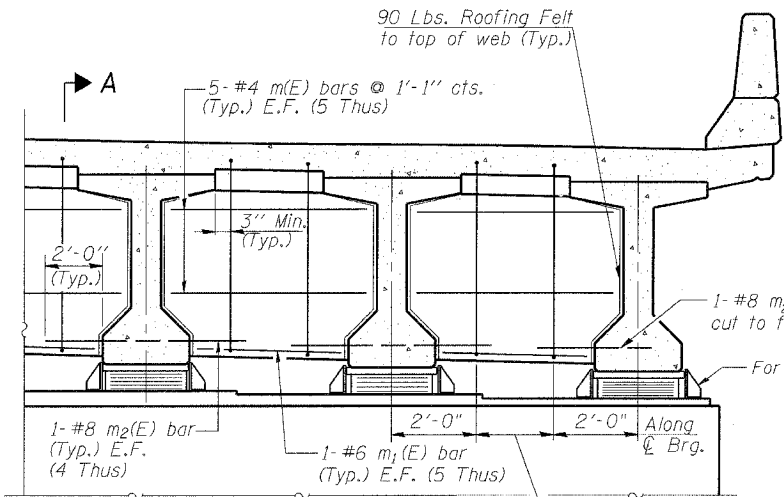


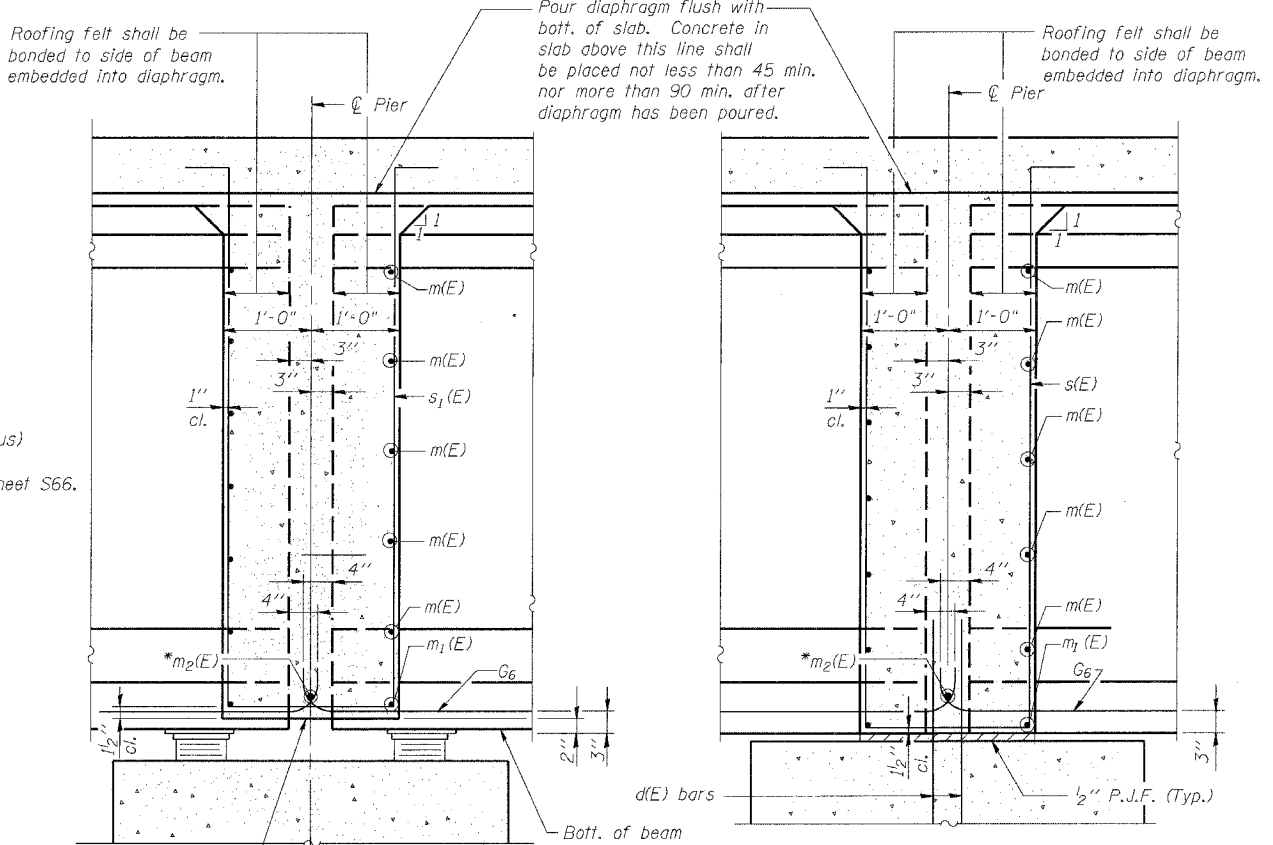
ROUTE No.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 827	12Z-3, 12BR	WABASH, IL GIBSON, IN	158	63
STA.		TO STA.		
F.H.W.A. REGION		ILLINOIS	PROJECT	

BRIDGE SHEET S47 OF S114 CONTRACT 94450



**DIAPHRAGM AT PIER**  
(Expansion)

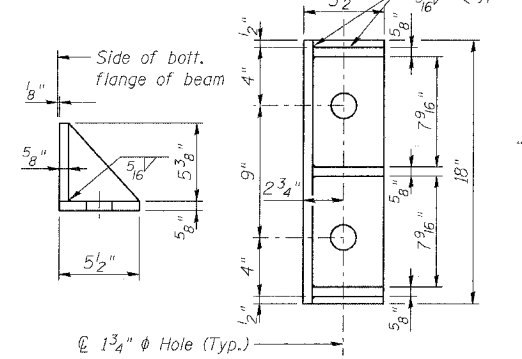
This detail applies to Piers 1, 3, 10, 12, 14, 15, 18 & 19



**SECTION A-A AT PIER**  
(Expansion)

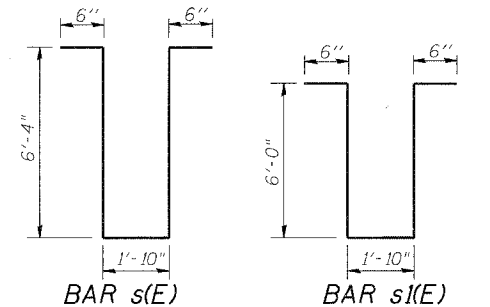
**SECTION B-B AT PIER**  
(Fixed)

\* Tightly fasten the #8 bars together with No. 9 wire ties.



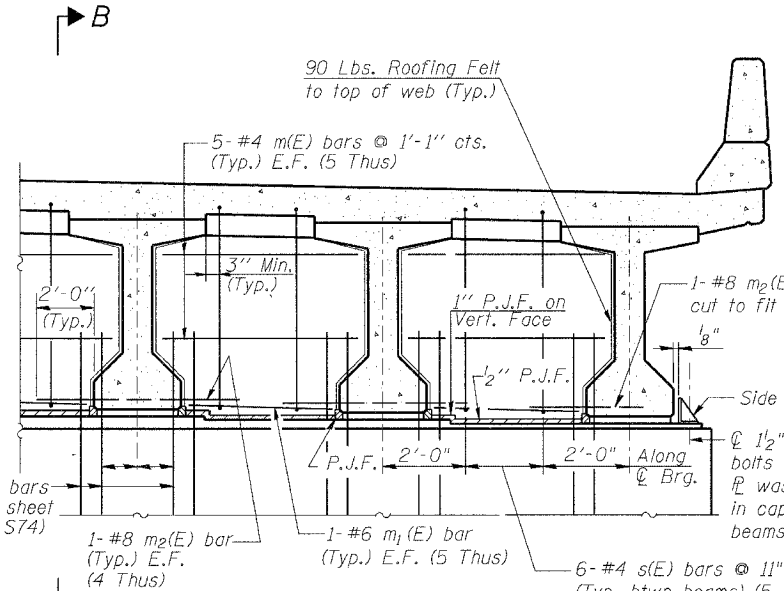
**SIDE RETAINER**

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.



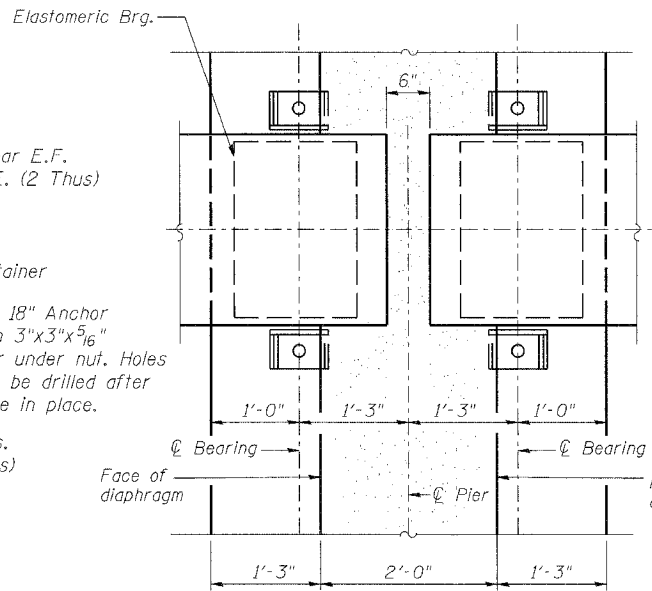
**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
m(E)	300	#4	7'-7"	—
m(I)(E)	40	#6	5'-11"	—
m2(E)	24	#8	6'-2"	—
s(E)	120	#4	15'-6"	U
m(E)	400	#4	7'-7"	—
m(I)(E)	80	#6	5'-11"	—
m2(E)	48	#8	6'-2"	—
s(I)(E)	240	#4	14'-10"	U
Pay Item		Unit	Total	
Concrete Superstructure		Cu. Yd.	228.8	
Reinf. Bars, Epoxy Coated		Pound	9,420	

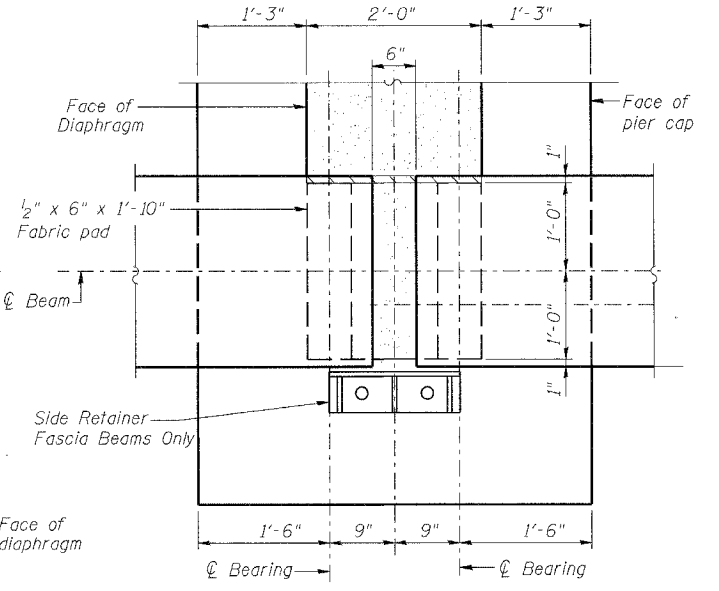


**DIAPHRAGM AT PIER**  
(Fixed)

This detail applies to Piers 2, 11, 16, 17



**PARTIAL PLAN AT PIER**  
(Expansion)



**PARTIAL PLAN AT PIER**  
(Fixed)

**NOTES:**

- Costs of 90 lb. roofing felt and fabric bearing pads are included with "Concrete Superstructure"
- E.F. denotes Each Face. E.E. denotes Each End.
- Side retainers at Fixed Pier Diaphragms shall be galvanized according to AASHTO M111 or M232 (as applicable). Cost of side retainer and anchor bolts shall be included with Concrete Structures.
- Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade and diameter specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554. Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.

DESIGNED	JB
CHECKED	JDC/KWS
DRAWN	JST
CHECKED	JDC/KWS

**benesch**  
alfred benesch & company  
Engineers - Surveyors - Planners  
206 North Michigan Avenue, Suite 2400  
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312-565-3450  
Job No. 3425

ILLINOIS DEPARTMENT OF TRANSPORTATION  
IL ROUTE 15/IN ROUTE 64  
OVER WABASH RIVER PUBLIC WATERS  
FAP 827 SECT 12Z-3, 12BR  
**DIAPHRAGM DETAILS**  
PIERS 1-3, 10-12, 14-19  
SN: 093-0021 (IL)/9502700 (IN) STA. 1036+27  
WABASH CO., IL. DATE: JUNE 15, 2007

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6/26/2007