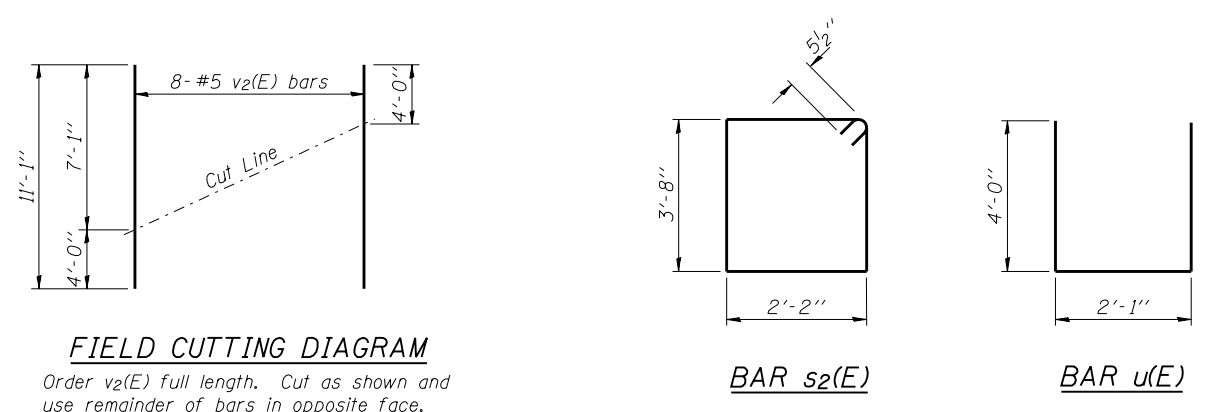


**TWO ABUTMENTS
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h(E)	88	#6	11'-0"	—
p(E)	32	#7	19'-3"	—
p1(E)	40	#5	19'-3"	—
s2(E)	72	#5	12'-7"	□
u(E)	20	#6	10'-1"	—
v1(E)	160	#5	4'-4"	—
v2(E)	32	#5	11'-1"	—
Structure Excavation		Cu. Yd.	260	
Concrete Structures		Cu. Yd.	36.4	
Concrete Encasement		Cu. Yd.	4.2	
Reinforcement Bars, Epoxy Coated		Pound	5,860	
Bar Splicers		Each	36	
Furnishing Steel Piles HP12x53		Foot	253	
Driving Piles		Foot	253	
Test Pile Steel HP12x53		Each	1	
Pile Shoes		Each	12	

Notes:
 Pour steps monolithically with cap.
 Space reinforcement in cap to miss anchor bolts.
 For details of Bar Splicers, see sheet 17 of 19.
 For details of piles and Concrete Encasement, see sheet 18 of 19.



PILE DATA
 Type: Steel HP12x53 with Pile Shoes
 Nominal Required Bearing: 418 Kips/pile
 Factored Resistance Available: 230 Kips/pile
 Est. Length: 23'
 No. Production Piles: 11
 No. Test Piles: 1 (S. Abut.)