

PAY ITEM NUMBER	DESIGNATION	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE	
				URBAN	
				80% FEDERAL 20% STATE	100% STATE
50300300	PROTECTIVE COAT	SQ YD	7,850	7,850	
50102400	CONCRETE REMOVAL	CU YD	25.7	25.7	
50157300	PROTECTIVE SHIELD	SQ YD	1,974	1,974	
50300225	CONCRETE STRUCTURES	CU YD	26.5	26.5	
50800515	BAR SPLICERS	EACH	24	24	
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	3,070	3,070	
52000600	FABRIC REINFORCED ELASTOMERIC TROUGH	FOOT	66	66	
52000110	PREFORMED JOINT STRIP SEAL	FOOT	131	131	
67100100	MOBILIZATION	L SUM	1	1	
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	10	10	
X7010238	CHANGEABLE MESSAGE SIGN (SPECIAL)	CAL MO	3	3	
70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SQ FT	677	677	
70307100	TEMPORARY PAVEMENT MARKING LETTERS AND SYMBOLS - TYPE IV TAPE	SQ FT	73	73	
70307120	TEMPORARY PAVEMENT MARKING - LINE 4"- TYPE IV TAPE	FOOT	6,212	6,212	
70307130	TEMPORARY PAVEMENT MARKING - LINE 6"- TYPE IV TAPE	FOOT	260	260	
70307160	TEMPORARY PAVEMENT MARKING - LINE 12"- TYPE IV TAPE	FOOT	88	88	
70306120	TEMPORARY PAVEMENT MARKING - LINE 4" - TYPE III TAPE	FOOT	387	387	
70400100	TEMPORARY CONCRETE BARRIER	FOOT	1,212.5	1,212.5	
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	1,207	1,207	
70600255	IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 2	EACH	2	2	
70600322	IMPACT ATTENUATORS, RELOCATE (FULLY REDIRECTIVE, NARROW), TEST LEVEL 2	EACH	2	2	
* 78009000	MODIFIED URETHANE PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	73	73	
* 78009004	MODIFIED URETHANE PAVEMENT MARKING - LINE 4"	FOOT	6,212	6,212	
* 78009006	MODIFIED URETHANE PAVEMENT MARKING - LINE 6"	FOOT	260	260	
* 78009012	MODIFIED URETHANE PAVEMENT MARKING - LINE 12"	FOOT	88	88	
* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	234	234	

\* = SPECIALTY ITEM

PAY ITEM NUMBER	DESIGNATION	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE	
				URBAN	
				80% FEDERAL 20% STATE	100% STATE
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	234	234	
78300202	PAVEMENT MARKING REMOVAL - WATER BLASTING	SQ FT	2,340	2,340	
X0325748	ACRYLIC COATING	SQ YD	25	25	1
X0325749	FIBER WRAP	SQ FT	225	225	
X0326766	CLEAN & RESEAL RELIEF JOINT	FOOT	131	131	
X5537800	STORM SEWERS TO BE CLEANED 12"	FOOT	500		500
X6700407	ENGINEER'S FIELD OFFICE, TYPE A (D1)	CAL MO	12	12	
X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1	1	
Z0007122	REMOVING AND RE-ERECTING EXISTING RAILING	FOOT	9	9	
Z0010605	CLEANING DRAINAGE SYSTEM	L SUM	1		1
Z0012754	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	220	220	
Z0012755	STRUCTURAL REPAIR OF CONCRETE (DEPTH GREATER THAN 5 INCHES)	SQ FT	60	60	
Z0030850	TEMPORARY INFORMATION SIGNING	SQ FT	52	52	
Z0048665	RAILROAD PROTECTIVE LIABILITY INSURANCE	L SUM	1	1	
Z0073200	TEMPORARY SHORING AND CRIBBING	EACH	2	2	

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PLOT SCALE = 20.0000' / in.	DRAWN - CW	REVISED -
PLOT DATE = 1/27/2023	CHECKED - ACL	REVISED -
	DATE - 01/27/2023	

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SUMMARY OF QUANTITIES  
127TH STREET OVER RAILROADS**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
344	FAP 344 22 BR	COOK	23	3
			CONTRACT NO. 62U49	
ILLINOIS FED. AID PROJECT				

REVISED SHEET 4/17/2023

**GENERAL NOTES**

All expansion joint structural steel shall conform to AASHTO Classification M-270 Gr. 36, unless otherwise noted.

Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

Reinforcement bars designated (E) shall be epoxy coated.

Prior to pouring the new concrete deck, all heavy or loose rust, loose mill scale, and other loose or potentially detrimental foreign material shall be removed from the surfaces in contact with concrete. Tightly adhered paint may remain unless otherwise noted. Removal shall be accomplished by methods that will not damage the steel and the cost will be included in the pay item covering removal of the existing concrete.

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

**INDEX OF SHEETS**

1. General Plan And Elevation
2. General Notes, Scope Of Work, & Bill Of Materials
3. Stage Construction Details
4. Temporary Concrete Barrier For Stage Construction
5. Deck Repair Plan
6. Abutment and Deck Concrete Removal
- 6A. Abutment and Deck Concrete Removal Sections
7. Abutment and Deck Alterations
8. Abutment and Deck Details
9. Preformed Joint Strip Seal - Sidewalk (Sheet 1 of 2)
- 9A. Preformed Joint Strip Seal - Sidewalk (Sheet 2 of 2)
10. Trough Replacement at Pier 3
11. Pier 2 Repairs
12. Pier 3 Repairs
13. Bar Splicer Assembly And Mechanical Splicer Details

**SCOPE OF WORK**

1. Remove and replace trough plates, and nuts and bolts on Pier 3.
2. Repair structural concrete on Piers 2 and 3. Install shoring and cribbing to support Girders 8 and 9 on the east side of Pier 2. Fiber wrap and apply acrylic coating to column in Pier 2.
3. Remove neoprene expansion joints at abutments.
4. Install preformed joint strip seal at abutments.
5. Apply protective coat to deck, abutments, sidewalks and parapets.
6. Clean and reseal relief joints.
7. Clean deck drainage system.

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	SUPER	SUB	TOTAL
Concrete Removal	Cu Yd	25.7		25.7
Protective Shield	Sq Yd	1,974		1,974
Concrete Superstructure	Cu Yd	25.7		25.7
* Protective Coat	Sq Yd	7,850		7,850
Reinforcement Bars, Epoxy Coated	Pound	3,070		3,070
Bar Splicers	Each	24		24
Preformed Joint Strip Seal	Foot	131		131
Fabric Reinforced Elastomeric Trough	Foot		66	66
Acrylic Coating	Sq Yd		25	25
Fiber Wrap	Sq Ft		225	225
Clean & Reseal Relief Joint	Foot	131		131
Cleaning Drainage System	L Sum	1		1
Structural Repair Of Concrete (Depth Equal To Or Less Than 5 Inches)	Sq Ft		220	220
Structural Repair Of Concrete (Depth Greater Than 5 Inches)	Sq Ft		60	60
Railroad Protective Liability Insurance	L Sum			1
Temporary Shoring and Cribbing	Each	2		2

\* Quantity is for the top of deck, sidewalks and parapets and the roadway face of sidewalks and parapets. Quantity is also for the top of new concrete on both abutment backwalls.

**DESIGN SPECIFICATIONS**

2002 AASHTO Standard Specifications for Highway Bridges (17th Edition)

**LOADING HS20-44**

Allow 50 psf for future wearing surface

**DESIGN STRESSES**

**New Construction**

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

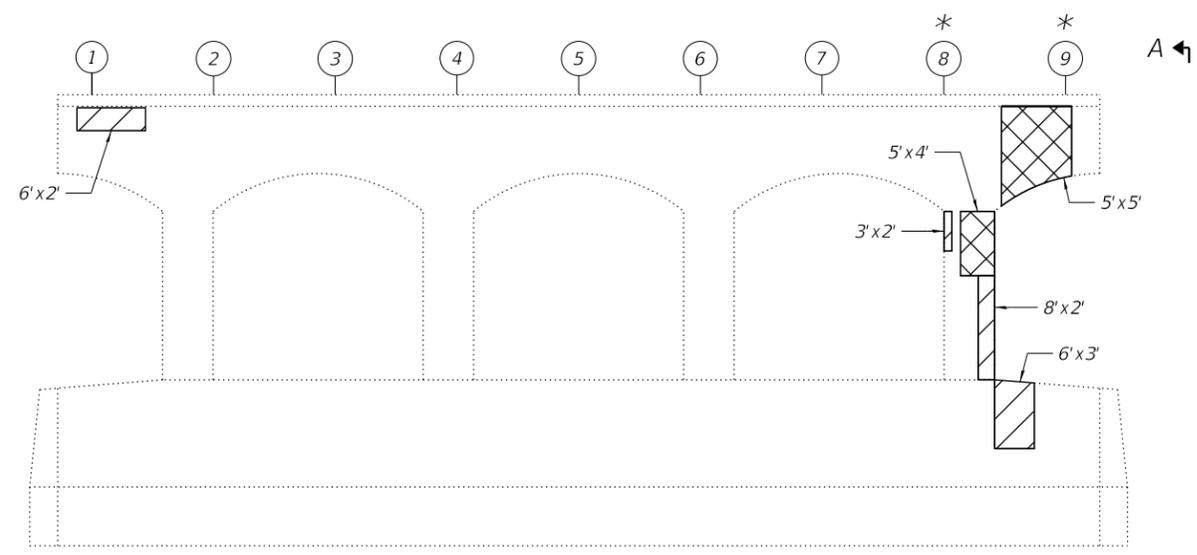
**Existing Construction**

f'c = 3,500 psi (Concrete)  
fy = 60,000 psi (Reinforcement after 2003)  
fy = 33,000 psi (Reinforcement before 2003)  
fy = 50,000 psi (Structural Steel - M270 Gr. 50)

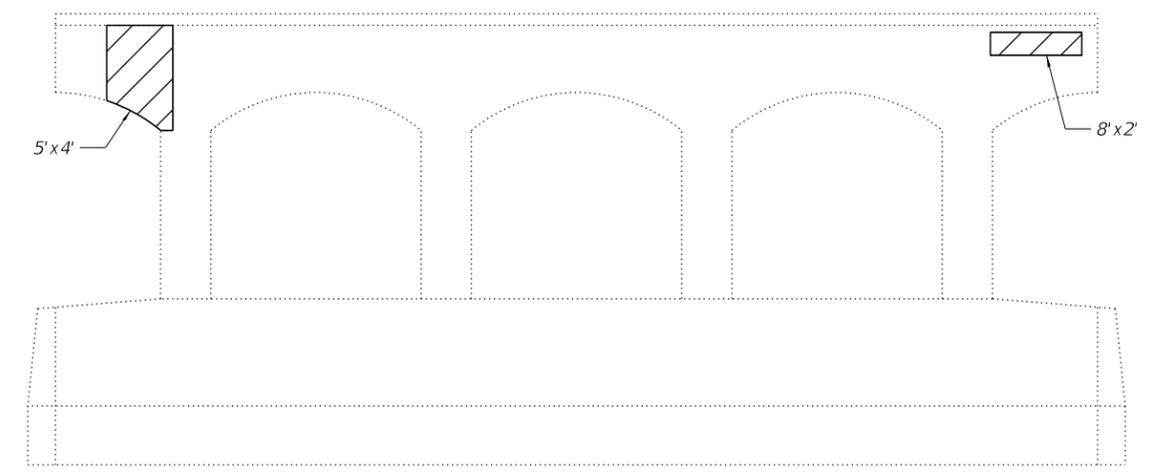
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**REVIS**  **REVISED SHEET 4/17/2023**

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	SHEET 2 OF 13 SHEETS					ILLINOIS FED. AID PROJECT		



**WEST ELEVATION**  
**SHOWING CONCRETE REPAIR**  
 Looking East

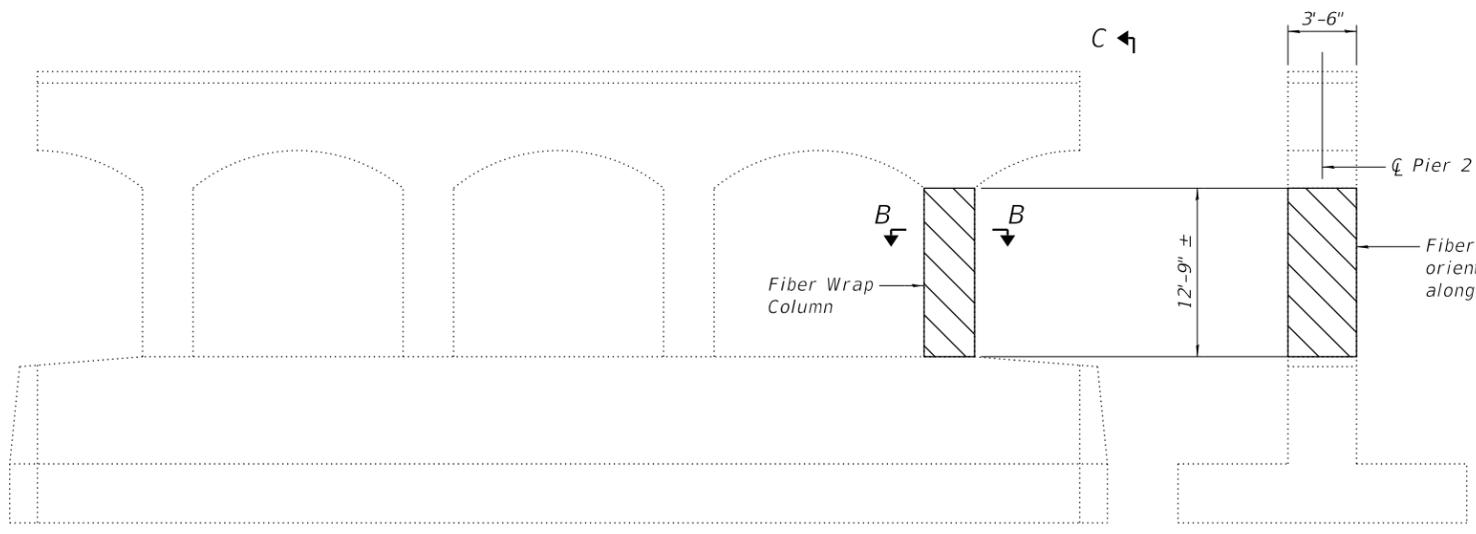


**EAST ELEVATION**  
**SHOWING CONCRETE REPAIR**  
 Looking West

**PIER 2 GIRDER REACTION TABLE**

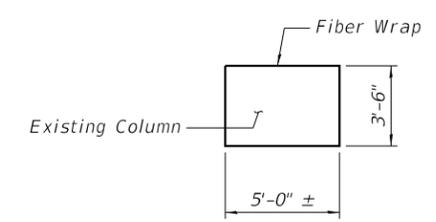
R_DL(k)	259.9
R_LL(k)	81.4
Imp(k)	9.9
R_Total(k)	351.2

Note: Quantities and limits of Structural Repair of Concrete shown herein are estimated from a survey completed by the District. Actual limits shall be determined in the field by the Engineer and noted in the As-Built Plans.

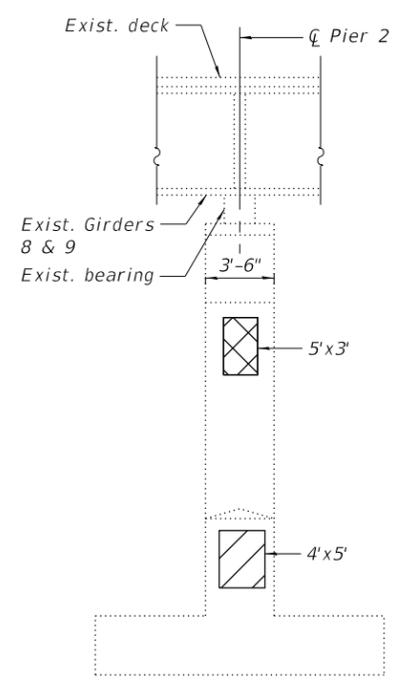


**WEST ELEVATION**  
**SHOWING FIBER WRAP REPAIR**  
 Looking East

**SECTION C-C**



**SECTION B-B**



**SECTION A-A**

**LEGEND**

- Indicates Structural Repair Of Concrete (Depth Equal To Or Less Than 5 Inches)
- Indicates Structural Repair Of Concrete (Depth Greater Than 5 Inches)
- Indicates limits of Fiber Wrap
- ① Indicates Girder Number
- \* Beam requires temporary shoring

**BILL OF MATERIAL**

ITEM	UNIT	TOTAL
Acrylic Coating	Sq Yd	25
Fiber Wrap	Sq Ft	225
Structural Repair Of Concrete (Depth Equal To Or Less Than 5 Inches)	Sq Ft	108
Structural Repair Of Concrete (Depth Greater Than 5 Inches)	Sq Ft	60
Temporary Shoring and Cribbing	Each	2

REVISED SHEET 4/17/2023

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

**PIER 2 REPAIRS**  
**STRUCTURE NO. 016-0908**

SHEET 11 OF 13 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
344	FAP-344-22-BR	COOK	23	19
CONTRACT NO. 62U49				
ILLINOIS FED. AID PROJECT				