

F.A.P.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
623	32-2 HBR	GRUNDY	171	108
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO. 66412				
SHEET 515 OF 520				

Notes:  
 Driving and bearing ends of pipe shall be cut square. The thickness of the shell shall be 0.250 inches with a tolerance of 5%.  
 The shell shall be according to Article 1006.05(a) of the Standard Specifications.

**BILL OF MATERIAL**

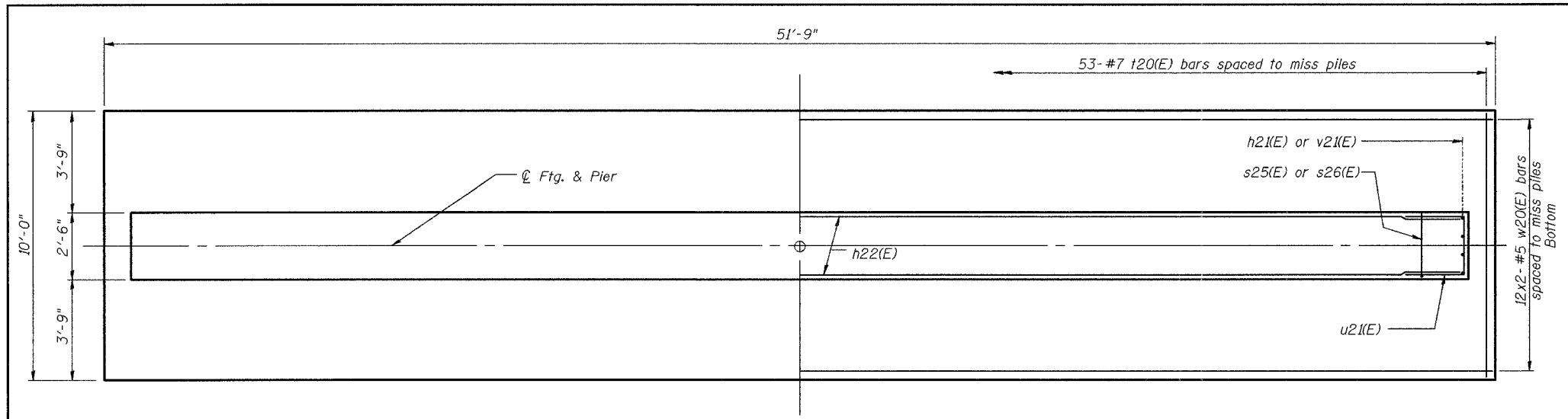
Bar	No.	Size	Length	Shape
h20(E)	16	#5	32'-7"	—
h21(E)	4	#5	21'-0"	—
h22(E)	24	#5	25'-9"	—
n20(E)	72	#9	11'-0"	—
n21(E)	8	#5	4'-11"	—
n22	192	#5	7'-6"	—
p20(E)	10	#9	20'-9"	—
p21(E)	5	#9	39'-0"	—
p22(E)	18	#9	36'-6"	—
p23(E)	12	#9	17'-10"	—
s20(E)	86	#4	12'-5"	□
s21(E)	56	#4	7'-2"	□
s22(E)	56	#4	6'-8"	□
s23(E)	96	#4	8'-6"	□
s24(E)	48	#4	6'-10"	□
s25(E)	49	#5	10'-4"	□
s26(E)	49	#5	12'-2"	□
s27(E)	144	#4	2'-11"	—
sp20	32	#4	75'-0"	
t10(E)	53	#7	9'-8"	—
u20(E)	22	#5	6'-6"	—
u21(E)	26	#5	6'-6"	—
v20(E)	72	#9	13'-10"	—
v21(E)	8	#5	4'-1"	—
w20(E)	24	#5	26'-9"	—
Structure Excavation		Cu. Yd.	103	
Concrete Structures		Cu. Yd.	116.6	
Reinforcement Bars		Pound	1,854	
Reinforcement Bars, Epoxy Coated		Pound	17,210	
Concrete Piles, 14" Metal Shell		L.F.	1,674	
Test Piles (Concrete Piles, 14" Metal Shell)		Ea.	1	

Reinforcement Bars designated (E) shall be epoxy coated.

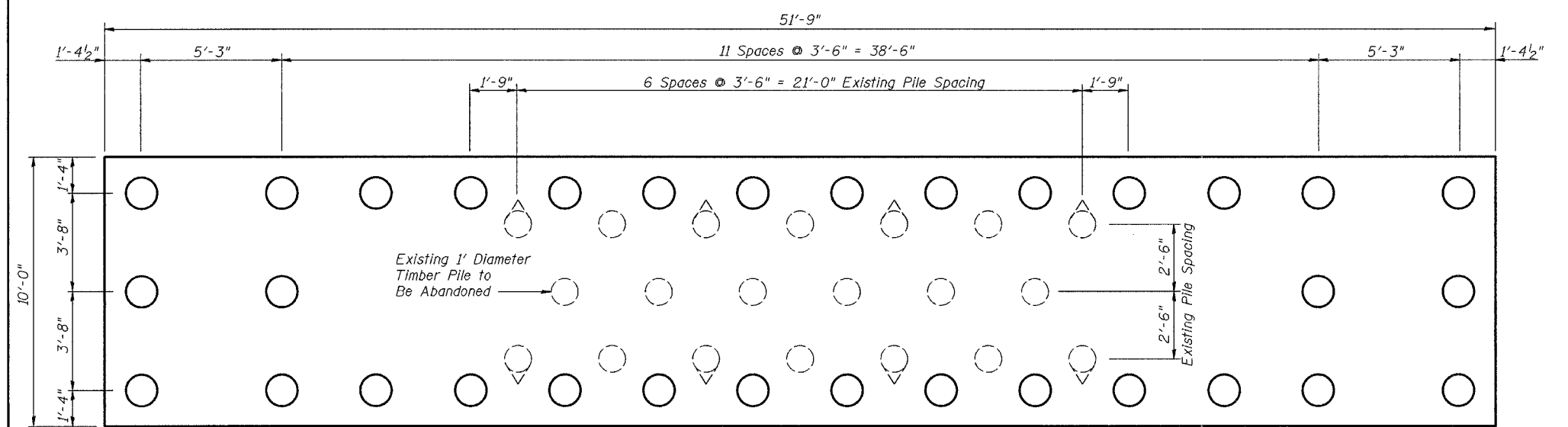
**A, B & C DIMENSIONS**

Bar	A	B	C
p20(E)	13'-11"	6'-10"	1'-0"
s21(E)	1'-6"	2'-10"	
s22(E)	1'-6"	2'-6"	
s23(E)	2'-2"	3'-2"	
s24(E)	2'-2"	2'-4"	
s25(E)	2'-2"	4'-1"	
s26(E)	2'-2"	5'-0"	
u20(E)	2'-2"	2'-2"	
u21(E)	2'-2"	2'-2"	

Note: Work this sheet with Sheet S14.



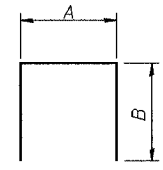
**FOOTING PLAN**



**PILE LAYOUT**

**PILE DATA**

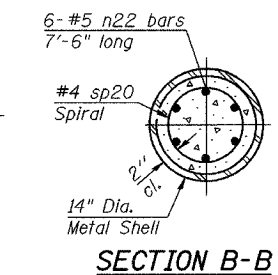
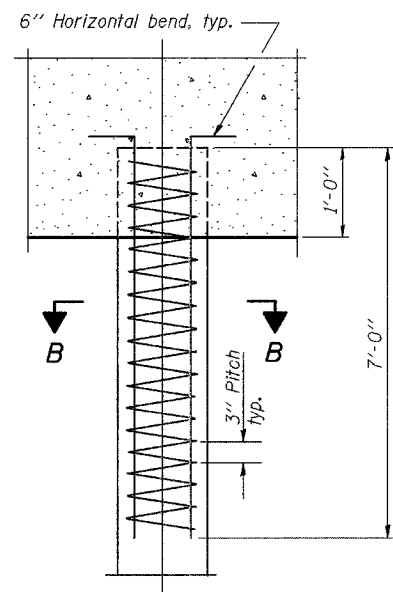
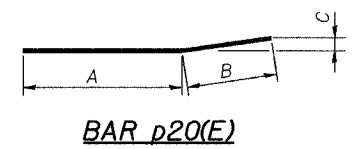
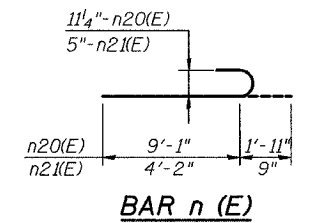
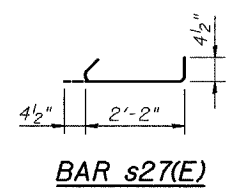
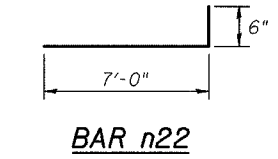
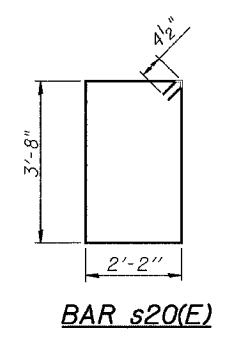
Type: 14" Metal Shell  
 Capacity: 55 Tons  
 Est. Length: 54'  
 No. Required: 31 Piles & 1 Test Pile



**PILE KEY**

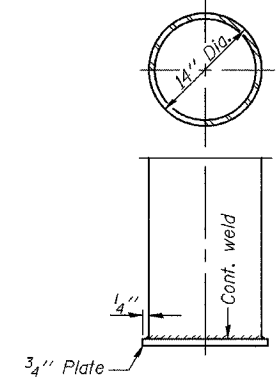
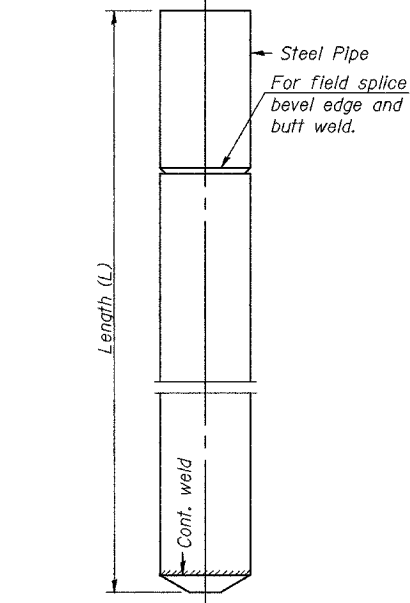
- Proposed Vertical Pile
- Existing Vertical Pile
- ◁ Existing Batter Pile

**BARS s(E) AND u(E)**



**DETAIL OF REINFORCEMENT FOR METAL SHELLS**

Louis Berger & Associates, Inc.  
 1001 Elm Street, Suite 300  
 Manchester, NH 03101



**OPTIONAL FLAT END**

**DETAIL OF CYLINDRICAL STEEL SHELL FOR CAST IN PLACE CONCRETE PILES**

MIN. BAR LAP  
 #4 bar = 1'-8"  
 #5 bar = 2'-2"

REVISIONS	NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**SENECA ROAD**  
 OVER F.A.I. 80  
 F.A.P. 623 SEC. 32-2 HBR GRUNDY CO.  
 STRUCTURE No. 032-0114  
 STATION 19+49.99  
 PIER DETAILS II

SCALE: NONE  
 DATE: OCTOBER, 2005  
 DRAWN BY: NJH  
 CHECKED BY: JLG