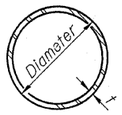
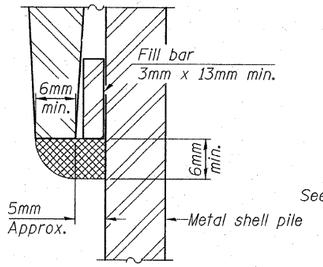
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	1Y-B-R-1	LAKE	121	66
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 62032

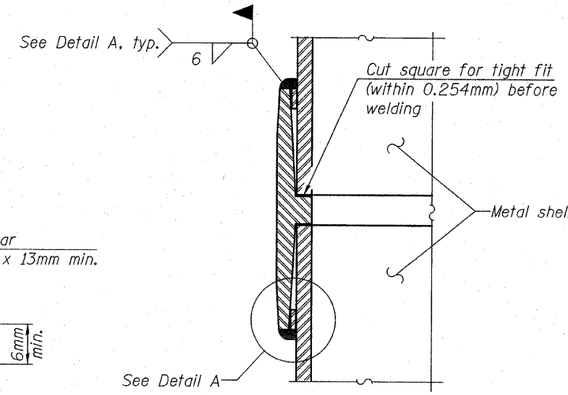


METAL SHELL PILE TABLE

Designation and outside diameter	Wall thickness t	Weight per foot (Kg/m)	Inside volume (m^3/m)
PP305	4.55	33.63	0.0210
PP305	6.35	45.68	0.0204
PP356	6.35	54.63	0.0281
PP356	7.92	67.87	0.0276

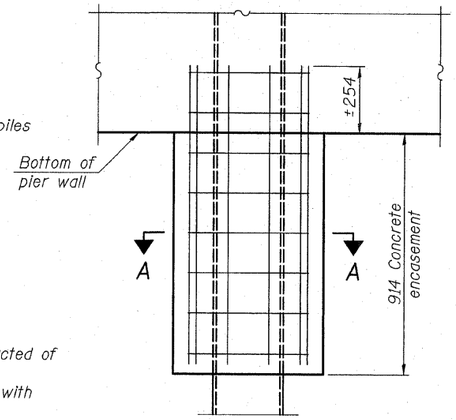


DETAIL A

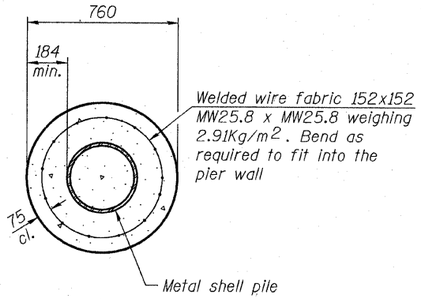


Notes:
The 3mm x 13mm min. fill bar may be constructed of 2 bars with a 3mm max. gap between them.
Pile segments shall be driven to solid contact with splicer before welding.

WELDED COMMERCIAL SPLICE



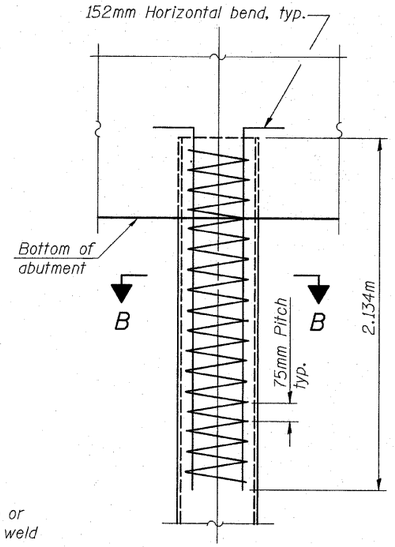
ELEVATION



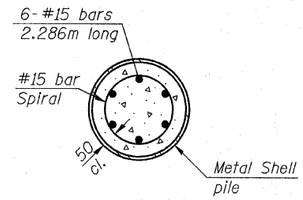
SECTION A-A

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

CONCRETE ENCASEMENT AT PIERS

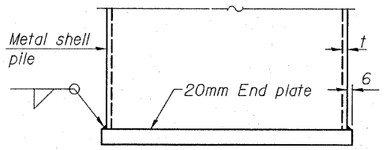


ELEVATION

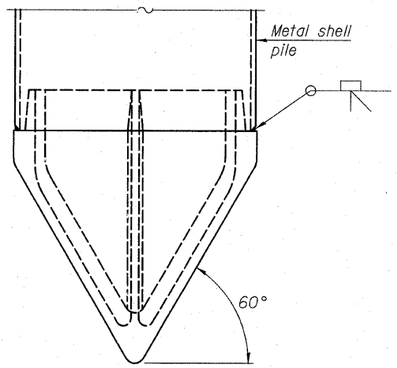


SECTION B-B

METAL SHELL REINFORCEMENT AT ABUTMENTS



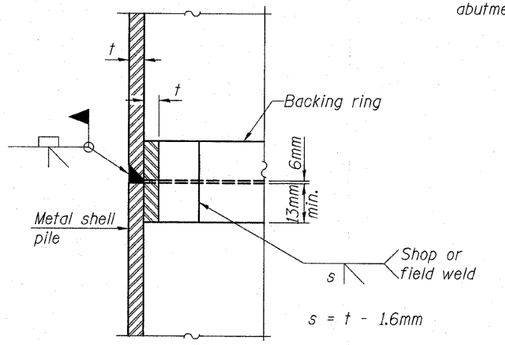
END PLATE ATTACHMENT



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 620-413 or AASHTO M 103M Grade 448-241 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.

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.

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

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

METAL SHELL PILE DETAILS
U.S. RTE. 45 / IL. RTE. 21
OVER
APTAKISIC CREEK
F.A.P. RTE. 330 SECTION: 1Y-B-R-1
LAKE COUNTY STATION 10+000.000
STRUCTURE NO. 049-0194

SCALE: NONE
DATE: OCTOBER 16, 2007
DRAWN BY: D.L./F.M.
CHECKED BY: B.N.S.

CHRISTIAN-ROGE & ASSOC., INC.
CHICAGO ILLINOIS