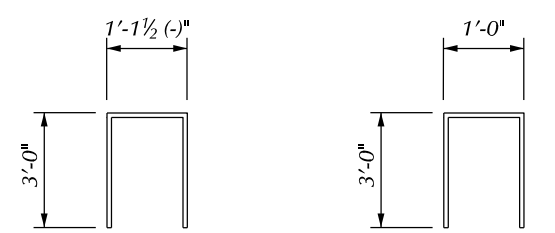
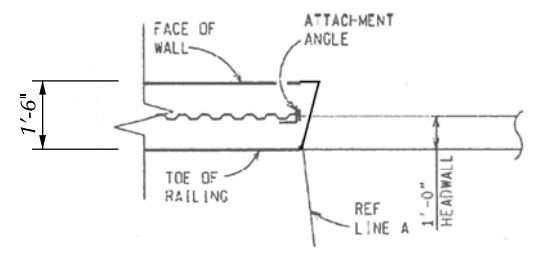
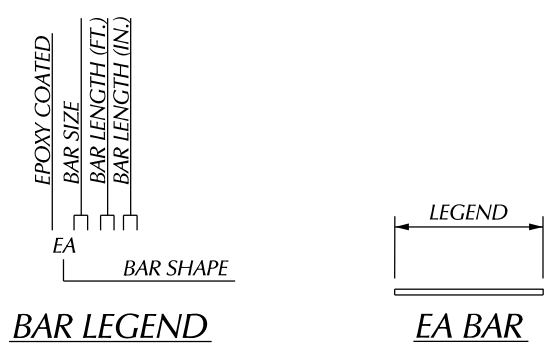


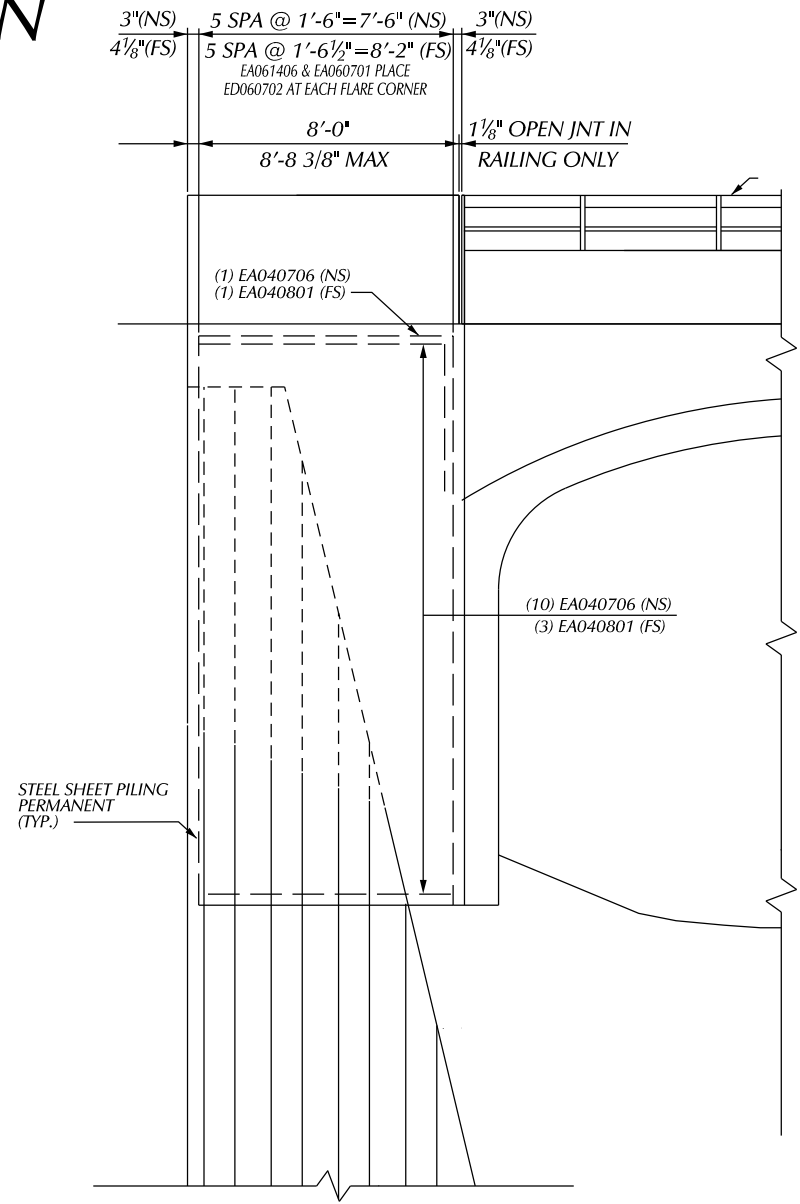
**PLAN OF RETURN WALLS**



**ED060702 ED060700**



**DETAIL**



**ELEVATION SHEET PILE RETAINING WALL**

(SOUTHEAST RETURN WALL SHOWN, OTHER RETURN WALLS ARE SIMILAR)

**MIN. LAP TABLE**

EA 03BEIR 1'-2"
EA 03BEIR 1'-2"
EA 03BEIR 1'-2"
EA 03BEIR 1'-2"

**SUBSTRUCTURE CONCRETE QUANTITIES**

POUR	AMT (CYDS)
A	4.5
B	4.5
C	4.5
D	4.5

**MISCELLANEOUS QUANTITIES**

810 SFT	STEEL SHEET PILING, PERMANENT
18 CYD	SUBSTRUCTURE CONC.
1,160 LB	REINFORCEMENT STEEL, EPOXY COATED

**NOTES:**

ALL PERMANENT STEEL SHEET PILING SHALL BE ASTM A-572, PZ-22, WHERE ALLOWED BY THE ENGINEER, SELECT ALTERNATE HOT ROLLED SHEET PILING WITH A NOMINAL SECTION MODULUS OF AT LEAST 18.1 CUBIC INCHES PER FOOT OF WALL.

ALL LABOR AND MATERIALS REQUIRED FOR CONSTRUCTION OF THE PERMANENT STEEL SHEET PILING REQUIRED FOR CONSTRUCTION OF THE PERMANENT STEEL SHEET PILING WITH TIE NOT BE PAID FOR SEPARATELY, BUT INCLUDED IN THE PAVEMENT FOR "STEEL SHEET PILING, PERMANENT".

TIE RODS SHALL BE PLACED AND TIGHTENED BEFORE CASTING THE CONCRETE FACING.

THE USE OF VIBRATORY HAMMERS FOR INSTALLING SHEET PILING SHALL NOT BE ALLOWED.

TOP ROW OF SHEAR STUDS SHALL BE 3" BELOW THE TOP OF SHEETING AND ADDITIONAL ROWS SHALL BE SPACED VERTICALLY AT 1'-6" MAX. BOTTOM ROW OF STUDS SHALL BE 3" ABOVE THE BOTTOM OF CONCRETE ELEVATION.

SHEAR STUDS SHALL NOT BE PAID SEPARATELY BUT ARE INCLUDED IN PAYMENT FOR "STEEL SHEET PILING, PERMANENT".

INSTALL RAILING REINFORCEMENT PRIOR TO POURING CONCRETE CAP ON RETAINING WALL PRIOR TO POURING CONCRETE CAP ON RETAINING WALL.

THE CONTRACTOR SHALL PROVIDE & INSTALL A MAT OF 6X6-D6XD6 WELDED WIRE FABRIC IN THE FRONT FACE OF SHEET PILING CAP WHERE STANDARD REINFORCEMENT IS NOT SHOWN. THE COST TO PROVIDE AND INSTALL THE WIRE FABRIC IS INCLUDED IN "STEEL SHEET PILING, PERMANENT". PROVIDE A MINIMUM OF 2" OF CLEAR COVER ON ALL SIDES.

PRIOR TO DRIVING PERMANENT SHEETING, THE CONTRACTOR SHALL ANCHOR L 6"x6"x1/2" ANGLES TO THE PEDESTAL WALL, CULVERT AND HEADWALL TO USE AS A DRIVING GUIDE FOR THE SHEET PILING. ANGLES SHALL BE ATTACHED UTILIZING EITHER 3/8" ADHESIVE ANCHORED OR 3/4" EXPANSION ANCHORED BOLTS CHOSEN FROM THE QUALIFIED PRODUCT LIST.

AFTER DRIVING PILING, ATTACHED WEB OF PILING TO OUTSTANDING LEG OF ANGLES WITH 1/2" HIGH STRENGTH BOLTS. ALL WORK AND MATERIALS FOR ANGLES AND CONNECTORS ARE INCLUDED IN "STEEL SHEET PILING, PERMANENT".

LOW TEMPERATURE PROTECTION OF CONCRETE SHALL BE APPLIED ACCORDING TO SECTION 706.030 OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION. LOW TEMPERATURE PROTECTION OF CONCRETE WALL NOT BE PAID FOR SEPARATELY, BUT WILL BE INCLUDED IN THE BID ITEM "SUBSTRUCTURE CONC".

**EPOXY COATED STEEL REINFORCEMENT**

BAR	NO. REQ'D	TOTAL WT
EA040706	26	130
EA040801	26	141
EA060706	4	45
EA060801	4	49
EA061406	20	436
EA060700	20	210
EA060702	4	43
	OVERRUN	106

PLAN	BY	CHECKED BY	APPROVED
GRADE			
ESTIMATE			
DESCRIPTION	DR	CHK	DATE
REVISIONS			

CITY OF DETROIT  
CITY ENGINEERING DIVISION - D.P.W.  
BUREAUS OF STREETS AND HIGHWAYS  
FOR

WEST PARKWAY CULVERT OVER ASHCROFT - SHERWOOD DRAIN

SHEET PILE WALL DETAILS

SHEET 36 OF 39 SHEETS

CONTRACT NO. PW-6987

ASSIGNMENT NO.

DATE 01/24/2018