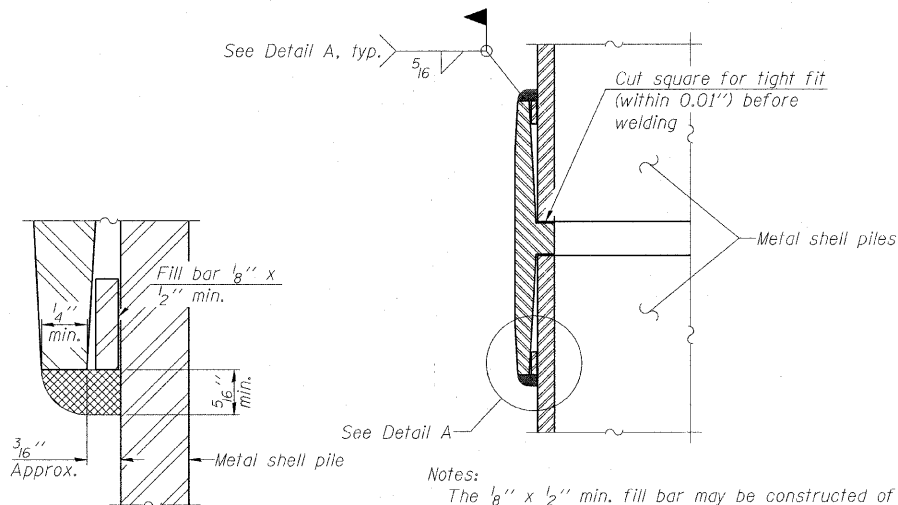




METAL SHELL PILE TABLE

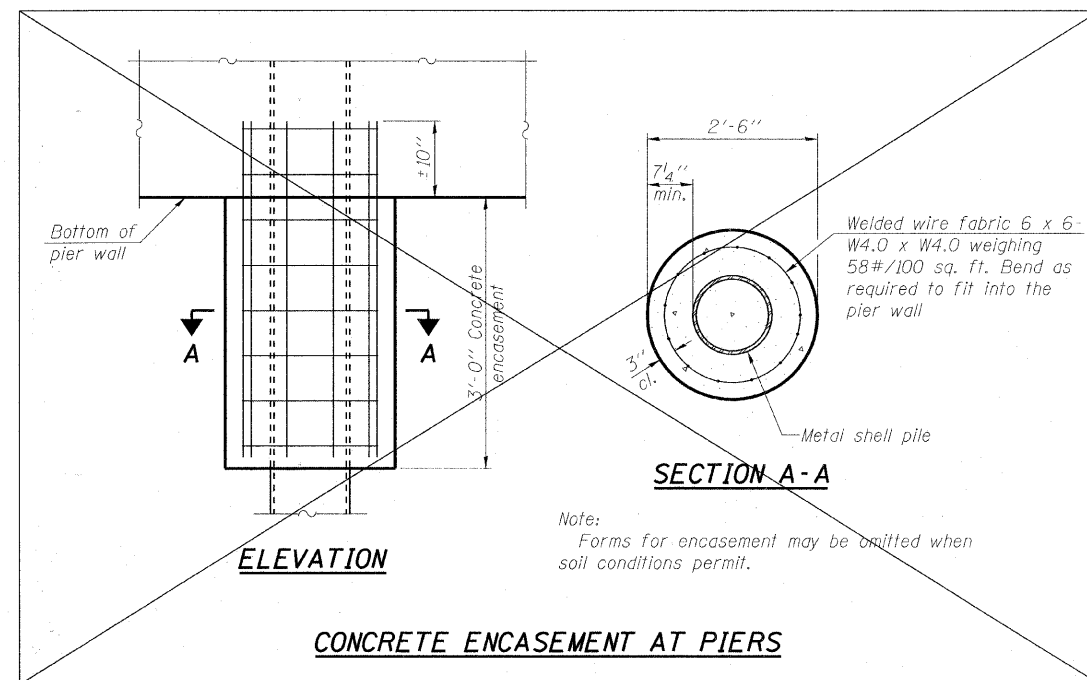
Designation and outside diameter	Wall thickness t	Weight per foot (Lbs./ft.)	Inside volume (yd. ³ /ft.)
PP12	0.179"	22.60	0.0274
PP12	0.250"	31.37	0.0267
PP14	0.250"	36.71	0.0368
PP14	0.312"	45.61	0.0361



DETAIL A

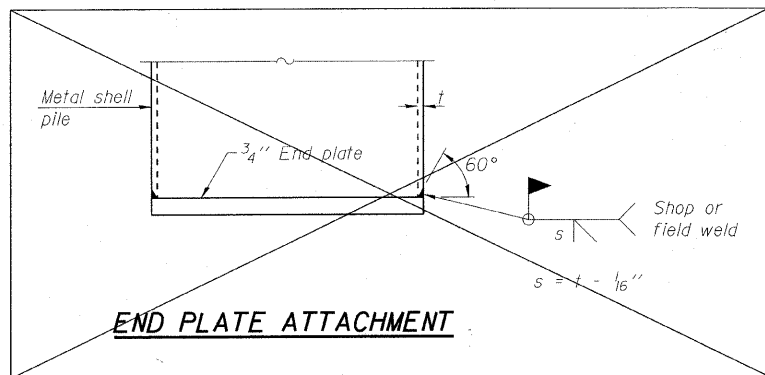
WELDED COMMERCIAL SPLICE

Notes:
 The 1/8" x 1/2" min. fill bar may be constructed of 2 bars with a 1/8" max. gap between them.
 Pile segments shall be driven to solid contact with splicer before welding.

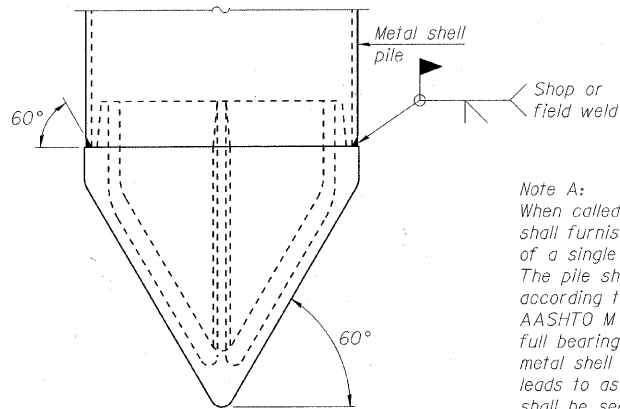


CONCRETE ENCASMENT AT PIERS

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



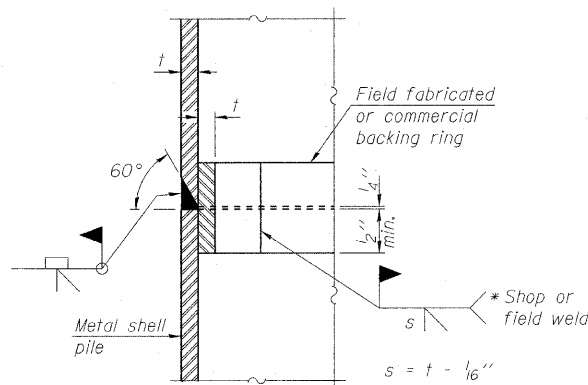
END PLATE ATTACHMENT



METAL SHELL PILE SHOE ATTACHMENT

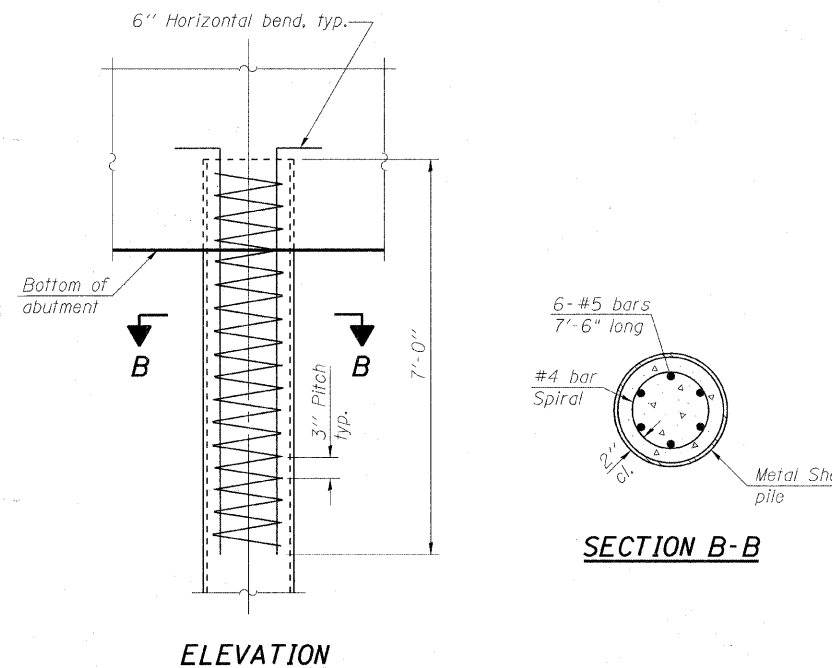
(See Note A)

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

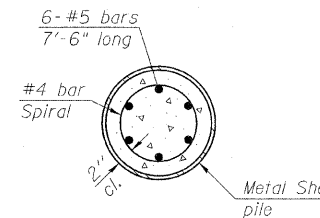
* Field fabricated backing ring may be made from pile shell by removing segment to allow reducing circumference and vertically rejoin with partial joint penetration weld.



ELEVATION

METAL SHELL REINFORCEMENT AT ABUTMENTS

SECTION B-B



Metal Shell reinforcement at abutments shall be included with the cost of Furnishing Metal Shell Piles.

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

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 STATE OF ILLINOIS - PROFESSIONAL DESIGN FIRM
 LICENSE NO. - BF-00021 - EXPIRES - 2/28/05
 PROJECT NO. - 06-00322-01-BR
 SHEET NO. - 14 OF 18



USER NAME =	DESIGNED - BLB	REVISED - 12/30/10 PER MCDOT
PLOT SCALE =	CHECKED - BAB	REVISED -
PLOT DATE =	DRAWN - BCD	REVISED -
	DATE - 10/08/10	REVISED -

MCHENRY COUNTY DIVISION OF TRANSPORTATION
GRAF ROAD BRIDGE OVER
WEST BRANCH PISCASAW CREEK

METAL SHELL PILE DETAILS
STRUCTURE NO. 056-3183

SHEET NO. 14 OF 18 SHEETS

TR RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0037	06-00322-01-BR	MCHENRY	52	37
C-91-258-11		CONTRACT NO. 63580		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		BROS-0111(064)