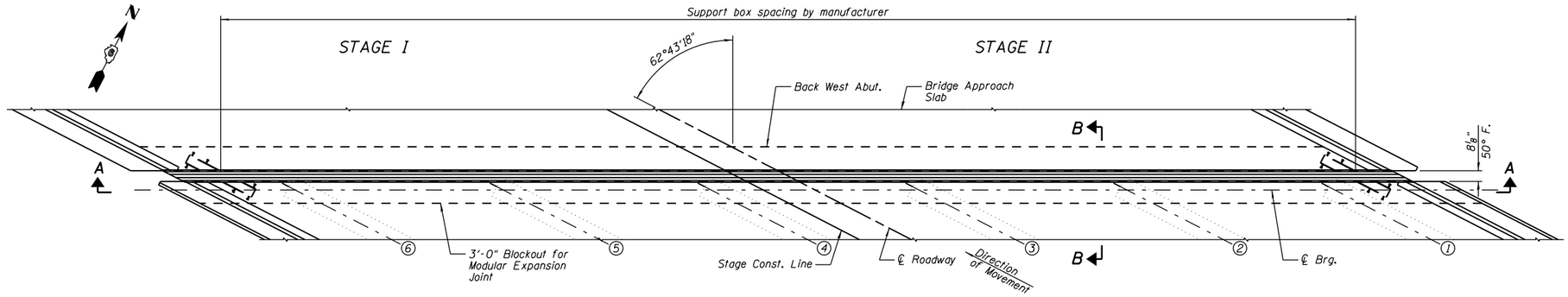
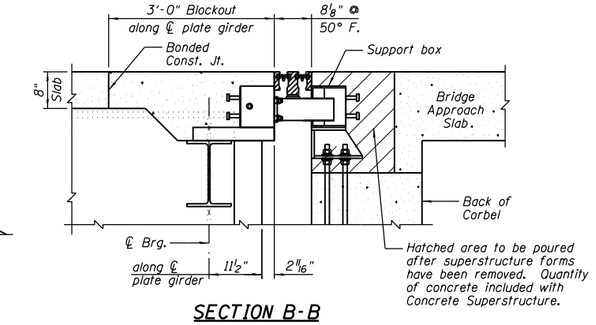
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

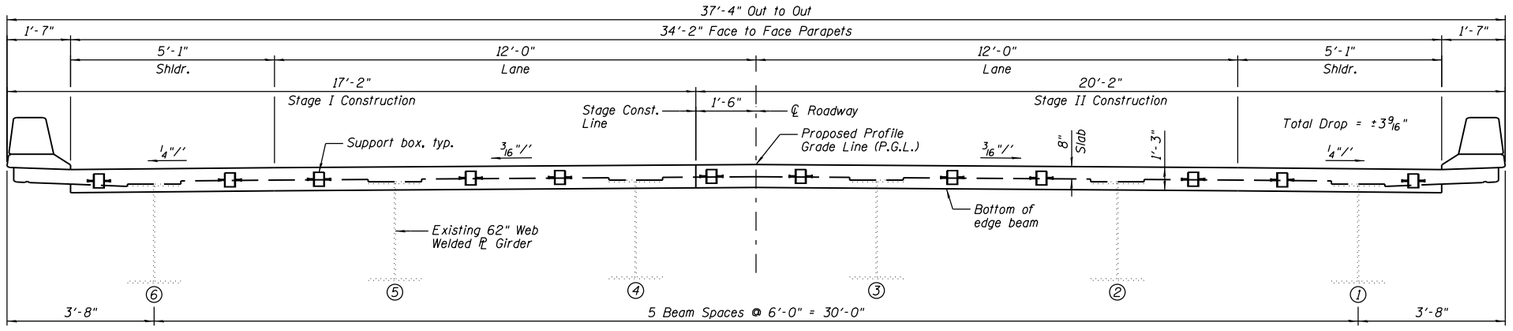



## PLAN AT WEST ABUTMENT




## SECTION B-B

*Support boxes shall be rigidly attached to diaphragms and girders by adjustable brackets, stools or shims.*



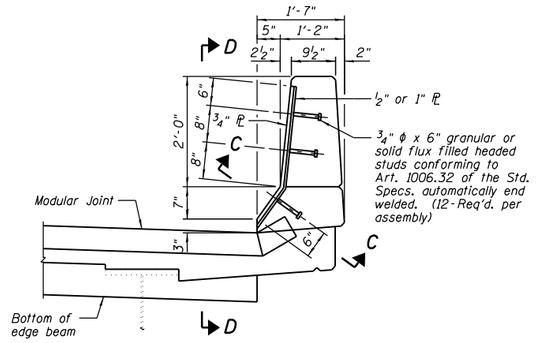

## SECTION A-A

*Unless noted otherwise, horizontal dimensions are at right angles.*

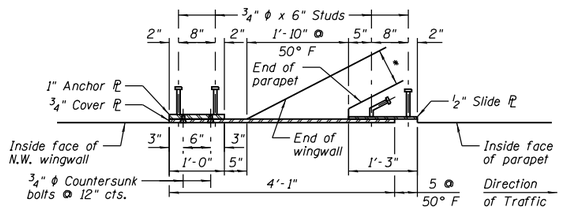
## NOTES:

1.) The Modular Expansion Joint shall be designed in accordance with the latest AASHTO Specifications for HS20-44 truck loading with impact.
2.) The expansion joint device shall be a prefabricated modular assembly with multiple support bars and separator beams, providing a continuous seal across the deck.
3.) The joint shall be fabricated and installed according to the manufacturer's recommendations and as described in the GBSP No. 18 for Modular Expansion Joint and as approved by the Engineer.
4.) The joint shall be fabricated to conform to the roadway profile and cross slope.
5.) All exposed structural steel elements such as separator and edge beam support bars and cover plate shall be fabricated with AASHTO M270, Grade 50 steel unless specified otherwise by the manufacturer.
6.) Bolts for the sliding plate assemblies shall be galvanized according to AASHTO M232.
7.) The steel plates for the sliding plate assemblies shall be AASHTO M270, Grade 50 and galvanized according to AASHTO M111.
8.) All materials, equipment and labor required to install the sliding plate assemblies in the parapets are included in the cost of Modular Expansion Joint-Swivel of the size specified.
9.) No aluminum components shall be allowed.
10.) All splices of center beams and edge beams shall be full penetration welds (upturn splices may be partial penetration welds).
11.) Joint openings shall be adjusted according to Article 503.10(c) of the Standard Specifications when the blockout is cast at an ambient temperature other than 50° F.
12.) Modular Expansion Joints shall be assembled in their final relative position with the ends in place for shop inspection and acceptance.
13.) All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.
14.) The Modular Expansion Joint shall be either the Maurer Swivel System by the D.S. Brown Company or the WABO X-Cel System by the Watson Bowman Acme Corporation. The joint shall provide the following movement:

| Location | Longitudinal Movement (inch) | Size (inch) |
|---|---|---|
| West Abutment | 3 3/16" | 6" |

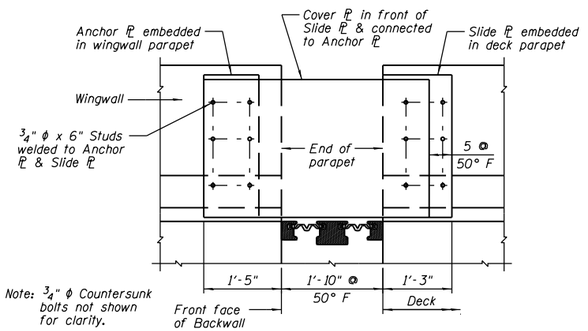



## PARAPET DETAIL



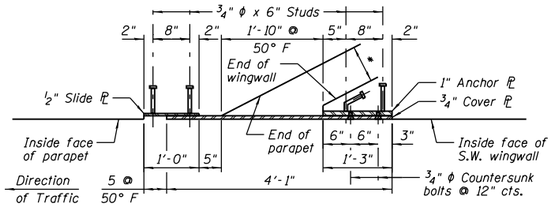

## SECTION C-C (NORTH END)

*8⅛" @ 50° F




## SECTION D-D

(Northwest end of Deck)




## SECTION C-C (SOUTH END)

*8⅛" @ 50° F

## BILL OF MATERIAL

| Item | Unit | Total |
|---|---|---|
| Modular Expansion Joint-Swivel 6" | Foot | 77 |

## MODULAR EXPANSION JOINT DETAILS
## STRUCTURE NO. 084-0078

| | |
|---|---|
| DESIGNED | JML |
| CHECKED | MSW |
| DRAWN | DJM |
| CHECKED | MGO/MSW |
| DATE | 08/09/10 |

| SHEET NO. B21 | F.A.I. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|---|
| 42 SHEETS | 7-2 | (84-3HB-5)BR | SANGAMON | 84 | 57 |
| | | SN 084-0078 | CONTRACT NO. 72C70 | | |
| | | FED. ROAD DIST. NO. 6 | ILLINOIS | FED. AID PROJECT | |

FARNSWORTH GROUP, INC. CONSULTING ENGINEERS - 2709 MCGRAW DRIVE BLOOMINGTON, ILLINOIS 61704 (309) 663-8435 / (309) 663-1571 FAX

24-8181