

NOTES

- 1" dia. x 2'-6" dowel rods in 1 1/2" dia. holes drilled in cap (2 ea. 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.
- Reinforcement bars designated (E) shall be epoxy coated.
- Reinforcement bars shall conform to the requirements of A.S.T.M. A706 Grade 60. See Special Provisions.
- Space reinforcement in cap to miss dowel rods.
- Bars indicated thus 12 x 2-#7 etc. indicates 12 lines of bars with 2 lengths per line.
- The Contractor shall drive test piles to 110 Percent of the Nominal Required Bearing indicated in the Pile Data information before ordering the remainder of the piles.

DESIGN STRESSES

f'_c = 3,500 psi
 f_y = 60,000 psi

MIN. BAR LAP

#5 Bar = 2'-6"
 #7 bar = 3'-11"

PILE DATA - PIER 1

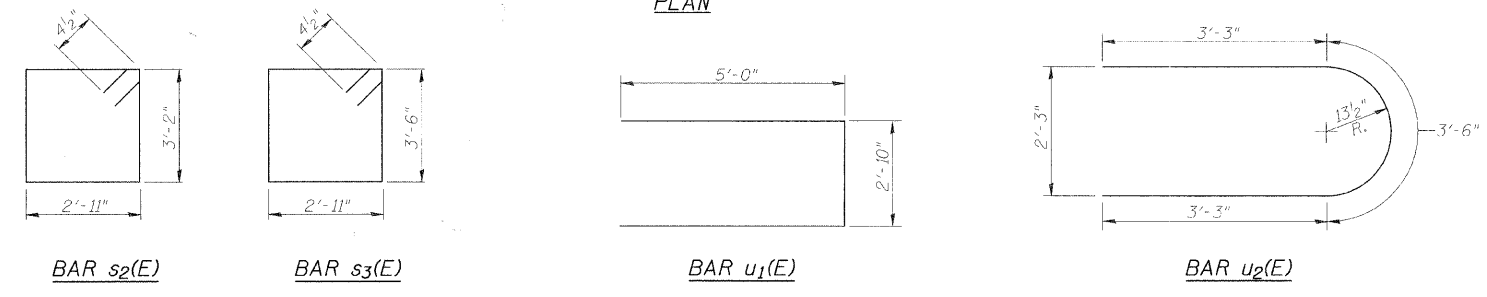
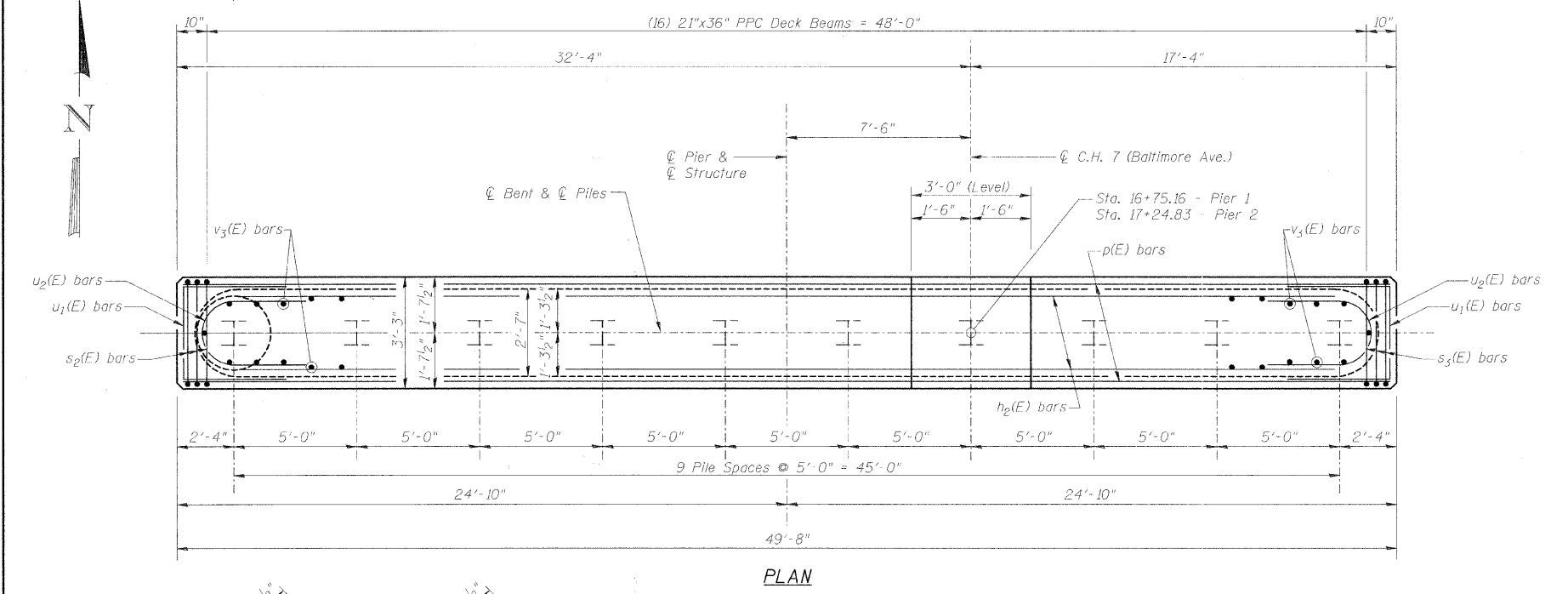
Type & Size: HP12x63
 Nominal Required Bearing: 497 Kips
 Factored Resistance Available: 174 Kips (Refusal)
 Est. Length: 34'-0"
 No. Required: 10

PILE DATA - PIER 2

Type & Size: HP12x63
 Nominal Required Bearing: 497 Kips
 Factored Resistance Available: 201 Kips (Refusal)
 Est. Length: 35'-0"
 No. Required: 9 Plus 1 Permanent Test Pile

BILL OF MATERIAL PIER 1 AND PIER 2

Bar	No.	Size	Length	Shape
h ₂ (E)	96	#5	23'-9"	—
p(E)	48	#7	26'-8"	—
s ₂ (E)	36	#4	12'-11"	□
s ₃ (E)	66	#4	13'-7"	□
u ₁ (E)	16	#6	12'-10"	—
u ₂ (E)	48	#5	10'-0"	—
v ₃ (E)	192	#4	12'-11"	—
Concrete Structures		Cu. Yd.	150.6	
Concrete Encasement		Cu. Yd.	7.0	
Reinforcement Bars, Epoxy Coated		Pound	8380	
Furnishing Steel Piles HP12x63		Foot	655	
Driving Steel Piles		Foot	655	
Test Pile Steel HP12x63		Each	1	
Underwater Structure Excavation Protection - Location 1		Each	1	
Underwater Structure Excavation Protection - Location 2		Each	1	



PIER 1 & PIER 2

Date	Designed DCS	C.H. 7 (BALTIMORE AVE.) OVER BIG CREEK SECTION 05-00204-00-BR MACON COUNTY STA. 17+00.00 PROP. STR. NO. 058-6024	Sheet No.
Revisions	Drawn BKN		9
	Checked KWB		of 10
	Approved KWB		URS Job No. 36431685
Prepared by: URS		345 East Ash Avenue Decatur, IL 62526	