

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	•	McLEAN	310	198

FED. ROAD DIST. NO. 7 ILLINOIS FAP  
 \*(57-4)R, HBY, HBR, (57-4VB)DM  
 Contract No. 70757

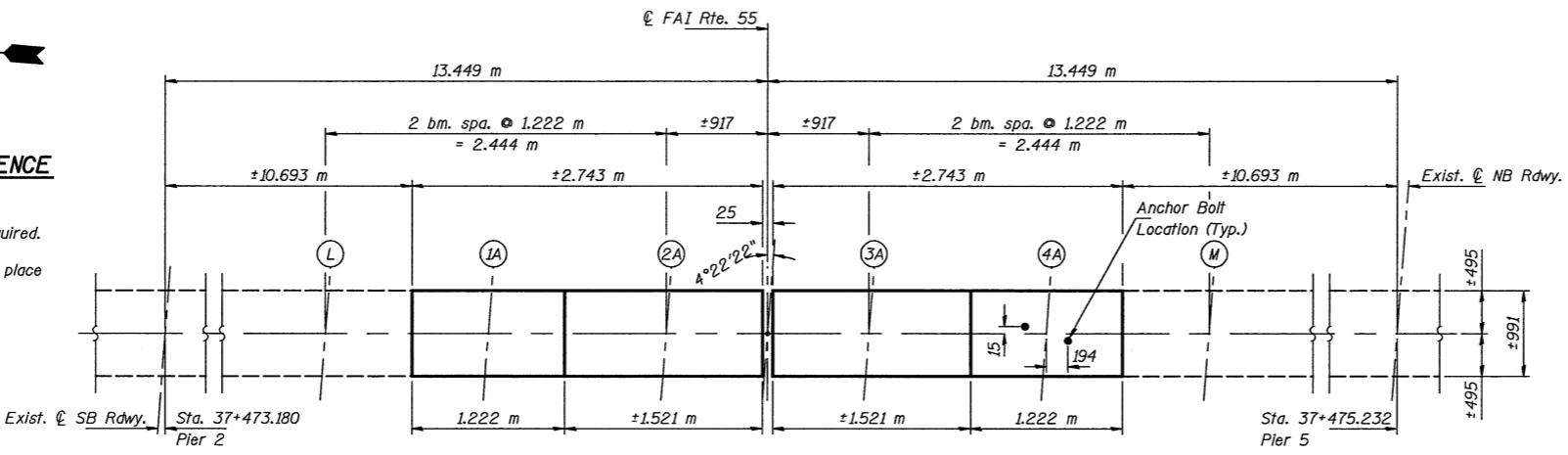
**PIERS 2 & 5**

**BILL OF MATERIAL**

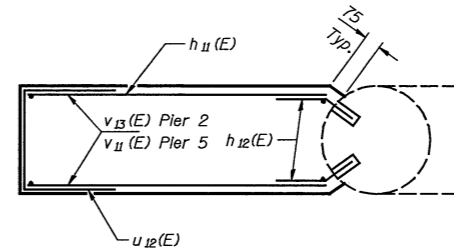
Bar	No.	Size	Length (m)	Shape
$h_{11}(E)$	32	#15	2.52	—
$h_{12}(E)$	60	#15	1.00	—
$h_{13}(E)$	28	#15	2.81	—
$n_{11}(E)$	36	#20	1.53	—
$p_{11}(E)$	8	#15	0.98	—
$p_{12}(E)$	10	#15	2.65	—
$s_{13}(E)$	10	#15	3.94	—
$s_{14}(E)$	10	#15	3.95	—
$t_{11}(E)$	14	#20	2.05	—
$u_{11}(E)$	4	#20	2.34	—
$u_{12}(E)$	30	#15	2.03	—
$v_{11}(E)$	16	#15	5.24	—
$v_{12}(E)$	2	#15	4.56	—
$v_{13}(E)$	16	#15	4.75	—
$v_{14}(E)$	2	#15	4.06	—
$v_{15}(E)$	4	#15	1.67	—
$v_{16}(E)$	4	#15	2.17	—
$w_{11}(E)$	14	#25	2.50	—
$w_{12}(E)$	28	#15	0.98	—
Structure Excavation		$m^3$	31	
Reinforcement Bars, Epoxy Coated		kg	1380	
Concrete Structures		$m^3$	36.5	
Furnishing Metal Pile Shells 305 mm x 4.55 mm		m	48	
Driving Piles		m	48	

**PIER FOOTING CONSTRUCTION SEQUENCE**

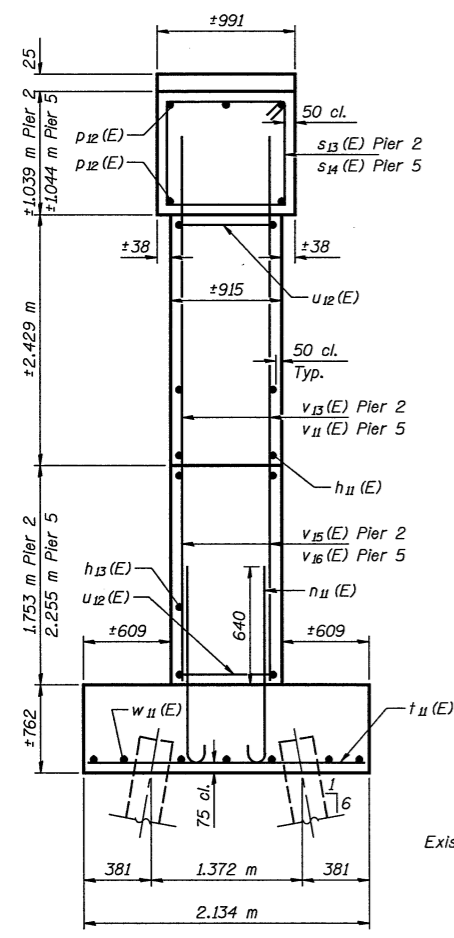
1. Install sheet piling as shown on Sheet 6 of 32.
2. Excavate to elevation of lower pier footing as required.
3. Install lower pier footing.
4. After formwork for lower pier has been removed, place and compact fill to elevation of higher footing.
5. Install higher pier footing.



**PLAN**



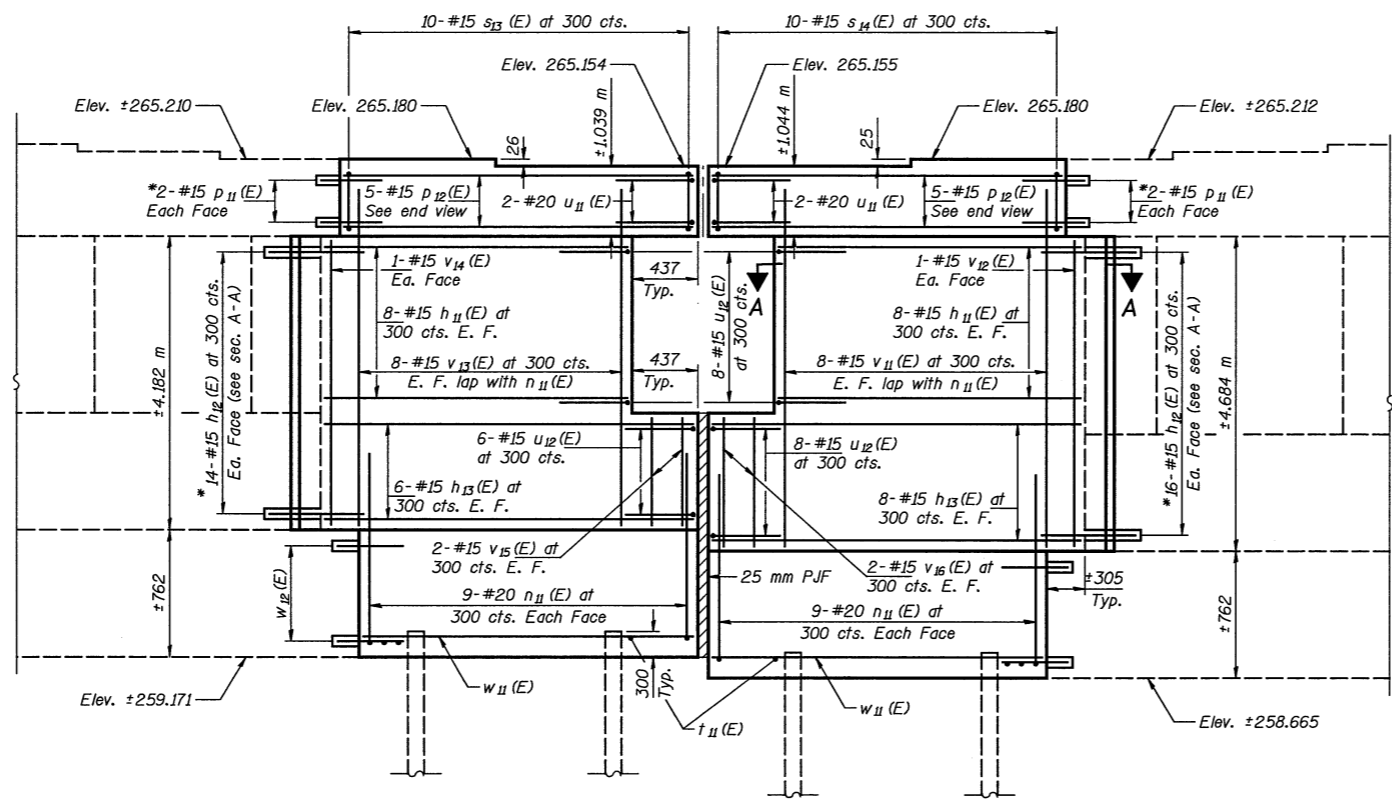
**SECTION A-A**



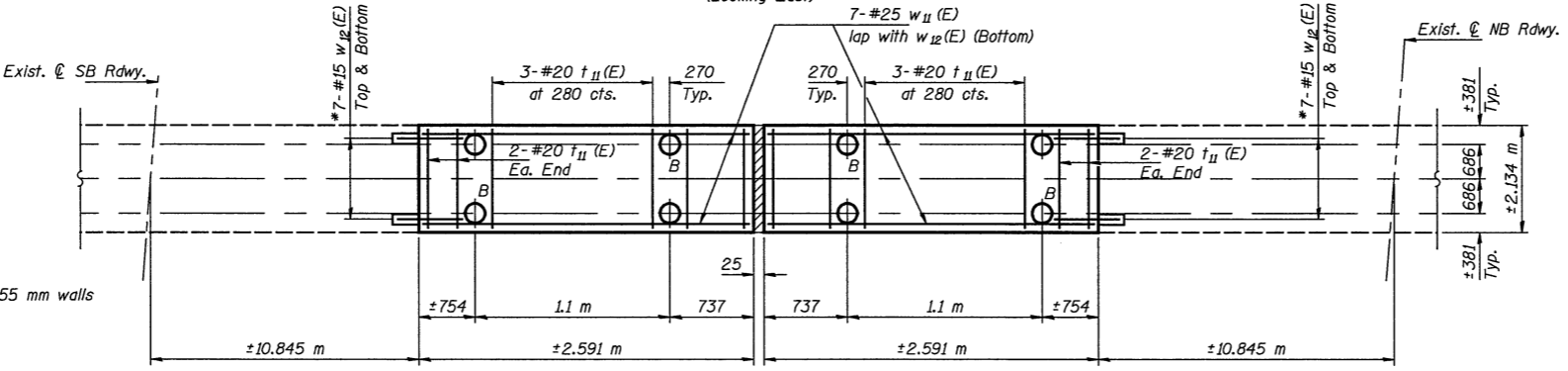
**END VIEW**

**PILE DATA**

Type & Size : Metal pile Shell 305 mm x 4.55 mm walls  
 Nominal Required Bearing: 780 kN  
 Allowable Resistance Available: 260 kN  
 Est. Length : 6 m  
 No. Required : 8

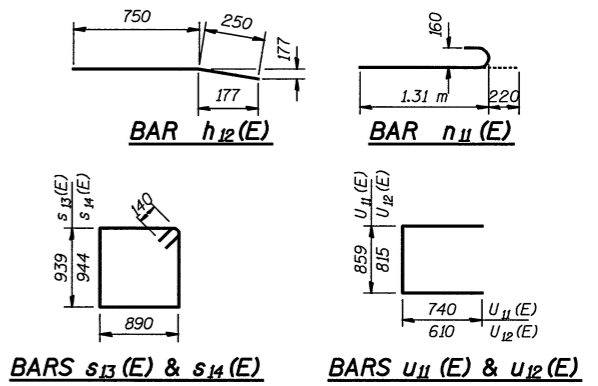


**ELEVATION**  
(Looking East)



**FOOTING PLAN**

Note: B denotes battered pile location



Notes: Space reinforcement in cap to miss anchor bolts.  
 Pour steps monolithically with cap.  
 Cost of 25 mm PJF is included with Concrete Structures.  
 All edges shall have 20 mm chamfers except as noted.  
 All dimensions are in millimeters (mm) except as noted.  
 See Sheet 24 of 24 for Pile Details.

ILLINOIS DEPARTMENT OF TRANSPORTATION	
SHEET TITLE <b>PIER 2 &amp; PIER 5</b>	
PROJECT F.A.I. 55 OVER BUSINESS U.S. 51 SECTION 57-4HBR-4 STATION 37+474.206 McLEAN COUNTY STRUCTURE NO. 057-0024 (N.B.) & STRUCTURE NO. 057-0025 (S.B.)	PROJECT NO. 08049-5 SCALE DATE 07/15/2009 DRAWN BY TFG/CFC CHECKED BY CME/MCB DRAWING NO.
<b>COOMBE-BLOXDORF P.C.</b> Engineers / Land Surveyors Springfield, Illinois Design Firm License No. 184-002703	
22 OF 24 SHTS	