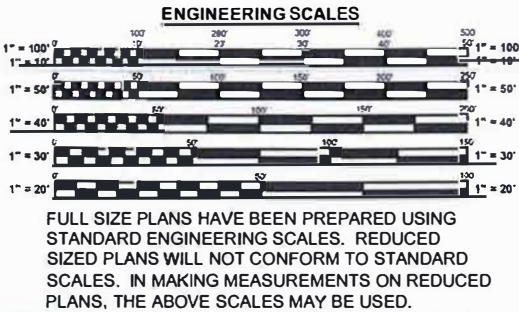


04-25-2025 LETTING ITEM 172

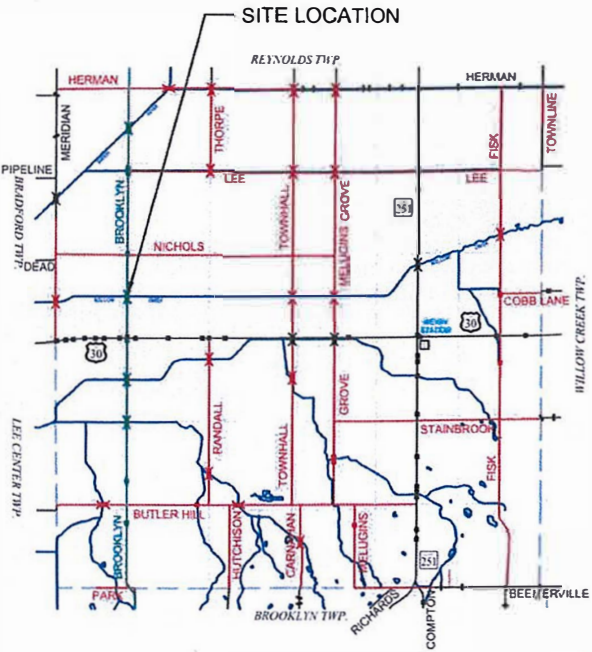
INDEX OF SHEETS

SHEET #	DESCRIPTION
1	COVER SHEET
2	GENERAL NOTES/QUANTITIES
3	TYPICAL SECTIONS
4	TRAFFIC CONTROL PLAN
5	DEMO PLAN
6	PLAN & PROFILE PLAN
7	GENERAL PLAN & ELEVATION
8	GENERAL DATA
9	21" X 36" PPC DK BEAM SPANS 1 & 3
10	PPC DK BEAM DETAILS SPANS 1 & 3
11	21" X 36" PPC DECK BEAM SPAN 2
12	PPC DECK BEAM DETAILS SPAN 2
13	PIERS 1 & 2
14	ABUTMENT DETAILS
15	METAL SHELL PILE DETAILS
16	STEEL RAILING DETAILS
17-20	BORING LOGS
21	ROADWAY CROSS SECTIONS

STANDARDS	
STD 515001-04	NAME PLATE FOR BRIDGES
STD 631032-10	TRAFFIC BARRIER TERMINAL, TYPE 6A
STD 701901-10	TRAFFIC CTRL DEVICES
STD 720011-01	METAL POSTS FOR SIGNS
STD 728001-01	TELESCOPING SIGN SUPPORT
STD 729001-01	A & B METAL POSTS
STD BLR 21-9	TRAFFIC CTRL 2 LANE RURAL



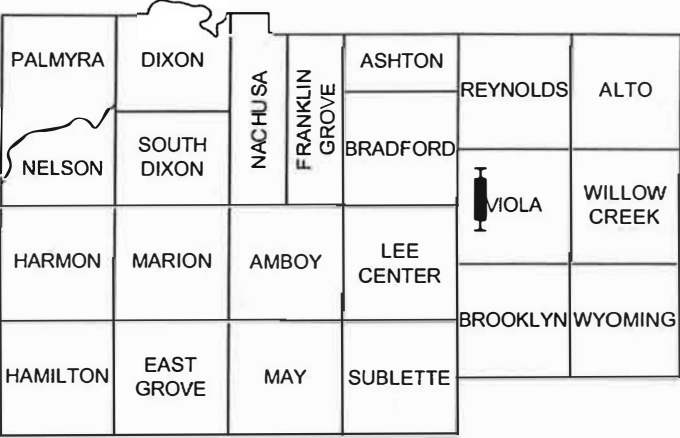
PLANS FOR PROPOSED PROJECT
BROOKLYN BRIDGE
BROOKLYN ROAD (FAS 179)
PROP. STRUCTURE #052-3104
22-00351-00-BR
LEE COUNTY
PROJECT 7ZX7(897)
IDOT CONTRACT NO. 85773
IDOT JOB NO. C-92-032-23



LOCATION
MAP



FAS ROUTE NO	SECTION NO	COUNTY	TOTAL SHEETS	SHEET NO
179	22-00351-00-BR	LEE	21	1



LOCATION OF SECTION INDICATED THUS:



DAVID M. ANDERSON, P.E.
ILLINOIS LICENSED PROFESSIONAL
ENGINEER NO. 062-058667
EXPIRES 11/30/2025

AGENCY RESPONSIBLE FOR LETTING

Approved: 02/25/2025
D. M. Anderson Co. Eng.
Local Agency, Position

Passed: FEBRUARY 25, 2025
Sha. C. C. C.
District 2 Engineer of Local Roads & Streets

Releasing for Bid
Base on Limited
Review
2/25/25
Julia Thompson
Deputy Director of Highways, Region 2 Engineer

SUMMARY OF QUANTITIES
CONSTRUCTION TYPE CODE: 0010

GENERAL NOTES

CODE	DESCRIPTION	UNIT	QUANTITY
20300100	CHANNEL EXCAVATION	CU YD	100
25100630	EROSION CONTROL BLANKET	SQ YD	700
28100109	STONE RIP RAP, CL A5	SQ YD	505
28200200	FILTER FABRIC	SQ YD	505
40200800	AGGREGATE SURFACE COURSE, TY B	TON	70
40600275	BITUMINOUS MATERIALS (PRIMECOAT)	POUND	1816
40604050	HOT MIX ASPHALT SC, IL 9.5, MIX C, N50	TON	250
44000100	PAVEMENT REMOVAL	SQ YD	787
48101200	AGGREGATE SHOULDERS, TYPE B	TON	37
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1
50200100	STRUCTURE EXCAVATION	CU YD	356.8
50300225	CONCRETE STRUCTURES	CU YD	142.2
50400405	P P CONC DECK BM 21" DP	SQ FT	2800
50800205	REINFORCEMENT BARS, EPOXY COAT	POUND	10,770
* 50901050	STEEL RAILING, TYPE SM	FOOT	204
51200959	FURNISH METAL SHELL PILES 14"X0.312	FOOT	805
51202305	DRIVING PILES	FOOT	805
51203200	TEST PILE METAL SHELLS	EACH	4
51500100	NAME PLATES	EACH	1
54390180	INSERTION CULVERT LINER 24"	FOOT	63
54390230	INSERTION CULVERT LINER 36"	FOOT	78
58100210	FULL LANE SEALANT WATERPROOF	SQ YD	317
58600101	GRANULAR BACKFILL FOR STRUCTURE	CU YD	48
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	50
60146304	PIPE UNDERDRAINS FOR STR. 4"	FOOT	100
67100100	MOBILIZATION	L SUM	1
* 72501000	TERMINAL MARKER - DIRECTLY APPLIED	EACH	4
X2020410	EARTH EXCAVATION (SPECIAL)	CU YD	60
X2501000	SEEDING CLASS 2 (SPECIAL)	ACRE	0.15
X6081000	FLAP GATE (SPECIAL)	EACH	2
X7010216	TRAF CONTR & PROTECTION (SPECIAL)	L SUM	1
Z0013798	CONSTRUCTION LAYOUT	L SUM	1

* SPECIALTY ITEM

KNOWN UTILITIES WITHIN PROJECT AREA		
UTILITY	CONTACT	PHONE NUMBER
COMED	TERRY ROSENBURG	224-477-6327
FRONTIER	JOHN GILLOT	815-780-7570
INLET SWAMP DRAINAGE DISTRICT (MANAGES LEVEES)		
	RAY DEHOTEL	815-503-3795

BENCHMARKS

- BM 1 - NAIL IN POWER POLE SE OF BRIDGE (ON NAIL SHAFT)
ELEVATION: 756.11
- BM 2 - CROSS IN CONCRETE BRIDGE CURB IN SE CORNER OF BRIDGE
ELEVATION: 762.57
- BM 3 - CROSS IN CONCRETE BRIDGE CURB IN NE CORNER OF BRIDGE
ELEVATION: 762.58
- BM 4 - NAIL IN POWER POLE NE OF BRIDGE (ON NAIL SHAFT)
ELEVATION: 758.48

1. THE LATEST "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", THE CURRENT "SUPPLEMENTAL AND RECURRING SPECIAL PROVISIONS", THE LATEST EDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", AND THE "MANUAL OF TEST PROCEDURES OF MATERIALS" IN EFFECT AT THE TIME OF INVITATIONS TO BID, SHALL APPLY TO THIS PROJECT. ANY CONFLICT BETWEEN ANY PART(S) OF THE SPECIFICATIONS, THE HIERARCHY OF CONSTRUCTION DOCUMENTS SHALL FOLLOW THE ORDER SHOWN IN ARTICLE 105.05 OF THE STANDARD SPECIFICATIONS.
2. PRIOR TO ANY WORK BEING PERFORMED, THE LEE COUNTY HIGHWAY DEPARTMENT (PHONE: 815-857-4141) SHALL BE GIVEN A MINIMUM OF 48 HOUR NOTICE BEFORE OF THE START OF WORK. FAILURE TO DO SO MAY RESULT IN PENALTIES ON WORK PERFORMED UP TO 48 HOURS AFTER NOTICE WAS GIVEN INCLUDING: 1. REFUSAL OF PAYMENT FOR SAID WORK. 2. DEDUCTIONS OF PAYMENT TO THE CONTRACTOR. 3. REMOVAL OF AND RECONSTRUCTION OF SAID WORK, AT THE CONTRACTOR'S EXPENSE.
3. IF THE WORK REQUIRES A ROAD CLOSURE, THE CONTRACTOR SHALL NOTIFY THE LEE COUNTY SHERIFF'S OFFICE (PHONE: 815-284-6631) OF THE CLOSURE A MINIMUM 48 HOURS PRIOR TO CLOSING THE ROAD.
4. THE CONTRACTOR IS HEREBY NOTIFIED THAT WHILE THE HIGHWAY DEPARTMENT HAS MADE A GOOD FAITH EFFORT TO IDENTIFY AND SHOW ALL UTILITIES ON THESE PLANS, THE DEPARTMENT CANNOT GUARANTEE THAT ALL UTILITIES ARE SHOWN.
5. IT IS THE CONTRACTOR'S RESPONSIBILITY TO HAVE ALL UTILITIES MARKED ON THE JOBSITE PRIOR TO COMMENCING WORK. THE CONTRACTOR SHALL ALSO ENSURE THAT THE UTILITY MARKS REMAIN VISIBLE THROUGHOUT THE CONSTRUCTION PERIOD. FOR UTILITY LOCATING, CALL JULIE AT 811 OR 1-800-892-0123 AT LEAST 2 BUSINESS DAYS PRIOR TO STARTING WORK.
6. ANY UTILITY THAT IS IN THE WAY OF THE IMPROVEMENT SHALL BE MOVED BY THE UTILITY'S OWNER (OR DESIGNATED AGENT) PRIOR TO CONSTRUCTION AND SHALL NOT BE APART OF THIS CONTRACT. THE CONTRACTOR SHALL NOTIFY THE RESPECTIVE UTILITY TO MAKE THE NECESSARY ADJUSTMENTS PRIOR TO CONSTRUCTION.
7. THE LOCATION AND ELEVATION OF THE VARIOUS UNDERGROUND UTILITIES (INCLUDING FIELD TILES) AS SHOWN ON THESE PLANS ARE NOT TO BE TAKEN AS EXACT. THE CONTRACTOR SHALL USE SPECIAL CARE WHEN CONDUCTING OPERATIONS NEAR THEM TO PREVENT DAMAGE.
8. THE CONTRACTOR SHALL ENSURE THAT ALL STREAMS, STORM SEWERS, PIPE, DRAIN AND TILES FLOWS SHALL BE MAINTAINED THROUGHOUT THE PROJECT UNLESS OTHERWISE STATED IN THESE PLANS, THE SPECIAL PROVISIONS OR AS DIRECTED BY THE ENGINEER.
9. IF FIELD TILE IS ENCOUNTERED, STORM SEWER OR PIPE DRAIN WILL BE USED IN ACCORDANCE WITH SECTION 611 OF THE STANDARD SPECIFICATIONS.
10. THE CONTRACTOR SHALL CAREFULLY PRESERVE ALL PROPERTY MARKS, SECTION OR SUBSECTION MONUMENTS ENCOUNTERED, UNTIL AN OWNER, AUTHORIZED AGENT, OR AN ILLINOIS LICENSE SURVEYOR HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION. ANY PROPERTY MARKS, SECTION OR SUBSECTION MONUMENTS, UNLESS

- REFERENCED, DAMAGED BY THE CONTRACTOR SHALL BE REPLACED AT THE EXPENSE OF THE CONTRACTOR.
11. TREES LESS THAN 6" IN DIAMETER HAVE NOT BEEN SHOWN ON THESE PLANS. ANY TREE(S) THAT ARE LESS THAN 6" AND ARE TO BE REMOVED, THE COST OF THE REMOVAL SHALL BE INCLUDED IN THE UNIT PRICE OF EARTH EXCAVATION (SPECIAL) UNLESS OTHERWISE NOTED IN THESE PLANS OR IN THE SPECIAL PROVISIONS.
 12. THE FINAL TOP 4" OF SOIL IN ANY AREA DISTURBED BY THE CONTRACTOR MUST BE ABLE TO SUPPORT VEGETATION COMPLYING WITH SECTION 211 OF THE STANDARD SPECIFICATIONS.
 13. EXISTING MAILBOXES, STREET SIGNS, TRAFFIC SIGNS AND OTHER OBJECTS DESIGNATED BY THE ENGINEER THAT ARE WITHIN THE CONSTRUCTION LIMITS SHALL BE REMOVED AND RESET BY THE CONTRACTOR. THE COST OF REMOVING AND RESETTING SHALL BE INCLUDED IN THE UNIT COST OF EARTH EXCAVATION UNLESS OTHERWISE SHOWN IN THESE PLANS OR THE SPECIAL PROVISIONS.
 14. CONSTRUCTION TRAFFIC CONTROL DEVICES SHALL REMAIN IN PLACE UNTIL THE ENGINEER GRANTS PERMISSION TO REMOVE THEM.
 15. THE CONTRACTOR SHALL REGULARLY INSPECT THE TRAFFIC CONTROL DEVICES AT LEAST ONCE A WEEK, TO INSURE THAT ALL REQUIRED DEVICES ARE VISIBLE TO DRIVERS AND IN GOOD WORKING ORDER. IF ANY DISCREPANCIES ARE FOUND, THE CONTRACTOR SHALL IMMEDIATELY MAKE ARRANGEMENTS TO HAVE THEM CORRECTED AS SOON AS POSSIBLE. IF DETERMINED NECESSARY BY THE ENGINEER, FURTHER INSPECTION REQUIREMENTS MAY BE MODIFIED OR ADDED AT HIS/HER DISCRETION. THE ENGINEER SHALL BE THE FINAL JUDGE ON WHETHER A TRAFFIC CONTROL DEVICE IS VISIBLE AND IN GOOD WORKING ORDER.
 16. UNLESS STATED OTHERWISE IN THESE PLANS, IN THE SPECIAL PROVISIONS OR AS DIRECTED BY THE ENGINEER, THE CONTRACTOR SHALL PROVIDE FLAGGERS WHENEVER A TRAFFIC LANE(S) CLOSURE IS REQUIRED. FLAGGERS ARE NOT REQUIRED IF THE ADJACENT ROADWAY IS CLOSED TO ALL TRAFFIC.
 17. ALL EROSION CONTROL MEASURES PROPOSED FOR THIS PROJECT, UNLESS OTHERWISE STATED IN THESE PLANS, IN THE SPECIAL PROVISIONS OR AS DIRECTED BY THE ENGINEER, SHALL BE INSTALLED PRIOR TO ANY ACTIVITIES THAT DISTURB SOIL AREAS.
 18. ALL DISTURBED AREAS, UNLESS OTHERWISE STATED IN THESE PLANS, IN THE SPECIAL PROVISIONS OR AS DIRECTED BY THE ENGINEER, SHALL BE SEEDED TO THE SATISFACTION OF THE ENGINEER.
 19. SHOULD A DISCREPANCY BE FOUND IN THESE PLANS OR IN THE SPECIAL PROVISIONS, THE ISSUE SHOULD BE BROUGHT TO THE ENGINEER IMMEDIATELY. THE ENGINEER SHALL THEN MAKE A DETERMINATION ON HOW TO PROCEED.
 20. EXCEPT WHEN REQUIRED BY THESE PLANS OR DIRECTED BY THE ENGINEER; OPENING OF THE CREEK BERMS, PLACING OF MATERIAL WITHIN THE BERMS THAT MAY RESTRICT THE CHANNEL, OR TEMPORARY CROSSINGS OF THE CREEK WILL NOT BE PERMITTED.



JULIE LOCATION INFO
COUNTY: LEE
TOWNSHIP: 38N, R1E
SECTION #: 17 (W) & 18 (E)



BROOKLYN BRIDGE 22-00351-00-BR		REVISIONS	
		DATE	REVISION MADE
GENERAL NOTES		2/20/2025	PER IDOT COMMENTS
		2/25/2025	PER IDOT COMMENTS
SHEET NO. 2 OF 21			
DATE: 11/13/2024	DRAWN BY: BMT	CHECKED BY: DA	

ROAD CONSTRUCTION SIGNS



A

W20-3

QTY: 2



B

W20-3

QTY: 2



C

R11-2

QTY: 2

SIGN ATTACHED TO BARRICADE



D

R11-3a

QTY: 2

SIGN AND BARRICADE TO BE PLACED ON ROAD SHOULDER



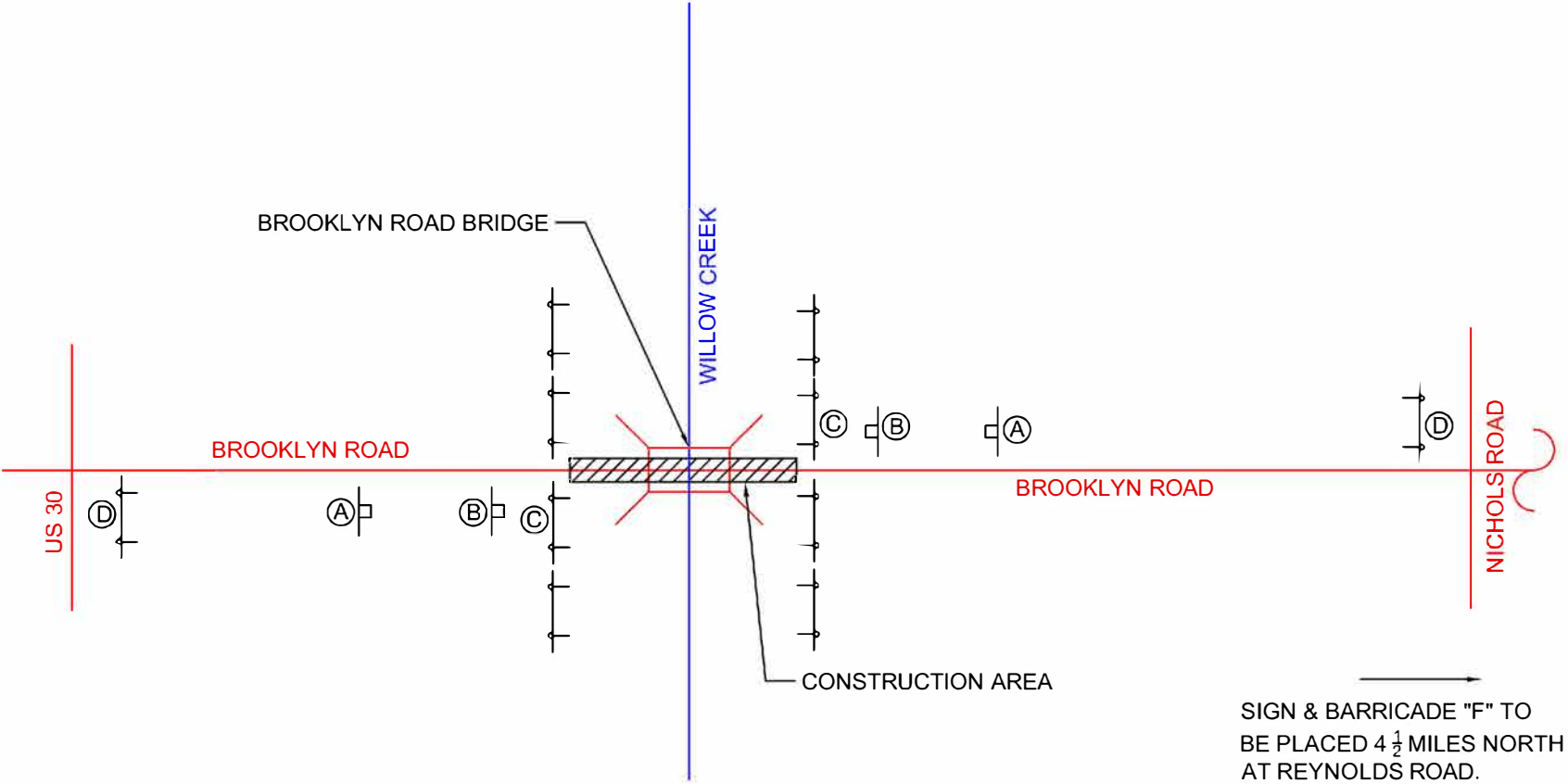
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R11-3a

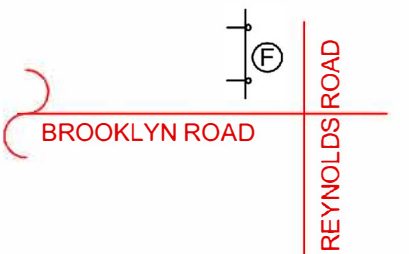
QTY: 1

SIGN AND BARRICADE TO BE PLACED ON ROAD SHOULDER

- NOTES:**
- 1. SEE IDOT TRAFFIC CONTROL STANDARDS 701901 AND BLR 21-9 FOR FOR SPECIFIC SIGN LAYOUT DETAILS.
 - 2. ALL SIGNS SHALL BE CLEAN AND CLEARLY VISIBLE TO DRIVERS. ALL SIGNS SHALL MEET MUTCD STANDARDS.
 - 3. DAMAGED SIGNS AND BARRICADES SHALL BE REPLACED IN A TIMELY MANNER.
 - 4. TYPE 3 BARRICADES SHALL BE IN GOOD CONDITION AND MEET MUTCD STANDARDS.



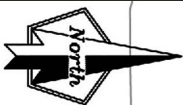
SIGN & BARRICADE "F" TO BE PLACED 4 1/2 MILES NORTH AT REYNOLDS ROAD.



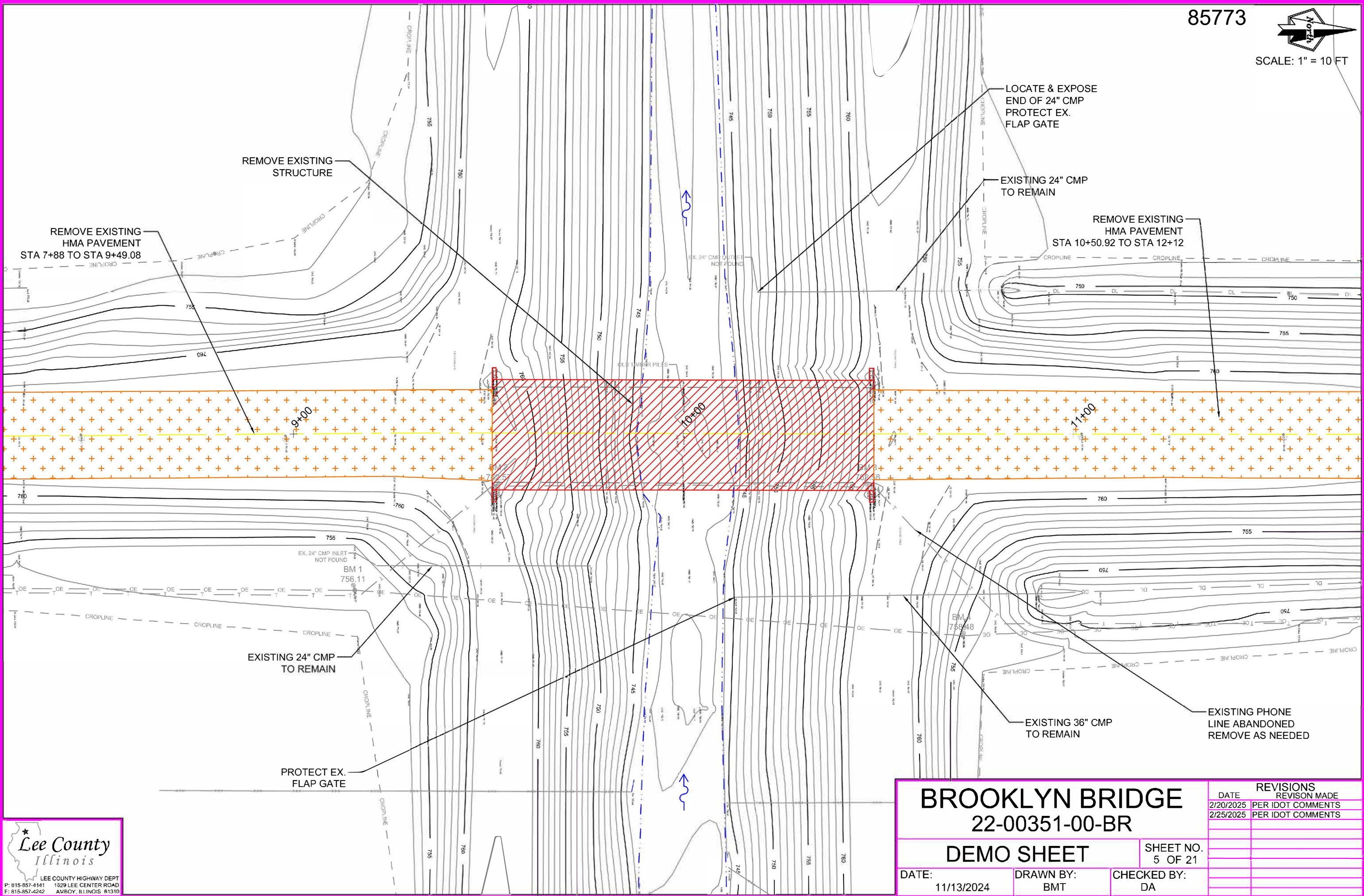
- TYPE 3 BARRICADE
- CONSTRUCTION SIGN

BROOKLYN BRIDGE			REVISIONS	
22-00351-00-BR			DATE	REVISION MADE
TRAFFIC CONTROL			2/20/2025	PER IDOT COMMENTS
			2/25/2025	PER IDOT COMMENTS
DATE: 11/13/2024			SHEET NO. 4 OF 21	
DRAWN BY: BMT			CHECKED BY: DA	

85773



SCALE: 1" = 10 FT



BROOKLYN BRIDGE
22-00351-00-BR

DEMO SHEET

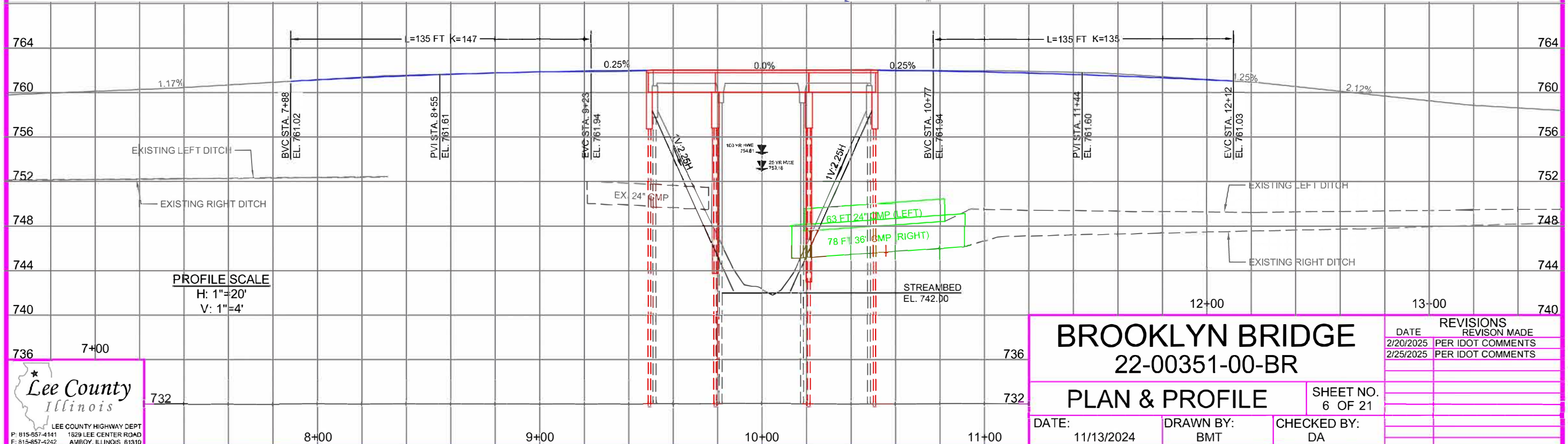
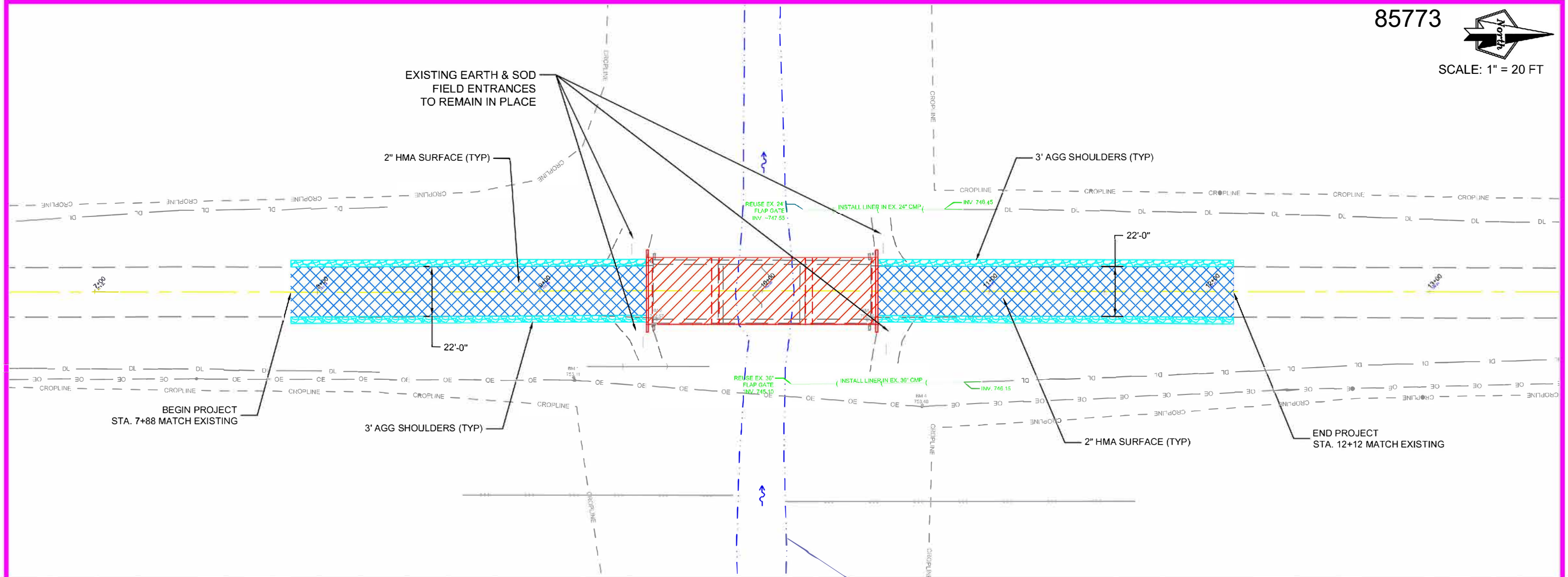
SHEET NO.
5 OF 21

DATE:
11/13/2024

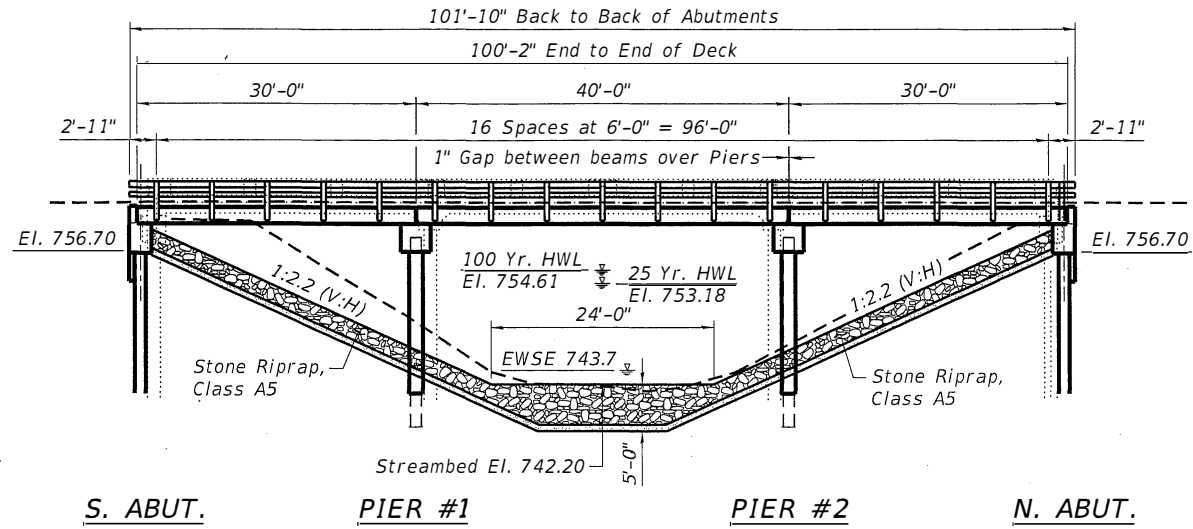
DRAWN BY:
BMT

CHECKED BY:
DA

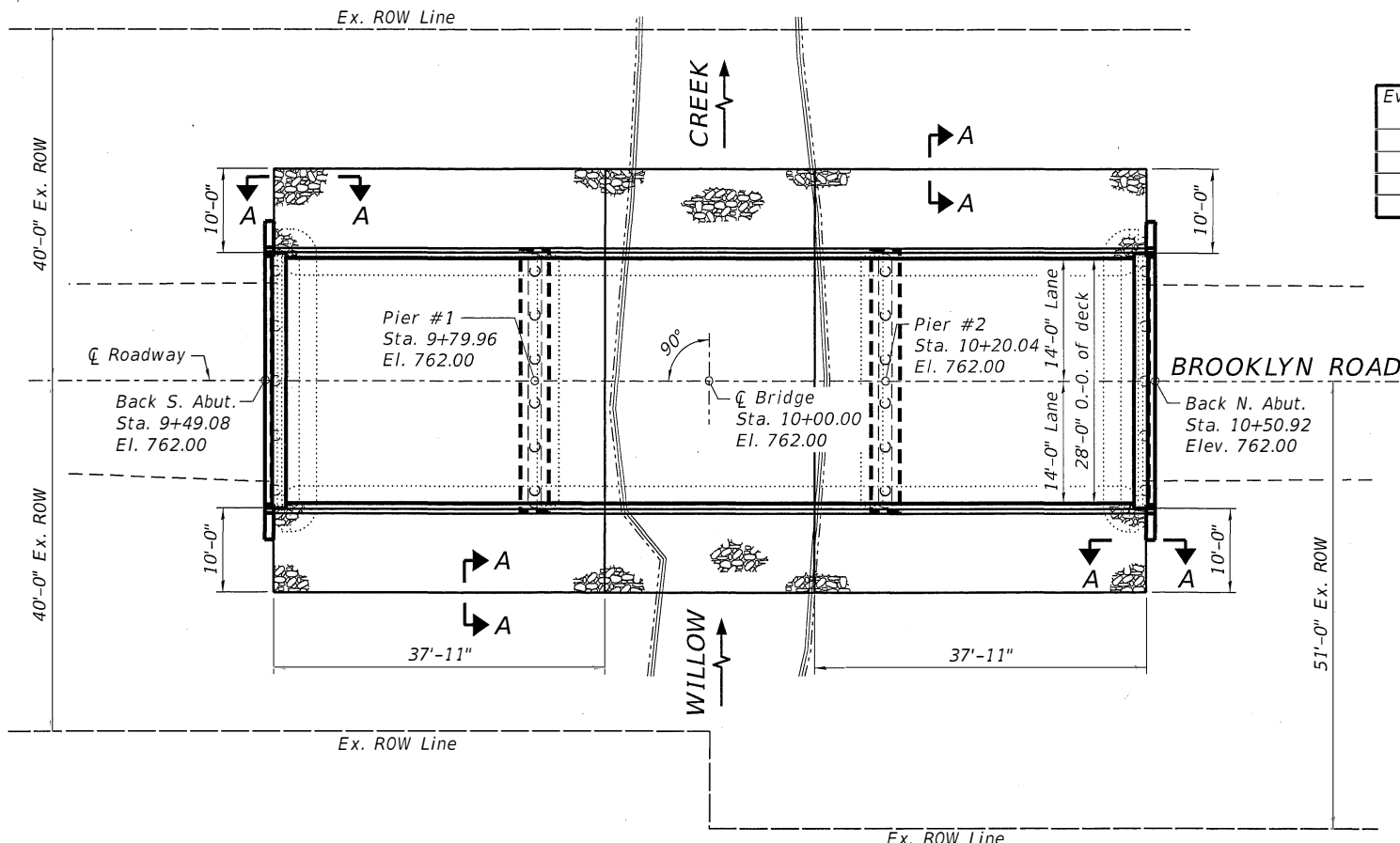
REVISIONS	
DATE	REVISION MADE
2/20/2025	PER IDOT COMMENTS
2/25/2025	PER IDOT COMMENTS



Existing Structure: S.N. 052-3101 originally constructed in 1957, under Section 68-B as a three span (29'-9":37'-0":29'-9") slab bridge on concrete piles spill thru abutments and piers. 99'-0" back-to-back of abutments. 52'-11" Out-Of of deck at Sta. 20+00. No skew. Structure to be removed and replaced. Road shall be closed to traffic during construction. No salvage.



ELEVATION VIEW



PLAN VIEW

INDEX OF STRUCTURAL SHEETS

- General Plan and Elevation
- General Data
- 21"x36" PPC Deck Beam (Spans 1, 3)
- 21"x36" PPC Deck Beam Details (Spans 1, 3)
- 21"x36" PPC Deck Beam (Span 2)
- 21"x36" PPC Deck Beam Details (Span 2)
- Pier Details
- Abutment Details
- Metal Shell Pile Details
- Steel Railing, Type SM Elevation & Details
- 11-14 Boring Logs

WATERWAY INFORMATION

Drainage Area = 45.35 Sq. Mi.		Low Grade El. 762.00 @ Sta. 10+00							
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.	Nat. H.W.E.	Head - Ft.	Headwater El.	Exist.	Prop.	Exist.
Design	25	2500	298.38	298.31	753.29	0.1	0.1	753.39	753.39
Base	100	3310	372.82	371.15	754.46	0.2	0.1	754.66	754.56
Scour Check	200	3729	409.37	407.33	755.24	X	X	X	X
Max. Calc	500	4260	455.18	452.89	755.93	0.3	0.3	756.23	756.23

DESIGN SCOUR ELEVATION TABLE

Event / Limit	Design Scour Elevations (ft.)				
State	S. Abut.	Pier 1	Pier 2	N. Abut.	Item 113
Q100	NA	734.83	734.83	NA	8
Q200	756.70	735.78	735.78	756.70	
Design	756.70	734.83	734.83	756.70	
Check	756.70	735.78	735.78	756.70	

WILLOW CREEK
BUILT 2025 BY
LEE COUNTY
SECTION 22-00351-00-BR
C.H. 6 STATION 10+00
STR. NO. 052-3104 LOADING HL-93

NAME PLATE LETTERING
Refer To Std. 515001-04

HIGHWAY CLASSIFICATION

C.H. 6 (Brooklyn Road)
Functional Class: Minor Collector
ADT: 250 (2023); 411 (2048)
DHV: 25
Design Speed: 40 m.p.h.
Posted Speed: 55 m.p.h.
2-Way Traffic
Directional Distribution: 50:50

DESIGN STRESSES

FIELD UNITS
f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)
PRECAST PRESTRESSED UNITS
f'c = 6,000 psi
f'ci = 5,000 psi
fpu = 270,000 psi (1/2" Low Lax Strands)
fpbt = 201,960 psi (1/2" Low Lax Strands)

DESIGN SPECIFICATIONS

2020 AASHTO LRFD Bridge Design
Specifications, 9th Edition

LOADING HL-93

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

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 sec. (S₁) = 0.089 g
Design Spectral Acceleration at 0.2 sec. (S_s) = 0.147 g
Soil Site Class = D

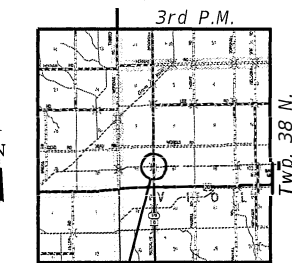


Scott A. Brown 2/24/2025
DATE

SCOTT A. BROWN
DIXON, ILLINOIS
ILLINOIS LICENSED STRUCTURAL
ENGINEER NO. 081-005981
EXPIRES 11-30-2026

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

GENERAL PLAN AND ELEVATION
FAS 179 (CH 6 - BROOKLYN ROAD)
OVER WILLOW CREEK
SECTION 22-00351-00-BR
LEE COUNTY
STATION 10+00.00
STRUCTURE NO. 052-3104



LOCATION SKETCH

REVISION	DATE	BY	REMARKS
DESIGNED	CTC		
DRAWN	RDA		
REVIEWED	SAB		
APPROVED	SAB		

LEE COUNTY HIGHWAY DEPARTMENT
FAS 179 (CH 6 - BROOKLYN ROAD) OVER WILLOW CREEK
2025



GENERAL PLAN AND ELEVATION
S.N. 052-3104
STRUCTURAL SHEET NO. 1 OF 14

C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6	22-00351-00-BR	LEE	21	7
WHA# 1996D23			ILLINOIS	

PRINT_ORGANIZER.BW.pltcf 2/24/2025 4:16:57 PM = PLOTTED

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GENERAL NOTES:

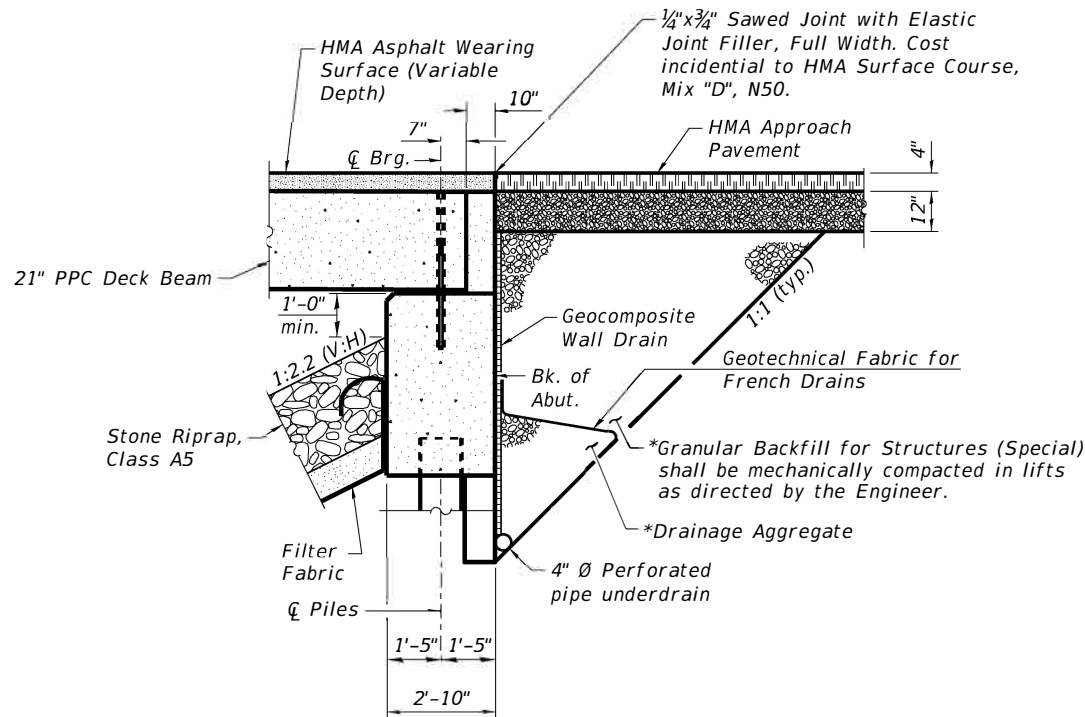
*See Special Provisions.

Reinforcement bars designated (E) shall be epoxy coated.

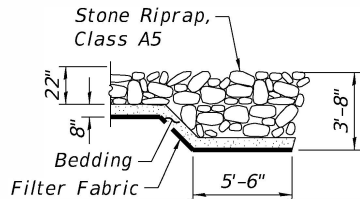
Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.

The channel shall be transitioned to fit the proposed structure inside the Right of Way. Cost shall be included in price per Cubic Yard for Channel Excavation.

Cofferdams are not anticipated for the pier pile encasements. Any dewatering measures required for the pier construction shall be considered incidental to the contract price bid per cubic yards for concrete structures.



SECTION THRU ABUTMENTS
(Dimensions at Rt. Δ's.)



SECTION A-A

BILL OF MATERIAL - BRIDGE

85773

Item	Unit	Super	Sub	Total
Stone Riprap, Class A5	Sq. Yd.	-	505	505
Filter Fabric	Sq. Yd.	-	505	505
Hot-Mix Asphalt Surface Course, IL-9.5FG, Mix "C", N50	Ton	32	-	32
Removal of Existing Structures	Each	-	-	1
Structure Excavation	Cu. Yd.	-	356.8	356.8
Concrete Structures	Cu. Yd.	-	142.2	142.2
* Precast Prestressed Concrete Deck Beams (21" Depth)	Sq. Ft.	2,800	-	2,800
Reinforcement Bars, Epoxy Coated	Pound	-	10,770	10,770
Steel Railing, Type SM	Foot	204	-	204
Furnishing Metal Shell Piles 14"x0.312"	Foot	-	805	805
Driving Piles	Foot	-	805	805
Test Pile Metal Shell	Each	-	4	4
Name Plates	Each	-	-	1
* Granular Backfill for Structures (Special)	Cu. Yd.	-	48	48
Geocomposite Wall Drain	Sq. Yd.	-	50	50
Pipe Underdrains for Structures 4"	Foot	-	100	100
* Full Lane Sealant Waterproofing System	Sq. Yd.	317	-	317

*See Special Provisions.

REVISION	DATE	BY	REMARKS

DESIGNED	CTC
DRAWN	RDA
REVIEWED	SAB
APPROVED	SAB

LEE COUNTY HIGHWAY DEPARTMENT
FAS 179 (CH 6 - BROOKLYN ROAD) OVER WILLOW CREEK
2025

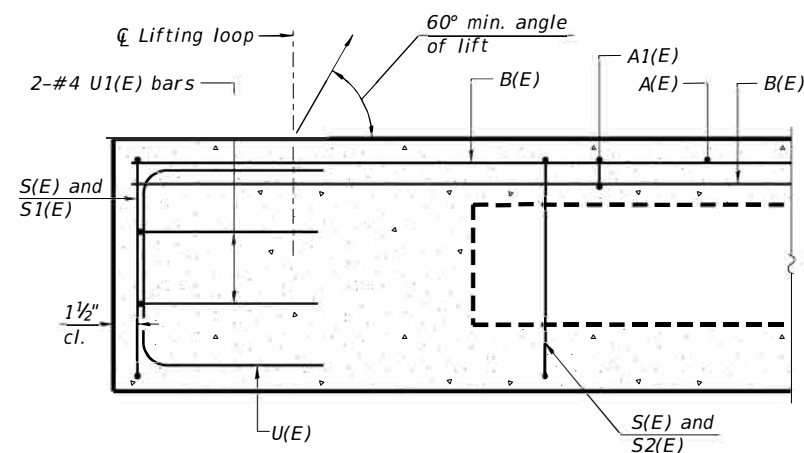


WILLET HOFMANN
& ASSOCIATES, INC.
ENGINEERING ARCHITECTURE LAND SURVEYING
809 EAST 2ND STREET, DIXON, IL 61021-0367
T: 815-284-3381 DESIGN FIRM: #184-030918

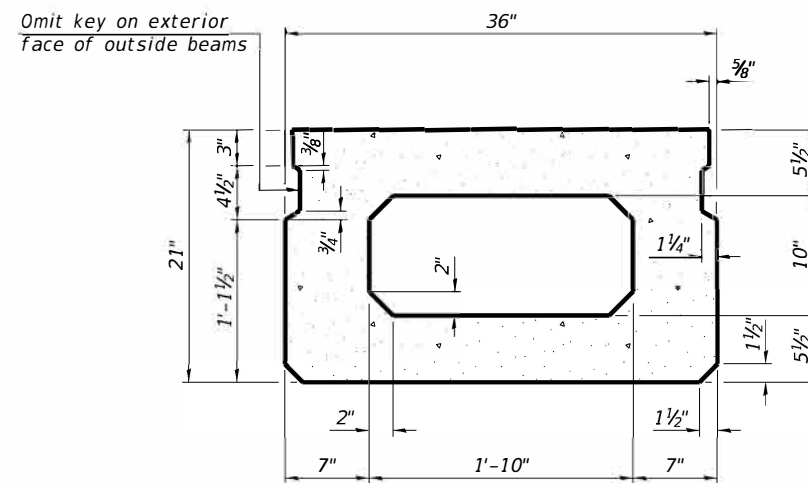
GENERAL DATA
S.N. 052-3104

STRUCTURAL SHEET NO. 2 OF 14

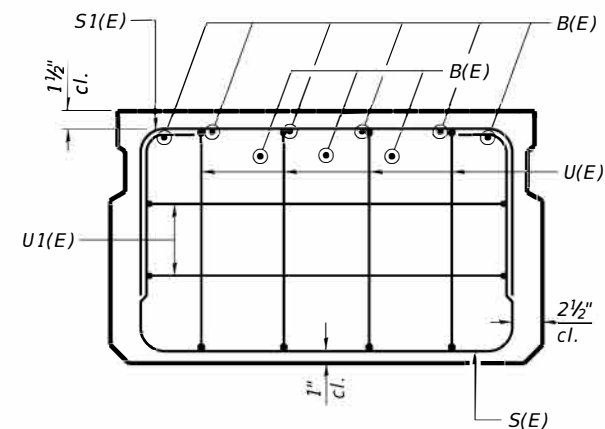
C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6	22-00351-00-BR	LEE	21	8
WHA# 1996D23				
ILLINOIS				



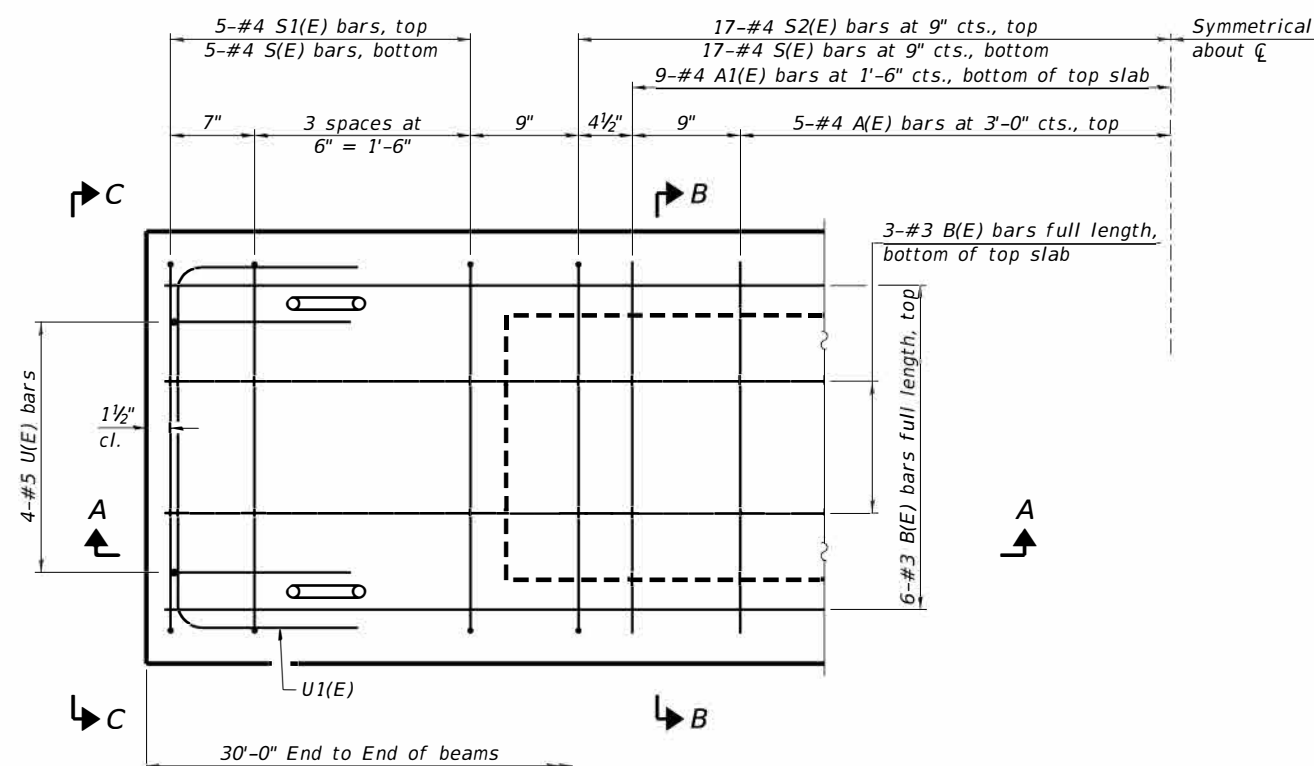
SECTION A-A



SECTION B-B
(Showing dimensions)

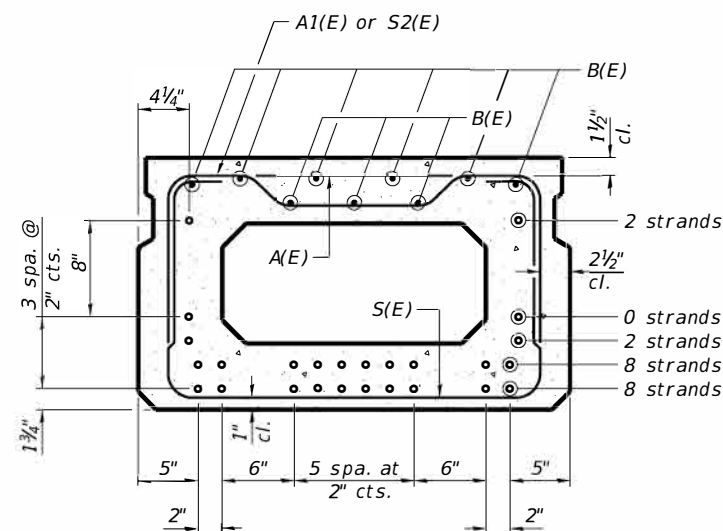


VIEW C-C



PLAN VIEW

NOTE:
Spacing of S(E) and S2(E) bars may be adjusted up to 4" in the immediate area of the transverse tie diaphragms to miss the block outs for the transverse ties.



SECTION B-B
(Showing reinforcement and permissible strand locations)

NOTE:
Place the number of strands specified in each row symmetrically about the centerline of beam in the permissible strand locations shown.

MINIMUM BAR LAP
#3 bar = 1'-6"

BAR LIST
ONE BEAM ONLY
(For information only)

Bar	No.	Size	Length	Shape
A(E)	10	#4	2'-7"	—
A1(E)	18	#4	2'-10"	~
B(E)	9	#3	29'-9"	—
S(E)	44	#4	6'-5"	⌋
S1(E)	10	#4	4'-11"	⌋
S2(E)	34	#4	5'-2"	⌋
U(E)	8	#5	4'-0"	⌋
U1(E)	4	#4	5'-0"	⌋

NOTE:
See Structural Sheet 4 of 14 for additional
details and Bill of Material.

REVISION	DATE	BY	REMARKS	DESIGNED	CTC
				DRAWN	RDA
				REVIEWED	SAB
				APPROVED	SAP

**LEE COUNTY HIGHWAY DEPARTMENT
FAS 179 (CH 6 – BROOKLYN ROAD) OVER WILLOW CREEK
2025**

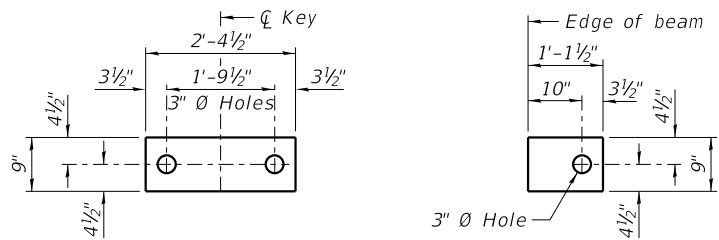


WILLETT HOFMANN
 & ASSOCIATES INC.
 ENGINEERING ARCHITECTURE LAND SURVEYING
 809 EAST 2ND STREET, DIXON, IL 61021-0367
 T: 815-284-3381 DESIGN FIRM #164-000019

21"x36" PPC DECK BEAMS SPANS 1 & 3
S.N. 052-3104

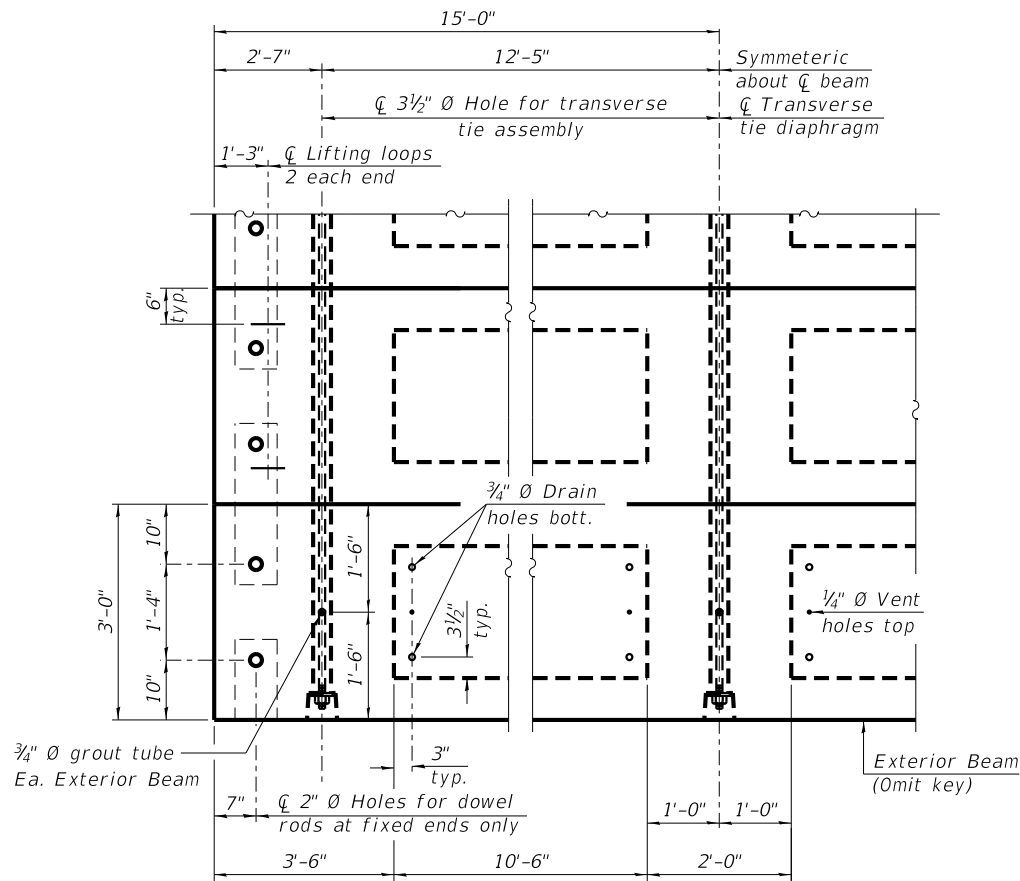
STRUCTURAL SHEET NO. 3 OF 14

C.H	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6	22-00351-00-BR	LEE	21	9
		WHA# 1996D23		
ILLINOIS				



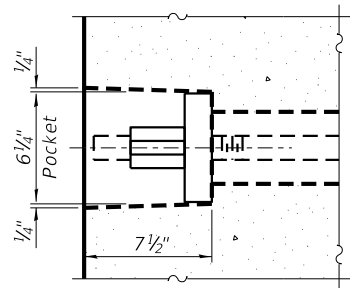
FABRIC BEARING PAD (Interior) **FABRIC BEARING PAD (Exterior)**
FIXED

NOTE:
All bearing pads shall be 1" thick.
Omit holes when using expansion bearings.
Expansion bearing pads shall be bonded to the substructure.

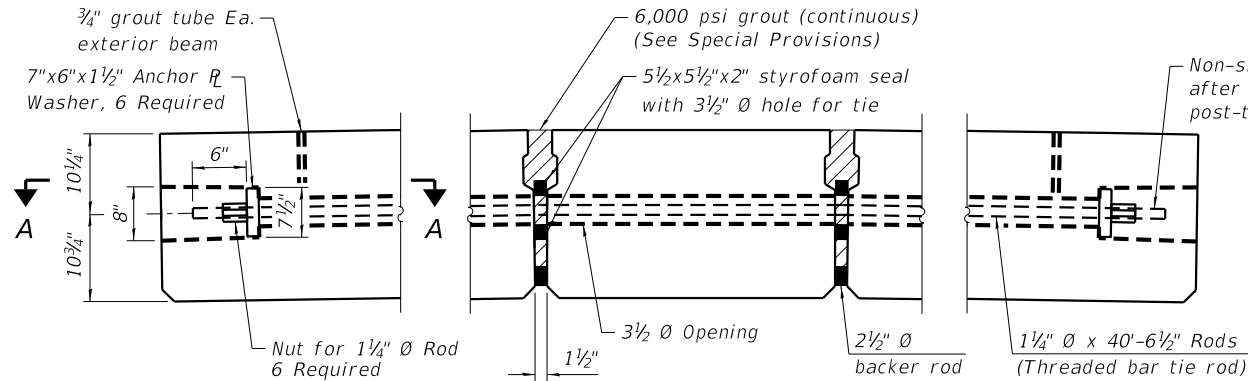


PLAN VIEW

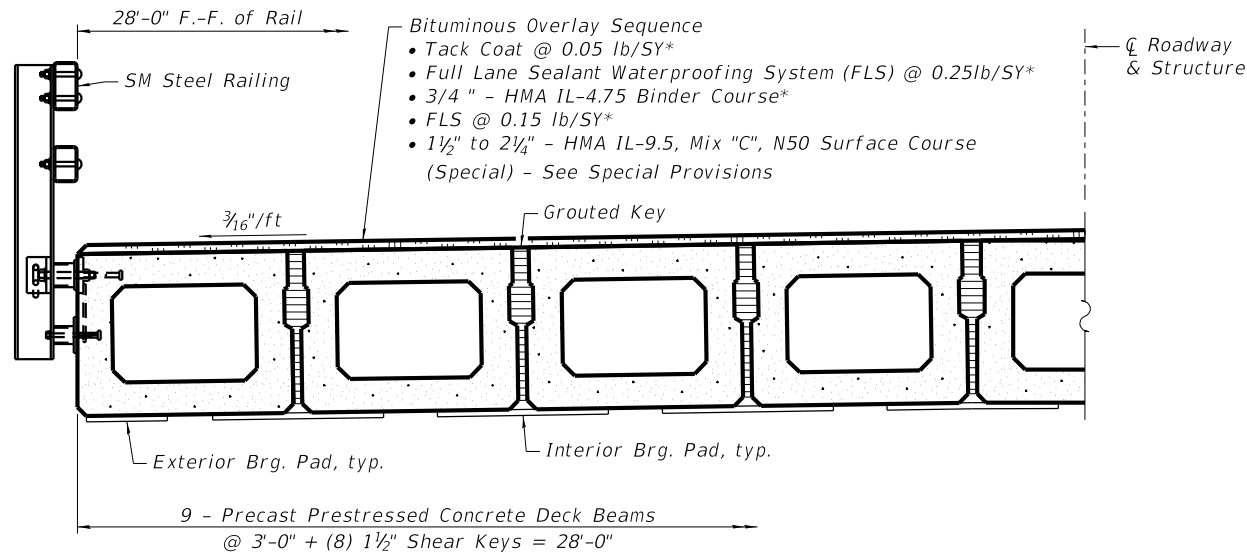
NOTE:
Connect all beams together with the post tensioned transverse tie configuration shown.



SECTION A-A

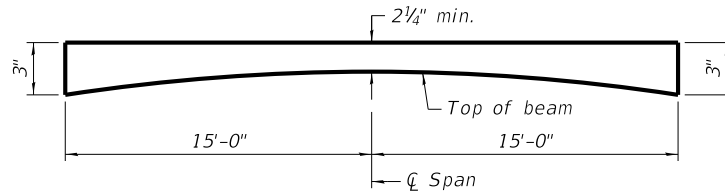


TYPICAL POST-TENSIONED TRANSVERSE TIE ROD ASSEMBLY

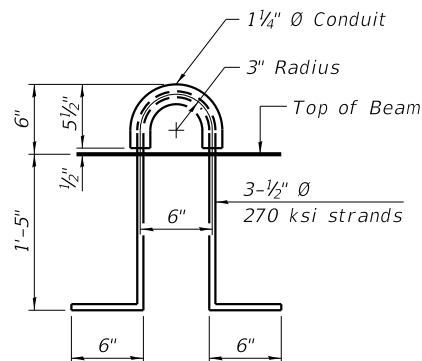


HALF CROSS-SECTION

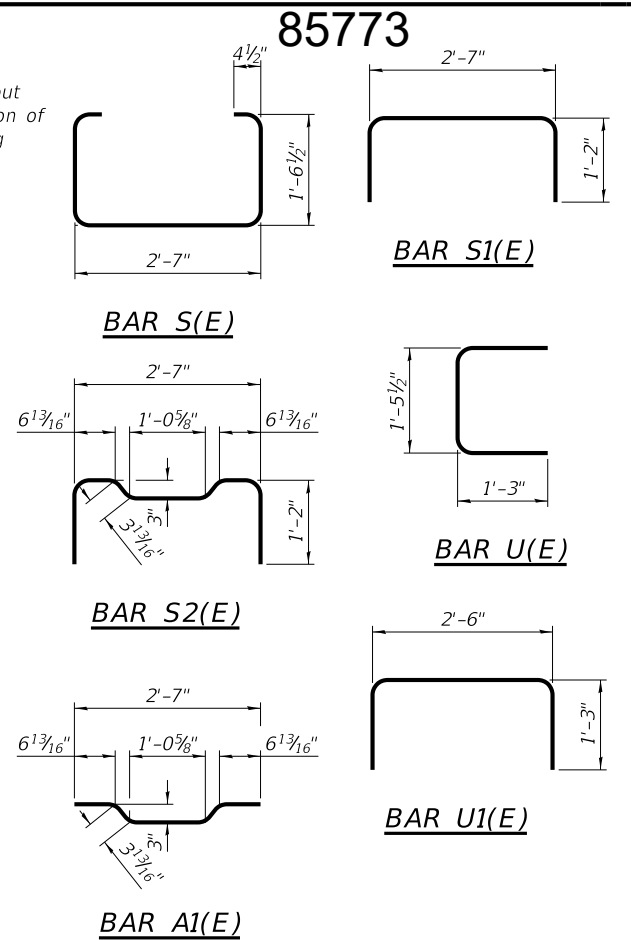
*Incidental to FULL LANE SEALANT WATERPROOFING SYSTEM



HOT-MIX ASPHALT WEARING SURFACE (HMA) PROFILE
(For information only)



LIFTING LOOP DETAIL



BILL OF MATERIAL - SPANS 1 & 3

Precast Prestressed Conc. Deck Bms. (21" depth)	Sq. Ft.	1,680
---	---------	-------

NOTES:

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in.

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

A minimum 2 1/2" diameter lifting pin shall be used to engage the lifting loops during handling.

Corrosion Inhibitor, per Article 1020.05(b)(10) and 1021.07 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.

Compressive strength of prestressed concrete, f'c, shall be 6,000 psi.

Compressive strength of prestressed concrete at release, f'ci, shall be 5,000 psi.

Keyway surfaces shall be cleaned to remove form oil or other bond breaking material prior to shipment of beams. Cleaning shall be done by sandblasting the keyway areas between top of the beams and the bottom edge of the keys.

Threaded bar post-tensioning rods to be 1 1/4" diameter ultimate stress 150 ksi (ultimate strength = 187.5k). Conforming to ASTM A722 steel hot rolled and proof stressed. The bar deformations shall conform to the requirements of ASTM A615.

Voids around threaded bar and pockets on exterior faces of bridge shall be grouted after post-tensioning is completed. See Special Provisions for grout and grouting pressures.

All threaded rods shall be initially stressed to not more than 37.5 (0.2 Fpu, temporary) and the nut tightened. After all bars have been stressed to 37.5 the jacking may commence for 112.5k (0.6 Fpu) maximum transfer load (lockoff).

REVISION	DATE	BY	REMARKS

DESIGNED	CTC
DRAWN	RDA
REVIEWED	SAB
APPROVED	SAB

LEE COUNTY HIGHWAY DEPARTMENT
FAS 179 (CH 6 - BROOKLYN ROAD) OVER WILLOW CREEK
2025



WILLETT HOFMANN
& ASSOCIATES, INC.
ENGINEERING ARCHITECTURE LAND SURVEYING
809 EAST 2ND STREET, DIXON, IL 61021-0367
T: 815-284-3381 DESIGN FIRM: #184-000918

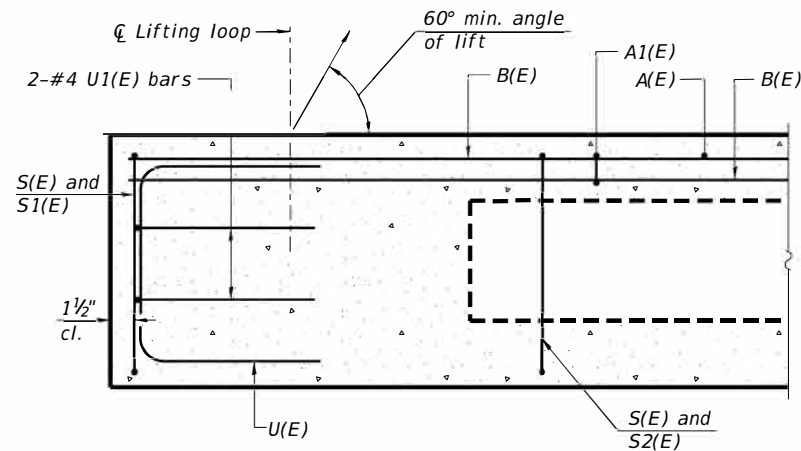
21"x36" PPC DECK BEAM DETAILS SPANS 1 & 3
S.N. 052-3104

STRUCTURAL SHEET NO. 4 OF 14

C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6	22-00351-00-BR	LEE	21	10

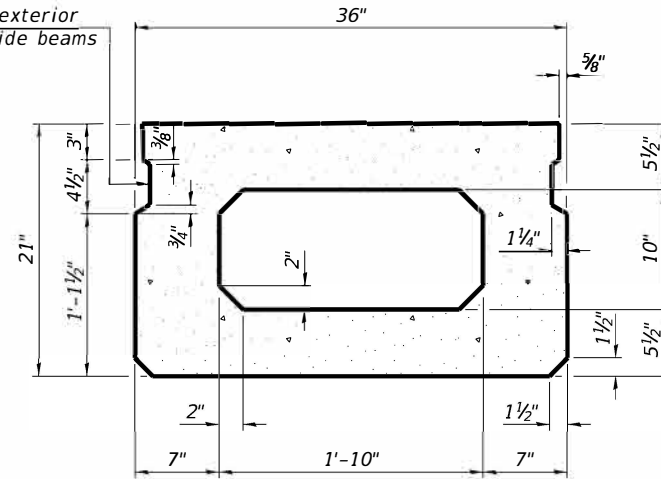
WHA# 1996D23

ILLINOIS

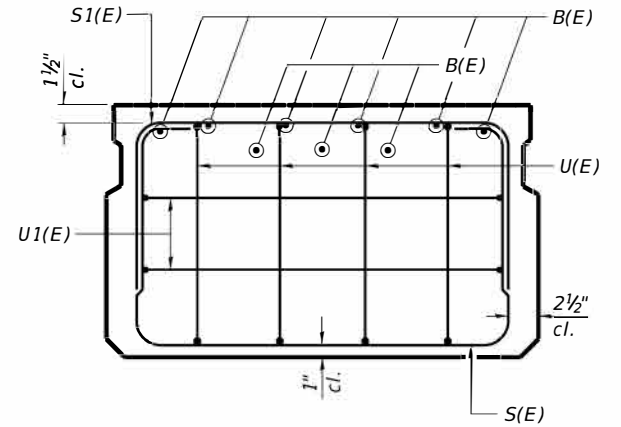


SECTION A-A

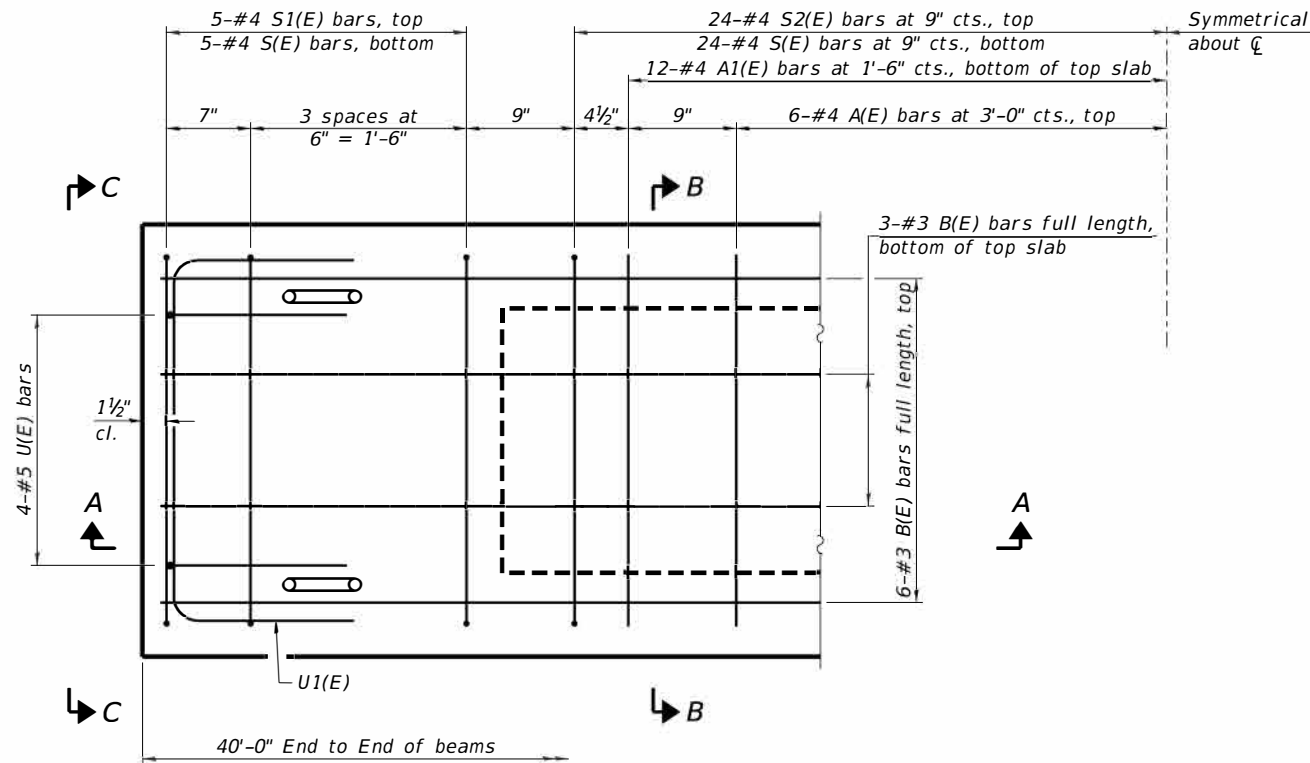
Omit key on exterior face of outside beams



SECTION B-B
(Showing dimensions)

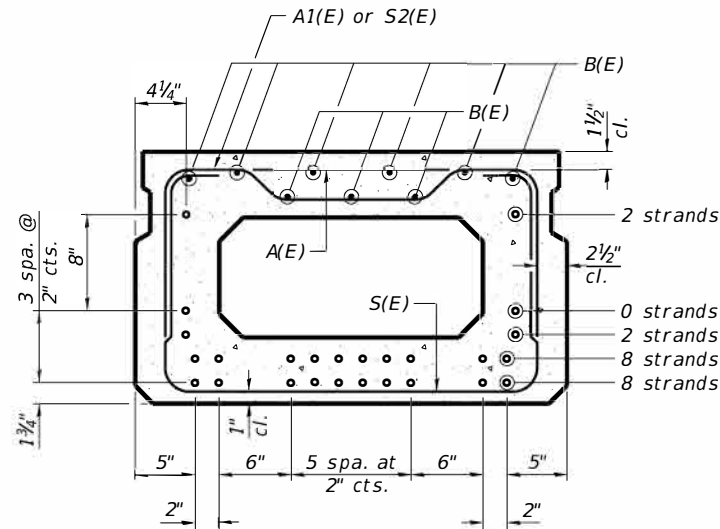


VIEW C-C



PLAN VIEW

NOTE:
Spacing of S(E) and S2(E) bars may be adjusted up to 4" in the immediate area of the transverse tie diaphragms to miss the block outs for the transverse ties.



SECTION B-B
(Showing reinforcement and permissible strand locations)

NOTE:
Place the number of strands specified in each row symmetrically about the centerline of beam in the permissible strand locations shown.

MINIMUM BAR LAP
#3 bar = 1'-6"

BAR LIST
ONE BEAM ONLY
(For information only)

Bar	No.	Size	Length	Shape
A(E)	12	#4	2'-7"	—
A1(E)	24	#4	2'-10"	~
B(E)	9	#3	39'-9"	—
S(E)	58	#4	6'-5"	U
S1(E)	10	#4	4'-11"	U
S2(E)	48	#4	5'-2"	U
U(E)	8	#5	4'-0"	U
U1(E)	4	#4	5'-0"	U

NOTE:
See Structural Sheet 6 of 14 for additional details and Bill of Material.

REVISION	DATE	BY	REMARKS

DESIGNED	CTC
DRAWN	RDA
REVIEWED	SAB
APPROVED	SAB

LEE COUNTY HIGHWAY DEPARTMENT
FAS 179 (CH 6 - BROOKLYN ROAD) OVER WILLOW CREEK
2025

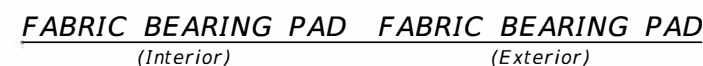
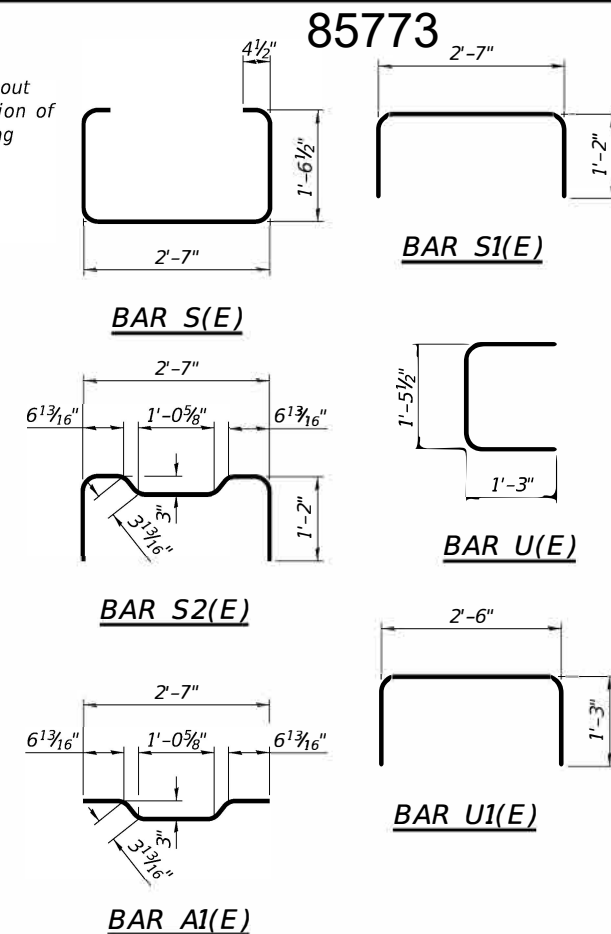
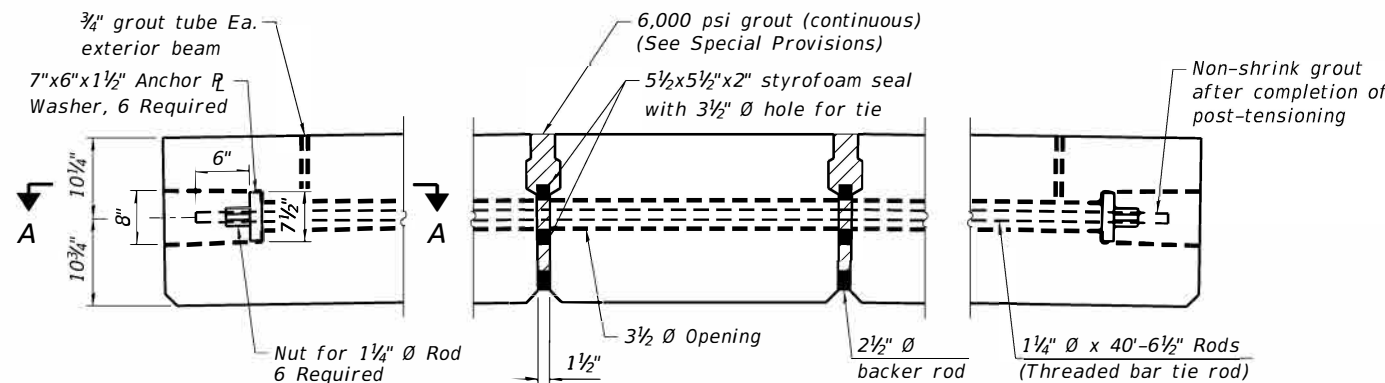


WILLET HOFMANN
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809 EAST 2ND STREET, DIXON, IL 61021-0367
T: 815-284-3381 DESIGN FIRM: #184-030918

21"x36" PPC DECK BEAMS SPAN 2
S.N. 052-3104

STRUCTURAL SHEET NO. 5 OF 14

C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6	22-00351-00-BR	LEE	21	11
WHA# 1996D23				
ILLINOIS				



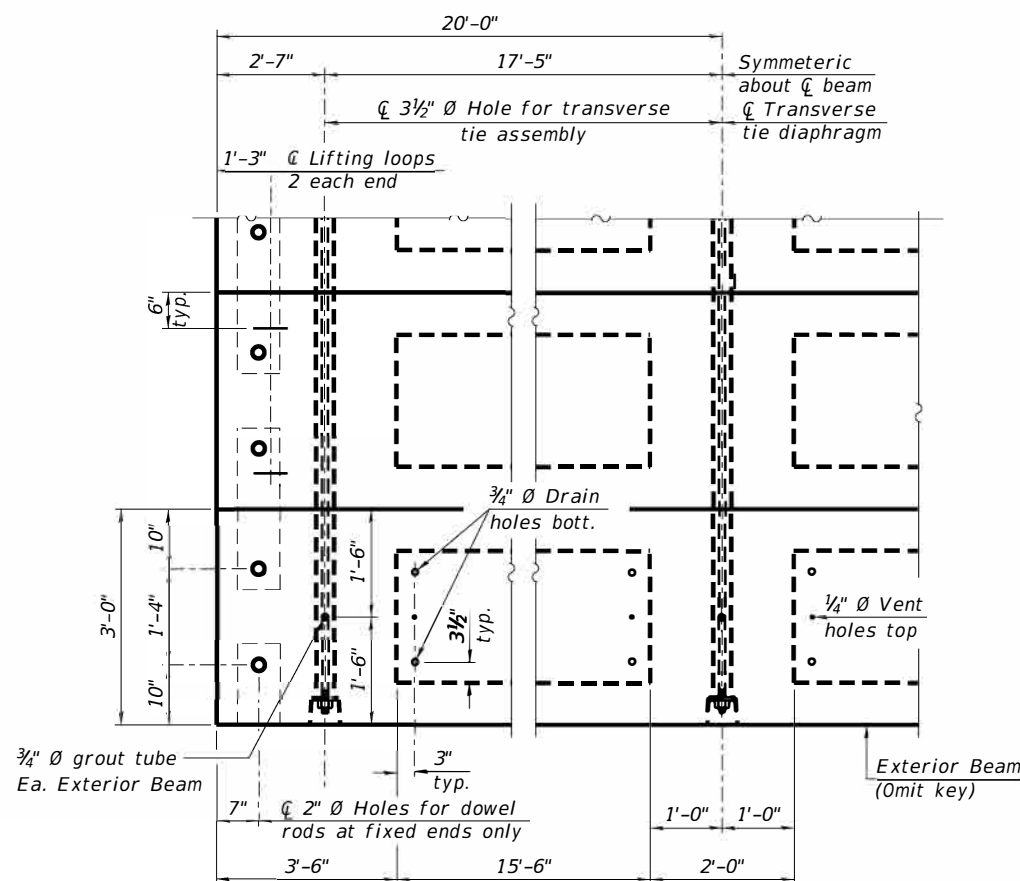
FIXED

NOTE:

All bearing pads shall be 1" thick.

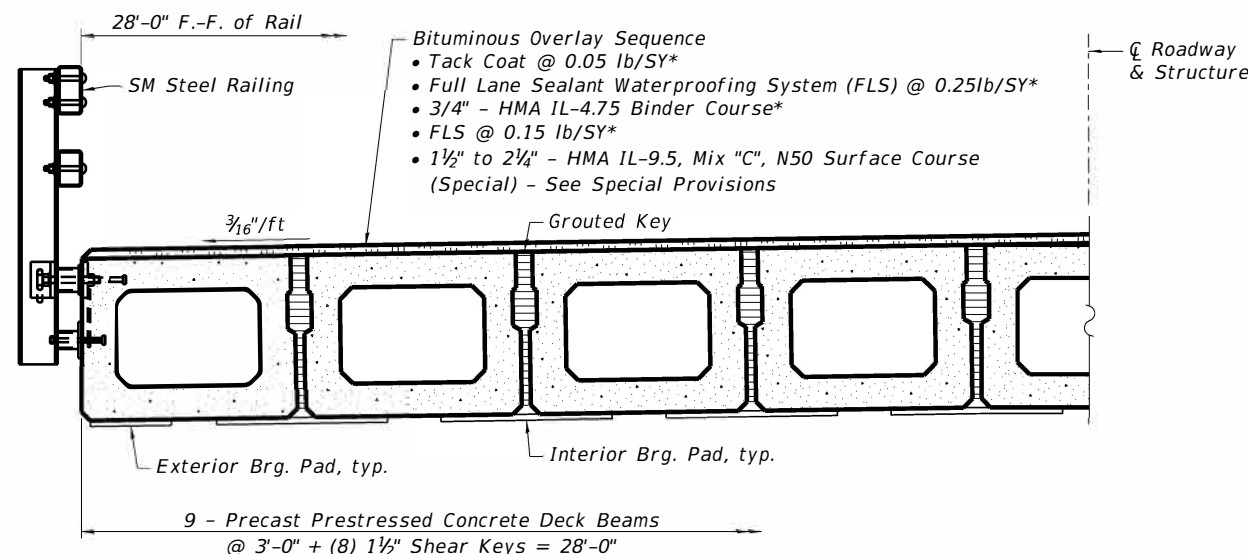
Omit holes when using expansion bearings.

Expansion bearing pads shall be bonded to the substructure.



NOTE:

Connect beams in pairs with the transverse tie configuration shown.



HALF CROSS-SECTION

(For information only)

REVISION	DATE	BY	REMARKS	DESIGNED	CTC
				DRAWN	RDA
				REVIEWED	SAB
				APPROVED	SAB

DESIGNED	CTC
DRAWN	RDA
REVIEWED	SAB
APPROVED	SAB

LEE COUNTY HIGHWAY DEPARTMENT
FAS 179 (CH 6 – BROOKLYN ROAD) OVER WILLOW CREEK
2025

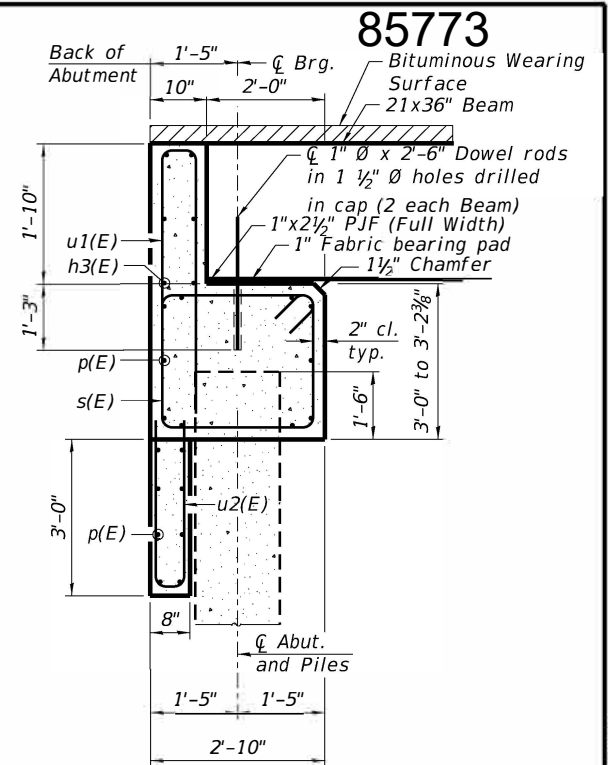


WILLETT HOFMANN
 & ASSOCIATES INC.
 ENGINEERING ARCHITECTURE LAND SURVEYING
 809 EAST 2ND STREET, DIXON, IL 61021-0367
 T: 815-284-3381 DESIGN FIRM: #184-000918

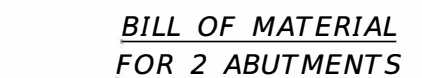
21"x36" PPC DECK BEAM DETAILS SPAN 2
S.N. 052-3104

STRUCTURAL SHEET NO. 6 OF 14

C.H	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6	22-00351-00-BR	LEE	21	12
		WHA# 1996D23		
ILLINOIS				



SECTION A-A



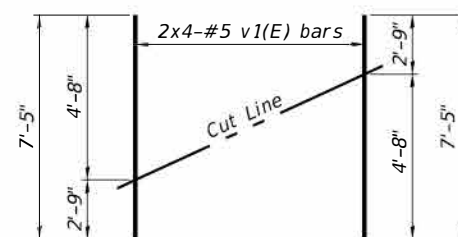
Bar	No.	Size	Length	Shape
h(E)	24	#5	7'-2"	————
h1(E)	24	#5	4'-2"	————
h2(E)	8	#5	4'-8"	————┐
h3(E)	12	#4	27"-8"	————
p(E)	36	#7	28'-10"	————
s(E)	72	#5	11'-3"	□
u(E)	24	#6	10'-2"	┌┐
u1(E)	58	#4	9'-6"	┌┐
u2(E)	60	#5	12'-4"	┌┐
v1(E)	16	#5	7'-5"	————
v2(E)	16	#5	4'-8"	————
Structure Excavation			Cu. Yd.	167
Concrete Structures			Cu. Yd.	29.2
Reinforcement Bars, Epoxy Coated			Pound	5,220
Furnishing Metal Shell Piles 14"x0.312"			Foot	305
Driving Piles			Foot	305
Test Pile Metal Shells			Each	2

NOTES:

Cast wingwalls and Backwalls after beams have been erected.

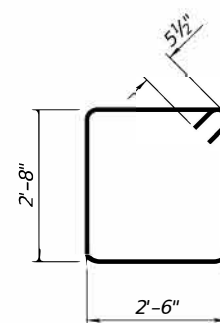
PILE DATA

Type: 14" Metal Shell with 0.312" walls	North Abut.	South Abut.
Nominal Required Bearing:	274 Kips	252 Kips
Factored Resistance Available:	151 Kips	138 Kips
Est. Length:	30 ft	31 ft
No. Production Piles:	5	5
No. Test Piles:	1	1

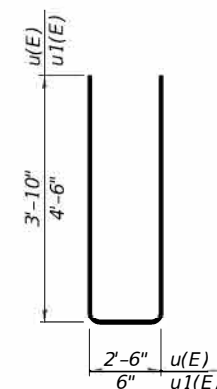


FIELD CUTTING DIAGRAM

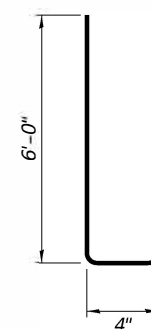
Order v1(E) bars full length. Cut as shown and use remainder of bars in opposite wing.



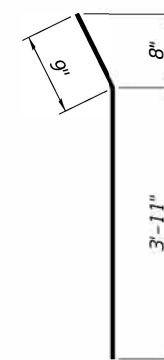
BAR $s(E)$



BARS $u(E)$ & $u1(E)$



BAR $u_2(E)$



BAR $h_2(E)$

REVISION	DATE	BY	REMARKS	DESIGNED	CTC
				DRAWN	RDA
				REVIEWED	SAB
				APPROVED	SAP

**LEE COUNTY HIGHWAY DEPARTMENT
FAS 179 (CH 6 – BROOKLYN ROAD) OVER WILLOW CREEK
2025**



WILLETT HOFMANN
 & ASSOCIATES INC.
 ENGINEERING ARCHITECTURE LAND SURVEYING
 809 EAST 2ND STREET, DIXON, IL 61021-0367
 T: 815-284-3381 DESIGN FIRM: #184-000918

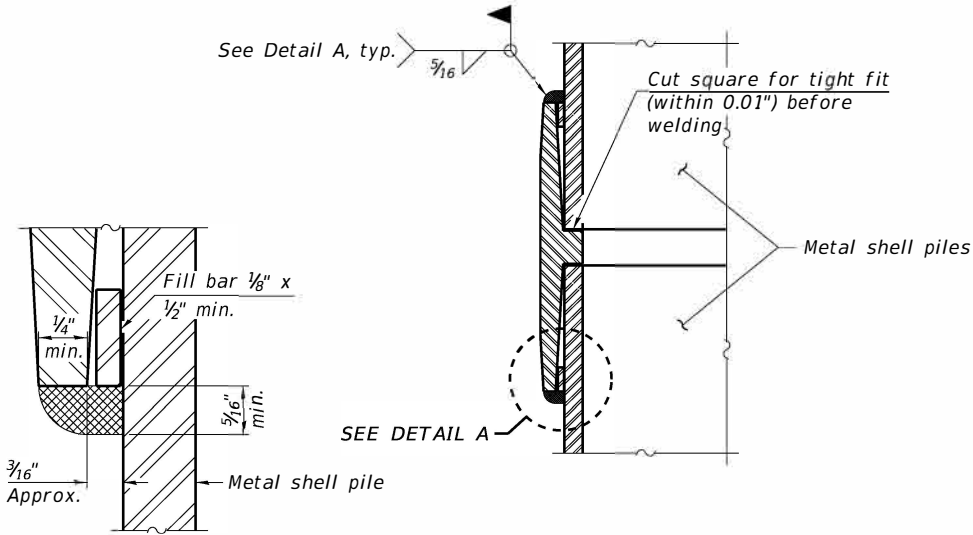
ABUTMENT DETAILS
S.N. 052-3104

STRUCTURAL SHEET NO. 8 OF 14

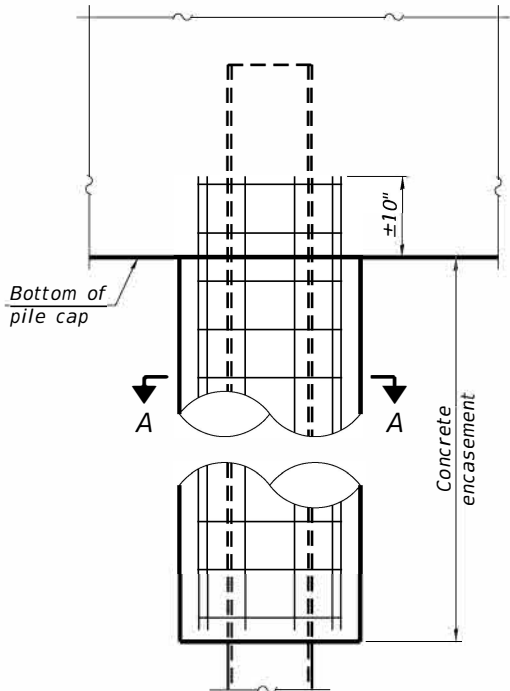
C.H	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6	22-00351-00-BR	LEE	21	14
		WHA# 1996D23		
ILLINOIS				

METAL SHELL PILE TABLE

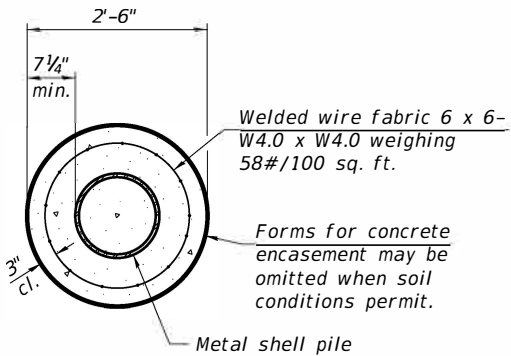
Designation and outside diameter	Wall thickness t	Weight per foot (Lbs./ft.)	Inside volume (yd. ³ /ft.)
PP12	0.250"	31.40	0.0267
PP14	0.250"	36.75	0.0368
PP14	0.312"	45.65	0.0361
PP16	0.312"	52.32	0.0478
PP16	0.375"	62.64	0.0470



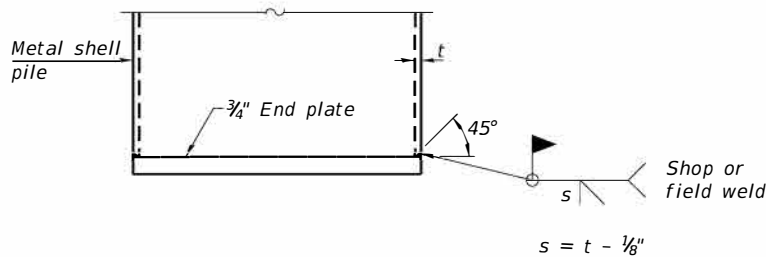
DETAIL A



ELEVATION

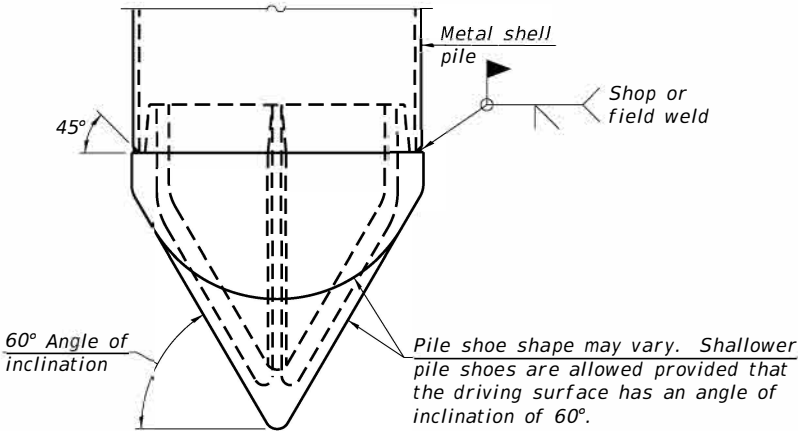


SECTION A-A



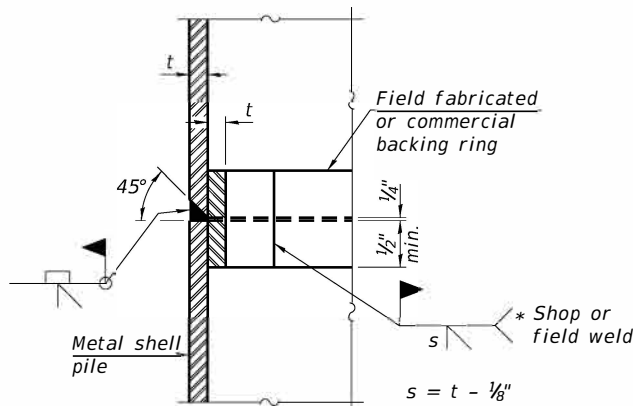
END PLATE ATTACHMENT

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.



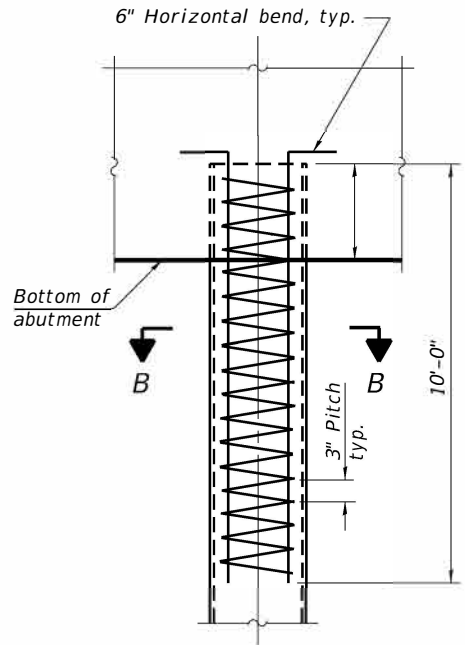
PILE SHOE ATTACHMENT

(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).

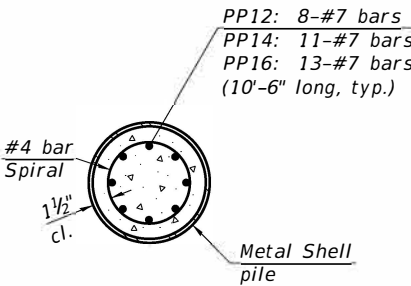


COMPLETE PENETRATION WELD SPLICE

*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.

F-MS 2-1-2023

REVISION	DATE	BY	REMARKS	DESIGNED	CTC
				DRAWN	RDA
				REVIEWED	SAB
				APPROVED	SAB

LEE COUNTY HIGHWAY DEPARTMENT
FAS 179 (CH 6 - BROOKLYN ROAD) OVER WILLOW CREEK
2025



WILLET HOFMANN
& ASSOCIATES, INC.
ENGINEERING ARCHITECTURE LAND SURVEYING
809 EAST 2ND STREET, DIXON, IL 61021-0367
T: 815-284-3351 DESIGN FIRM: #184-000918

METAL SHELL PILE DETAILS
S.N. 052-3104
STRUCTURAL SHEET NO. 9 OF 14

C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6	22-00351-00-BR	LEE	21	15
WHA# 1996D23				

NOTES:

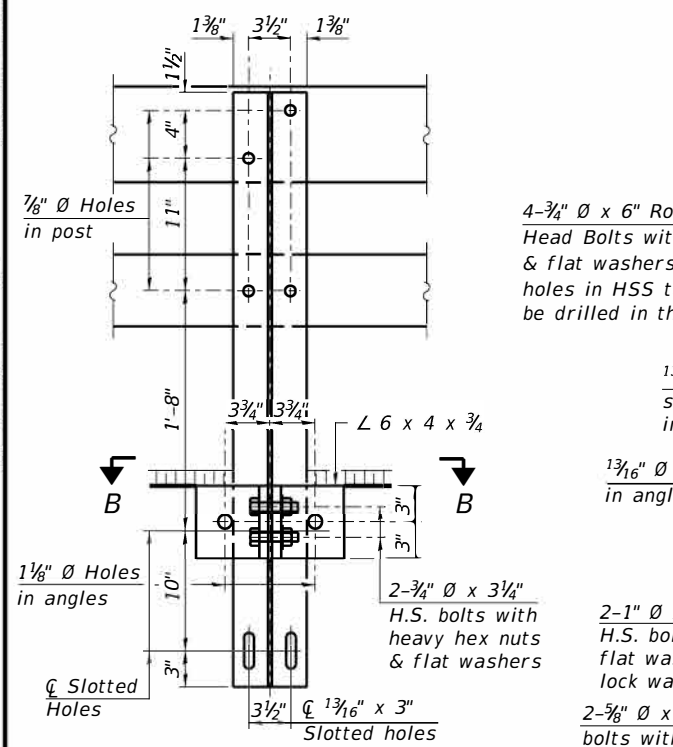
A sufficient number of shims of various thicknesses, sized to fit behind the top spacer assembly, 5" x 11½", and bottom spacer assembly, 6" x 7", shall be provided to adjust posts for proper alignment. If the summation of shims is greater than ¼" (top) or ½" (bottom), longer bolts are required. Cost included with Steel Railing, Type SM.

All steel rail elements including shims shall be galvanized according to Article 509.05 of the Standard Specifications.

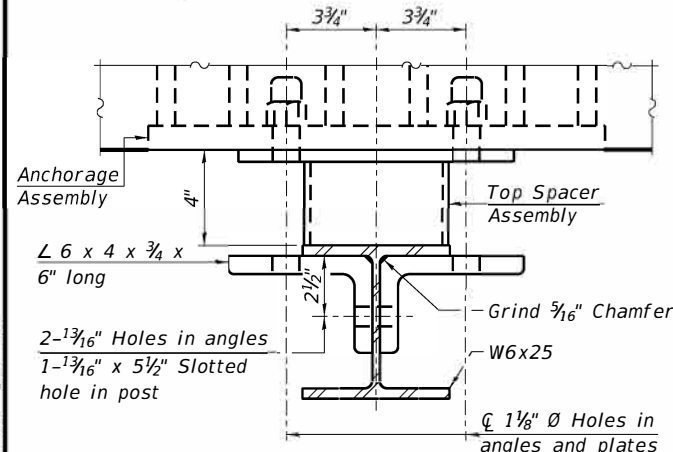
All HSS tubing serving as railing shall be CVN tested according to Article 1006.34(b) of the Standard Specifications.

Rail splice inserts may be built out of 2 - ¾" bent plates in lieu of the 4 plate rail splice inserts shown, provided the outside dimensions are matched.

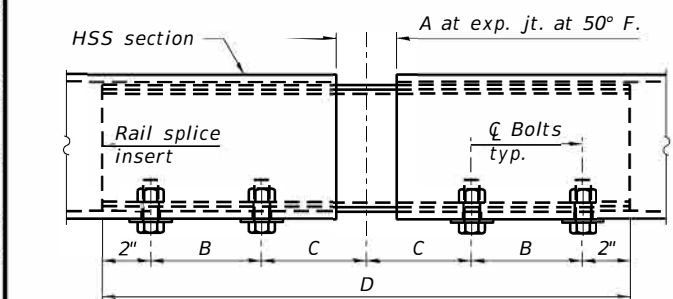
All round head bolts shall be ASTM A307 with locknuts according to ASTM A563 grade A.



SECTION A-A



SECTION B-B



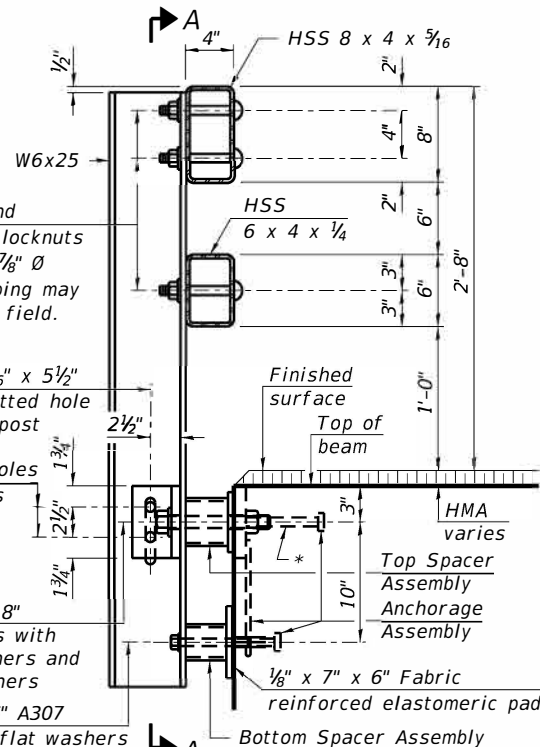
RAIL SPLICE ELEVATION

RAILING CRITERIA

MASH 2016 Test Level	2
Railing Weight (plf)	90
Min F _c (psi)	5,000
Max Post Spacing	6'-3"
HMA thickness range (in)	1 ¼ - 3 ½

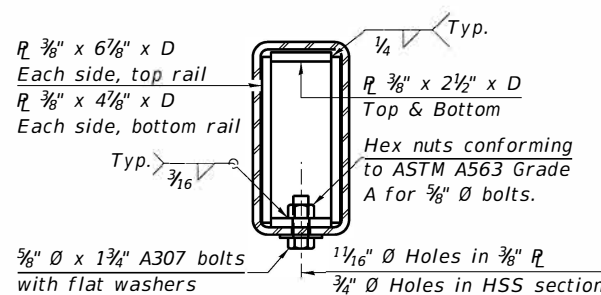
R-34HMAWS

9-1-2022

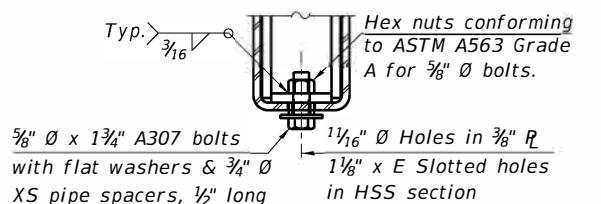


SECTION AT RAIL POST

* The outermost longitudinal reinforcement bar shall be placed directly above the studs of the rail post anchorage assembly. The anchorage studs may be bent down ½" to accommodate the top reinforcement bar placement.



SECTION AT RAIL SPLICE

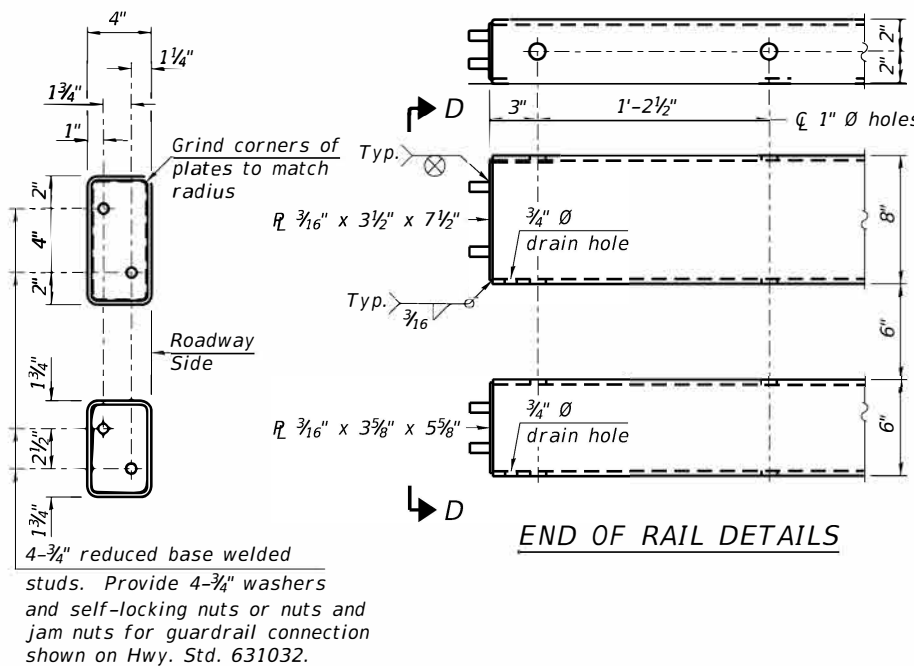


RAIL SPLICE CONNECTION AT EXPANSION JT.

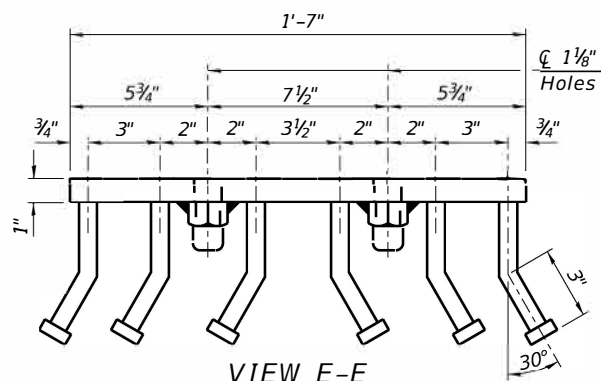
SPLICE DIMENSIONS

Location	T	A	B	C	D	E
All locs. not over exp. jts.	0	¼"	4"	4"	1'-8"	-
Over Strip Seal Jt.	≤4"	2½"	4¾"	4¾"	1'-10"	3½"
Over Finger or Modular Jt.	≤9½"	5½"	7¾"	7¼"	2'-9¼"	5½"
Over Finger or Modular Jt.	≤15"	8¼"	10½"	10"	3'-8¼"	8½"

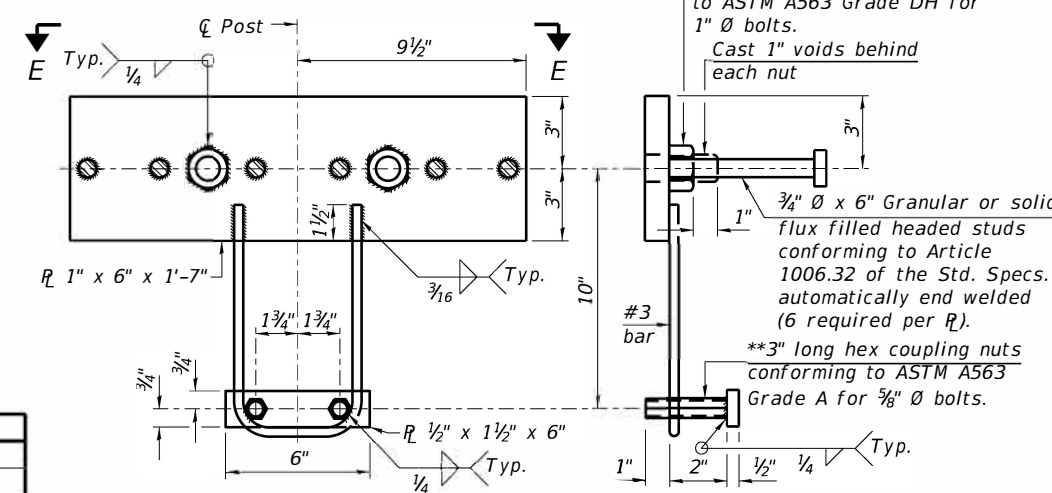
T = ; total movement along centerline of roadway at expansion joint.



VIEW D-D



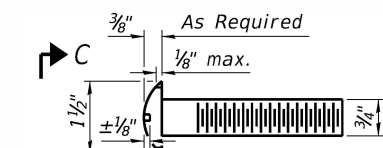
VIEW E-E



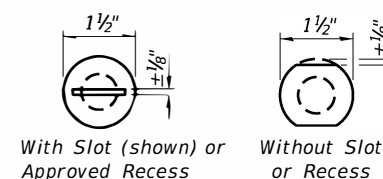
ANCHORAGE ASSEMBLY

** Threaded areas shall be plugged or blocked off during casting of concrete.

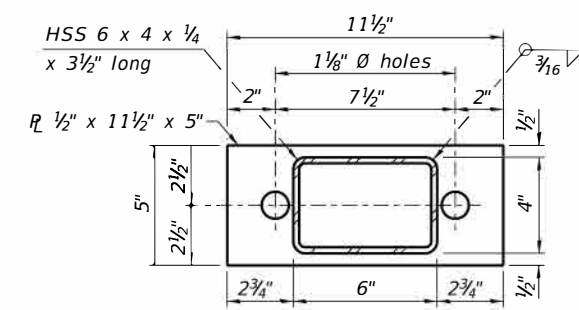
END OF RAIL DETAILS



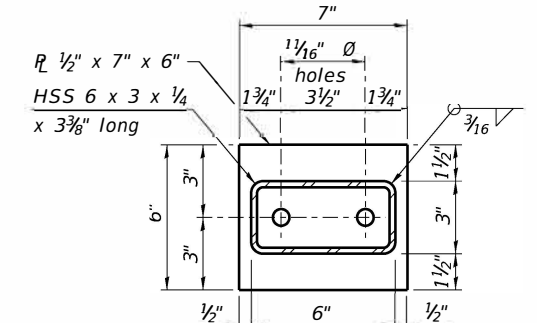
ROUND HEAD BOLT DETAIL



VIEW C-C



TOP SPACER ASSEMBLY



BOTTOM SPACER ASSEMBLY

BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type SM	Foot	204

LEE COUNTY HIGHWAY DEPARTMENT
FAS 179 (CH 6 - BROOKLYN ROAD) OVER WILLOW CREEK
2025



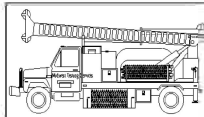
WILLETT HOFMANN
& ASSOCIATES, INC.
ENGINEERING ARCHITECTURE LAND SURVEYING
809 EAST 2ND STREET, DIXON, IL 61021-0367
T: 815-284-3381 DESIGN FIRM: #184-000918

STEEL RAILING, TYPE SM
S.N. 052-3104

STRUCTURAL SHEET NO. 10 OF 14

C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6	22-00351-00-BR	LEE	21	16
WHA# 1996D23				

ILLINOIS



Midwest Testing Services, Inc.

3705 Progress Blvd.

Peru, IL 61354

BORING LOG

Sheet 1 of 4

Phone: 815-223-6696

Fax: 815-223-6659

e-mail: mts37@comcast.net

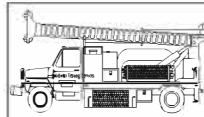
Client: Lee County
Project Name: Brooklyn Road Bridge
Project Site: Proposed Structure Number: 052-3104
Lee County, Illinois

Boring No. B-1
Surface Elev. * 100.00
Auger Depth 76' Rotary Depth NA
Start Date 07/09/22 Finish Date 07/09/22

Location: 20 Ft. East of centerline of roadway & 56 Ft.
North of centerline of existing bridge

(DEPTH) ELEV.	DESCRIPTION OF MATERIALS	Graphic Log	Depth in feet	SAMPLES						Dry Density (PCF)	REMARKS
				Sample No.	Sample Type	Qu (TSF)	N Value (Blows)	Bulge / Shear	Moisture (%)		
100.00											
99.00			1								
98.00			2								
97.00			3	1	SS	1.1	6	B	22		
96.00			4								
95.00	Stiff Black and Brownish Gray Clay (Fill)		5								
94.00			6	2	SS	1.6	10	B	20		
93.00			7								
92.00			8	3	SS	1.2	6	B	21		
91.00			9								
90.00			10								
89.00	Medium Brownish Clay (Fill)		11	4	SS	0.8	4	B	23		
88.00			12								
87.00			13	5	SS	1.6	13	B	20		
86.00	Stiff Brownish Gray Clay		14								
85.00			15								
84.00			16	6	SS	1.8	11	B	18		
83.00			17								
82.00	Loose Brown Sandy Loam		18	7	SS	---	9	---	14		
81.00			19								
80.00			20	8	SS	---	8	---	---		

Groundwater Data: Static water table at time of subsurface investigation 19 Ft. Depth.
Comments: * Assumed elevation 100.0 for centerline road at centerline of Bridge.



Midwest Testing Services, Inc.

3705 Progress Blvd.

Peru, IL 61354

BORING LOG

Sheet 2 of 4

Phone: 815-223-6696

Fax: 815-223-6659

e-mail: mts37@comcast.net

Client: Lee County
Project Name: Brooklyn Road Bridge
Project Site: Proposed Structure Number: 052-3104
Lee County, Illinois

Boring No. B-1
Surface Elev. * 100.00
Auger Depth 76' Rotary Depth NA
Start Date 07/09/22 Finish Date 07/09/22

Location: 20 Ft. East of centerline of roadway & 56 Ft.
North of centerline of existing bridge

(DEPTH) ELEV.	DESCRIPTION OF MATERIALS	Graphic Log	Depth in feet	SAMPLES						Dry Density (PCF)	REMARKS
				Sample No.	Sample Type	Qu (TSF)	N Value (Blows)	Bulge / Shear	Moisture (%)		
79.00											
78.00			22								
77.00			23	9	SS	---	24	---	---		
76.00			24								
75.00			25								
74.00	Medium Gray Fine to Coarse Sand		26	10	SS	---	28	---	---		
73.00			27								
72.00			28	11	SS	---	28	---	---		
71.00			29								
70.00			30								
69.00			31	12	SS	---	26	---	---		
68.00			32								
67.00			33								
66.00			34								
65.00			35								
64.00	Dense Gray Coarse Sand		36	13	SS	---	32	---	---		
63.00			37								
62.00			38								
61.00			39								
60.00			40								
59.00			41	14	SS	---	34	---	---		

Groundwater Data: Static water table at time of subsurface investigation 19 Ft. Depth.
Comments: * Assumed elevation 100.0 for centerline road at centerline of Bridge.

REVISION	DATE	BY	REMARKS	DESIGNED	CTC
				DRAWN	RDA
				REVIEWED	SAB
				APPROVED	SAB

LEE COUNTY HIGHWAY DEPARTMENT
FAS 179 (CH 6 - BROOKLYN ROAD) OVER WILLOW CREEK
2025

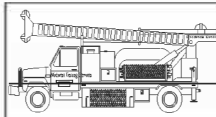


WILLET HOFMANN
& ASSOCIATES, INC.
ENGINEERING, ARCHITECTURE, LAND SURVEYING
809 EAST 2ND STREET, DIXON, IL 61021-0367
T: 815-284-3381 DE SIG N FIRM: # 84 000918

BORING LOGS
S.N. 052-3104

STRUCTURAL SHEET NO. 11 OF 14

C.H	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6	22-00351-00-BR	LEE	21	17
WHA# 1996D23				
ILLINOIS				



Midwest Testing Services, Inc.

3705 Progress Blvd.

Peru, IL 61354

BORING LOG

Sheet 3 of 4

Phone: 815-223-6696

Fax: 815-223-6659

e-mail: mts37@comcast.net

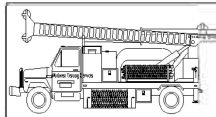
Client: Lee County
Project Name: Brooklyn Road Bridge
Project Site: Proposed Structure Number: 052-3104
Lee County, Illinois

Boring No. B-1
Surface Elev. * 100.00
Auger Depth 76' Rotary Depth NA
Start Date 07/09/22 Finish Date 07/09/22

Location: 20 Ft. East of centerline of roadway & 56 Ft.
North of centerline of existing bridge

(DEPTH) ELEV.	DESCRIPTION OF MATERIALS	Graphic Log	Depth in feet	SAMPLES						Dry Density (PCF)	REMARKS
				Sample No.	Sample Type	Qu (TSF)	N Value (Blows)	Bulge / Shear	Moisture (%)		
58.00											
57.00			43								
56.00			44								
55.00			45								
54.00			46	14	SS	---	10	---	---		
53.00			47								
52.00			48								
51.00			49								
50.00			50								
49.00			51	15	SS	---	10	---	---		
48.00			52								
47.00	Loose to Medium Gray Silt		53								
46.00			54								
45.00			55								
44.00			56	16	SS	---	9	---	---		
43.00			57								
42.00			58								
41.00			59								
40.00			60								
39.00			61	17	SS	---	11	---	---		
38.00			62								

Groundwater Data: Static water table at time of subsurface investigation 19 Ft. Depth.
Comments: * Assumed elevation 100.0 for centerline road at centerline of Bridge.



Midwest Testing Services, Inc.

3705 Progress Blvd.

Peru, IL 61354

BORING LOG

Sheet 4 of 4

Phone: 815-223-6696

Fax: 815-223-6659

e-mail: mts37@comcast.net

Client: Lee County
Project Name: Brooklyn Road Bridge
Project Site: Proposed Structure Number: 052-3104
Lee County, Illinois

Boring No. B-1
Surface Elev. * 100.00
Auger Depth 76' Rotary Depth NA
Start Date 07/09/22 Finish Date 07/09/22

Location: 20 Ft. East of centerline of roadway & 56 Ft.
North of centerline of existing bridge

(DEPTH) ELEV.	DESCRIPTION OF MATERIALS	Graphic Log	Depth in feet	SAMPLES						Dry Density (PCF)	REMARKS
				Sample No.	Sample Type	Qu (TSF)	N Value (Blows)	Bulge / Shear	Moisture (%)		
37.00											
36.00			64								
35.00			65								
34.00	Loose to Medium Gray Silt		66	18	SS	---	10	---	---		
33.00			67								
32.00			68								
31.00			69								
30.00			70								
29.00			71	19	SS	---	9	---	---		
28.00			72								
27.00			73								
26.00			74								
25.00			75								
24.00	Hard Gray Clay Till		76	20	SS	4.7	42	S	9		
23.00			77								
22.00			78								
21.00			79								
20.00			80								
19.00			81								
18.00			82								
17.00			83								

Groundwater Data: Static water table at time of subsurface investigation 19 Ft. Depth.
Comments: * Assumed elevation 100.0 for centerline road at centerline of Bridge.

REVISION	DATE	BY	REMARKS	DESIGNED	CTC
				DRAWN	RDA
				REVIEWED	SAB
				APPROVED	SAB

LEE COUNTY HIGHWAY DEPARTMENT
FAS 179 (CH 6 – BROOKLYN ROAD) OVER WILLOW CREEK
2025



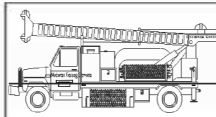
WILLETT HOFMANN
& ASSOCIATES, INC.
ENGINEERING ARCHITECTURE LAND SURVEYING
809 EAST 2ND STREET, DIXON, IL 61021-0367
TEL: 815-284-3381 FAX: 815-284-3382

BORING LOGS
S.N. 052-3104

STRUCTURAL SHEET NO. 12 OF 14

C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6	22-00351-00-BR	LEE	21	18
WHA# 1996D23				

ILLINOIS



Midwest Testing Services, Inc.

3705 Progress Blvd.

Peru, IL 61354

BORING LOG

Sheet 1 of 4

Phone: 815-223-6696

Fax: 815-223-6659

e-mail: mts37@comcast.net

Client: Lee County
Project Name: Brooklyn Road Bridge
Project Site: Proposed Structure Number: 052-3104
Lee County, Illinois

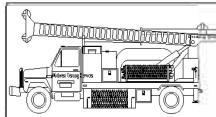
Boring No. B-2
Surface Elev. * 99.90
Auger Depth 76' Rotary Depth NA
Start Date 07/09/22 Finish Date 07/09/22

Location: 20 Ft. West of centerline of roadway & 56 Ft.
South of centerline of existing bridge

(DEPTH) ELEV.	DESCRIPTION OF MATERIALS	Graphic Log	Depth in feet	SAMPLES						Dry Density (PCF)	REMARKS
				Sample No.	Sample Type	Qu (TSF)	N Value (Blows)	Bulge / Shear	Moisture (%)		
99.90											
98.90			1								
97.90			2								
96.90			3	1	SS	1.5	9	B	19		
95.90			4								
94.90	Stiff Black and Brownish Gray Clay (Fill)		5	2	SS	1.8	12	B	19		
93.90			6								
92.90			7								
91.90			8	3	SS	1.5	8	B	20		
90.90			9								
89.90			10	4	SS	1.8	10	B	21		
88.90			11								
87.90			12								
86.90			13	5	SS	1.9	12	B	18		
85.90			14								
84.90	Stiff Brownish Gray Clay		15	6	SS	1.8	12	B	18		
83.90			16								
82.90			17								
81.90			18	7	SS	---	10	---	12		
80.90	Medium Brown Sandy Loam		19								
79.90			20	8	SS	---	12	---	---		

Groundwater Data: Static water table at time of subsurface investigation 19 Ft. Depth.
Comments: * Assumed elevation 100.0 for centerline road at centerline of Bridge.

Water



Midwest Testing Services, Inc.

3705 Progress Blvd.

Peru, IL 61354

BORING LOG

Sheet 2 of 4

Phone: 815-223-6696

Fax: 815-223-6659

e-mail: mts37@comcast.net

Client: Lee County
Project Name: Brooklyn Road Bridge
Project Site: Proposed Structure Number: 052-3104
Lee County, Illinois

Boring No. B-2
Surface Elev. * 99.90
Auger Depth 76' Rotary Depth NA
Start Date 07/09/22 Finish Date 07/09/22

Location: 20 Ft. West of centerline of roadway & 56 Ft.
South of centerline of existing bridge

(DEPTH) ELEV.	DESCRIPTION OF MATERIALS	Graphic Log	Depth in feet	SAMPLES						Dry Density (PCF)	REMARKS
				Sample No.	Sample Type	Qu (TSF)	N Value (Blows)	Bulge / Shear	Moisture (%)		
77.90			22								
76.90			23	9	SS	---	19	---	---		
75.90			24								
74.90			25								
73.90			26	10	SS	---	22	---	---		
72.90	Dense Gray Fine to Coarse Sand		27								
71.90			28	11	SS	---	24	---	---		
70.90			29								
69.90			30								
68.90			31	12	SS	---	24	---	---		
67.90			32								
66.90			33								
65.90			34								
64.90			35								
63.90			36	13	SS	---	33	---	---		
62.90	Dense Gray Fine Coarse Sand		37								
61.90			38								
60.90			39								
59.90			40								
58.90			41	14	SS	---	35	---	---		

Groundwater Data: Static water table at time of subsurface investigation 19 Ft. Depth.
Comments: * Assumed elevation 100.0 for centerline road at centerline of Bridge.

REVISION	DATE	BY	REMARKS

DESIGNED	CTC
DRAWN	RDA
REVIEWED	SAB
APPROVED	SAB

LEE COUNTY HIGHWAY DEPARTMENT
FAS 179 (CH 6 – BROOKLYN ROAD) OVER WILLOW CREEK
2025



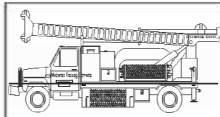
WILLETT HOFMANN
& ASSOCIATES, INC.
ENGINEERING ARCHITECTURE LAND SURVEYING
809 EAST 2ND STREET, DIXON, IL 61021-0367
TEL: 815-284-3381 FAX: 815-284-3381

BORING LOGS
S.N. 052-3104

STRUCTURAL SHEET NO. 13 OF 14

C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6	22-00351-00-BR	LEE	21	19
WHA# 1996D23				

ILLINOIS



Midwest Testing Services, Inc.

3705 Progress Blvd.

Peru, IL 61354

BORING LOG

Sheet 3 of 4

Phone: 815-223-6696

Fax: 815-223-6659

e-mail: mts37@comcast.net

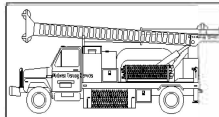
Client: Lee County
Project Name: Brooklyn Road Bridge
Project Site: Proposed Structure Number: 052-3104
Lee County, Illinois

Boring No. B-2
Surface Elev. * 99.90
Auger Depth 76' Rotary Depth NA
Start Date 07/09/22 Finish Date 07/09/22

Location: 20 Ft. West of centerline of roadway & 56 Ft.
South of centerline of existing bridge

(DEPTH) ELEV.	DESCRIPTION OF MATERIALS	Graphic Log	Depth in feet	SAMPLES						Dry Density (PCF)	REMARKS
				Sample No.	Sample Type	Qu (TSF)	N Value (Blows)	Bulge / Shear	Moisture (%)		
57.90											
56.90			43								
55.90	Dense Gray Coarse Sand		44								
54.90			45								
53.90			46	14	SS	---	31	---	---		
52.90			47								
51.90			48								
50.90			49								
49.90			50								
48.90			51	15	SS	---	9	---	---		
47.90			52								
46.90	Loose to Medium Gray Silt		53								
45.90			54								
44.90			55								
43.90			56	16	SS	---	9	---	---		
42.90			57								
41.90			58								
40.90			59								
39.90			60								
38.90			61	17	SS	---	10	---	---		
37.90			62								

Groundwater Data: Static water table at time of subsurface investigation 19 Ft. Depth.
Comments: * Assumed elevation 100.0 for centerline road at centerline of Bridge.



Midwest Testing Services, Inc.

3705 Progress Blvd.

Peru, IL 61354

BORING LOG

Sheet 4 of 4

Phone: 815-223-6696

Fax: 815-223-6659

e-mail: mts37@comcast.net

Client: Lee County
Project Name: Brooklyn Road Bridge
Project Site: Proposed Structure Number: 052-3104
Lee County, Illinois

Boring No. B-2
Surface Elev. * 99.90
Auger Depth 76' Rotary Depth NA
Start Date 07/09/22 Finish Date 07/09/22

Location: 20 Ft. West of centerline of roadway & 56 Ft.
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(DEPTH) ELEV.	DESCRIPTION OF MATERIALS	Graphic Log	Depth in feet	SAMPLES						Dry Density (PCF)	REMARKS
				Sample No.	Sample Type	Qu (TSF)	Bulge / Shear	Moisture (%)			
36.90											
35.90			64								
34.90			65								
33.90			66	18	SS	---	10	---	---		
32.90	Loose to Medium Gray Silt		67								
31.90			68								
30.90			69								
29.90			70								
28.90			71	19	SS	---	10	---	---		
27.90			72								
26.90			73								
25.90	Stiff Gray Clay Till		74								
24.90			75								
23.90			76	20	SS	2.0	15	B	16		
22.90			77								
21.90	Boring Terminated		78								
20.90			79								
19.90			80								
18.90			81								
17.90			82								
16.90			83								

Groundwater Data: Static water table at time of subsurface investigation 19 Ft. Depth.
Comments: * Assumed elevation 100.0 for centerline road at centerline of Bridge.

REVISION	DATE	BY	REMARKS	DESIGNED	CTC
				DRAWN	RDA
				REVIEWED	SAB
				APPROVED	SAB

LEE COUNTY HIGHWAY DEPARTMENT
FAS 179 (CH 6 – BROOKLYN ROAD) OVER WILLOW CREEK
2025



WILLETT HOFMANN
& ASSOCIATES, INC.
ENGINEERING ARCHITECTURE LAND SURVEYING
809 EAST 2ND STREET, DIXON, IL 61021-0367
TEL: 815-284-3381 FAX: 815-284-3381

BORING LOGS
S.N. 052-3104

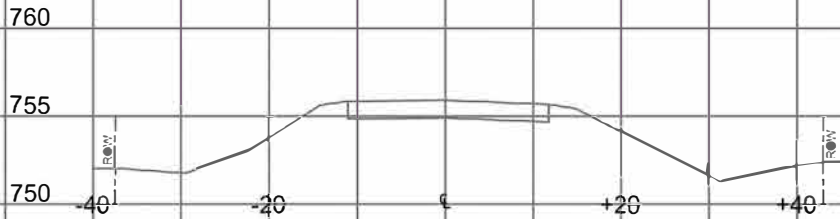
STRUCTURAL SHEET NO. 14 OF 14

C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6	22-00351-00-BR	LEE	21	20
WHA# 1996D23				

ILLINOIS

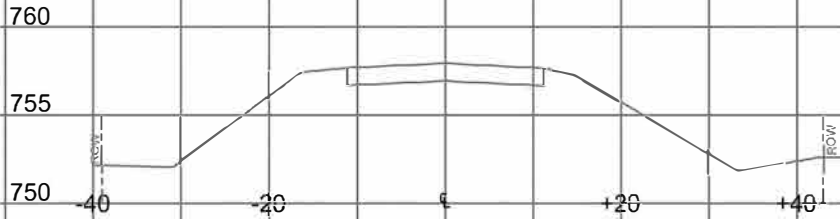
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FILL: 0.00 SF
STONE: 0 SF



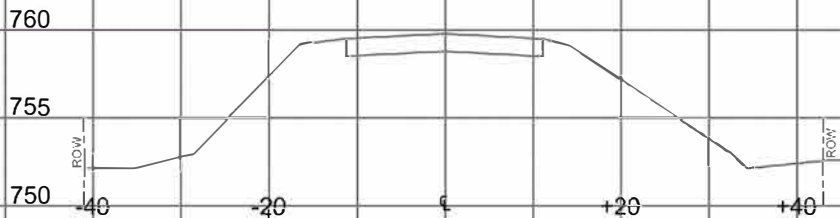
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CUT: 0 SF
FILL: 0.00 SF
STONE: 0 SF



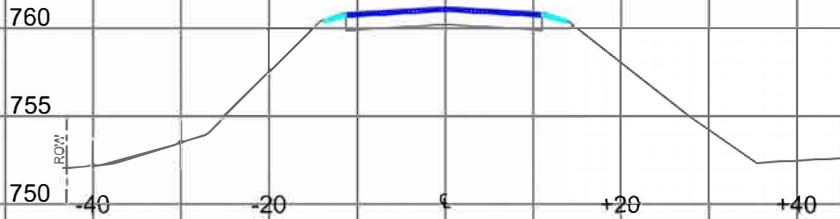
7+00

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STONE: 0 SF



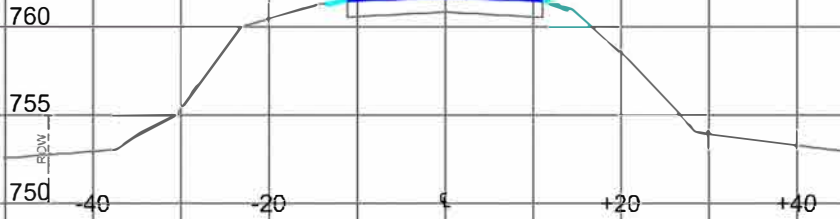
8+00

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FILL: 0.00 SF
STONE: 0.87 SF



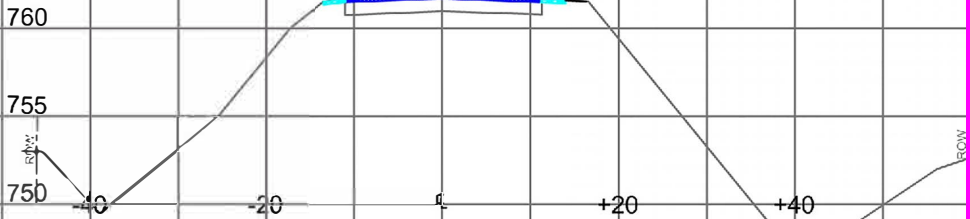
9+00

CUT: 0 SF
FILL: 0.00 SF
STONE: 0.91 SF



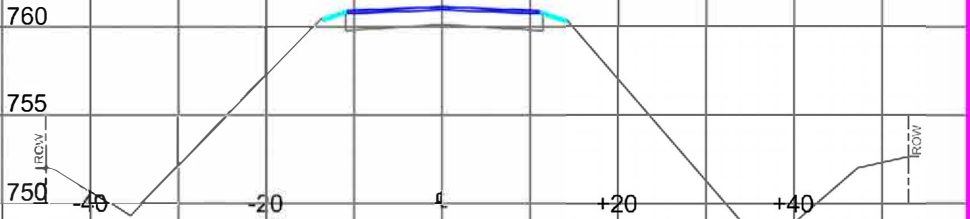
11+00

CUT: 0 SF
FILL: 0.00 SF
STONE: 0.92 SF



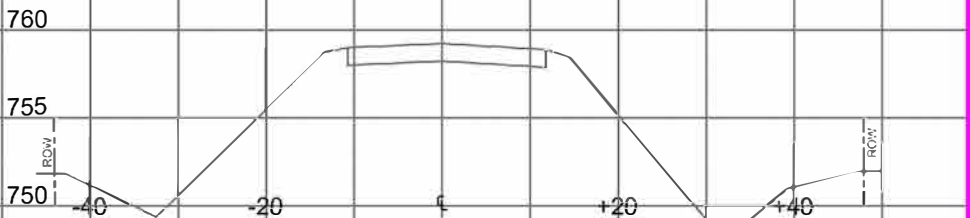
12+00

CUT: 0 SF
FILL: 0.00 SF
STONE: 0.91 SF



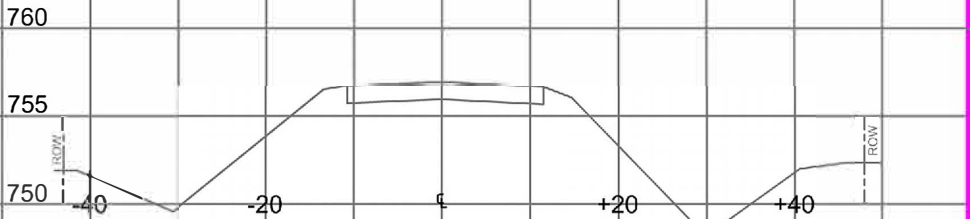
13+00

CUT: 0 SF
FILL: 0.00 SF
STONE: 0 SF



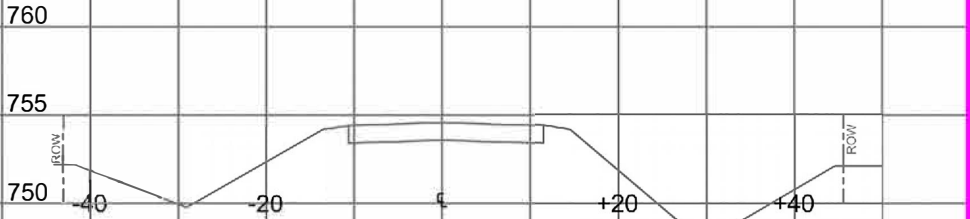
14+00

CUT: 0 SF
FILL: 0.00 SF
STONE: 0 SF



15+00

CUT: 0 SF
FILL: 0.00 SF
STONE: 0 SF



SCALE:
H: 1"=10'
V: 1"=5'

NOTE THE X-SECTIONS ARE LOOKING IN
THE DIRECTION OF INCREASING STATION
NUMBERS.

10+00 BRIDGE



BROOKLYN BRIDGE
22-00351-00-BR

ROAD X-SECTIONS

DATE: 11/13/2024
DRAWN BY: BMT
CHECKED BY: DA

REVISIONS	
DATE	REVISION MADE
2/20/2025	PER IDOT COMMENTS
2/25/2025	PER IDOT COMMENTS

SHEET NO.
21 OF 21