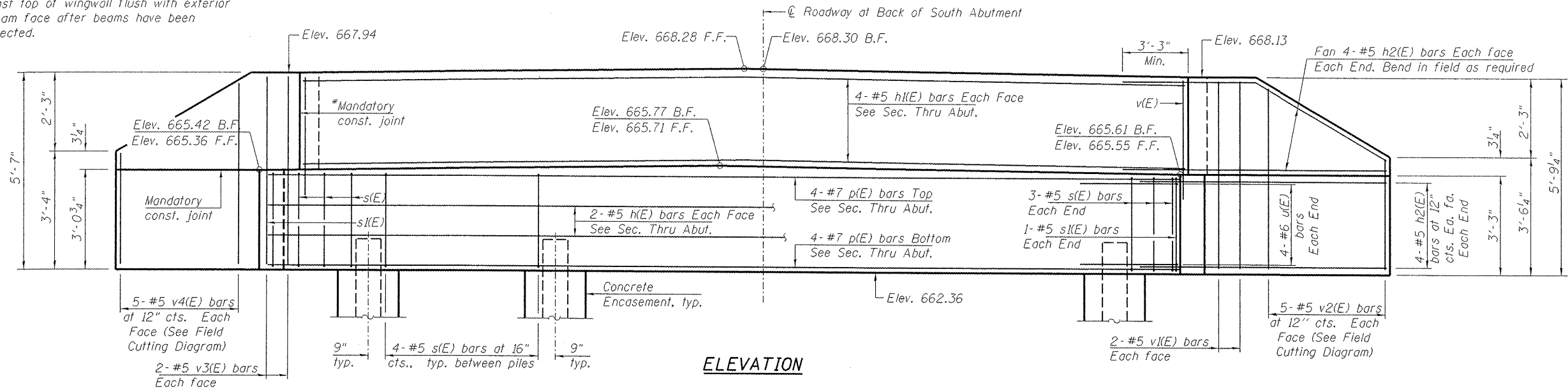
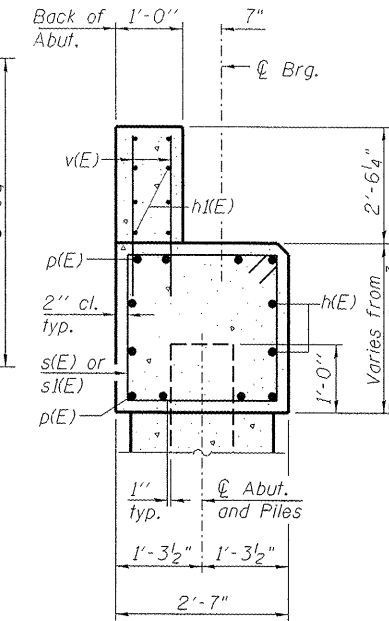


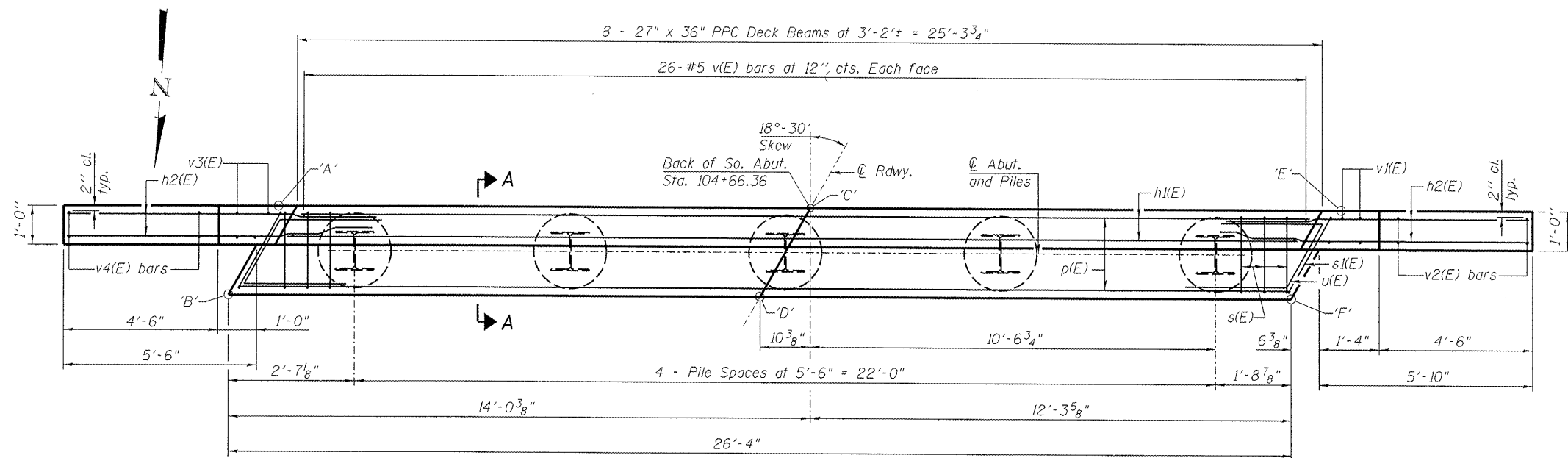
\* Cast top of wingwall flush with exterior beam face after beams have been erected.



**ELEVATION**

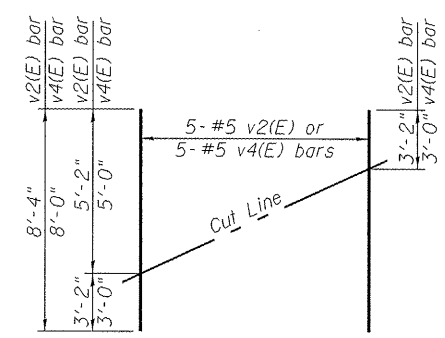


**SECTION A-A**  
 (Dimensions are at Rt. L's)

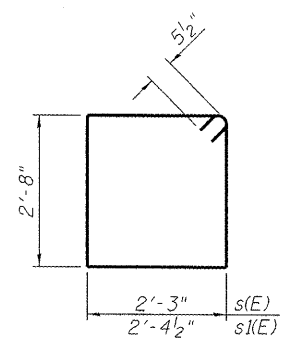


**PLAN**

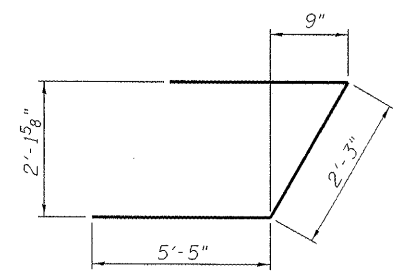
**PILE DATA**  
 Type: HP12x53  
 Nominal Required Bearing: 419 Kips  
 Factored Resistance Available: 230 Kips  
 Est. Length: 39 Feet  
 No. Production Piles: 4 (with pile shoes)  
 No. Test Piles: 1 (with pile shoes)



**FIELD CUTTING DIAGRAM**  
 Order v2(E) and v4(E) bars full length.  
 Cut as shown and use remainder of bars in opposite face.



**BARS s(E) & s(I(E))**



**BAR u(E)**

**ELEVATIONS TOP of PILE CAP**

Point	Elevation
'A'	665.42
'B'	665.36
'C'	665.77
'D'	665.71
'E'	665.61
'F'	665.55

**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h(E)	4	#5	26'-0"	—
h(I(E))	8	#5	25'-0"	—
h2(E)	32	#5	10'-0"	—
p(E)	8	#7	26'-0"	—
s(E)	22	#5	10'-9"	□
s(I(E))	2	#5	11'-0"	□
u(E)	8	#6	13'-1"	┘
v(E)	52	#5	4'-10"	—
v(I(E))	4	#5	5'-5"	—
v2(E)	5	#5	8'-4"	—
v3(E)	4	#5	5'-3"	—
v4(E)	5	#5	8'-0"	—
Structure Excavation		Cu. Yd.	57	
Concrete Structures		Cu. Yd.	12.7	
Reinforcement Bars, Epoxy Coated		Pound	1890	
Furnishing Steel Piles HP12x53		Foot	156	
Driving Piles		Foot	156	
Test Pile Steel HP12x53		Each	1	
Pile Shoes		Each	5	
Concrete Encasement		Cu. Yd.	1.7	

Notes:  
 For details of piles and Concrete Encasement, see sheet 12 of 15.  
 Cast backwall after beams have been erected, and before HMA Wearing surface has been placed.  
 B.F. = Back Face  
 F.F. = Front Face