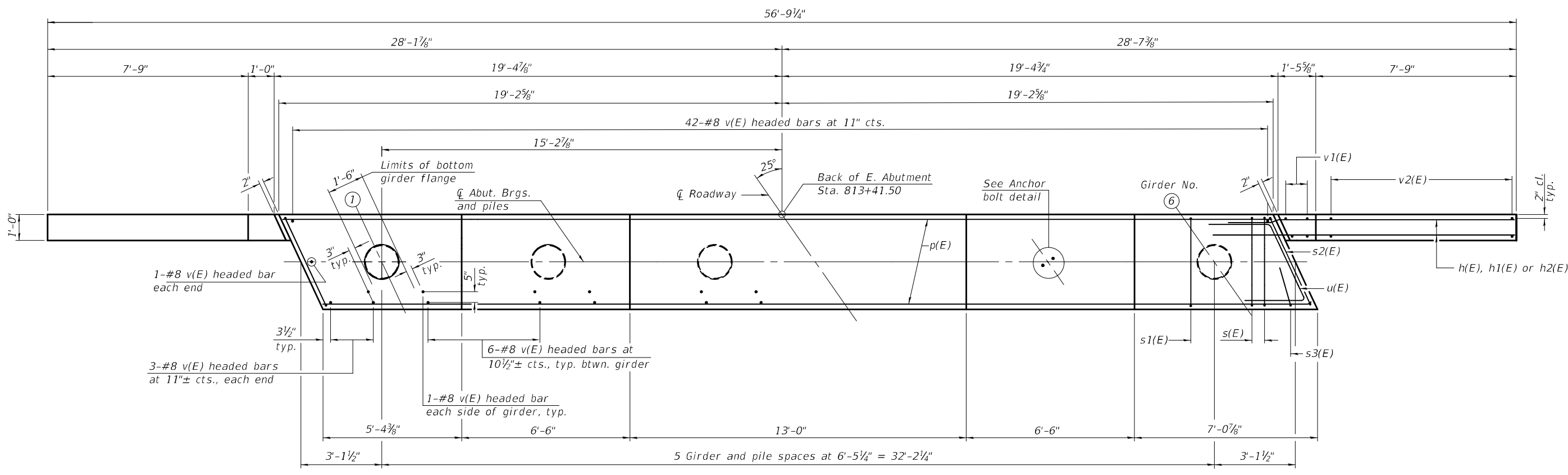
**WEST ABUTMENT**  
**STRUCTURE NO. 012-0076**

SHEET 23 OF 32 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1707	(CX-B)B	CLARK	52	30
CONTRACT NO. 74562				
ILLINOIS FED. AID PROJECT				



**ELEVATION**  
(Looking East)



**PLAN**

**PILE DATA**

Type: MS16x0.375 w/Pile Shoes  
 Nominal Required Bearing: 454k  
 Factored Resistance Available: 250k  
 Est. Length: 46'-0"  
 No. Production Piles: 5  
 No. Test Piles: 1

MODEL: 74562-031  
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DESIGNED - ZACHARY T. BULVA	EXAMINED - <i>Mark Shuffler</i>
CHECKED - CRYSTAL D. STONE/JOSHUA S. FLAG	ENGINEER OF BRIDGE DESIGN
DRAWN - ALAN JOHNSTONE	PASSED - <i>Joey F. Cluff</i>
CHECKED - Z.T.B./C.D.S./J.S.F.	ENGINEER OF BRIDGES AND STRUCTURES

DATE - OCTOBER 16, 2023
REVISED -
REVISED -

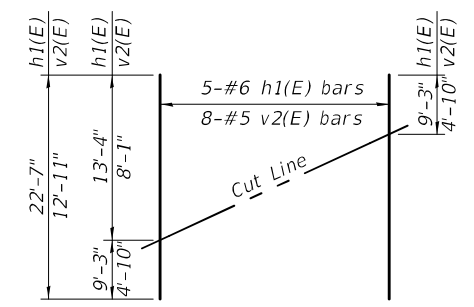
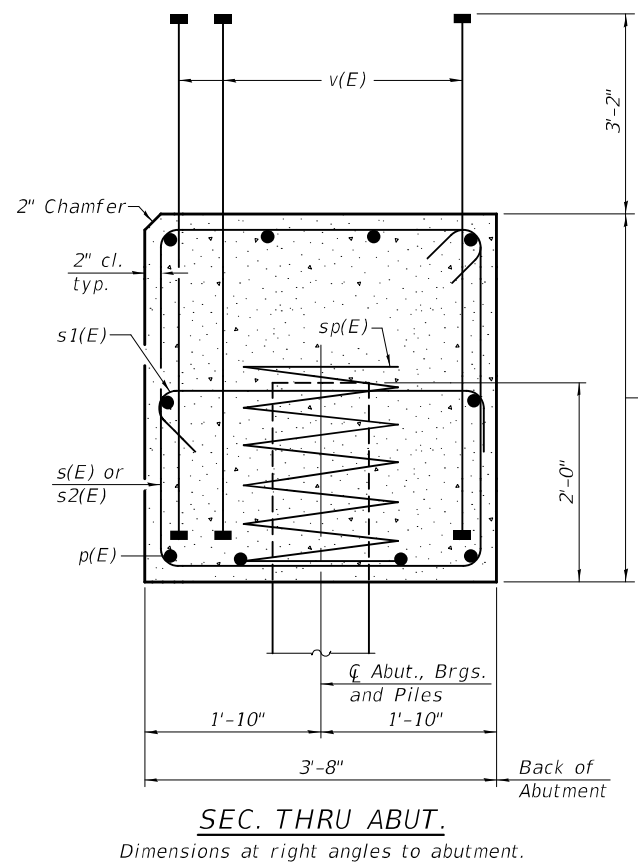
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**EAST ABUTMENT**  
**STRUCTURE NO. 012-0076**

SHEET 24 OF 32 SHEETS

F.A.S. RTE. 1707	SECTION (CX-B)B	COUNTY CLARK	TOTAL SHEETS 52	SHEET NO. 31
CONTRACT NO. 74562				
ILLINOIS FED. AID PROJECT				

MODEL: 74562-032  
 FILE NAME: p:\w\idol-pw\benley.com\FWIDOT\Documents\IDOT Offices\Bureau of Bridges and Structures\Projects\0120076\CADD Plans\0120076-74562.dgn



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

**WEST ABUTMENT  
 BILL OF MATERIAL**

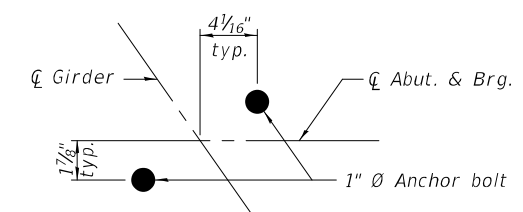
Bar	No.	Size	Length	Shape
h(E)	40	#6	13'-7"	—
h1(E)	10	#6	22'-7"	—
h2(E)	4	#5	9'-8"	—
p(E)	10	#7	38'-1"	—
s(E)	29	#6	15'-0"	□
s1(E)	12	#5	4'-4"	□
s2(E)	2	#6	15'-8"	□
s3(E)	2	#6	10'-4"	□
*sp(E)	6	#4	2'-0"	WWW
u(E)	8	#6	12'-2"	—
v(E)	92	#8	6'-10"	—
v1(E)	8	#5	8'-4"	—
v2(E)	16	#5	12'-11"	—
Structure Excavation	Cu. Yd.		119	
Concrete Structures	Cu. Yd.		25.4	
Reinforcement Bars, Epoxy Coated	Pound		5140	
Furnishing Metal Piles, 16" x 0.375"	Foot		210	
Driving Piles	Foot		210	
Pile Shoes	Each		6	

**EAST ABUTMENT  
 BILL OF MATERIAL**

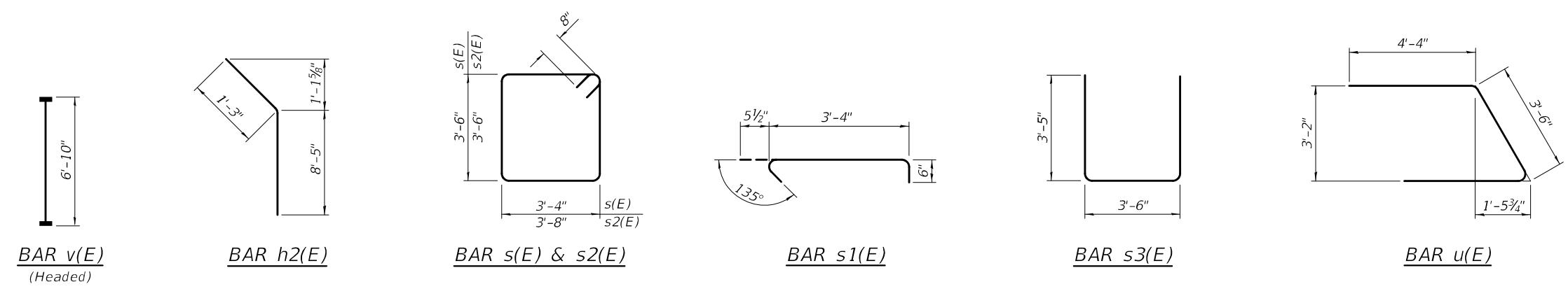
Bar	No.	Size	Length	Shape
h(E)	40	#6	13'-7"	—
h1(E)	10	#6	22'-7"	—
h2(E)	4	#5	9'-8"	—
p(E)	10	#7	38'-1"	—
s(E)	29	#6	15'-0"	□
s1(E)	12	#5	4'-4"	□
s2(E)	2	#6	15'-8"	□
s3(E)	2	#6	10'-4"	□
*sp(E)	6	#4	2'-0"	WWW
u(E)	8	#6	12'-2"	—
v(E)	92	#8	6'-10"	—
v1(E)	8	#5	8'-4"	—
v2(E)	16	#5	12'-11"	—
Structure Excavation	Cu. Yd.		116	
Concrete Structures	Cu. Yd.		25.4	
Reinforcement Bars, Epoxy Coated	Pound		5140	
Furnishing Metal Piles, 16" x 0.375"	Foot		230	
Driving Piles	Foot		230	
Test Pile Metal Shells	Each		1	
Pile Shoes	Each		6	

\*Length is height of spiral.

Notes:  
 Pour steps monolithically with cap.  
 Headed bars shall conform to ASTM A970 with threaded attachment; Class HA; and reinforcement bars conforming to ASTM A706. Cost included with Reinforcement Bars, Epoxy Coated.  
 For details of piles see sheet 29 of 32.



**ANCHOR BOLT DETAIL**



DESIGNED - ZACHARY T. BULVA	EXAMINED - <i>Mark Shuffan</i> ENGINEER OF BRIDGE DESIGN	DATE - OCTOBER 16, 2023
CHECKED - CRYSTAL D. STONE/JOSHUA S. FLAIG	PASSED - <i>Jayne F. [Signature]</i> ENGINEER OF BRIDGES AND STRUCTURES	REVISED -
DRAWN - ALAN JOHNSTONE		REVISED -
CHECKED - Z.T.B./C.D.S./J.S.F.		

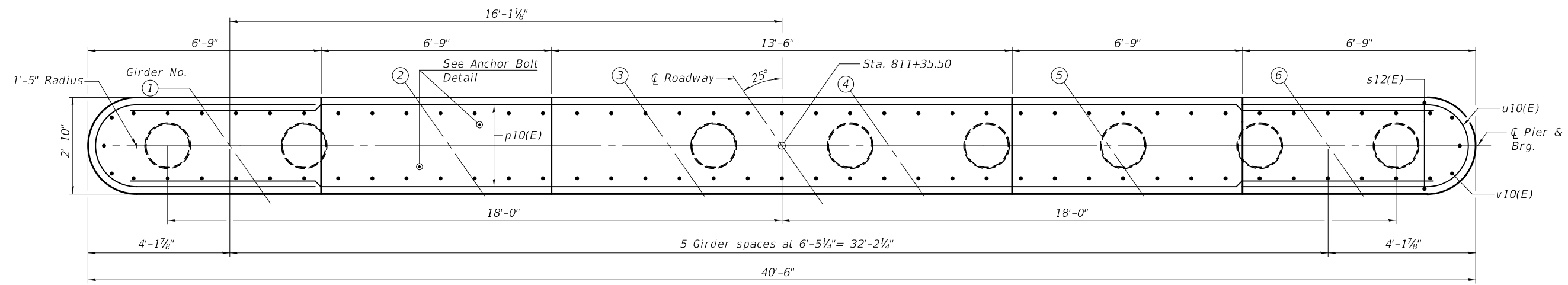
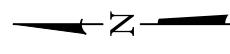
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**ABUTMENT DETAILS  
 STRUCTURE NO. 012-0076**

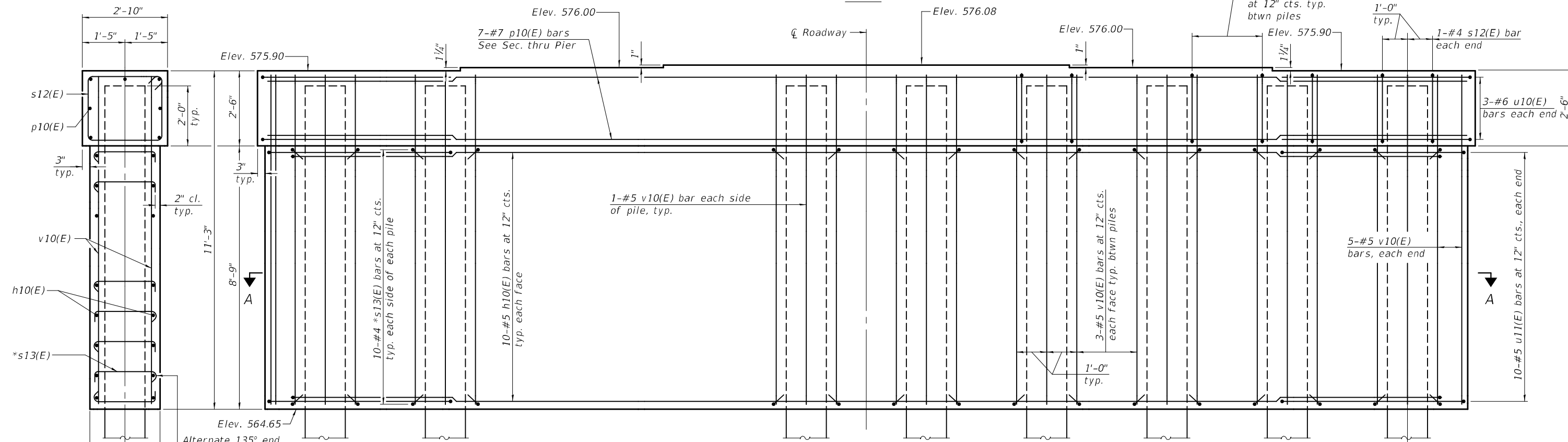
SHEET 25 OF 32 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1707	(CX-B)B	CLARK	52	32
CONTRACT NO. 74562				
ILLINOIS FED. AID PROJECT				



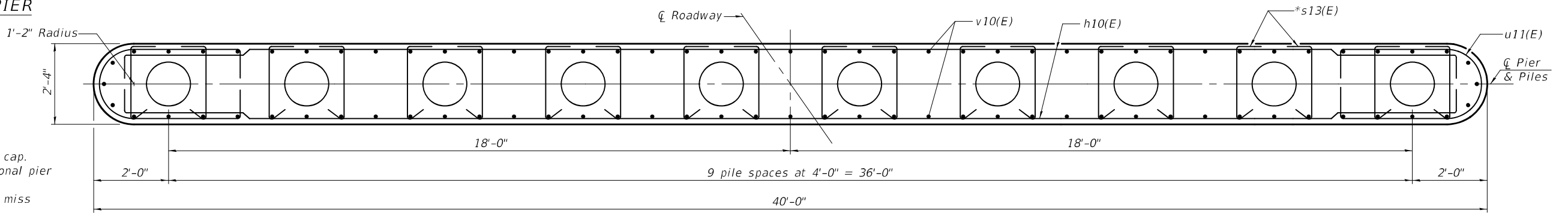


PLAN



ELEVATION  
(Looking East)

SECTION THRU PIER



SECTION A-A

Notes:  
 Pour steps monolithically with cap.  
 See sheet 28 of 32 for additional pier details and Bill of Material.  
 Space reinforcement in cap to miss anchor bolts.  
 See sheet 29 of 32 for pile details.  
 \*Hook s13(E) bar around h10(E) & v10(E) bars.  
 Clear cover for s13(E) bar will be 2".

MODEL: 74562-033  
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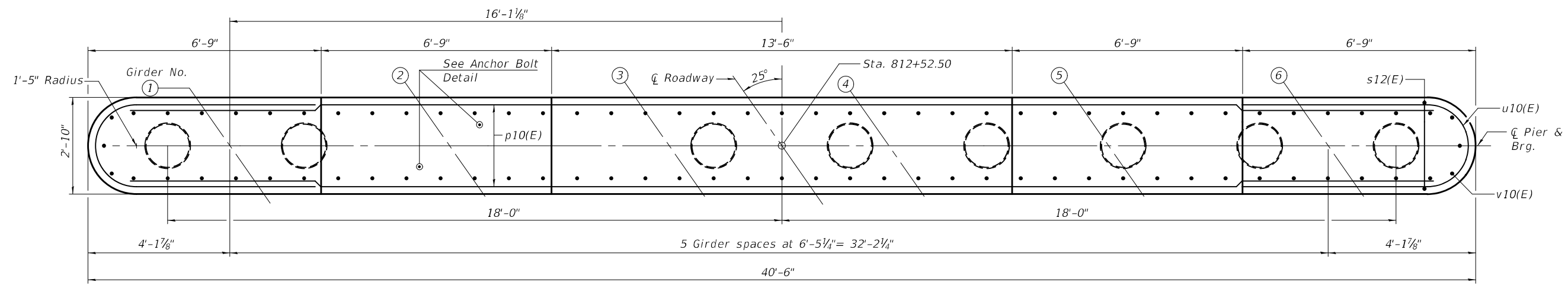
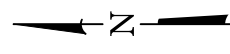
DESIGNED - ZACHARY T. BULVA	EXAMINED - <i>Mark Shuffler</i> ENGINEER OF BRIDGE DESIGN	DATE - OCTOBER 16, 2023
CHECKED - CRYSTAL D. STONE/JOSHUA S. FLAIG	PASSED - <i>Joey F. [Signature]</i> ENGINEER OF BRIDGES AND STRUCTURES	REVISED -
DRAWN - ALAN JOHNSTONE		REVISED -
CHECKED - Z.T.B./C.D.S./J.S.F.		

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

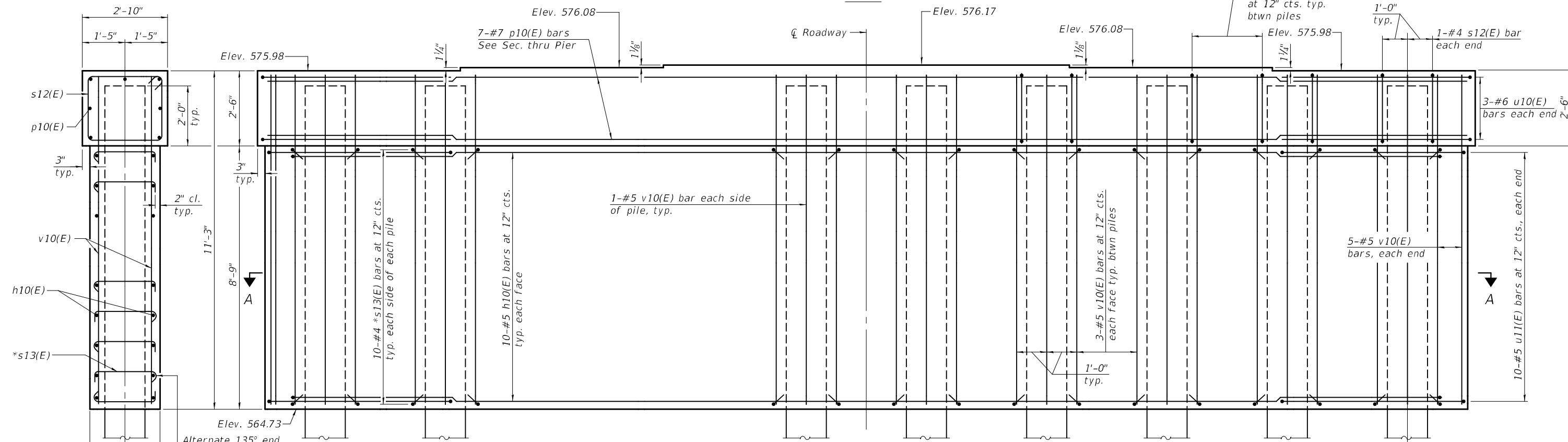
PIER 1  
 STRUCTURE NO. 012-0076

SHEET 26 OF 32 SHEETS

F.A.S. RTE. 1707	SECTION (CX-B)B	COUNTY CLARK	TOTAL SHEETS 52	SHEET NO. 33
CONTRACT NO. 74562				
ILLINOIS FED. AID PROJECT				

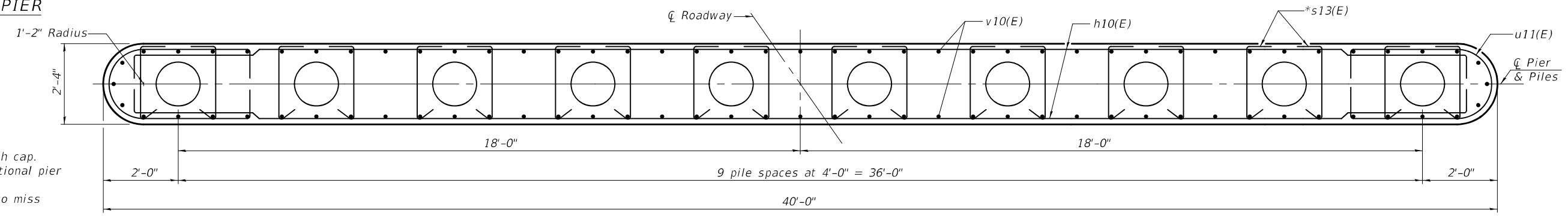


PLAN



ELEVATION  
(Looking East)

SECTION THRU PIER



SECTION A-A

Notes:  
 Pour steps monolithically with cap.  
 See sheet 28 of 32 for additional pier details and Bill of Material.  
 Space reinforcement in cap to miss anchor bolts.  
 See sheet 29 of 32 for pile details.  
 \*Hook s13(E) bar around h10(E) & v10(E) bars.  
 Clear cover for s13(E) bar will be 2".

MODEL: 74562-034  
 FILE NAME: p:\w\idol-ppw\benley.com\FWIDOT\Documents\Bridges and Structures\Projects\0120076\CADD Plans\0120076-74562.dgn  
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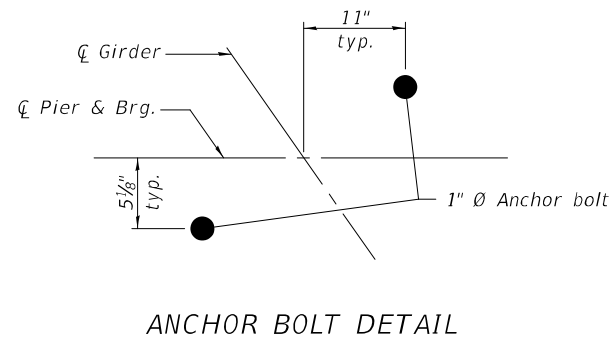
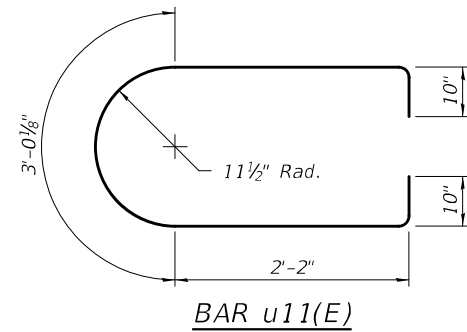
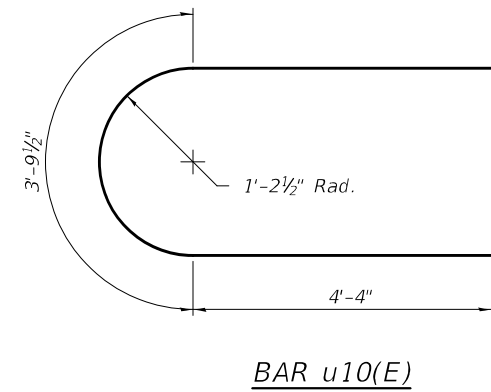
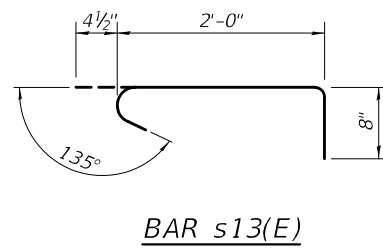
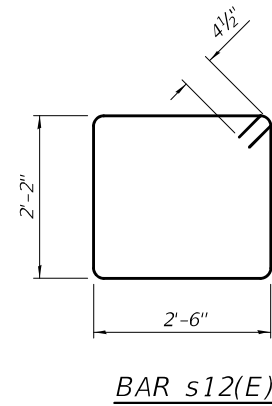
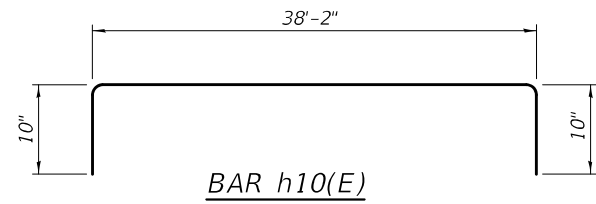
DESIGNED - ZACHARY T. BULVA	EXAMINED - <i>Mark Shuffler</i> ENGINEER OF BRIDGE DESIGN	DATE - OCTOBER 16, 2023
CHECKED - CRYSTAL D. STONE/JOSHUA S. FLAIG	PASSED - <i>Joey F. [Signature]</i> ENGINEER OF BRIDGES AND STRUCTURES	REVISED -
DRAWN - ALAN JOHNSTONE		REVISED -
CHECKED - Z.T.B./C.D.S./J.S.F.		

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

PIER 2  
 STRUCTURE NO. 012-0076

SHEET 27 OF 32 SHEETS

F.A.S. RTE. 1707	SECTION (CX-B)B	COUNTY CLARK	TOTAL SHEETS 52	SHEET NO. 34
CONTRACT NO. 74562				
ILLINOIS FED. AID PROJECT				



**PIER 1  
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h10(E)	20	#5	39'-10"	—
p10(E)	7	#7	37'-8"	—
s12(E)	29	#4	10'-1"	□
s13(E)	200	#4	3'-0"	┌
u10(E)	6	#6	12'-5"	U
u11(E)	20	#5	9'-0"	U
v10(E)	84	#5	10'-11"	—
Structure Excavation		Cu. Yd.	26	
Concrete Structures		Cu. Yd.	40.7	
Reinforcement Bars, Epoxy Coated		Pound	3220	
Furnishing Metal Shell Piles 16" x 0.375"		Foot	459	
Driving Piles		Foot	459	
Pile Shoes		Each	10	
Test Pile Metal Shells		Each	1	

**PIER 2  
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h10(E)	20	#5	39'-10"	—
p10(E)	7	#7	37'-8"	—
s12(E)	29	#4	10'-1"	□
s13(E)	200	#4	3'-0"	┌
u10(E)	6	#6	12'-5"	U
u11(E)	20	#5	9'-0"	U
v10(E)	84	#5	10'-11"	—
Structure Excavation		Cu. Yd.	26	
Concrete Structures		Cu. Yd.	40.7	
Reinforcement Bars, Epoxy Coated		Pound	3220	
Furnishing Metal Shell Piles 16" x 0.375"		Foot	470	
Driving Piles		Foot	470	
Pile Shoes		Each	10	

**PIER 1  
PILE DATA**

Type: MS 16x0.375 w/ Pile Shoes  
 Nominal Required Bearing: 576k  
 Factored Resistance Available: 288k  
 Est. Length: 51'-0"  
 No. Production Piles: 9  
 No. Test Piles: 1

**PIER 2  
PILE DATA**

Type: MS 16x0.375 w/ Pile Shoes  
 Nominal Required Bearing: 562k  
 Factored Resistance Available: 288k  
 Est. Length: 47'-0"  
 No. Production Piles: 10  
 No. Test Piles: 0

MODEL: 74562-035  
 FILE NAME: p:\w\idol-pw\benley.com\FWIDOT Documents\DOT Offices\Bureau of Bridges and Structures\Projects\0120076\CADD Plans\0120076-74562.dgn  
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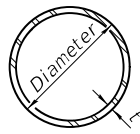
DESIGNED - ZACHARY T. BULVA	EXAMINED - <i>Mark Shuffler</i> ENGINEER OF BRIDGE DESIGN	DATE - OCTOBER 16, 2023
CHECKED - CRYSTAL D. STONE/JOSHUA S. FLAIG	PASSED - <i>Jaime F. [Signature]</i> ENGINEER OF BRIDGES AND STRUCTURES	REVISED -
DRAWN - ALAN JOHNSTONE		REVISED -
CHECKED - Z.T.B./C.D.S./J.S.F.		

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**PIER DETAILS  
STRUCTURE NO. 012-0076**

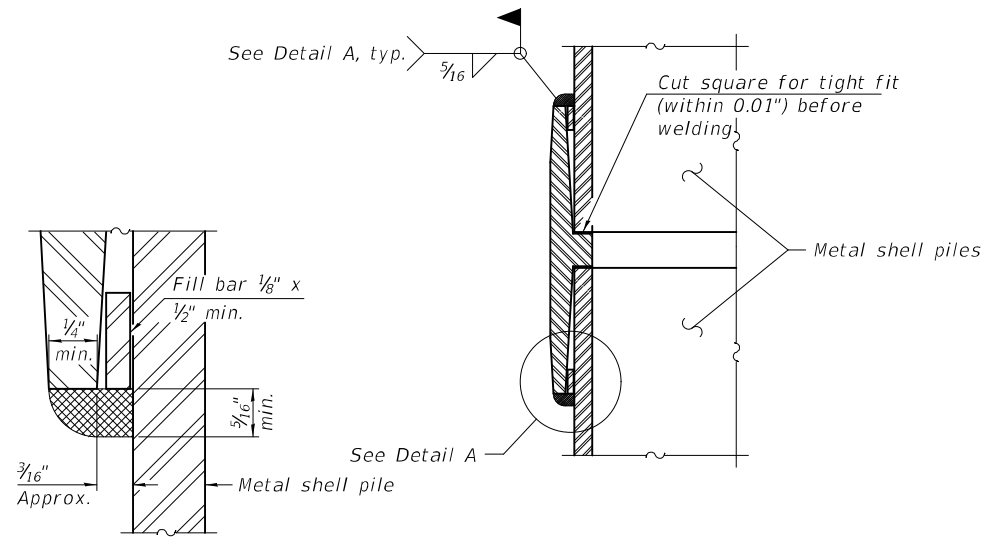
SHEET 28 OF 32 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1707	(CX-B)B	CLARK	52	35
CONTRACT NO. 74562				
ILLINOIS FED. AID PROJECT				

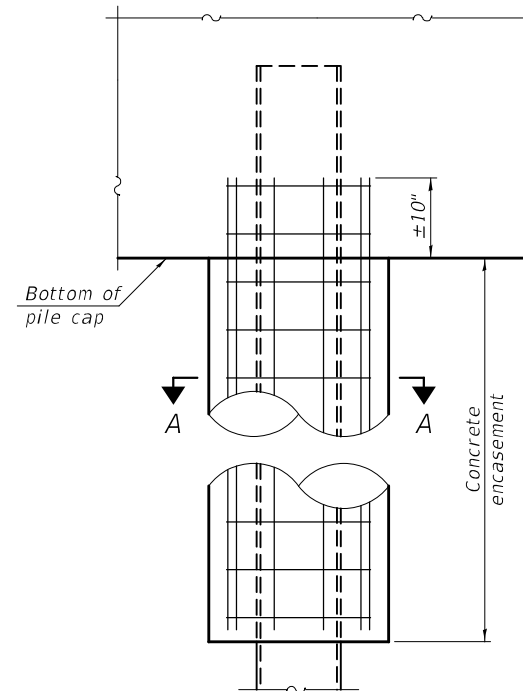


**METAL SHELL PILE TABLE**

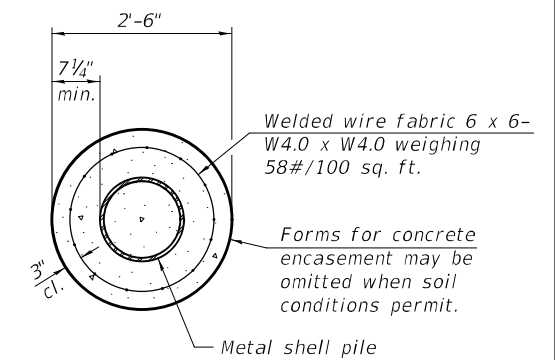
Designation and outside diameter	Wall thickness t	Weight per foot (Lbs./ft.)	Inside volume (yd. <sup>3</sup> /ft.)
PP12	0.250"	31.40	0.0267
PP14	0.250"	36.75	0.0368
PP14	0.312"	45.65	0.0361
PP16	0.312"	52.32	0.0478
PP16	0.375"	62.64	0.0470



**DETAIL A**

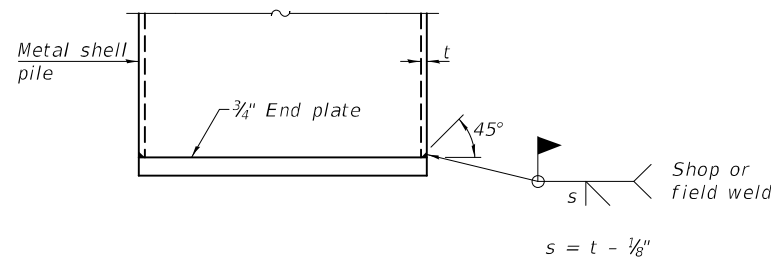


**ELEVATION**



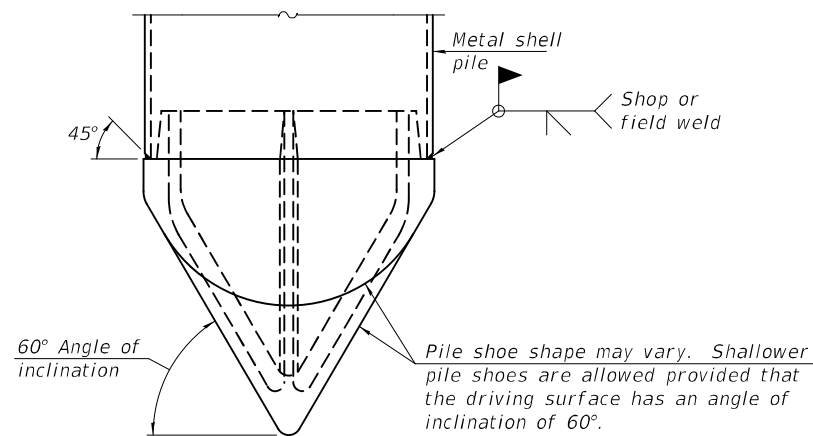
**SECTION A-A**

**INDIVIDUAL PILE CONCRETE ENCASUREMENT**  
(When specified)



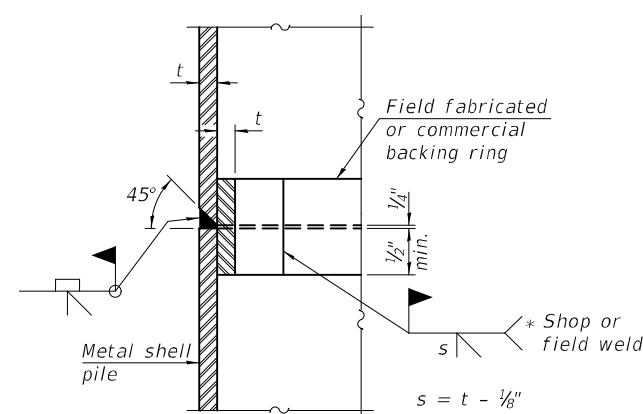
**END PLATE ATTACHMENT**

**WELDED COMMERCIAL SPLICE**  
Notes:  
The 1/8" x 1/2" min. fill bar may be constructed of 2 bars with a 1/8" max. gap between them.  
Pile segments shall be driven to solid contact with splicer before welding.



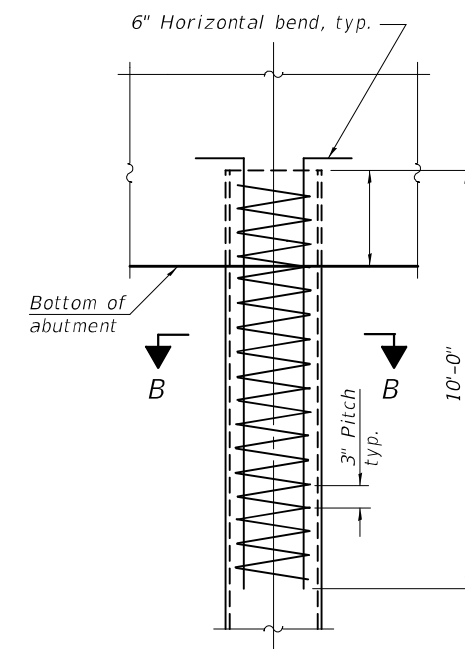
**PILE SHOE ATTACHMENT**

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

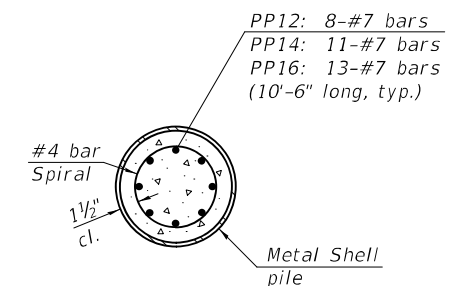


**COMPLETE PENETRATION WELD SPLICE**

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



**ELEVATION**



**SECTION B-B**

**REINFORCEMENT AT ABUTMENTS**  
(Omit when concrete encasement is specified)

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

MODEL: 74562-036  
FILE NAME: p:\w\idol-pw\benley.com\FWIDOT\Documents\IDOT Offices\Bureau of Bridges and Structures\Projects\0120076\CADD Plans\0120076-74562.dgn

F-MS 2-1-2023

DESIGNED - ZACHARY T. BULVA	EXAMINED
CHECKED - CRYSTAL D. STONE/JOSHUA S. FLAIG	PASSED
DRAWN - ALAN JOHNSTONE	
CHECKED - Z.T.B./C.D.S./J.S.F.	

DATE - OCTOBER 16, 2023  
  
 ENGINEER OF BRIDGE DESIGN  
  
 ENGINEER OF BRIDGES AND STRUCTURES

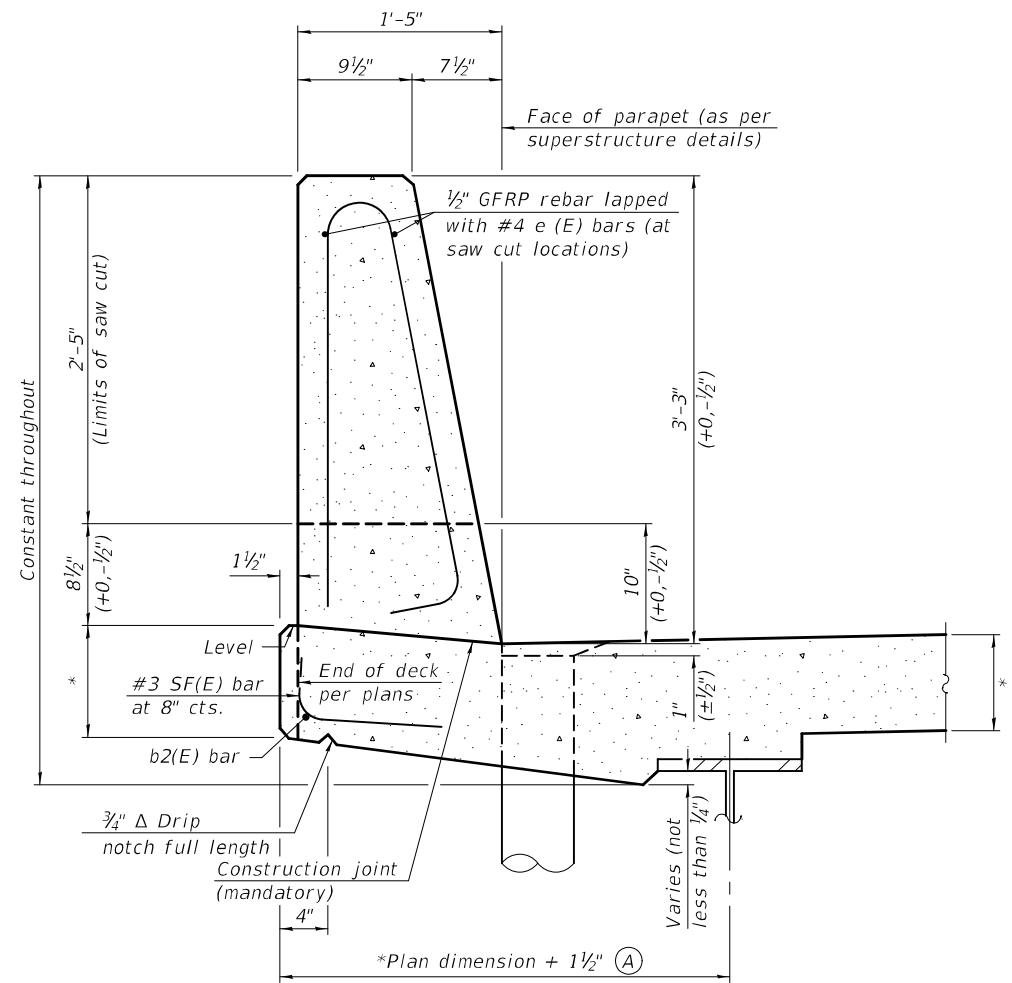
REVISIONS	
REVISIONS	

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**METAL SHELL PILE DETAILS  
STRUCTURE NO. 012-0076**

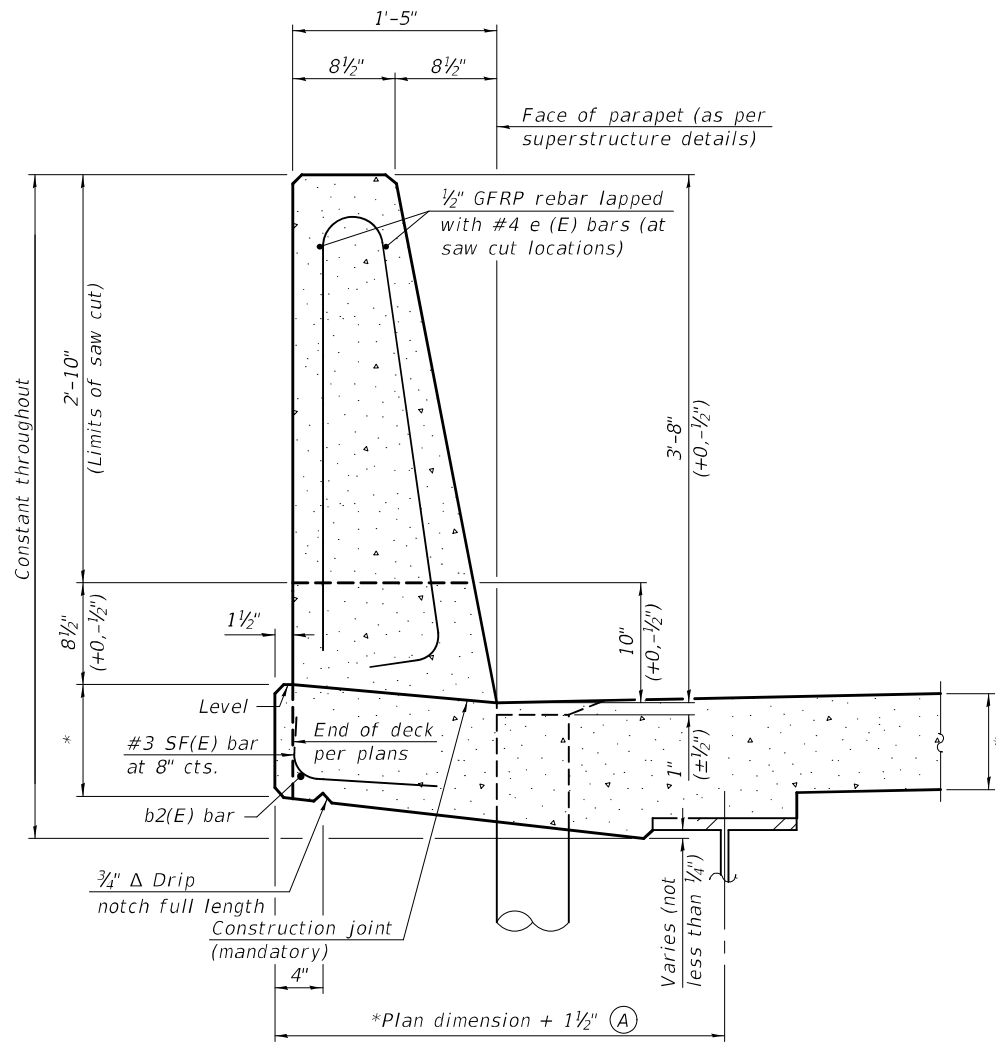
SHEET 29 OF 32 SHEETS

F.A.S. RTE. 1707	SECTION (CX-B)	COUNTY CLARK	TOTAL SHEETS 52	SHEET NO. 36
CONTRACT NO. 74562				
ILLINOIS FED. AID PROJECT				



**39" CONSTANT-SLOPE  
PARAPET SECTION**

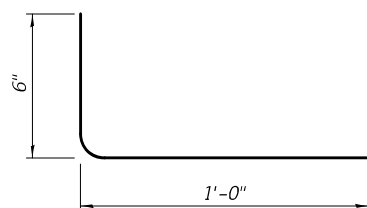
(Showing dimensions, d(E), and 1/2" Ø GFRP rebar)



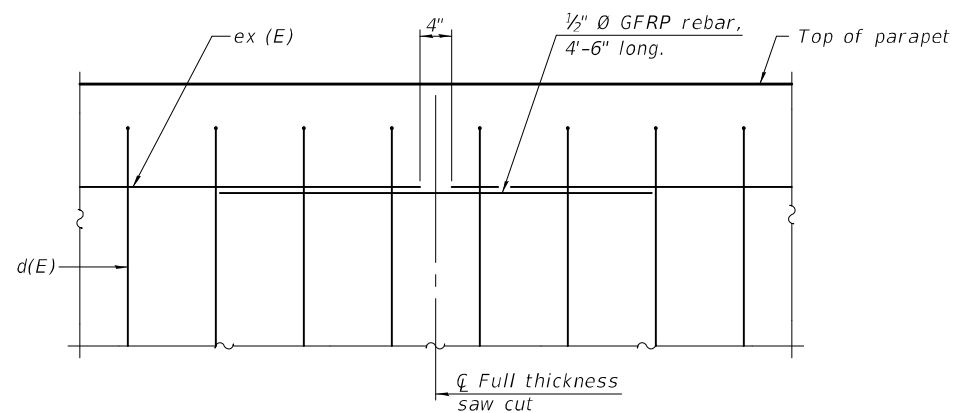
**44" CONSTANT-SLOPE  
PARAPET SECTION**

(Showing dimensions, d(E), and 1/2" Ø GFRP rebar)

\*See Superstructure Details.



**SF(E) BAR**



**GFRP REBAR STIFFENING DETAIL**

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

Notes:  
All dimensions shall remain the same as shown on superstructure details, except dimension A which is to be revised as shown. Additional concrete needed to revise dimension A = 0.00348 cu. yds./ft. for 39" and 44" parapets.  
Place full depth aluminum sheets as shown on superstructure details.  
Replace all cork joint filler locations with a full thickness saw cut.  
Steel superstructure shown. Other superstructure types similar.

MODEL: 74562-037  
FILE NAME: p:\w\pww\benley.com\FWIDOT\Documents\DOT Offices\Bureau of Bridges and Structures\Projects\0120076\CADD Plans\0120076-74562.dgn

DESIGNED -	ZACHARY T. BULVA
CHECKED -	CRYSTAL D. STONE/JOSHUA S. FLAIG
DRAWN -	ALAN JOHNSTONE
CHECKED -	Z.T.B./C.D.S./J.S.F.

EXAMINED	<i>Mark Shuffler</i> ENGINEER OF BRIDGE DESIGN
PASSED	<i>Jaime F. [Signature]</i> ENGINEER OF BRIDGES AND STRUCTURES

DATE -	OCTOBER 16, 2023
REVISED -	
REVISED -	

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CONCRETE PARAPET SLIP-FORMING OPTION  
STRUCTURE NO. 012-0076**

SHEET 30 OF 32 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1707	(CX-B)B	CLARK	52	37
CONTRACT NO. 74562				
ILLINOIS FED. AID PROJECT				





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

### SOIL BORING LOG

Page 1 of 3

Date 8/6/21

ROUTE FAS 1707 (US 40) DESCRIPTION US 40 over North Fork of Embarras River LOGGED BY, Sandschafer

SECTION (CX-B)B LOCATION SW, SEC. 6, TWP. 10N, RNG. 13W, 3rd PM.  
Latitude N 39,339211, Longitude W 87,897544

COUNTY Clark DRILLING METHOD Hollow stem auger & split spoon HAMMER/Auto ETR = 91.8% @ 57.4 bpm

STRUCT. NO. 012-0018 (Existing)  
Station 811+94.00

BORING NO. 2 East Abutment  
Station 813+49  
Offset 7.0 ft North  
Ground Surface Elev. 580.72 ft (ft) (/6") (tsf) (%)

DEPTH (ft)	BLOW COUNT (S)	UNIFORMITY COEFFICIENT (U)	MATERIAL	Surface Water Elev. (ft)	Stream Bed Elev. (ft)	DEPTH (ft)	BLOW COUNT (S)	UNIFORMITY COEFFICIENT (U)	MATERIAL
0			6" Asphalt over 10" of Concrete	555.50	554.30	1	2	2.5	19
579.42			Brown, CLAY Embankment		558.72				
			Soft, moist, grey, SILTY LOAM			1		0.4	19
					556.22				
			Very soft, wet, brown, SANDY LOAM			1	1	0.2	18
					553.72				
			Very loose to loose, moist, grey, fine grained, SAND			1	2	NT	20
						2	2	NT	
			Very loose 14.9% passing #200 Sieve			30	WH		17
					568.72				
			Stiff, moist, grey, SILTY CLAY Embankment			1	1	1.6	18
						1			
			Soft, brown			1	1	0.4	25
			Medium			6	5	NT	NT
						5			
			Medium, grey			1	3	0.8	21
						3			
			Very stiff, moist, grey, CLAY			5			
					540.72-40				

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), WH-Weight of Hammer, NT-Not Tested.

BBS, form 137 (Rev. 8-99)



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

### SOIL BORING LOG

Page 2 of 3

Date 8/6/21

ROUTE FAS 1707 (US 40) DESCRIPTION US 40 over North Fork of Embarras River LOGGED BY, Sandschafer

SECTION (CX-B)B LOCATION SW, SEC. 6, TWP. 10N, RNG. 13W, 3rd PM.  
Latitude N 39,339211, Longitude W 87,897544

COUNTY Clark DRILLING METHOD Hollow stem auger & split spoon HAMMER/Auto ETR = 91.8% @ 57.4 bpm

STRUCT. NO. 012-0018 (Existing)  
Station 811+94.00

BORING NO. 2 East Abutment  
Station 813+49  
Offset 7.0 ft North  
Ground Surface Elev. 580.72 ft (ft) (/6") (tsf) (%)

DEPTH (ft)	BLOW COUNT (S)	UNIFORMITY COEFFICIENT (U)	MATERIAL	Surface Water Elev. (ft)	Stream Bed Elev. (ft)	DEPTH (ft)	BLOW COUNT (S)	UNIFORMITY COEFFICIENT (U)	MATERIAL
0			No Recovery	555.50	554.30	5	5	NT	NT
						5			
			Dense, grey, medium grained, SAND			26	6.1	S	10
					520.22				
			Wet 11.8% passing #200 Sieve			7	7	NT	13
						7			
			Very dense, wet, with 1/2" to 1-1/2" rounded gravel 11.2% passing #200 Sieve			12	22	NT	12
						30			
					531.22				
			Hard, moist, grey, CLAY LOAM Till			50	3	8	5.4
						7		B	10
						7			
			With 1/2" to 1-1/2" angular gravel			20	27	NT	5
						27			
					526.22				
			Hard, moist, grey, SANDY CLAY LOAM Till			5	13	6.9	9
						17		S	
						17			
			Dense, with 1/2" angular gravel 11.2% passing #200 Sieve			9	19	NT	11
						19			
					500.72-80				

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), WH-Weight of Hammer, NT-Not Tested.

BBS, form 137 (Rev. 8-99)



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

### SOIL BORING LOG

Page 3 of 3

Date 8/6/21

ROUTE FAS 1707 (US 40) DESCRIPTION US 40 over North Fork of Embarras River LOGGED BY, Sandschafer

SECTION (CX-B)B LOCATION SW, SEC. 6, TWP. 10N, RNG. 13W, 3rd PM.  
Latitude N 39,339211, Longitude W 87,897544

COUNTY Clark DRILLING METHOD Hollow stem auger & split spoon HAMMER/Auto ETR = 91.8% @ 57.4 bpm

STRUCT. NO. 012-0018 (Existing)  
Station 811+94.00

BORING NO. 2 East Abutment  
Station 813+49  
Offset 7.0 ft North  
Ground Surface Elev. 580.72 ft (ft) (/6") (tsf) (%)

DEPTH (ft)	BLOW COUNT (S)	UNIFORMITY COEFFICIENT (U)	MATERIAL	Surface Water Elev. (ft)	Stream Bed Elev. (ft)	DEPTH (ft)	BLOW COUNT (S)	UNIFORMITY COEFFICIENT (U)	MATERIAL
0			With 1/2" to 1" gravel 12.6% passing #200 Sieve	555.50	554.30	15	15	NT	11
						15			
						6	8	5.8	8
			Hard, moist, grey, CLAY LOAM Till			18		B	
					496.22				
						85			
			Very dense, wet, grey, fine-grained, SAND			40	50	NT	17
						3-3/4			
						50			
					491.22				
						90			
			Very dense, moist, grey, very fine-grained, SILTY SAND			22	50	NT	11
						5	3-3/8		
						50			
					486.22				
						95			
			Benchmark: National Geodetic Survey Marker D 211 1959 - Brass Disk set in top of the South End Back Wall at the West-Northwest Corner of SN 012-0018, 19 feet North of Centerline, End of Boring			1-1/8			
						100			

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), WH-Weight of Hammer, NT-Not Tested.

BBS, form 137 (Rev. 8-99)

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DESIGNED - ZACHARY T. BULVA  
CHECKED - CRYSTAL D. STONE/JOSHUA S. FLAIG  
DRAWN - ALAN JOHNSTONE  
CHECKED - Z.T.B./C.D.S./J.S.F.

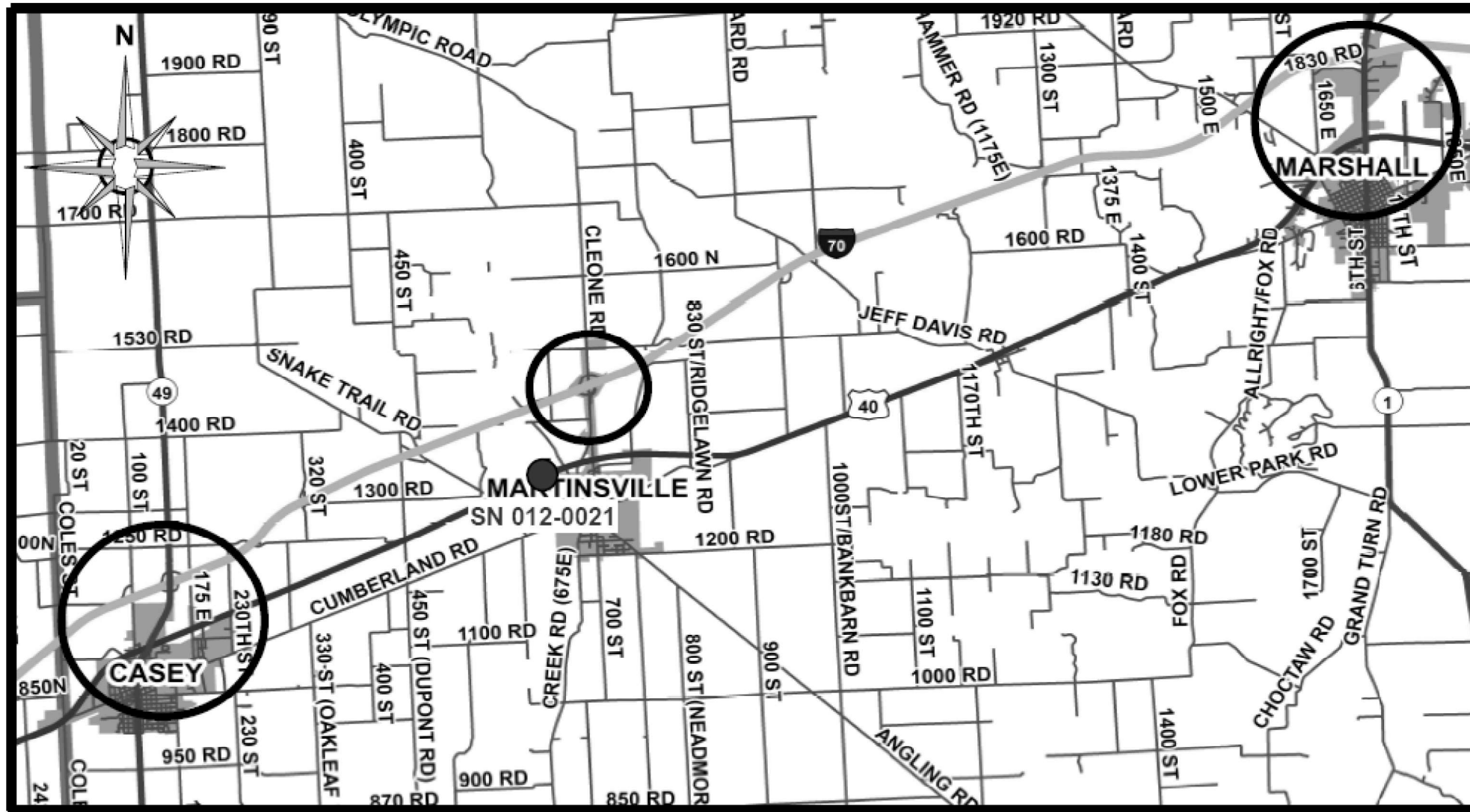
EXAMINED  
PASSED  
DATE - OCTOBER 16, 2023

REVISIONS  
REVISOR -  
DATE -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**BORING LOGS**  
**STRUCTURE NO. 012-0076**

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1707	(CX-B)B	CLARK	52	39
CONTRACT NO. 74562				
ILLINOIS FED. AID PROJECT				



## DETOUR ROUTE MAP OVERVIEW

CASEY - SEE SHEET 41

MARTINSVILLE -SEE SHEET 42

MARSHALL – SEE SHEET 43

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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**DETOUR ROUTE OVERVIEW**

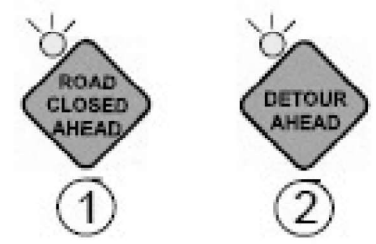
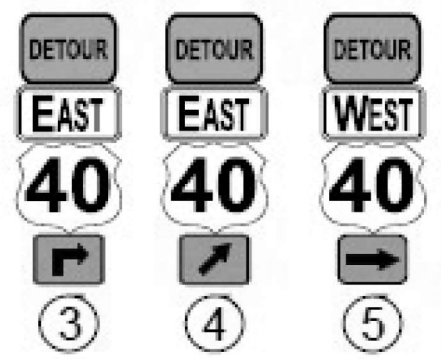
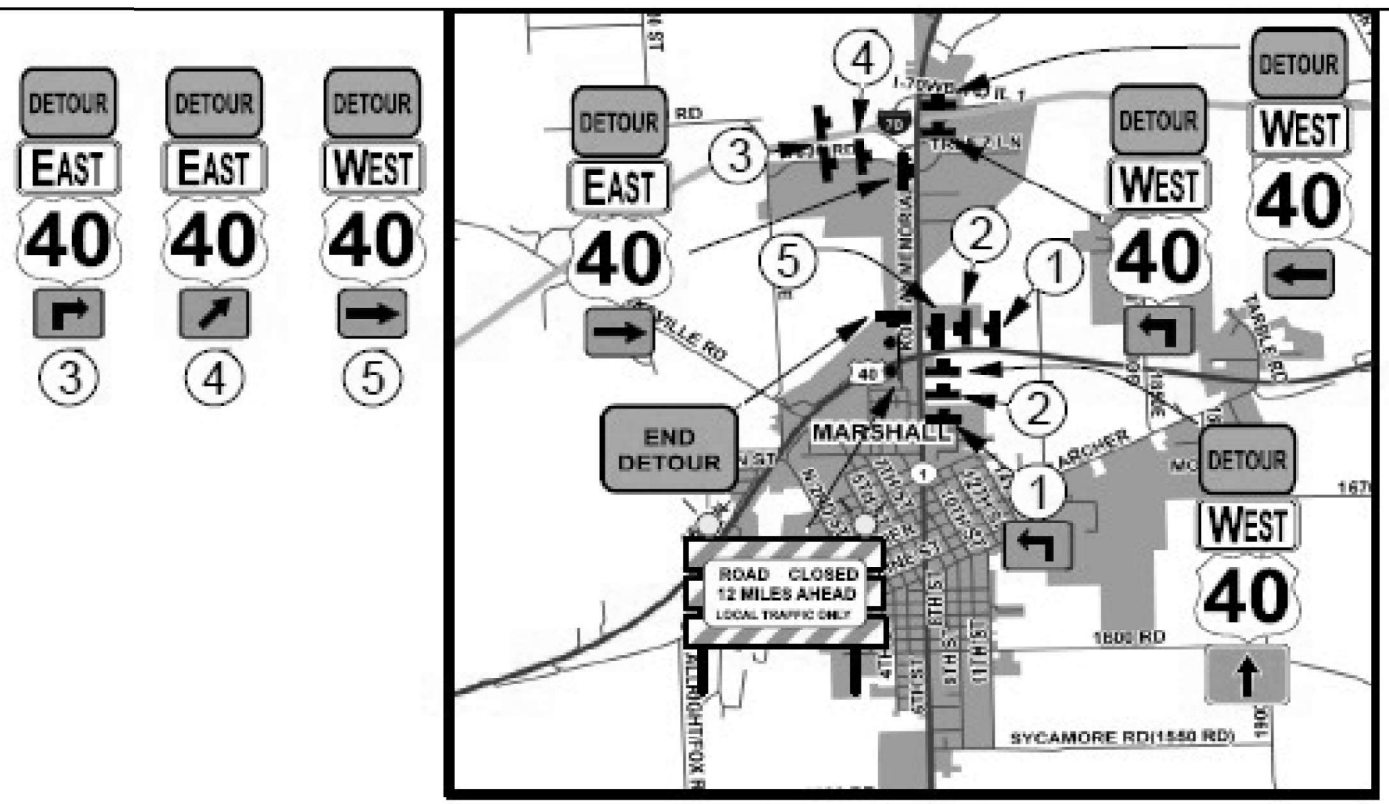
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1707	(CX-B)B	CLARK	52	40
			CONTRACT NO. 74562	
ILLINOIS FED. AID PROJECT				









**SIGN LEGEND**

	W20-3-48		M3-2-3015		M6-3(O)-3018
	W20-2-48		M3-4-3015		M5-1L/R(O)-3018
	W20-2(O)-48		M1-4a-36		M6-1L/R(O)-3018
	M4-8a(O)-3024		R11-3a-6030		M5-2R(O)-3018

US 40 CLOSURE BY STANDARDS BLR 21 & 701901

**DETOUR SIGNING AT MARSHALL**

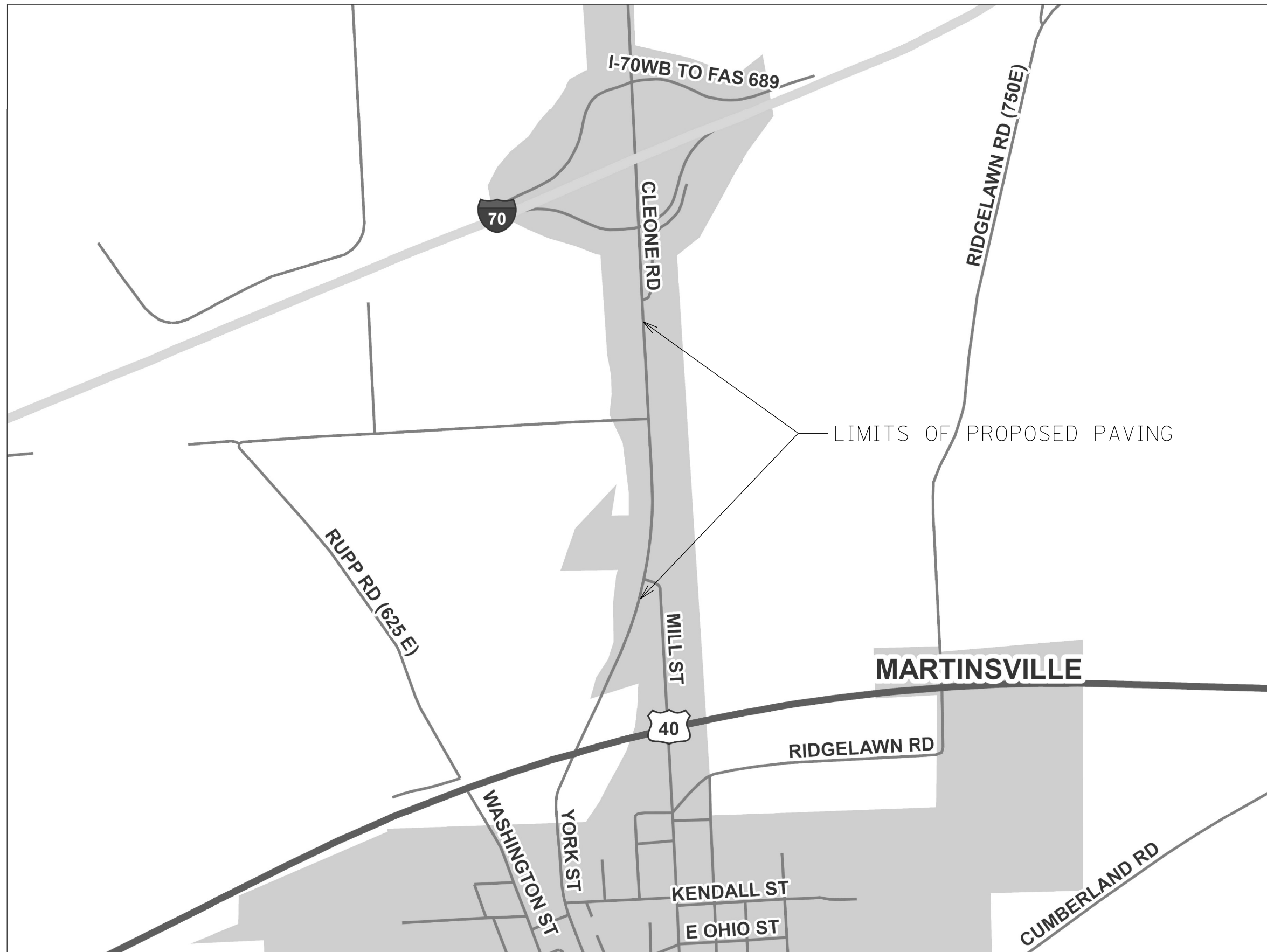
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	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>DETOUR SIGNING DETAILS AT MARSHALL</b>			
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STA.	TO STA.		

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1707	(CX-B)B	CLARK	52	43
CONTRACT NO. 74562				
ILLINOIS FED. AID PROJECT				



NOTE: SEE SHEET 44 FOR QUANTITIES

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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**DETOUR ROUTE PAVING**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1707	(CX-B)B	Clark	52	43A
CONTRACT NO. 74562				
ILLINOIS FED. AID PROJECT				

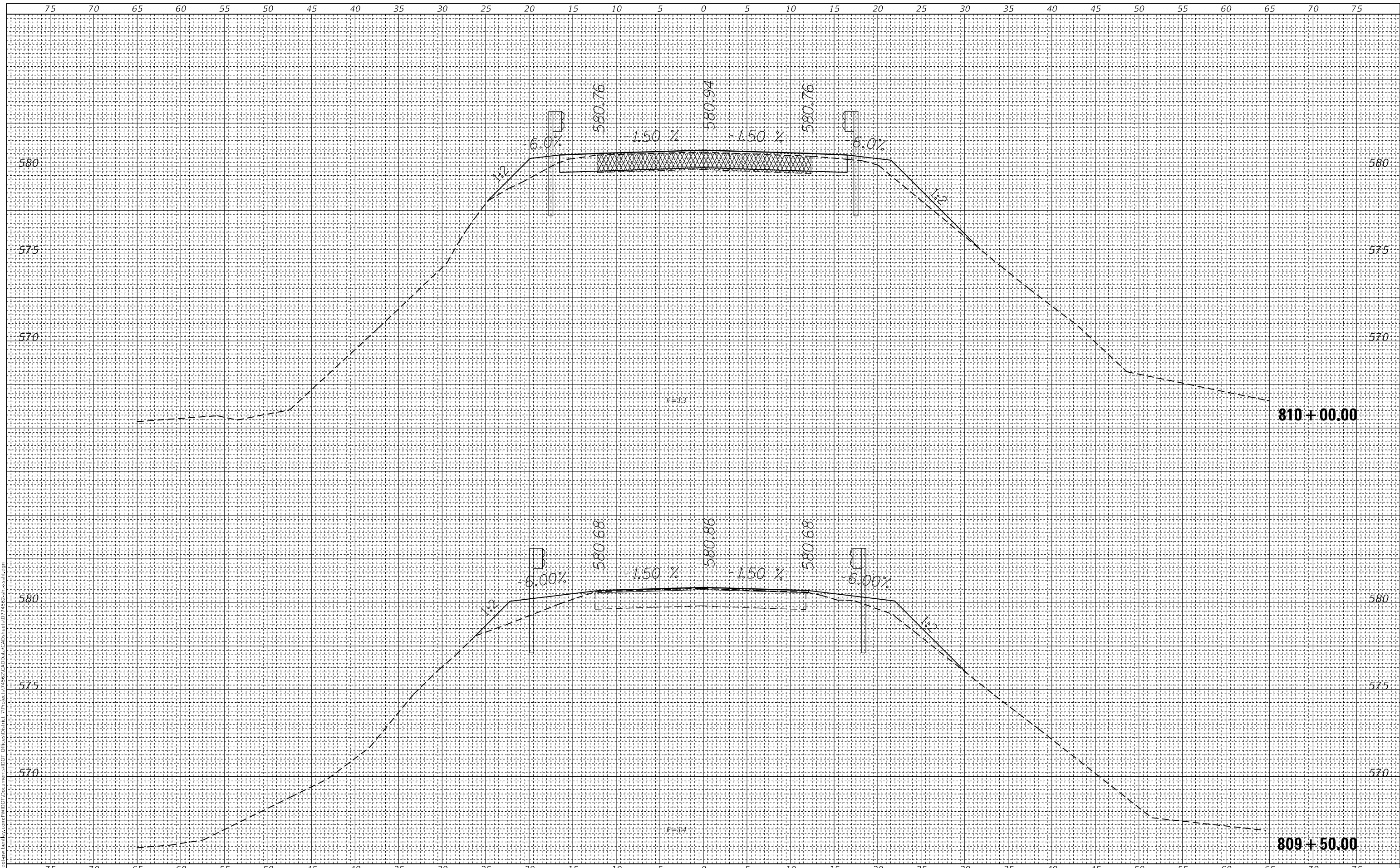




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NOTE BOOK	PLOTTED		
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**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

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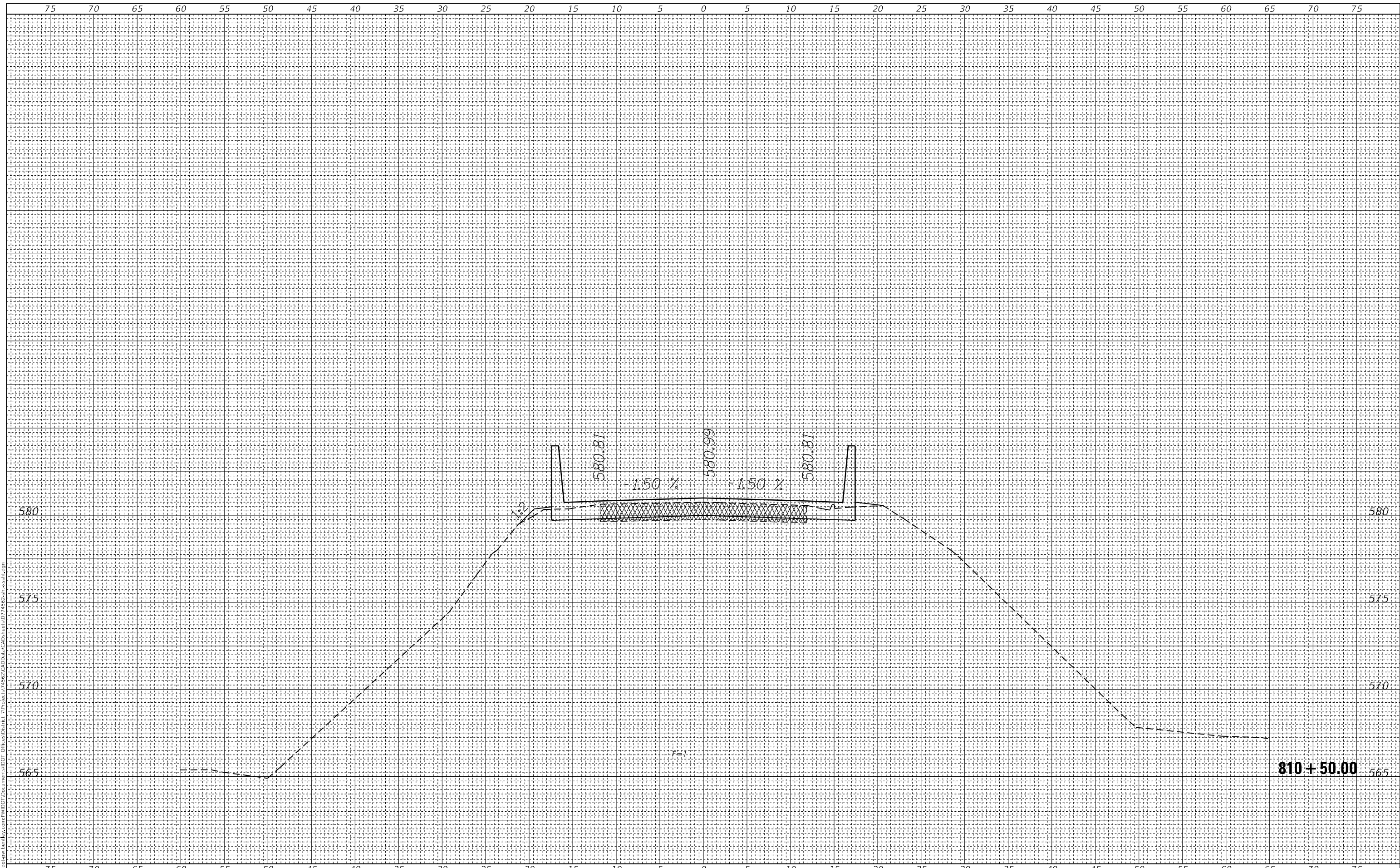
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CONTRACT NO. 74562				
ILLINOIS FED. AID PROJECT				

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**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS**

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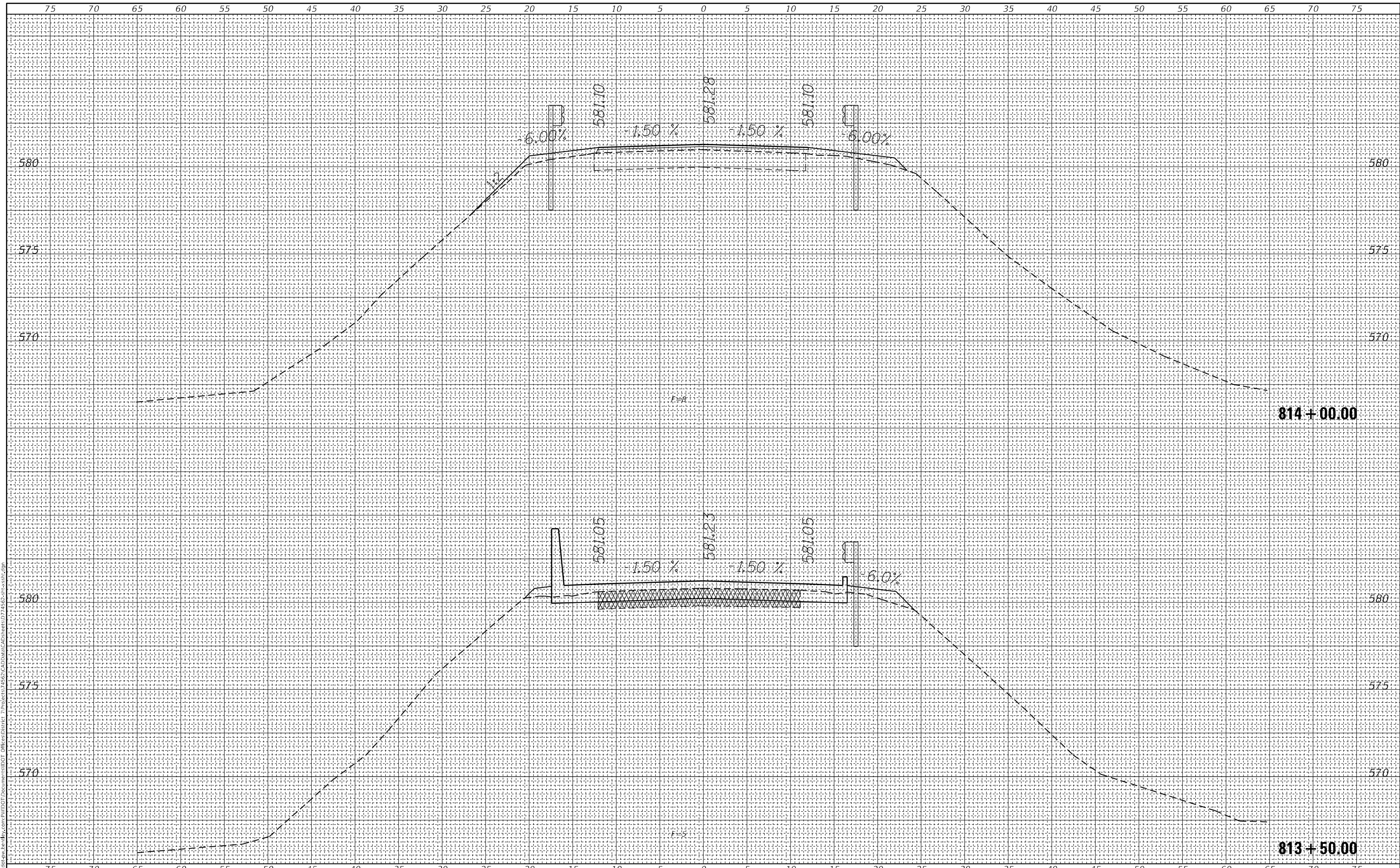
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1707	(CX-B)B	CLARK	52	47
CONTRACT NO. 74562				
ILLINOIS FED. AID PROJECT				



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**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

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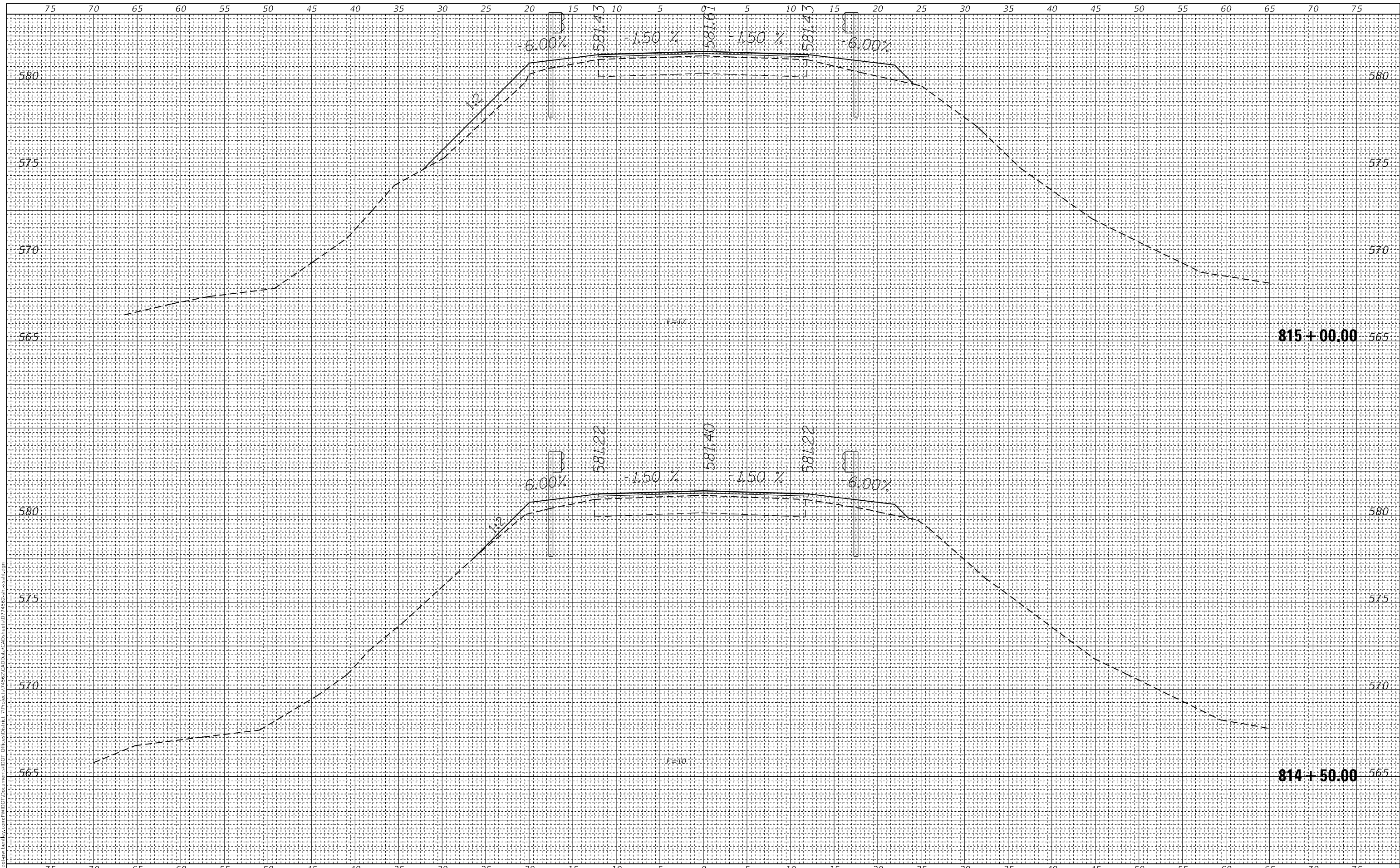
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CONTRACT NO. 74562				
ILLINOIS FED. AID PROJECT				

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**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

SCALE:		SHEET	OF	SHEETS	STA.	TO	STA.
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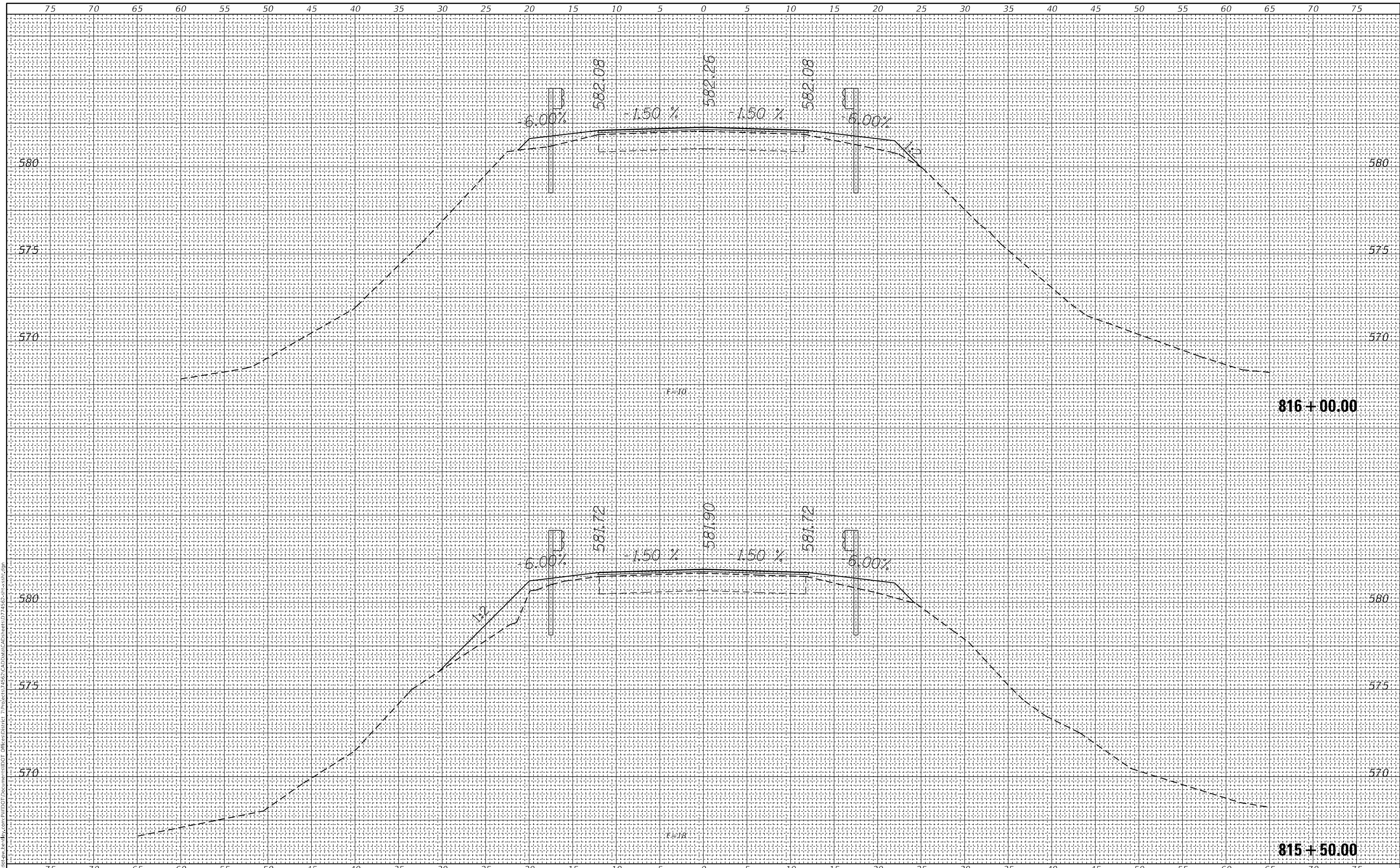
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CONTRACT NO. 74562				
ILLINOIS FED. AID PROJECT				

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**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

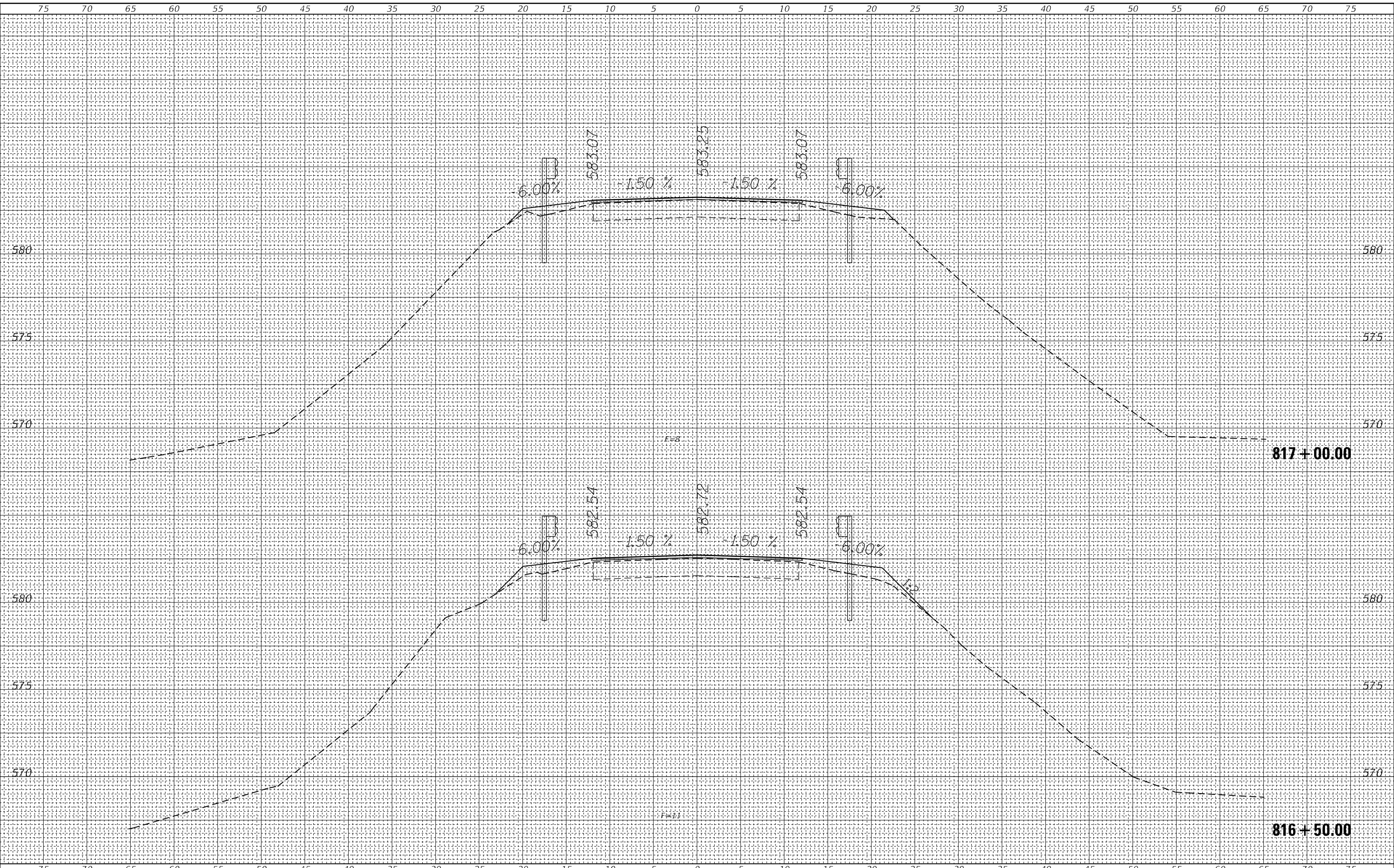
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1707	(CX-B)B	CLARK	52	50
CONTRACT NO. 74562				
ILLINOIS FED. AID PROJECT				

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**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

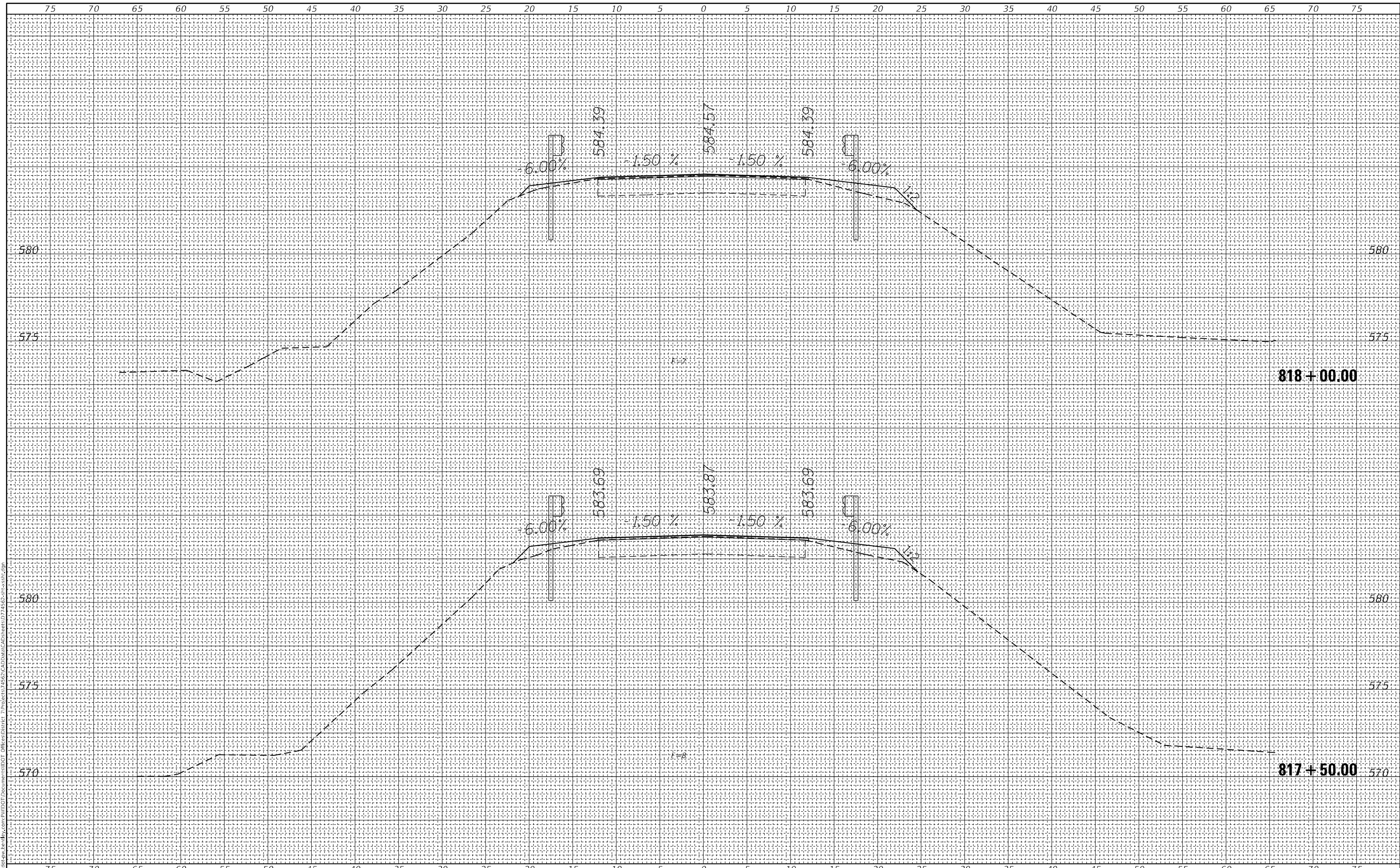
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CONTRACT NO. 74562				
ILLINOIS FED. AID PROJECT				

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ORIGINAL SURVEY NO.	SURVEYED	BY	DATE
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**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

<b>CROSS SECTIONS</b>				
SCALE:	SHEET	OF	SHEETS	STA. TO STA.

F.A.S. RTE. 1707	SECTION (CX-B)B	COUNTY CLARK	TOTAL SHEETS 52	SHEET NO. 52
CONTRACT NO. 74562				
ILLINOIS FED. AID PROJECT				