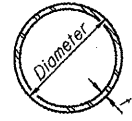
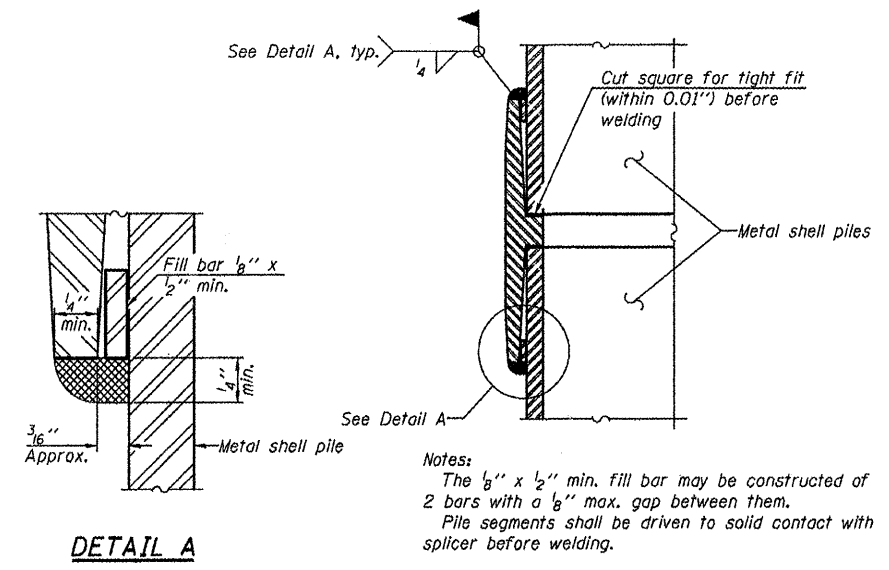


ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 93	00-01199-00-BR	MASSAC	18	15
PROJECT NO. BROS-127(18)			CONTRACT NO. 99438	



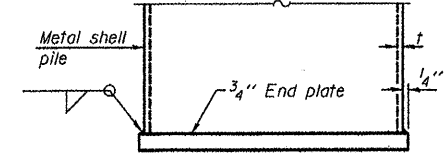
**METAL SHELL PILE TABLE**

Designation and outside diameter	Wall thickness t	Weight per foot (Lbs./ft.)	Inside volume (yd. <sup>3</sup> /ft.)
PP12	0.179"	22.60	0.0274
PP12	0.250"	31.37	0.0267
PP14	0.250"	36.71	0.0368
PP14	0.312"	45.61	0.0361

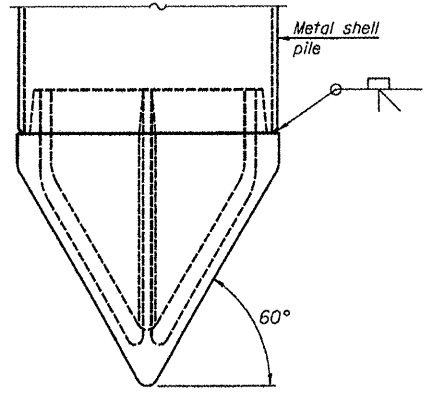


**DETAIL A**

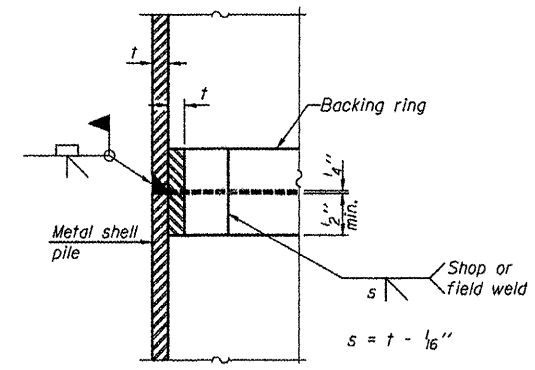
**WELDED COMMERCIAL SPLICE**



**END PLATE ATTACHMENT**

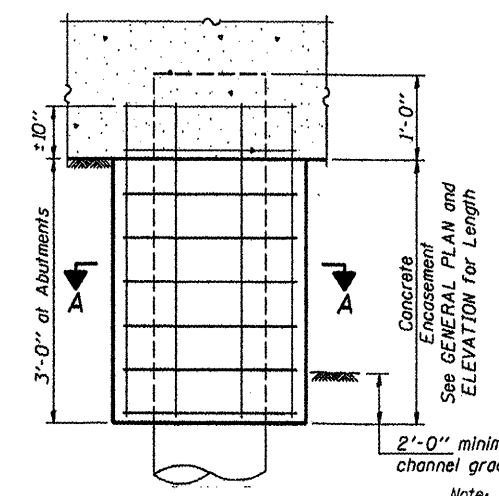


**METAL SHELL PILE SHOE ATTACHMENT**  
(See Note A)



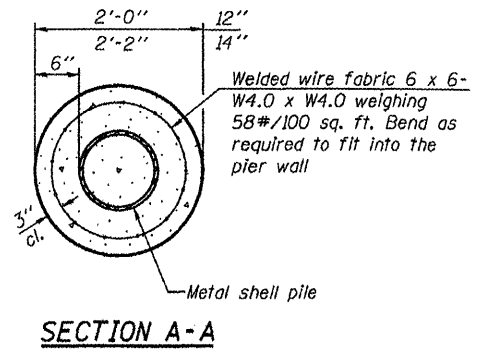
**COMPLETE PENETRATION WELD SPLICE**

Backing ring made from pile shell. Remove segment to allow reducing circumference and vertically rejoin with partial joint penetration weld.



**ELEVATION**

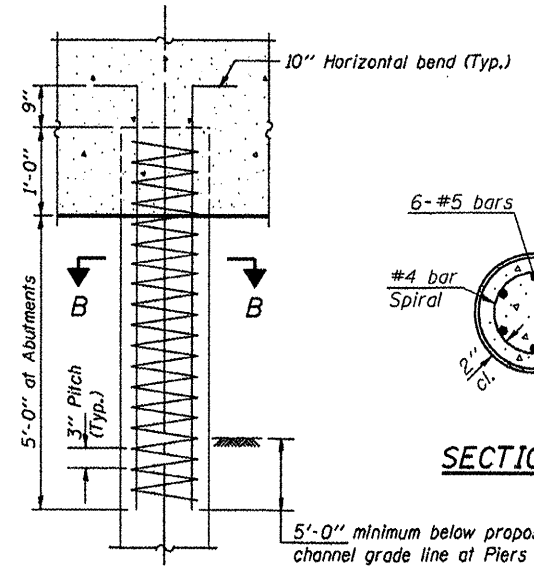
**CONCRETE ENCASEMENT**



**SECTION A-A**

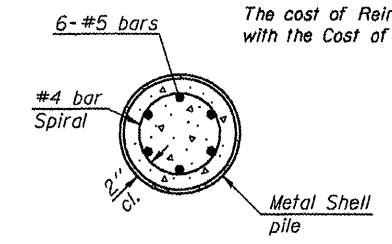
Concrete Encasement Pile Size	Quantity / Ft.
12" Dia.	0.087 C.Y.
14" Dia.	0.107 C.Y.

Note: Forms for encasement may be omitted when soil conditions permit.



**ELEVATION**

**METAL SHELL REINFORCEMENT**



**SECTION B-B**

Reinforcement cage shall be omitted when Concrete Encasement is provided.  
The cost of Reinforcement is included with the Cost of Furnishing Piles.

Note: The metal shell piles shall be according to ASTM A 252 Grade 3.

**PILING DETAILS**  
TOWNSHIP ROUTE 93 (SEILBECK ROAD)  
IC RAILROAD  
SECTION 00-01199-00-BR  
MASSAC COUNTY  
STRUCTURE NO. 064-3141