

Notes: Space Reinforcement in cap to miss anchor bolts.
 Pour steps monolithically with cap.
 B indicates battered pile and arrow indicates direction to batter the pile.

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET NO.
FAI 72	#	SANGAMON	559	338
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 19
21 SHEETS

PILE DATA

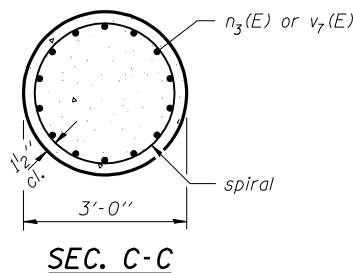
MIN. BAR LAPS

- #4 Spirals - 2'-0"
- #5 Bar - 2'-2"
- #6 Bar - 2'-7"
- #8 Bar - 4'-6"
- #9 Bar - 5'-9"

Type: Steel Piles HP10x57
 Nominal Required Bearing: 454 kips
 Allowable Resistance Available: 130 kips (Pier #1)
 151 kips (Pier #2), 128 kips (Pier #3)
 Est. Length: 25'
 No. Required: 10 per pier (Includes 1 Test Pile per pier)

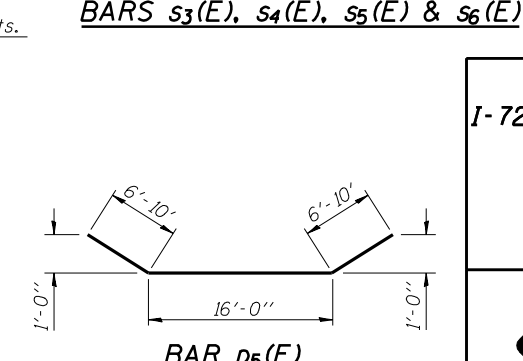
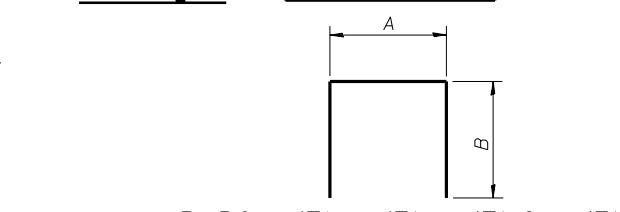
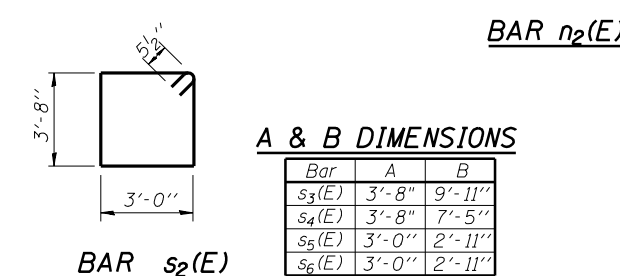
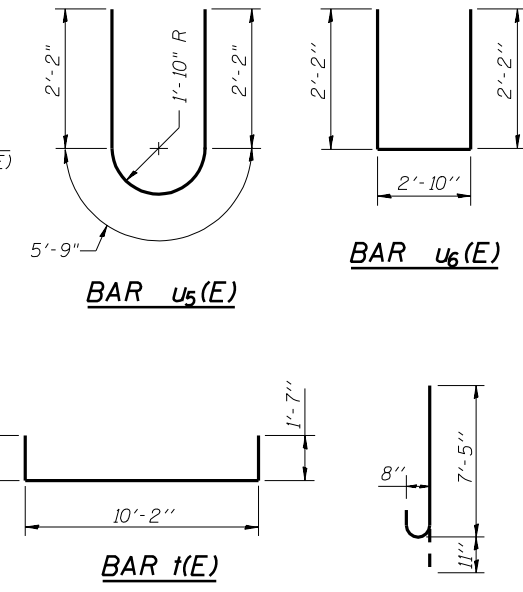
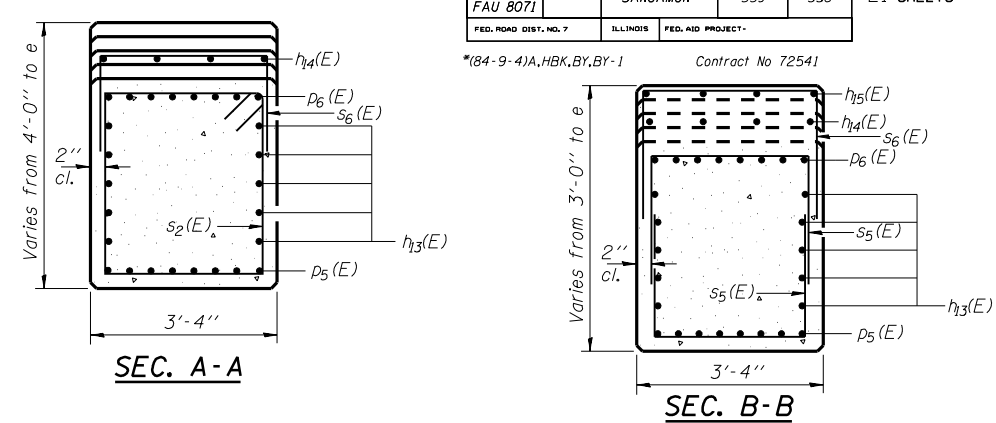
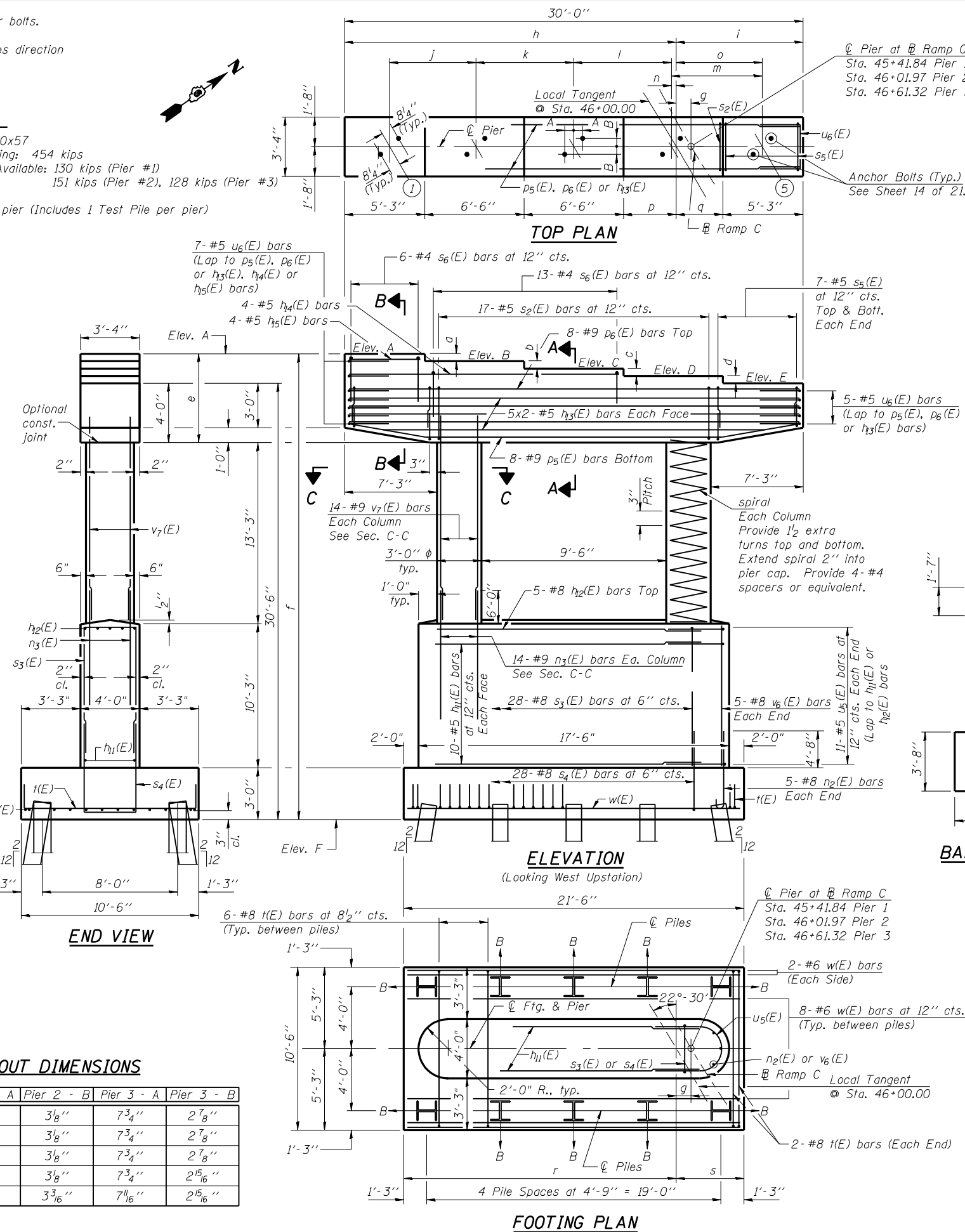
DIMENSIONS

Description	Pier #1	Pier #2	Pier #3
Elev. A	629.82	629.88	629.76
Elev. B	629.51	629.57	629.46
Elev. C	629.20	629.27	629.17
Elev. D	628.89	628.96	628.87
Elev. E	628.57	628.66	628.57
Elev. F	598.07	598.16	598.07
a	3 ³ / ₄ "	3 ³ / ₄ "	3 ¹ / ₂ "
b	3 ⁵ / ₈ "	3 ⁵ / ₈ "	3 ¹ / ₂ "
c	3 ³ / ₄ "	3 ⁵ / ₈ "	3 ⁵ / ₈ "
d	3 ⁷ / ₈ "	3 ⁵ / ₈ "	3 ⁵ / ₈ "
e	5'-3"	5'-2 ⁵ / ₈ "	5'-2 ¹ / ₄ "
f	31'-9"	31'-8 ⁵ / ₈ "	31'-8 ¹ / ₄ "
g	11 ⁵ / ₈ "	0'-0"	1'-0 ⁵ / ₁₆ "
h	21'-8 ³ / ₈ "	22'-6 ³ / ₄ "	21'-4 ³ / ₄ "
i	8'-3 ⁵ / ₈ "	7'-5 ¹ / ₄ "	8'-7 ¹ / ₄ "
j	6'-4 ⁵ / ₈ "	6'-3 ⁵ / ₈ "	6'-2 ¹ / ₁₆ "
k	6'-4 ¹ / ₁₆ "	6'-3 ¹ / ₁₆ "	6'-2 ³ / ₄ "
l	6'-4 ³ / ₄ "	6'-3 ¹ / ₁₆ "	6'-2 ³ / ₄ "
m	6'-4 ¹³ / ₁₆ "	6'-3 ³ / ₄ "	6'-2 ¹³ / ₁₆ "
n	3 ³ / ₄ "	1'-3 ¹ / ₈ "	0'-2 ¹ / ₁₆ "
o	6'-1 ¹ / ₁₆ "	5'-0 ⁵ / ₈ "	6'-0 ³ / ₄ "
p	3'-5 ³ / ₈ "	4'-3 ³ / ₄ "	3'-1 ³ / ₄ "
q	3'-0 ⁵ / ₈ "	2'-2 ¹ / ₄ "	3'-4 ¹ / ₄ "
r	17'-5 ³ / ₈ "	18'-3 ³ / ₄ "	17'-1 ³ / ₄ "
s	4'-0 ⁵ / ₈ "	3'-2 ¹ / ₄ "	4'-4 ¹ / ₄ "



ANCHOR BOLT LAYOUT DIMENSIONS

Beam No.	Pier 1 - A	Pier 1 - B	Pier 2 - A	Pier 2 - B	Pier 3 - A	Pier 3 - B
1	7 ⁹ / ₁₆ "	3 ³ / ₈ "	7 ⁵ / ₈ "	3 ¹ / ₈ "	7 ³ / ₄ "	2 ⁷ / ₈ "
2	7 ¹ / ₂ "	3 ³ / ₈ "	7 ⁵ / ₈ "	3 ¹ / ₈ "	7 ³ / ₄ "	2 ⁷ / ₈ "
3	7 ¹ / ₂ "	3 ³ / ₈ "	7 ⁵ / ₈ "	3 ¹ / ₈ "	7 ³ / ₄ "	2 ⁷ / ₈ "
4	7 ¹ / ₂ "	3 ³ / ₈ "	7 ⁵ / ₈ "	3 ¹ / ₈ "	7 ³ / ₄ "	2 ¹⁵ / ₁₆ "
5	7 ¹ / ₂ "	3 ³ / ₈ "	7 ⁵ / ₈ "	3 ³ / ₁₆ "	7 ¹ / ₁₆ "	2 ¹⁵ / ₁₆ "



BILL OF MATERIAL PIERS 1-3

Bar	No.	Size	Length	Shape
h1(E)	60	#5	13'-6"	—
h2(E)	15	#8	13'-6"	—
h3(E)	60	#5	16'-0"	—
h4(E)	12	#5	17'-11"	—
h5(E)	12	#5	4'-11"	—
n2(E)	30	#8	8'-4"	—
n3(E)	84	#9	12'-3"	—
p5(E)	24	#9	29'-8"	—
p6(E)	24	#9	29'-8"	—
s2(E)	51	#5	14'-3"	□
s3(E)	84	#8	23'-6"	U
s4(E)	84	#8	18'-6"	U
s5(E)	84	#5	8'-10"	U
s6(E)	57	#4	8'-10"	U
sp(E)	6	#4	13'-5"	—
t(E)	84	#9	13'-4"	—
u5(E)	66	#5	10'-1"	—
u6(E)	36	#5	7'-2"	—
v6(E)	30	#8	9'-11"	—
v7(E)	84	#9	16'-9"	—
w(E)	36	#6	21'-2"	—
Structure Excavation		Cu. Yd.	203	
Concrete Structures		Cu. Yd.	225.4	
Reinforcement Bars, Epoxy Coated		Pound	36370	
Furnishing Steel Piles HP10x57		Foot	675	
Driving Piles		Foot	675	
Test Piles Steel HP10x57		Each	3	

Reinforcement Bars designated (E) shall be epoxy coated.
 ** Length shown is height of spiral.
 Corporate License Number 184-001-084

PIERS 1-3
 I-72/MACARTHUR BLVD. RAMP C OVER UPRR
 SECTION (84-9-4)A, HBK, BY, BY-1
 SANGAMON COUNTY
 STATION 46+01.97
 STRUCTURE NUMBER 084-0516

\$FILE# 12/16/2006
 LAYOUT 06/27/03
 DRAWN 01/04/05
 REVIEWED JMM 02/24/05