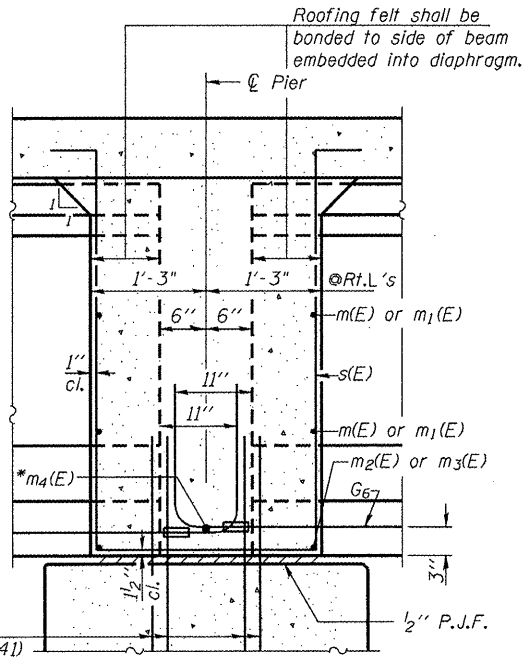


**SECTION A-A  
AT ABUTMENT**  
(at Rt. Ls)

\* Tightly fasten the #8 bars together with No. 9 wire ties.  
\*\* a<sub>3</sub>(E) typ. btwn. beams  
a<sub>4</sub>(E) each side of stage line btwn. beams

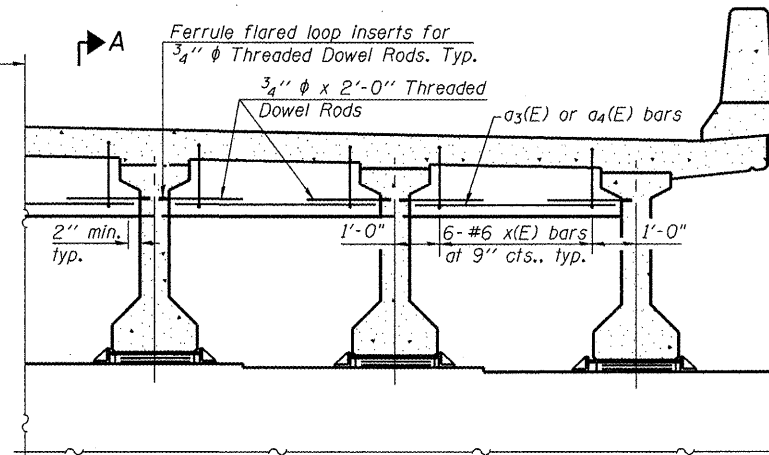
**SECTION B-B  
AT PIER**  
(Fixed)

\*\*\*  $\varnothing$  1 1/2"  $\phi$  x 18" anchor bolts with 3" x 3" x 5/16"  $\varnothing$  washer under nut. Holes in cap to be drilled after beams are in place.



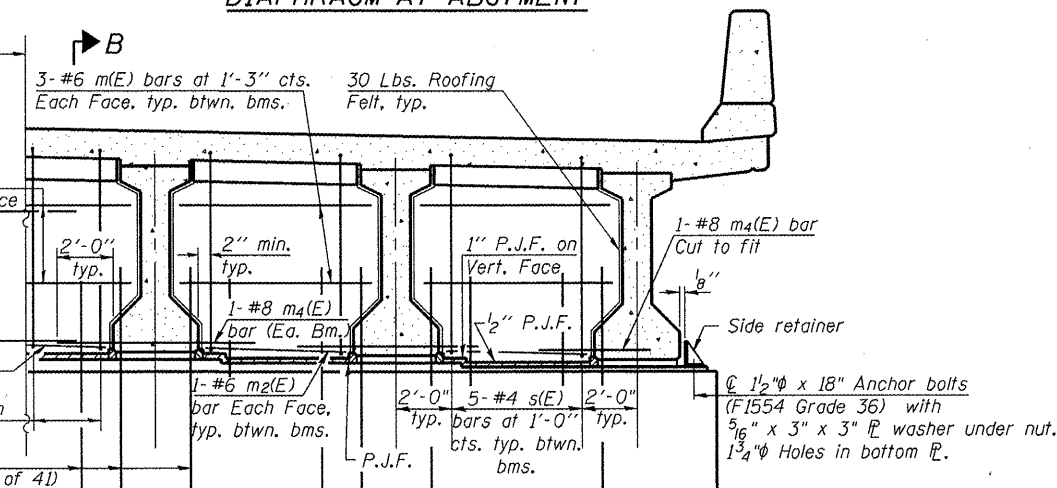
v<sub>1</sub>(E) bars  
(See sht. 27-30 of 41)

Symmetrical about  $\varnothing$  Roadway and Stage Construction Line

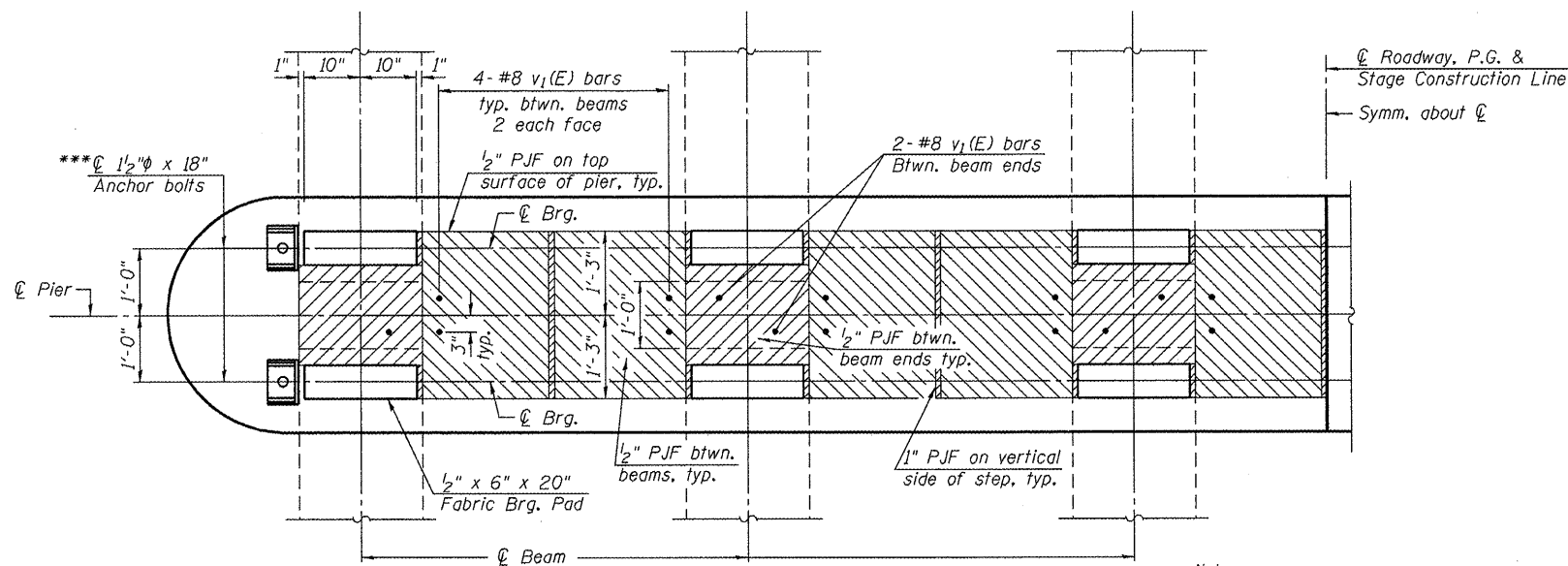


**DIAPHRAGM AT ABUTMENT**

Symmetrical about  $\varnothing$  Roadway and Stage Construction Line

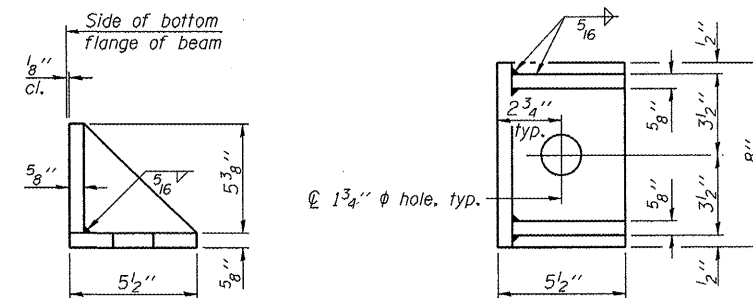


**DIAPHRAGM AT PIER**  
(Fixed)



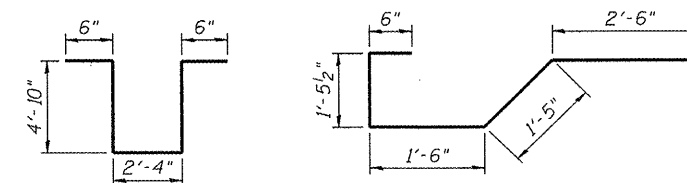
**PARTIAL PLAN AT PIER CAPS**

**Notes:**  
Reinforcement bars in diaphragm are billed with superstructure on sheet 13 of 41.  
Concrete in diaphragm is included with Concrete Superstructure on sheet 13 of 41.  
The s(E) and x(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.  
Cost of 30 Lb. roofing felt is included with Concrete Superstructure.  
Horizontal dimensions for Sec. B-B are along  $\varnothing$  of beam unless otherwise noted.  
The side retainer shall be galvanized after shop fabrication according to AASHTO M111.  
See sheet 32 of 41 for Bar Splicer Details.  
Cost of Side Retainer and Anchor Bolts included with Concrete Structures.



**SIDE RETAINER**

(2 required each side of pier).  
Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.



**BARS s(E)**

**BAR x(E)**

USER NAME = dhoberling	DESIGNED - BRD/FLI	REVISED -
FILE NAME = 0550083-68482.dgn	CHECKED - SDS/JHP	REVISED -
PLOT DATE = 12/21/2010	DRAWN - DLH	REVISED -
PLOT TIME = 10:38:31 AM	CHECKED - CWC/SDS	REVISED -

**WHKS & CO.**  
ENGINEERING  
7018 KINGSMILL CT.,  
SPRINGFIELD, IL  
(217) 483-9457  
DESIGN FIRM #184001036

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SUPERSTRUCTURE DETAILS  
S.N. 055-0083**

SHEET NO. 14 OF 41 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
542	105BR-1	MCDONOUGH	117	54
CONTRACT NO. 68482			ILLINOIS FED. AID PROJECT	