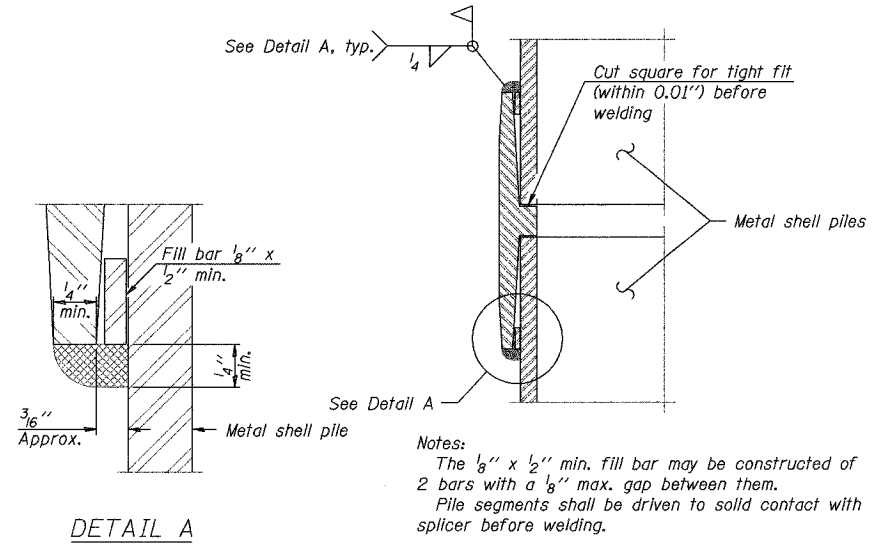
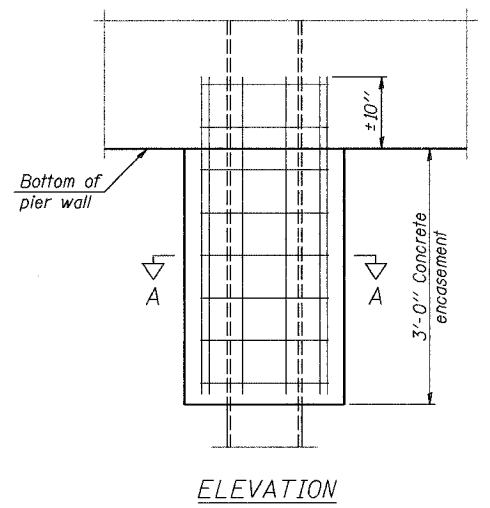


METAL SHELL PILE TABLE

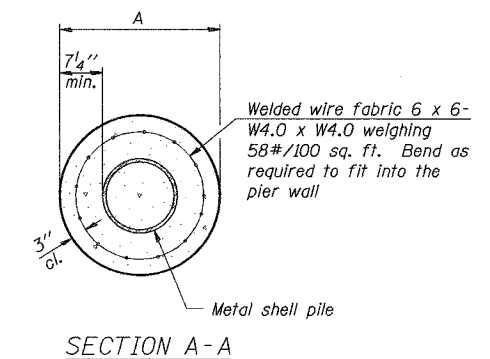
Designation	Wall thickness t	Weight per foot (Lbs./ft.)	Inside volume (yd. <sup>3</sup> /ft.)	Encasement diameter A
PP12	0.179"	22.60	0.0274	30"
PP12	0.250"	31.37	0.0267	30"
PP14	0.250"	36.71	0.0368	30"
PP14	0.312"	45.61	0.0361	30"



WELDED COMMERCIAL SPLICE



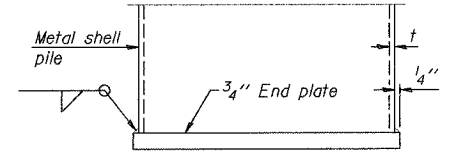
ELEVATION



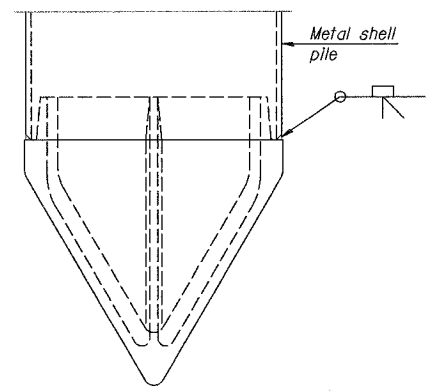
SECTION A-A

Notes:  
See Metal Shell Pile Table for dimension "A".  
Forms for encasement may be omitted when soil conditions permit.

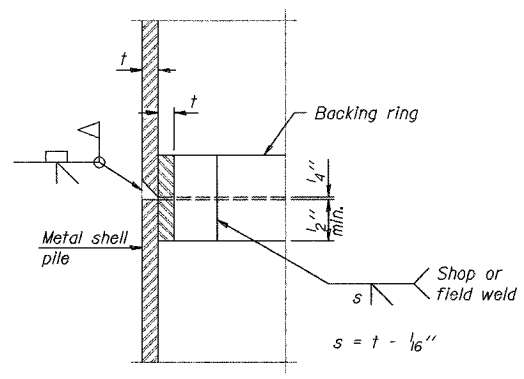
CONCRETE ENCASEMENT AT PIERS



END PLATE ATTACHMENT

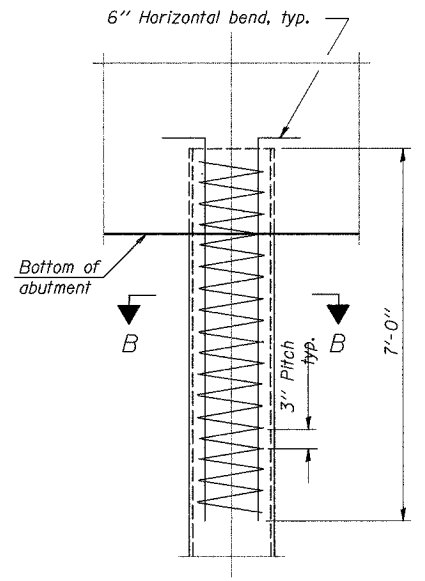


METAL SHELL PILE SHOE ATTACHMENT



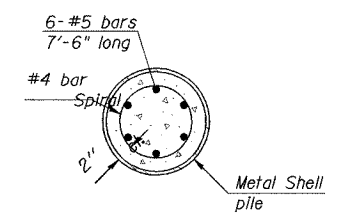
COMPLETE PENETRATION WELD SPLICE

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



ELEVATION

METAL SHELL REINFORCEMENT AT ABUTMENTS



SECTION B-B

DESIGNED	S.S.T.
CHECKED	S.D.H.
DRAWN	E.B.
CHECKED	S.S.T.
F-MS	11-1-06

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

CONCRETE PILE DETAILS  
IL Route 176 over  
South Branch of the Kishwaukee River  
F.A.P. RTE 533, SECTION 119R-1-B  
McHENRY COUNTY  
STATION 51+50.00  
S.N. 056-0071  
DATE: 08-17-07  
GRAEF, ANHALT, SCHLOEMER & ASSOCIATES INC  
CHICAGO ILLINOIS