

| SUMMARY OF QUANTITIES |  |        | URBAN            |                        |  |
|-----------------------|--|--------|------------------|------------------------|--|
| CODE NO               | ITEM                                     | UNIT   | TOTAL QUANTITIES | CONSTRUCTION TYPE CODE |  |
|                       |  |        |                  | 100% STATE 0014        |  |
| X606577Z              | CONCRETE MEDIAN, TYPE SB-9.12 (DOWELLED) | SQ FT  | 2266             | 2266                   |  |
| 31102100              | SUBBASE GRANULAR MATERIAL, TYPE C 4"     | SQ YD  | 45               | 45                     |  |
| 35300500              | PORTLAND CEMENT CONCRETE BASE COURSE 10" | SQ YD  | 45               | 45                     |  |
| 44000500              | COMBINATION CURB AND GUTTER REMOVAL      | FOOT   | 124              | 124                    |  |
| 44003510              | MEDIAN REMOVAL PARTIAL DEPTH             | SQ FT  | 1716             | 1716                   |  |
| 44213204              | TIE BARS 3/4"                            | EACH   | 63               | 63                     |  |
| 50102400              | CONCRETE REMOVAL                         | CU YD  | 44.4             | 44.4                   |  |
| 50157300              | PROTECTIVE SHIELD                        | SQ YD  | 170              | 170                    |  |
| 50300255              | CONCRETE SUPERSTRUCTURE                  | CU YD  | 39.4             | 39.4                   |  |
| 50800205              | REINFORCEMENT BARS, EPOXY COATED         | POUND  | 6440             | 6440                   |  |
| 50800515              | BAR SPLICERS                             | EACH   | 128              | 128                    |  |
| 50800530              | MECHANICAL SPLICERS                      | EACH   | 376              | 376                    |  |
| 52000110              | PREFORMED JOINT STRIP SEAL               | FOOT   | 70               | 70                     |  |
| 67000400              | ENGINEER'S FIELD OFFICE, TYPE A          | CAL MO | 4                | 4                      |  |

| SUMMARY OF QUANTITIES |  |        | URBAN            |                        |  |
|-----------------------|--|--------|------------------|------------------------|--|
| CODE NO               | ITEM   | UNIT   | TOTAL QUANTITIES | CONSTRUCTION TYPE CODE |  |
|                       |  |        |                  | 100% STATE 0014        |  |
| 67100100              | MOBILIZATION                                   | L SUM  | 1                | 1                      |  |
| 70102630              | TRAFFIC CONTROL AND PROTECTION, STANDARD       | LSUM   | 1                | 1                      |  |
|                       | 701601   |        |                  |                        |  |
| 70300210              | TEMPORARY PAVEMENT MARKING LETTERS AND SYMBOLS | SQ FT  | 100              | 100                    |  |
| 70300220              | TEMPORARY PAVEMENT MARKING - LINE 4"           | FOOT   | 9041             | 9041                   |  |
| 70301000              | WORK ZONE PAVEMENT MARKING REMOVAL             | SQ FT  | 3043             | 3043                   |  |
| X4403700              | MEDIAN REMOVAL (SPECIAL)                       | SQ FT  | 141              | 141                    |  |
| X4403800              | MEDIAN SURFACE REMOVAL                         | SQ FT  | 409              | 409                    |  |
| X7010216              | TRAFFIC CONTROL AND PROTECTION, (SPECIAL)      | LSUM   | 1                | 1                      |  |
| X7015005              | CHANGEABLE MESSAGE SIGN                        | CAL DA | 28               | 28                     |  |
| Z0034398              | MODULAR EXPANSION JOINT 15"                    | FOOT   | 128              | 128                    |  |
|                       | 10   |        |                  |                        |  |

△ REVISED 10-20-15

|  |                        |            |           |
|--|------------------------|------------|-----------|
| FILE NAME *  | USER NAME *            | DESIGNED - | REVISED - |
| pa:\VIL\B4EBID\INTEG\Illinois.gov\PI\DOT\Documents\1007 Offices\District 7\Projects\74770\BANKING\CA\BANKING\0774717-eh1-sop.dgn | gstaff@illinois.gov    | 708/20/15  | 708/20/15 |
| Default  | PLOT SCALE = 1/8" = 1' | CHECKED -  | REVISED - |
|  | PLOT DATE = 8/26/2015  | DATE -     | REVISED - |

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUMMARY OF  
QUANTITIES

SCALE: NA SHEET 1 OF 1 SHEETS STA. TO STA.

\*07 BRIDGE REPAIRS 2016-4

| F.A.P. RTE.               | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|---------|--------|--------------|-----------|
| 320                       |         | MACON  | 15           | 3         |
| CONTRACT NO. 74717        |         |        |              |           |
| ILLINOIS FED. AID PROJECT |         |        |              |           |

**GENERAL NOTES**

All 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.

Expansion joints shall be fabricated and installed according to the manufacturer's recommendations and as approved by the Engineer.

Expansion joints shall be fabricated to conform to the existing cross slopes of the bridge.

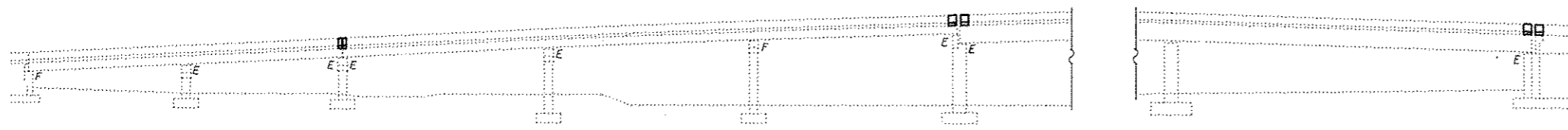
Existing reinforcement bars extending into the removal area shall be cleaned, straightened and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost included with Concrete Removal.

The deck surface shall have its final finish tined according to Article 420.09(e)(1) of the Standard Specifications. Cost included with Concrete Superstructure.

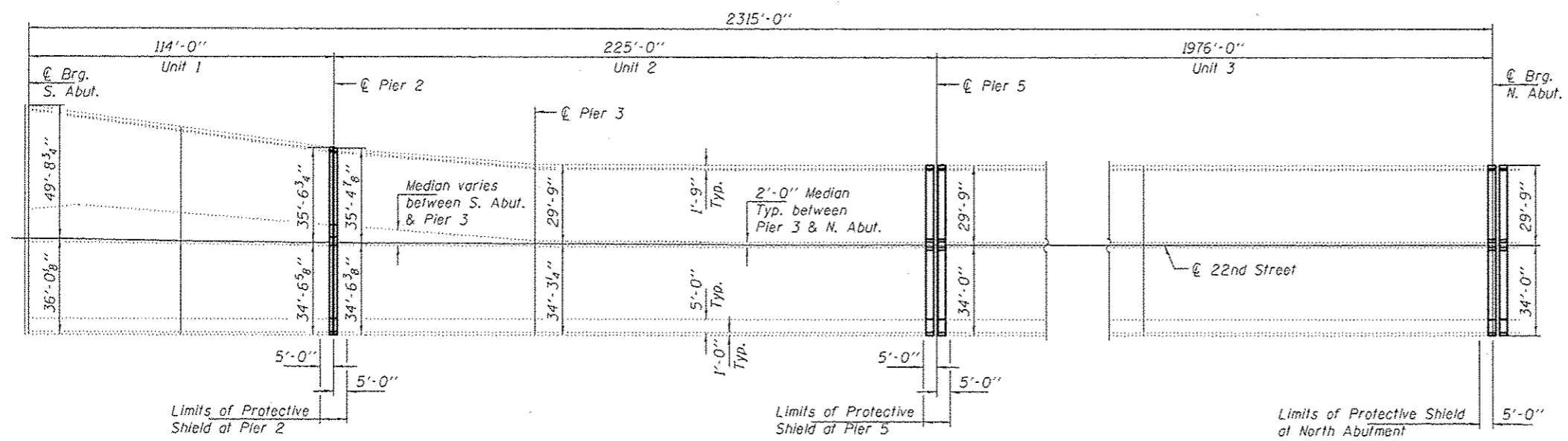
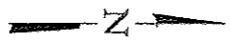
Joint openings shall be adjusted according to Article 520.04 of the Standard Specifications when the deck is poured at an ambient temperature other than 50° F.

Reinforcement bars designated (E) shall be epoxy coated.

Modular expansion joints shall be assembled in their final relative position with the ends in place for shop inspection and acceptance.



**PARTIAL ELEVATION**



**PARTIAL PLAN**

Replace Existing Expansion Joint at Pier 2 with Preformed Joint Strip Seal.

Replace Existing Expansion Joints at N. Abut. & Pier 5 with Modular Expansion Joints.

Expansion lengths:  
 Pier 2 = 264'-0"  
 Pier 5 = 1019'-6"  
 N. Abut = 1030'-0"

**TOTAL BILL OF MATERIAL**

| ITEM                             | UNIT    | QUANTITY |
|----------------------------------|---------|----------|
| Concrete Removal                 | Cu. Yd. | 44.4     |
| Concrete Superstructure          | Cu. Yd. | 39.4     |
| Reinforcement Bars, Epoxy Coated | Pound   | 6440     |
| Bar Splicers                     | Each    | 128      |
| Preformed Joint Strip Seal       | Foot    | 70       |
| Modular Expansion Joint, 15"     | Foot    | 128      |
| Mechanical Splicers              | Each    | 376      |
| Protective Shield                | Sq. Yd. | 170      |



EXPIRES 11-30-2016

DESIGNED: *Victor H. Hales*  
 CHECKED: *Adrian J. Holloway*  
 DRAWN: *balyo*  
 CHECKED: *VKH* *ATH*

EXAMINED: *David Carl Puzey*  
 PASSED: *David Carl Puzey*  
 ACTING ENGINEER OF BRIDGES AND STRUCTURES

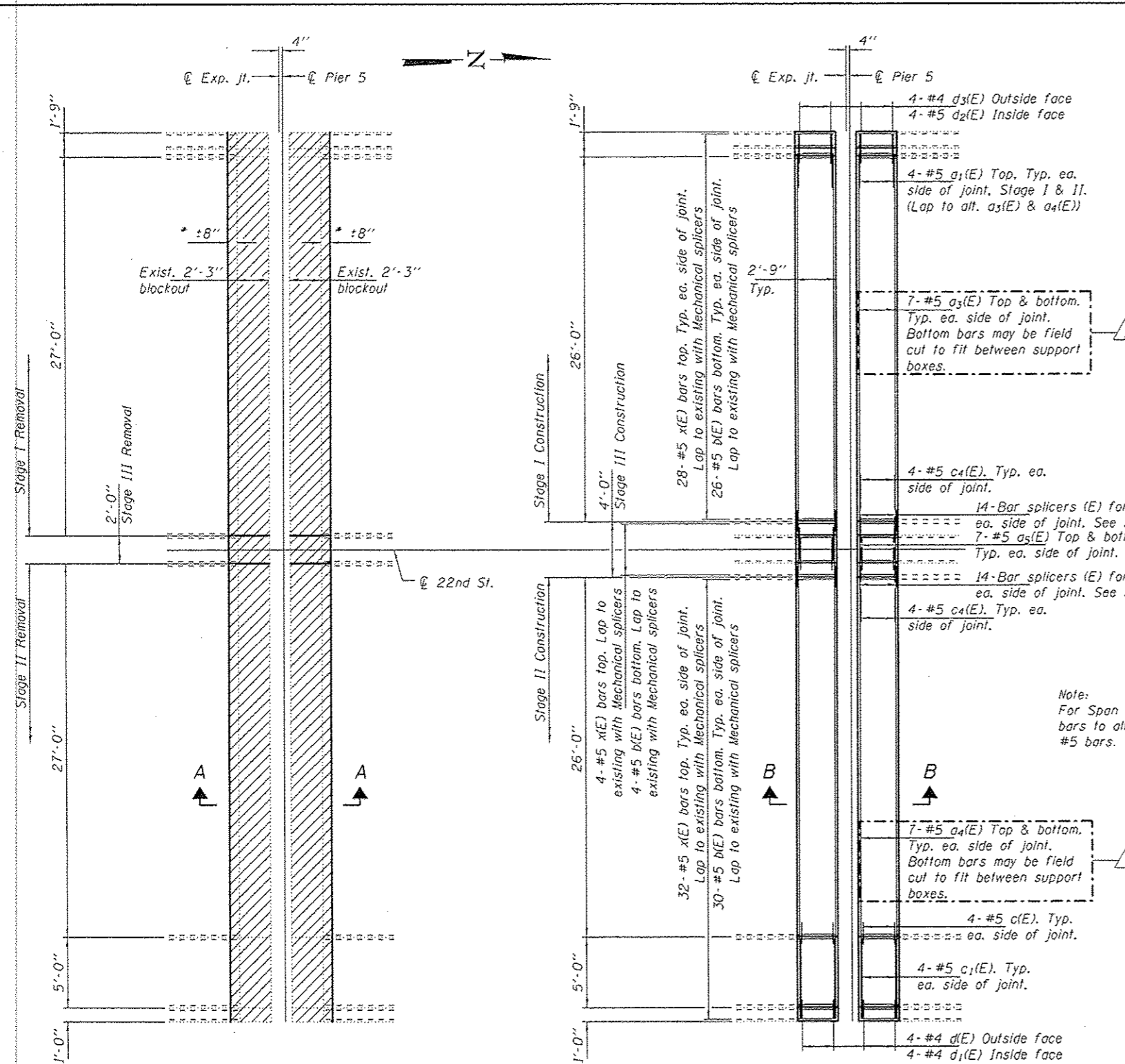
DATE: OCTOBER 1, 2015  
 REVISED: *10-13-2015 ATH*

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

PARTIAL PLAN AND ELEVATION  
 FAP 320 (IL 121) OVER N & W RR  
 SN 058-0120

\* DF BRIDGE REPAIRS 2016-4

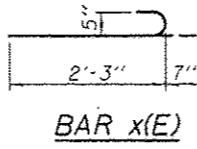
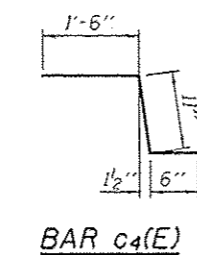
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|---------------------------|-----------|--------------|--------------------|-------------|
| F.A.P. RTE. 320           | SECTION * | COUNTY MACON | TOTAL SHEETS 15    | SHEET NO. 7 |
| SHEET NO. 1 OF 8 SHEETS   |           |              | CONTRACT NO. 74717 |             |
| ILLINOIS FED. AID PROJECT |           |              |                    |             |



REMOVAL DETAILS

REPLACEMENT DETAILS

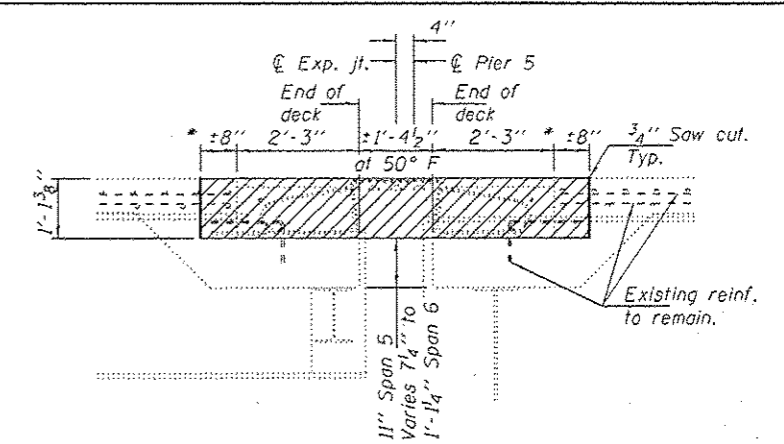
See sheet 2 of 8 for Deck Cross Section.



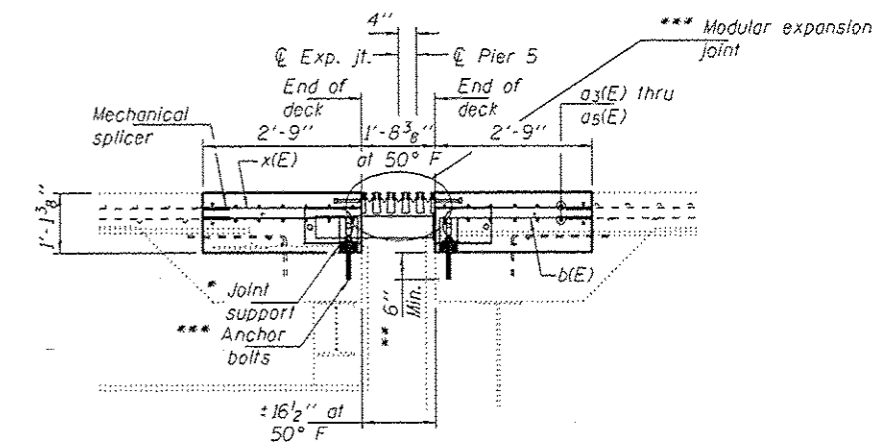
\* Remove enough concrete to expose a minimum of 6" of existing rebar.

\*\* Epoxy grout rods in 9" min. holes according to Article 584 of the Standard Specifications.

\*\*\* Spacing by joint manufacturer.



SECTION A-A



SECTION B-B

BILL OF MATERIAL

| Bar                              | No. | Size | Length  | Shape |
|----------------------------------|-----|------|---------|-------|
| a1(E)                            | 16  | #6   | 4'-0"   | —     |
| a3(E)                            | 28  | #5   | 27'-5"  | —     |
| a4(E)                            | 28  | #5   | 31'-8"  | —     |
| a5(E)                            | 28  | #5   | 3'-9"   | —     |
| b(E)                             | 120 | #5   | 2'-9"   | —     |
| c(E)                             | 8   | #5   | 2'-5"   | L     |
| c1(E)                            | 8   | #5   | 5'-6"   | —     |
| c4(E)                            | 16  | #5   | 2'-11"  | L     |
| d(E)                             | 8   | #4   | 5'-9"   | L     |
| d1(E)                            | 8   | #4   | 3'-2"   | L     |
| d2(E)                            | 8   | #5   | 3'-11"  | L     |
| d3(E)                            | 8   | #4   | 5'-6"   | L     |
| x(E)                             | 128 | #5   | 2'-10"  | —     |
| Concrete Removal                 |     |      | Cu. Yd. | 18.0  |
| Concrete Superstructure          |     |      | Cu. Yd. | 17.0  |
| Reinforcement Bars, Epoxy Coated |     |      | Lbs.    | 2880  |
| Modular Expansion Joint, 15"     |     |      | Foot    | 64    |
| Bar Splicers                     |     |      | Each    | 56    |
| Mechanical Splicers              |     |      | Each    | 248   |

For additional bar details, see sheet 3 of 8.

DESIGNED VHV  
 CHECKED ATH  
 DRAWN balva  
 CHECKED VHV ATH

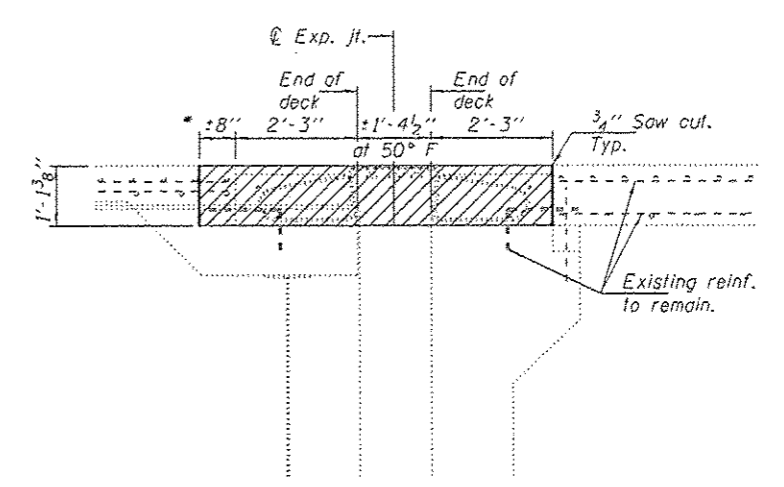
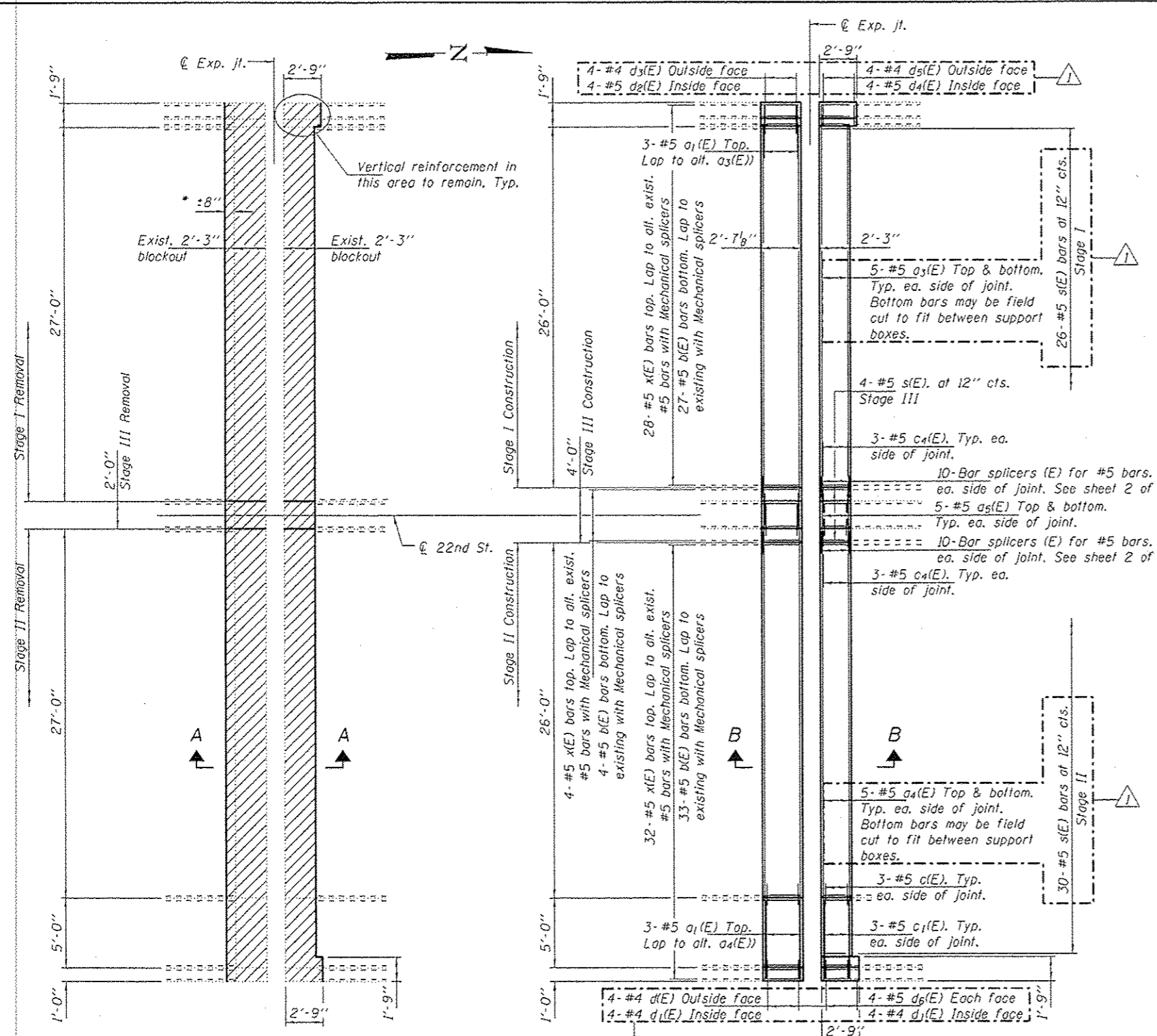
PASSED  
 ACTING ENGINEER OF BRIDGES AND STRUCTURES

DATE OCTOBER 1, 2015  
 REVISED 10-13-2015 ATH

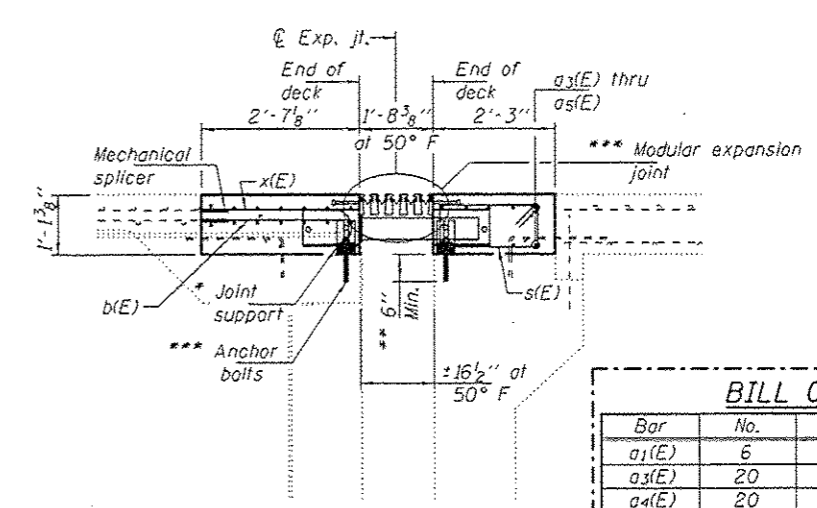
STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

PIER 5 JOINT REPLACEMENT DETAILS  
 SN 058-0120  
 SHEET NO. 5 OF 8 SHEETS

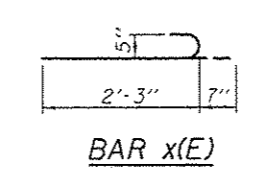
F.A.P. RTE. 320  
 SECTION  
 COUNTY MACON  
 TOTAL SHEETS 15  
 SHEET NO. 11  
 CONTRACT NO. 74717  
 ILLINOIS FED. AID PROJECT



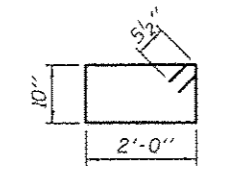
SECTION A-A



SECTION B-B  
Space s(E) bars to miss boxes.



BAR x(E)



BAR s(E)

| BILL OF MATERIAL                 |     |      |         |       |
|----------------------------------|-----|------|---------|-------|
| Bar                              | No. | Size | Length  | Shape |
| a1(E)                            | 6   | #6   | 4'-0"   |       |
| a3(E)                            | 20  | #5   | 27'-5"  |       |
| a4(E)                            | 20  | #5   | 31'-8"  |       |
| a5(E)                            | 20  | #5   | 3'-9"   |       |
| b(E)                             | 64  | #5   | 2'-9"   |       |
| c(E)                             | 6   | #5   | 2'-5"   |       |
| c1(E)                            | 6   | #5   | 5'-6"   |       |
| c4(E)                            | 12  | #5   | 2'-11"  |       |
| d(E)                             | 8   | #4   | 5'-9"   |       |
| d1(E)                            | 12  | #4   | 3'-2"   |       |
| d2(E)                            | 4   | #5   | 3'-11"  |       |
| d3(E)                            | 4   | #4   | 5'-6"   |       |
| d4(E)                            | 4   | #5   | 5'-1"   |       |
| d5(E)                            | 4   | #4   | 3'-11"  |       |
| d6(E)                            | 8   | #5   | 3'-9"   |       |
| e(E)                             | 12  | #4   | 2'-5"   |       |
| e1(E)                            | 2   | #8   | 2'-5"   |       |
| e2(E)                            | 14  | #5   | 2'-5"   |       |
| s(E)                             | 60  | #5   | 6'-7"   |       |
| x(E)                             | 64  | #5   | 2'-10"  |       |
| Concrete Removal                 |     |      | Cu. Yd. | 16.0  |
| Concrete Superstructure          |     |      | Cu. Yd. | 15.0  |
| Reinforcement Bars, Epoxy Coated |     |      | Lbs.    | 2430  |
| Modular Expansion Joint, 15"     |     |      | Foot    | 64    |
| Bar Splicers                     |     |      | Each    | 56    |
| Mechanical Splicers              |     |      | Each    | 128   |

- \* Remove enough concrete to expose a minimum of 6" of existing rebar.
- \*\* Epoxy grout rods in 9" min. holes according to Article 584 of the Standard Specifications.
- \*\*\* Spacing by joint manufacturer.

For additional bar details, see sheets 3, 5 & 7 of 8.

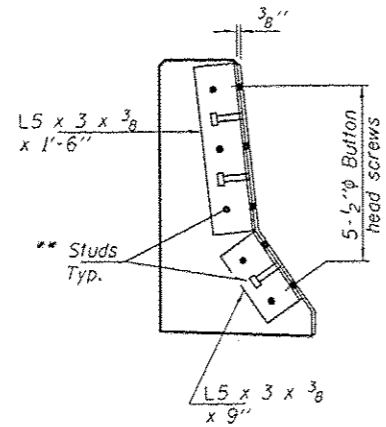
DESIGNED VHY  
CHECKED ATH  
DRAWN ballva  
CHECKED VHY ATH

DATE OCTOBER 1, 2015  
PASSED [Signature]  
ACTING ENGINEER OF BRIDGES AND STRUCTURES  
REVISED 10-13-2015 ATH

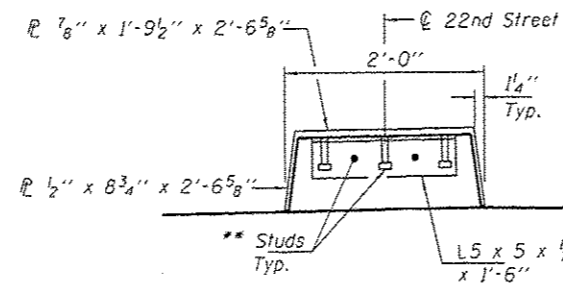
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

NORTH ABUTMENT JOINT REPLACEMENT DETAILS  
SN 058-0120  
SHEET NO. 6 OF 8 SHEETS

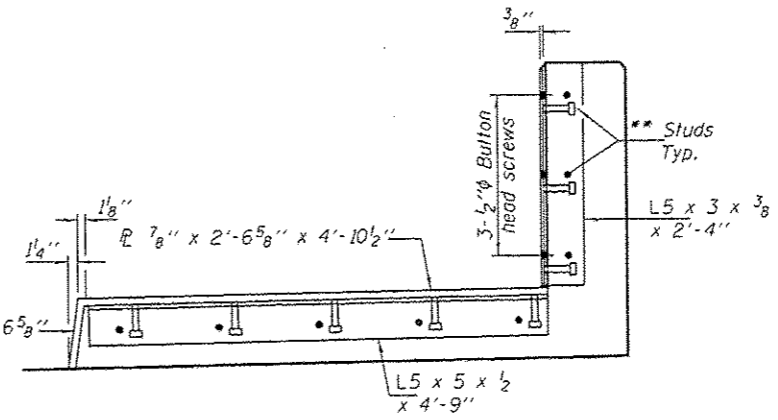
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SECTION  
COUNTY MACON  
TOTAL SHEETS 15  
SHEET NO. 12  
CONTRACT NO.  
ILLINOIS FED. AID PROJECT



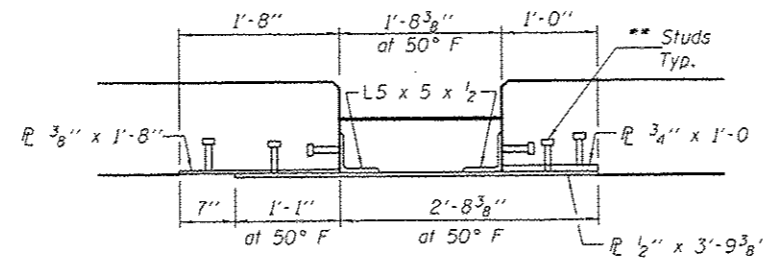
SECTION THRU PARAPET



SECTION THRU MEDIAN



SECTION THRU WALK

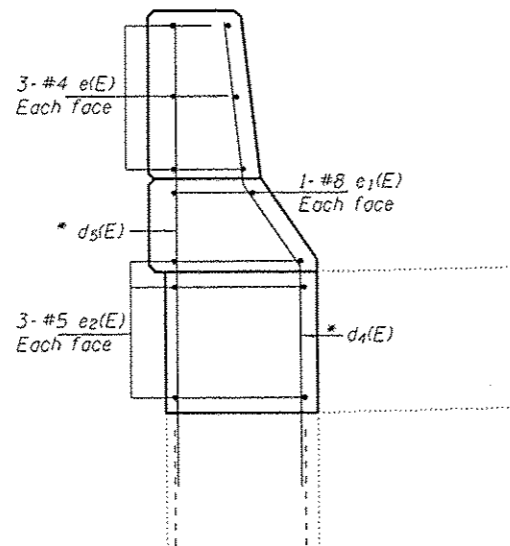


JOINT CROSS SECTION

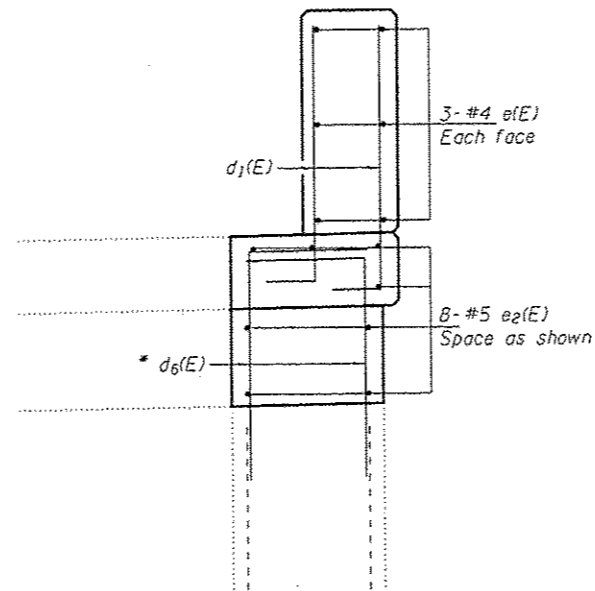
\*\* 3/4" φ x 6" granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded at 1'-0" cts.

Notes:  
See sheet 2 of 8 for dimensions not shown.

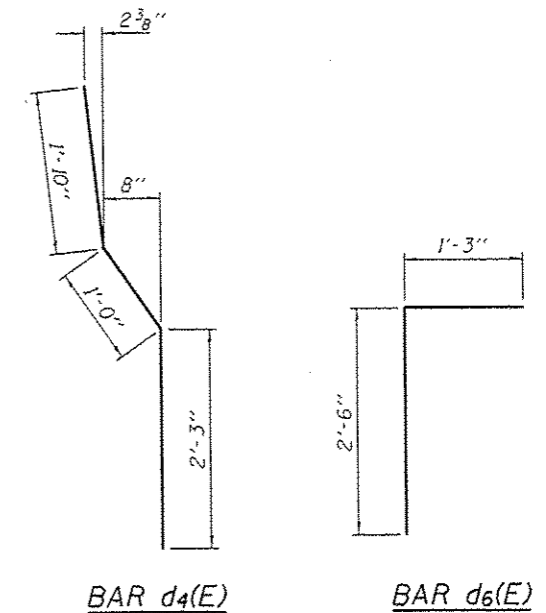
Reinforcement bars on this sheet are included in the Bill of Material on sheet 6 of 7.



SECTION THRU W. APPROACH PARAPET



SECTION THRU E. APPROACH PARAPET



\* Epoxy grout d4(E), d5(E) & d6(E) bars in 9" min. holes according to Article 584 of the Standard Specifications.

DESIGNED VHV  
CHECKED ATH  
DRAWN balva  
CHECKED VHV ATH

PASSED

ACTING ENGINEER OF BRIDGES AND STRUCTURES

DATE OCTOBER 1, 2015

REVISED 10-13-2015 ATH

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SLIDING PLATE DETAILS  
SN 058-0120

SHEET NO. 7 OF 8 SHEETS

| F.A.P. RTE.               | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|---------|--------|--------------|-----------|
| 320                       |         | MACON  | 15           | 13        |
| CONTRACT NO.              |         |        |              |           |
| ILLINOIS FED. AID PROJECT |         |        |              |           |