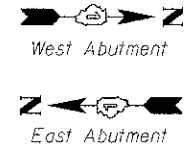
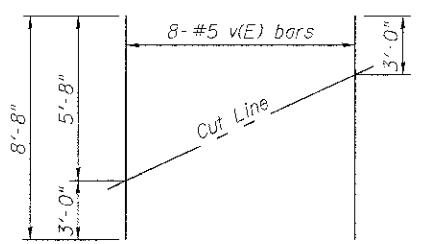


BILL OF MATERIAL

Two Abutments				
Bar	No.	Size	Length	Shape
$h_1(E)$	16	#5	19'-7"	
$p(E)$	40	#7	22'-2"	
$s(E)$	152	#4	7'-5"	□
$s_2(E)$	16	#5	12'-0"	□
$s_3(E)$	20	#5	4'-3"	□
$u(E)$	4	#6	11'-1"	□
$v_1(E)$	74	#5	5'-0"	□
$v_2(E)$	74	#5	4'-2"	□
Structure Excavation	Cu. Yd.		75	
Concrete Structures	Cu. Yd.		32	
Reinforcement Bars, Epoxy Coated	Pound		4,160	
Furnishing Steel Piles, HP 14x73	Foot		425	
Driving Piles	Foot		425	
Test Pile, Steel HP 14x73	Each		3	
Concrete Encasement	Cu. Yd.		7	
Pile Shoes	Each		12	
Concrete Sealer	Sq. Ft.		328	

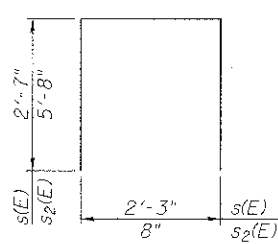


MINIMUM BAR LAP
 #5 bar = 3'-3"
 #7 bar = 5'-10"



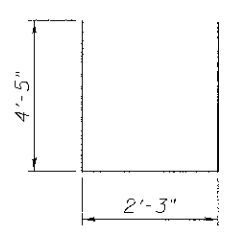
FIELD CUTTING DIAGRAM

Order $v(E)$ bars full length. Cut as shown and use remainder of bars in opposite face.

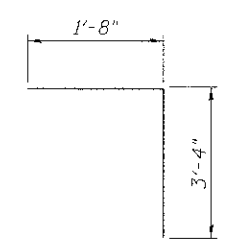


BAR $s(E)$ & $s_2(E)$

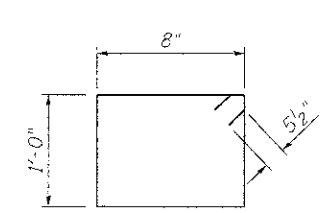
Vary lap length in pair to maintain a 2" clearance.



BAR $u(E)$



BAR $v_1(E)$



BAR $s_3(E)$

PILE DATA

West Abutment
 Type: HP 14x73 with Pile Shoes
 Nominal Required Bearing: 360 kips
 Factored Resistance Available: 180 kips
 Est. Length: 40 feet
 No. Production Piles: 4
 No. Test Piles: 2

East Abutment
 Type: HP 14x73 with Pile Shoes
 Nominal Required Bearing: 360 kips
 Factored Resistance Available: 180 kips
 Est. Length: 53 feet
 No. Production Piles: 5
 No. Test Piles: 1

Notes:
 Contractor shall drive a total of three (3) test piles in a permanent location, one at the East Abutment and two at the West Abutment as directed by the engineer, before ordering the remainder of piles.
 An abandoned railroad embankment may be encountered behind the existing west abutment. Piles shall be driven through embankment.

Notes:
 For details of piles and Concrete Encasement, see Sheet 14 of 27.
 Cast backwall after beams and concrete wearing surface have been erected.
 Bar indicated thus 1x2-#5 ect. indicates 1 line of bars with 2 lengths per line.
 Apply Concrete Sealer to abutment seats, backwall, and exposed faces of the wingwalls.

FILE NAME = s:\101\66820-65951\0542\007\mcherry\cadd\sheet\structural\056-3192-63665-012-WABUT.dgn