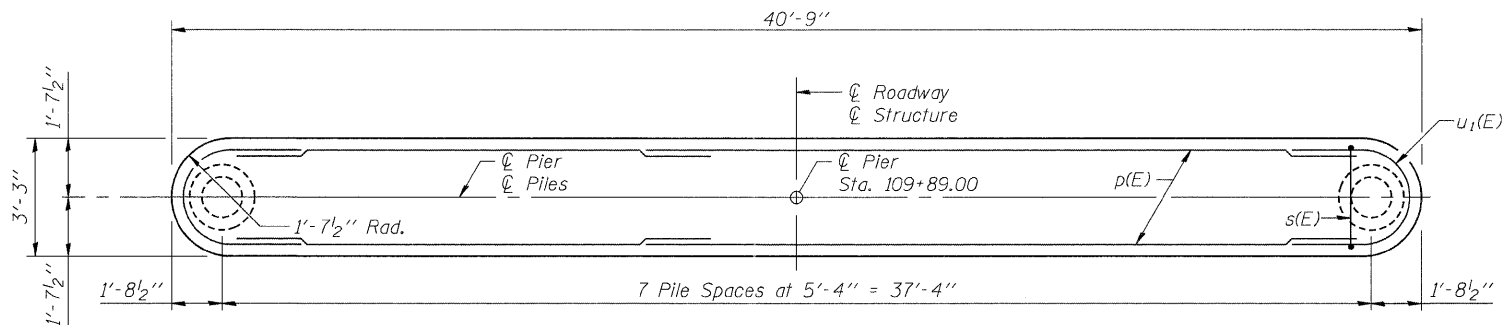
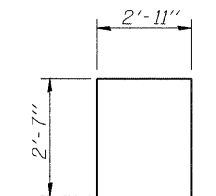


**PILE DATA**

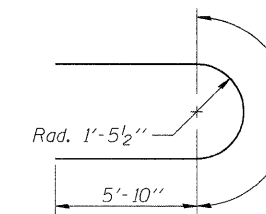
Type: Metal Shell-14"φx0.312" walls with pile shoes  
 Nominal Required Bearing: 360 kips  
 Factored Resistance Available: 180 kips  
 Est. Length: 28'-0"  
 No. Production Piles: 7  
 No. Test Piles: 1



**TOP PLAN**

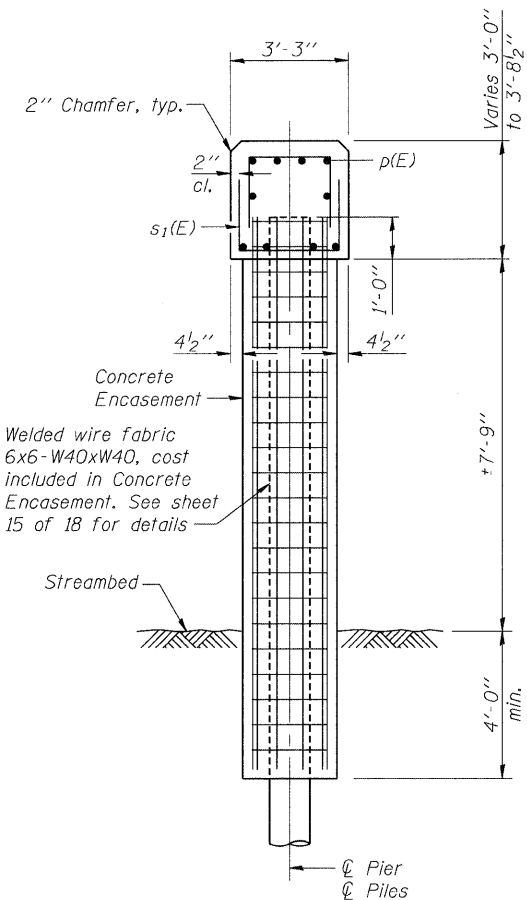


**BAR s<sub>1</sub>(E)**

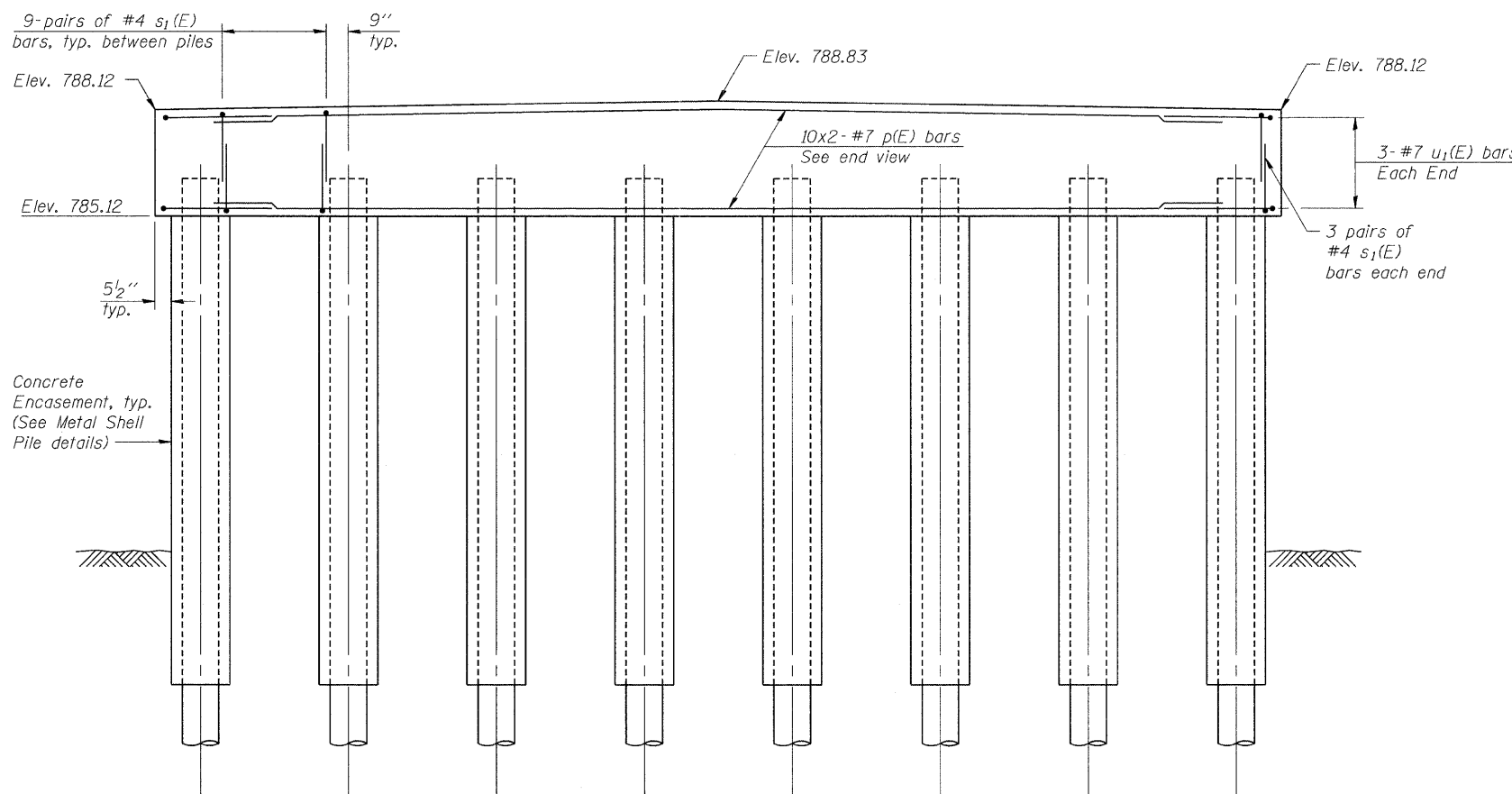


**BARS u<sub>1</sub>(E)**

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



**END VIEW**



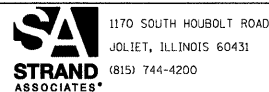
**ELEVATION**  
 (Looking East)

**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
p(E)	20	#7	21'-8"	—
s <sub>1</sub> (E)	138	#4	8'-1"	□
u <sub>1</sub> (E)	6	#7	16'-3"	⌒
Cofferdam Excavation		Cu. Yd.		43
Cofferdam (Type I) (Location-1)		Each		1
Concrete Structures		Cu. Yd.		16
Reinforcement Bars, Epoxy Coated		Pound		1,830
Furnishing Metal Shell Piles, 14" x 0.312"		Foot		196
Driving Piles		Foot		196
Test Pile, Metal Shells		Each		1
Concrete Encasement		Cu. Yd.		14
Pile Shoes		Each		8
Concrete Sealer		Sq. Ft.		411

Notes:  
 Space reinforcement in cap to miss anchor dowel rods.  
 For details of piles and concrete encasement, see sheet 15 of 18.  
 Bar indicated thus 10x2-#5 ect. indicates 10 lines of bars with 2 lengths per line.  
 Apply Concrete Sealer to top and sides of pier cap.  
 See sheet 15 of 18 for Concrete Encasement details.  
 See Erosion Control sheet for location of cofferdam.

FILE NAME = s:\p1\68800-6895\6842\007\mcr\cadd\sheet\structural\0856-3192-63666-013-PIER.dgn



USER NAME = brionf  
 DESIGNED RRD  
 CHECKED AJS  
 DRAWN BJF  
 CHECKED RRD  
 PLOT SCALE =  
 PLOT DATE = 1/3/2012

DESIGNED RRD  
 CHECKED AJS  
 DRAWN BJF  
 CHECKED RRD  
 REVISED -  
 REVISED -  
 REVISED -  
 REVISED -

**MCHENRY COUNTY DIVISION OF TRANSPORTATION**  
**HILL ROAD BRIDGE OVER**  
**NORTH BRANCH NIPPERSINK CREEK**

**PIER DETAILS**  
**STRUCTURE NO. 056-3192**

SHEET NO. 13 OF 18 SHEETS

TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21	08-00356-00-BR	MCHENRY	67	43
CONTRACT NO. 63666				

ILLINOIS FED. AID PROJECT