ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 548	05-00196-00-BR	MACON	17	16
FED. ROAD DIST. NO.		ILLINOIS	PROJECT: ARA-0548(103)	

CONTRACT NO. 95599

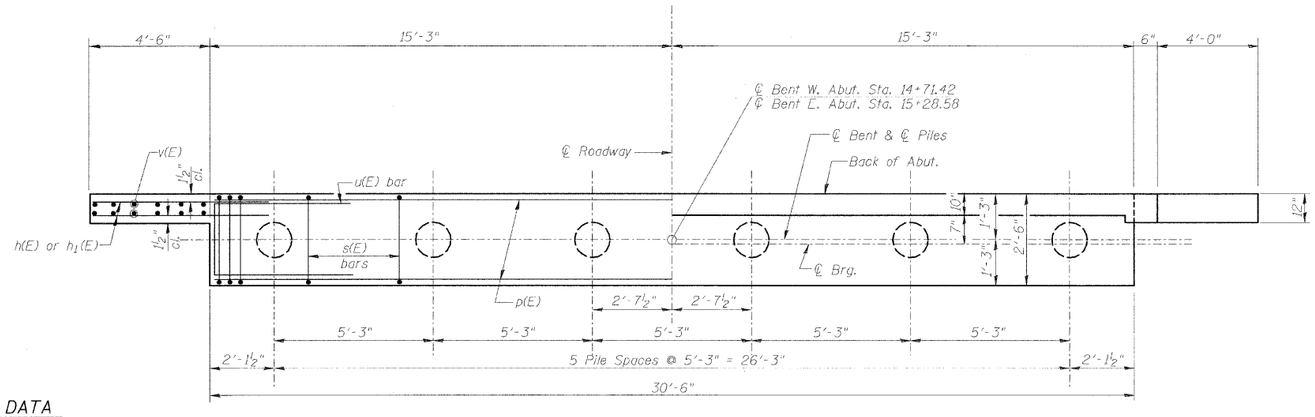
NOTES

1. The Backwall and the portion of the Wingwalls above the bonded construction joint shall be cast against the in-place beam.
2. 1" dia. x 2'-6" dowel rods in 1½" dia. holes drilled in cap (4 each beam). Dowel rods to be grouted after beams are in place and allowed to cure (min. 24 hrs.) prior to grouting the shear keys. The grout shall be an approved non-shrink grout.
3. Reinforcement bars designated (E) shall be Epoxy coated.
4. Reinforcement bars shall conform to the requirements of A.S.T.M A706 Grade 60. See Special Provisions.
5. Space reinforcement in cap to miss dowel rods.
6. See Sheet 6 of 6 for details of Metal Shell Pile Shoe Attachments.

DESIGN STRESSES

f'_c = 3,500 psi

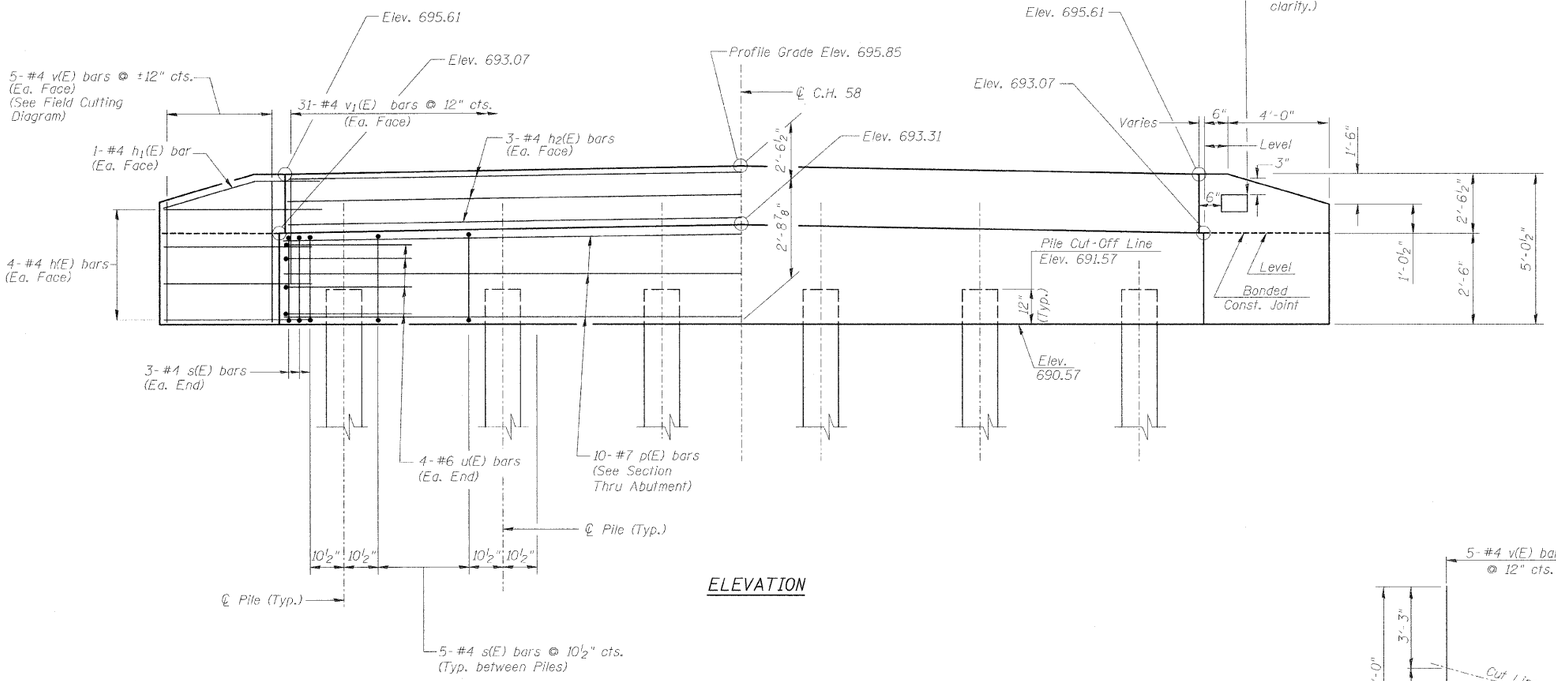
f_y = 60,000 psi



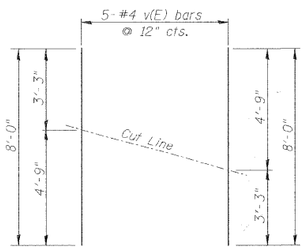
PLAN

PILE DATA

Type & Size: Metal Shell - 12" dia. x 0.25 in. walls
Nominal Required Bearing: 235 Kips
Factored Resistance Available: 117 Kips
Estimated Length: 39'-0" West Abutment
45'-0" East Abutment
No. Required: West Abutment - 6 (with Pile Shoes)
East Abutment - 5 Plus 1 Permanent Test Pile (with Pile Shoes)

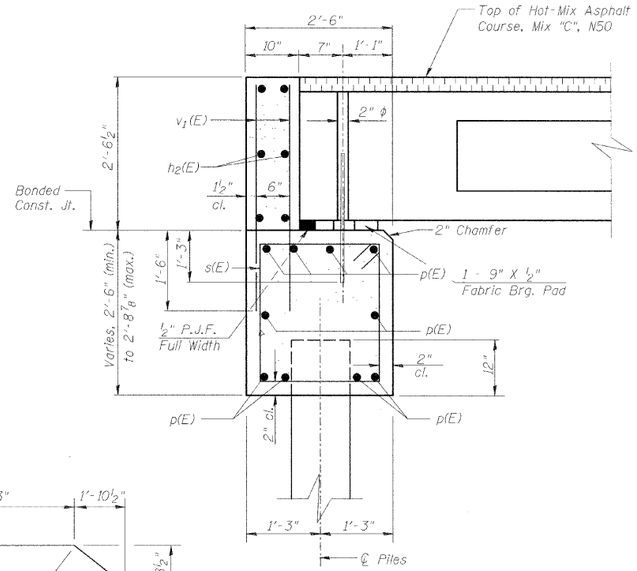


ELEVATION

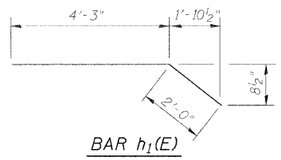


FIELD CUTTING DIAGRAM

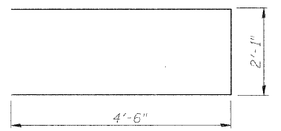
Order bars full length. Cut to fit as shown and use remainder of bars in other face.



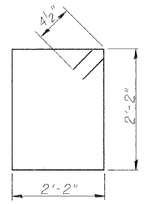
SECTION THRU ABUT.
(At Rt. Angles)



BAR h1(E)



BAR u(E)



BAR s(E)

BILL OF MATERIAL
WEST & EAST ABUTMENTS

Bar	No.	Size	Length	Shape
h(E)	32	#4	6'-0"	
h1(E)	8	#4	6'-3"	
h2(E)	12	#4	30'-2"	
p(E)	20	#7	30'-2"	
s(E)	62	#4	9'-5"	
u(E)	16	#6	11'-1"	
v(E)	20	#4	8'-0"	
v1(E)	124	#4	3'-11"	
Pile Shoes			Each	12
Concrete Structures			Cu. Yd.	22.6
Reinforcement Bars, Epoxy Coated			Pound	2740
Furnishing Metal Shell Piles 12"			Foot	459
Driving Piles			Foot	459
Test Pile Metal Shells			Each	1

WEST AND EAST ABUTMENTS

Date	Designed MJP	F.A.S. 548 OVER LAKE FORK CREEK SECTION 05-00196-00-BR MACON COUNTY STA. 15+00.00 PROP. STR. NO. 058-3378	Sheet No. 5 of 6
Revisions	Drawn BKN		
	Checked KWB		
	Approved KWB		
Prepared by: URS 345 East Ash Avenue Decatur, Il. 62526			URS Job No. 36431681