


MODEL: Default
FILE NAME: I:\P\2020-0994-00 IDOT Various Phase 2 (P)B 196 Item 16\WDG 33 62U49\CHICADO_Sheets\62U49-16-509-01.dgn

| | | | | CONSTRUCTION CODE | | |
|-----------------|---|--------|----------------|-----------------------|------------|--|
| | | | | URBAN | 0059 | |
| PAY ITEM NUMBER | DESIGNATION | UNIT | TOTAL QUANTITY | 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

| | | | | CONSTRUCTION CODE | | |
|-----------------|--|--------|----------------|-----------------------|------------|--|
| | | | | URBAN | 0059 | |
| PAY ITEM NUMBER | DESIGNATION | UNIT | TOTAL QUANTITY | 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 | | |
| 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 | | |

 REVISED SHEET 4/17/2023

| | | | | | | | | | | | | |
|--|------------------------------|-------------------|-----------|---|--|--|--|-----------------------------|-----------------------|-------------|-----------------|-------------|
|  INFRASTRUCTURE ENGINEERING <small>1 South Wacker Suite 2650 Chicago, IL 60606 P 312.425.9560 F 312.425.9564 www.infrastructure-eng.com</small> | USER NAME = ALane | DESIGNED - CW | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | SUMMARY OF QUANTITIES 127TH STREET OVER RAILROADS | | | F.A.P. RTE. 344 | SECTION FAP 344 22 BR | COUNTY COOK | TOTAL SHEETS 23 | SHEET NO. 3 |
| | PLOT SCALE = 20.0000 ' / in. | CHECKED - ACL | REVISED - | | | | | CONTRACT NO. 62U49 | | | | |
| | PLOT DATE = 1/27/2023 | DATE - 01/27/2023 | | | | | | ILLINOIS FED. AID PROJECT | | | | |
| | | | | | | | | SCALE: | SHEET OF | SHEETS STA. | TO STA. | |

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

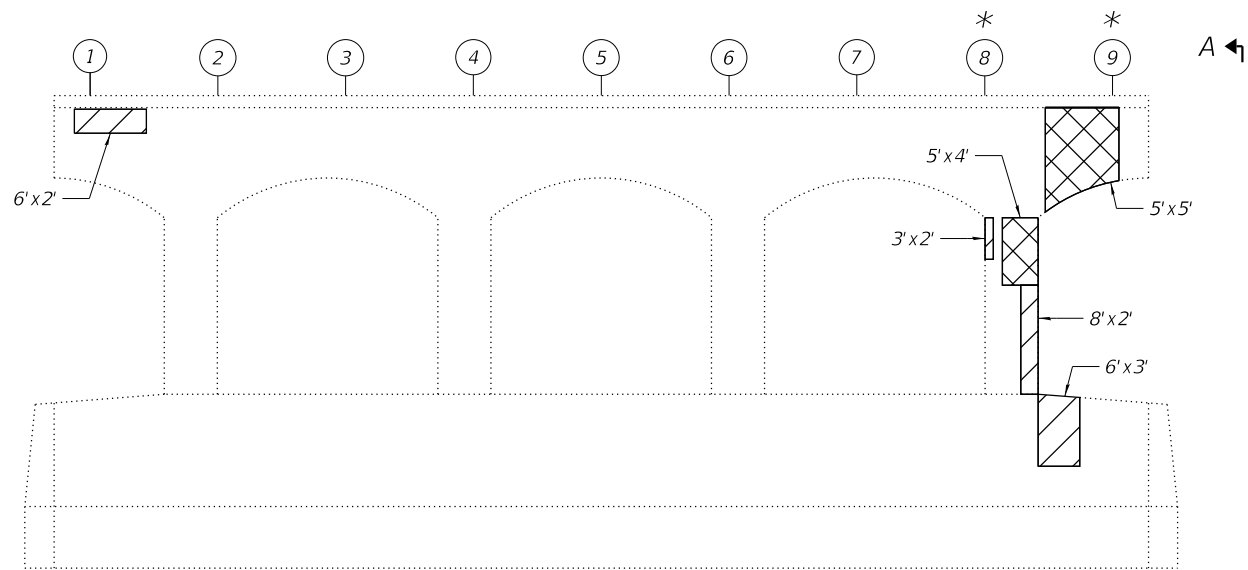
f'c = 3,500 psi (Concrete)
fy = 60,000 psi (Reinforcement after 2003)
fy = 33,000 psi (Reinforcement before 2003)
fy = 50,000 psi (Structural Steel - M270 Gr. 50)

REVISD SHEET 4/17/2023

MODEL: Default
FILE NAME: P:\P-20\20-4094-00 IDOT Various Phase 2 (PTB 196 Item 16)\WO 33 62U49\DGNCADD_Sheets\62U49-SHT-5TR-02_GenNotes.dgn

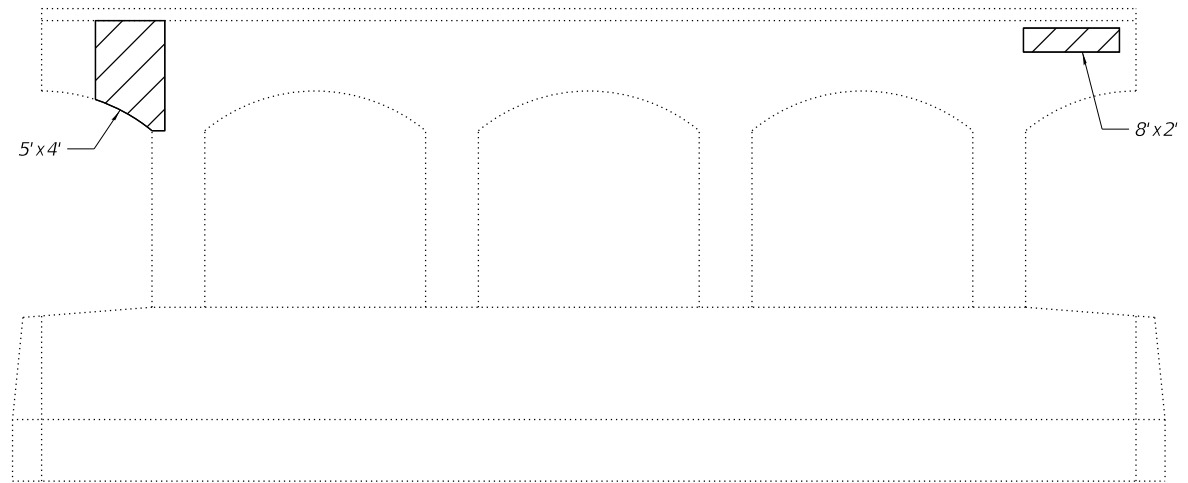
| | | | | | | | | | | |
|---|----------------------------|---------------|---|---|---|---------------------------|---------------|--------|--------------|-----------|
| <div><div>INFRASTRUCTURE ENGINEERING INCORPORATED 1 South Wacker Suite 2650 Chicago, IL 60606 P 312.425.9569 F 312.425.9568 www.infrastructure-eng.com</div></div> | USER NAME = TYU | DESIGNED - TY | REVISED -  TY 04/14/2023 | <div>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</div> | <div>GENERAL NOTES, SCOPE OF WORK, & BILL OF MATERIALS STRUCTURE NO. 016-0908</div> | F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | | CHECKED - KPS | REVISED - | | | 344 | FAP-344-22-BR | COOK | 23 | 10 |
| | PLOT SCALE = 0.1667' / in. | DRAWN - TY | REVISED - | | | CONTRACT NO. 62U49 | | | | |
| | PLOT DATE = 4/14/2023 | CHECKED - KPS | REVISED - | | | ILLINOIS FED. AID PROJECT | | | | |
| | SHEET 2 OF 13 SHEETS | | | | | | | | | |

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WEST ELEVATION
SHOWING CONCRETE REPAIR

Looking East



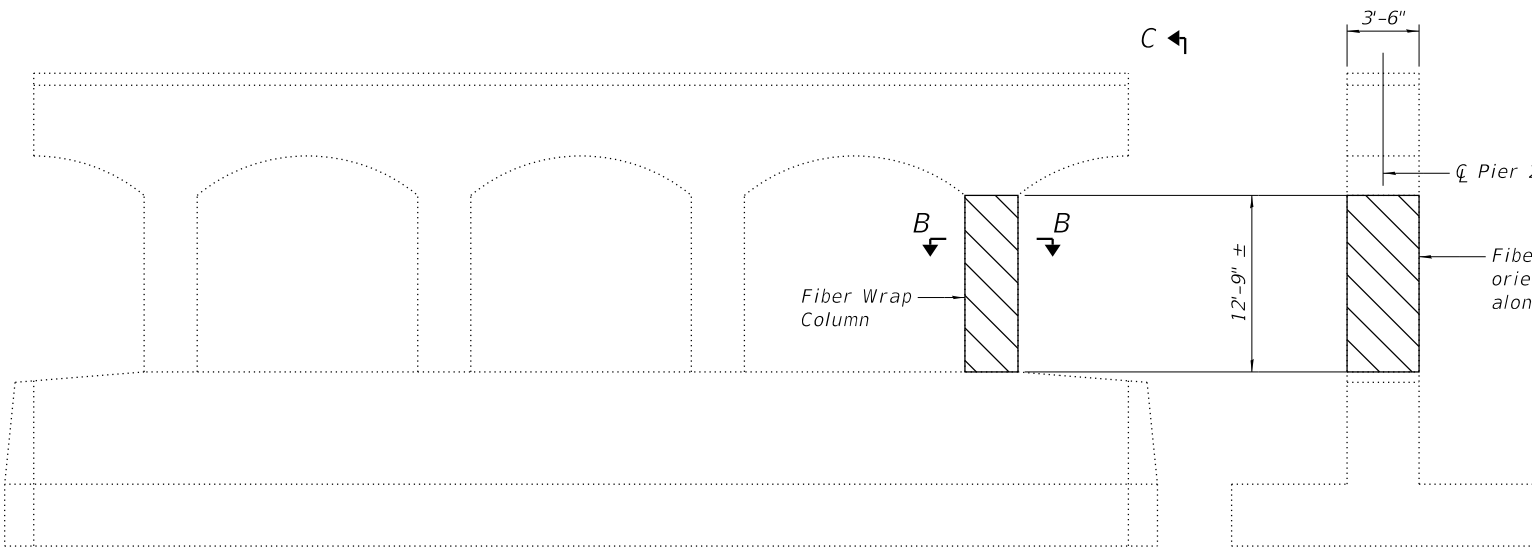
EAST ELEVATION
SHOWING CONCRETE REPAIR

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 |

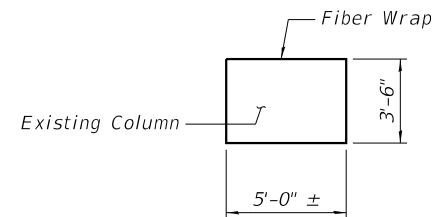
Note: Quantities and limits of Structural Repair of Concrete shown herein are estimated from a survey completed by the District. Actual limits shall be determined in the field by the Engineer and noted in the As-Built Plans.



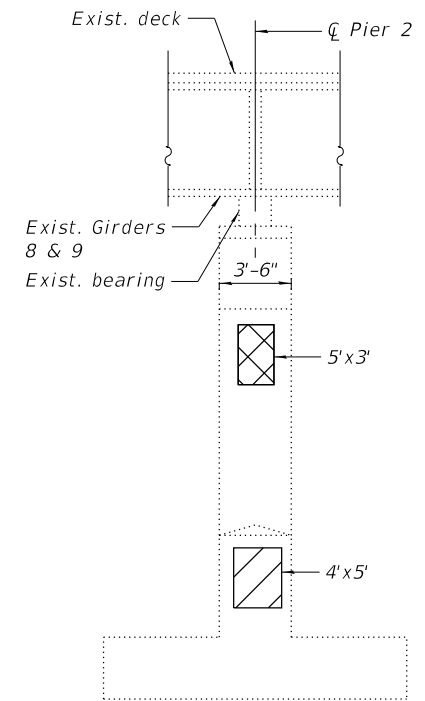
WEST ELEVATION
SHOWING FIBER WRAP REPAIR

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

- 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