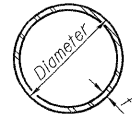


ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 866	4N-1	LAKE	165	83
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

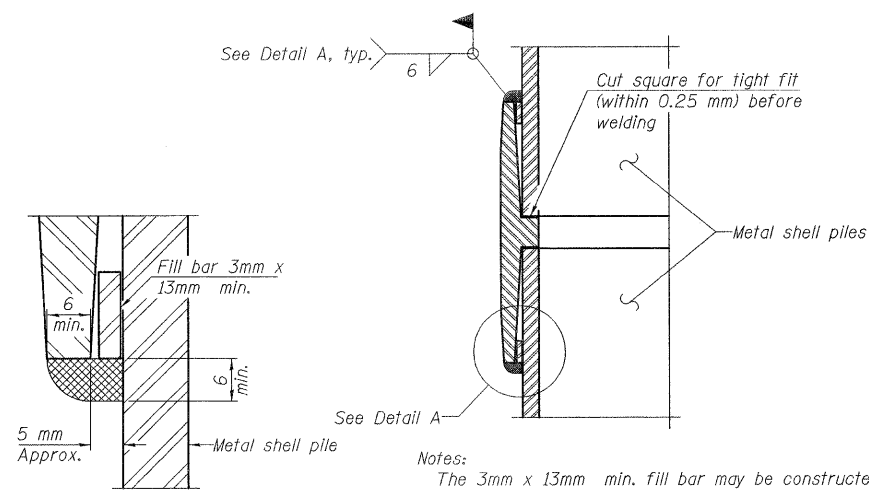
SHEET NO.  
13A of 22

Contract No.: 60931



**METAL SHELL PILE TABLE**

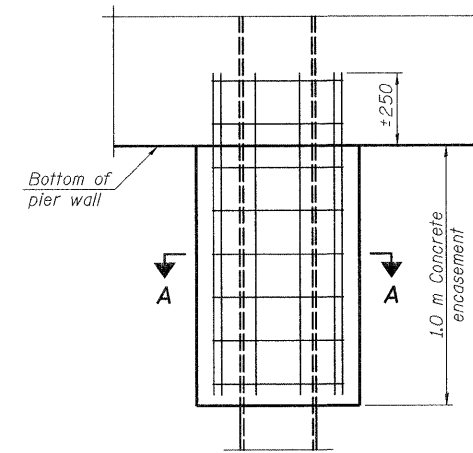
Designation and outside diameter	Wall thickness t (mm)	Weight per meter (kg/m)	Inside volume (m <sup>3</sup> /m)
PP12	4.55	33.63	0.0687
PP12	6.35	46.68	0.0670
PP14	6.35	54.63	0.0923
PP14	7.92	67.87	0.0906



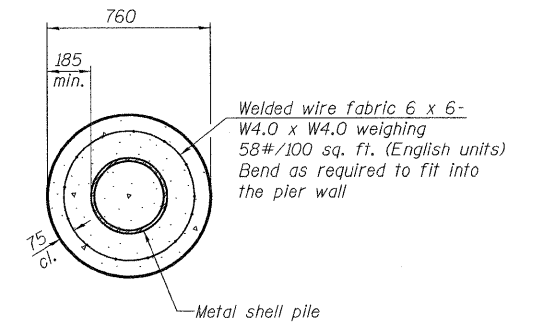
**DETAIL A**

Notes:  
The 3mm x 13mm min. fill bar may be constructed of 2 bars with a 3mm max. gap between them.  
Pile segments shall be driven to solid contact with splicer before welding.

**WELDED COMMERCIAL SPLICE**



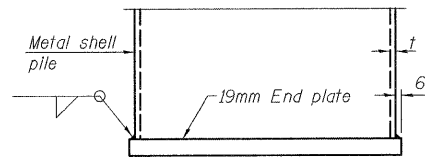
**ELEVATION**



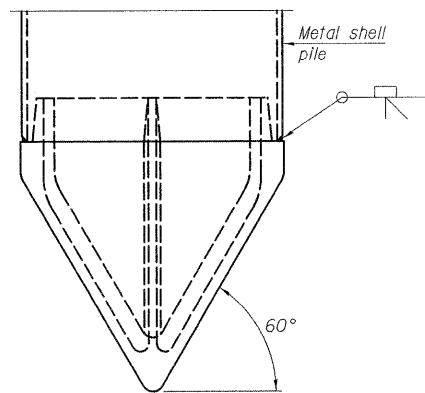
**SECTION A-A**

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

**CONCRETE ENCASEMENT**



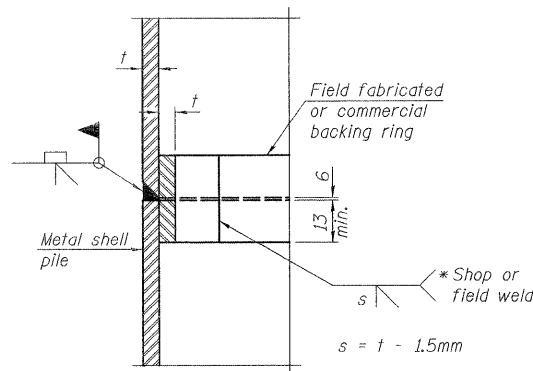
**END PLATE ATTACHMENT**



**METAL SHELL PILE SHOE ATTACHMENT**

(See Note A)

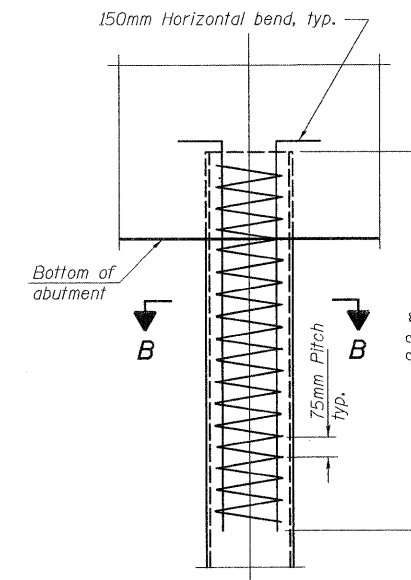
Note A:  
When called for on the plans, the Contractor shall furnish metal shell pile shoes consisting of a single piece conical pile point as shown. The pile shoes shall be cast in one piece steel according to either ASTM A 148 Grade 90-60 or AASHTO M 103 Grade 65-35 and shall provide full bearing over the full circumference of the metal shell pile. The pile shoe shall have tapered leads to assure proper alignment and fitting and shall be secured to the pile with a circumferential weld.



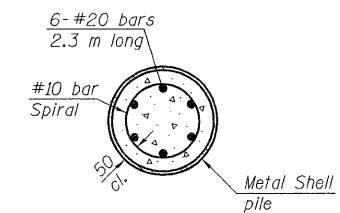
**COMPLETE PENETRATION WELD SPLICE**

\* Field fabricated backing ring may be made from pile shell by removing segment to allow reducing circumference and vertically rejoin with partial joint penetration weld.

Note:  
The metal shell piles shall be according to ASTM A 252 Grade 3.  
All dimensions are in millimeters (mm) unless noted.



**ELEVATION**



**SECTION B-B**

**METAL SHELL REINFORCEMENT**



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
METAL SHELL PILE DETAILS  
IL RTE. 132 LAND BRIDGE  
FAP RTE 866 - SEC 4N-1  
LAKE COUNTY  
STA. 1+143.3  
SN 049-D002  
DATE: 11-06-09  
DRAWN BY BLB  
CHECKED BY WJV