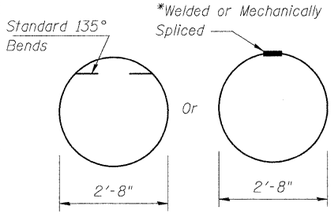
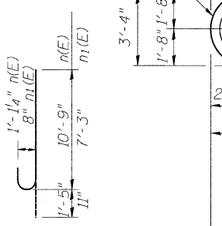
Notes:
1. Space reinforcement in cap to miss anchor bolts.
2. Pour steps monolithically with cap.
3. When splicing of spiral reinforcement is necessary, the spirals shall be provided with $1\frac{1}{2}$ extra turns at the ends to be spliced. These additional turns shall either be welded together according to AWS D1.4 or shall both terminate with a 135° standard hook.

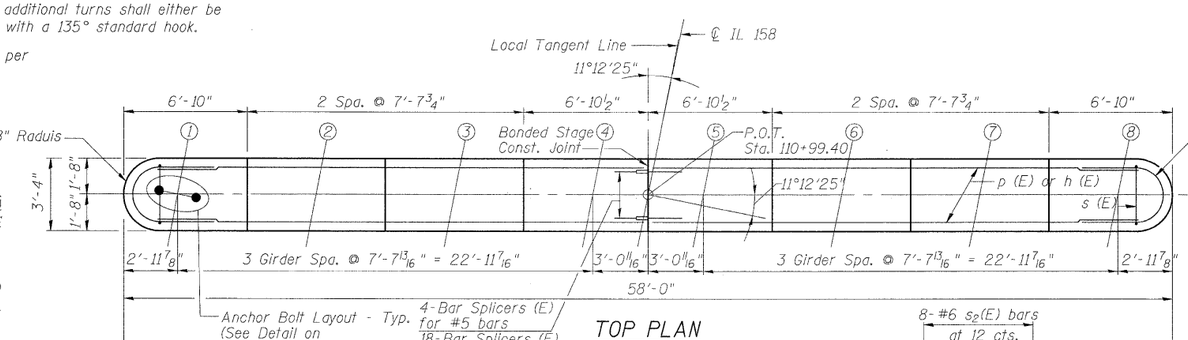
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



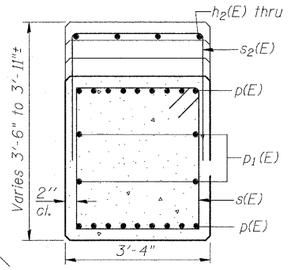
BAR $sp_7(E)$

*Shop Weld per AWS D1.4



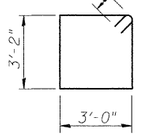


TOP PLAN

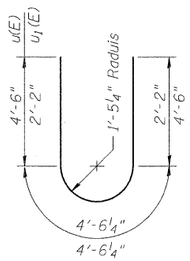


SEC. A-A

**** Offset alternating reinforcement bars by 2'-0" vertically



BAR s (E)



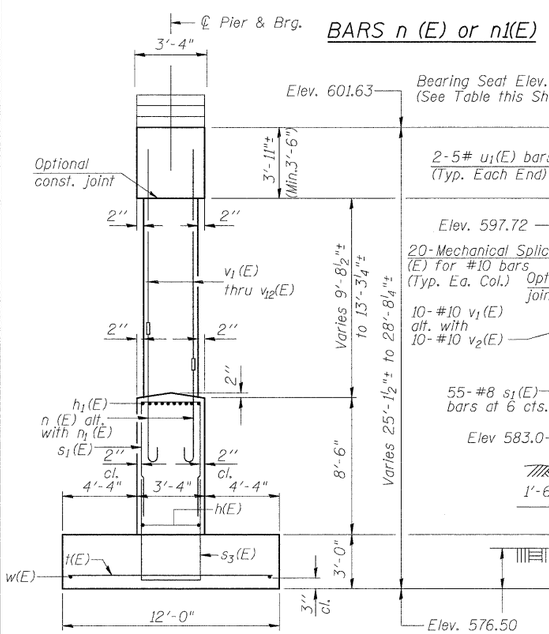
BARS u(E) or $u_1(E)$

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h (E)	60	#5	27'-3"	—
$h_1(E)$	20	#8	27'-3"	—
$h_2(E)$	16	#5	9'-9"	—
$h_3(E)$	4	#5	6'-7"	—
$h_4(E)$	4	#5	5'-0"	—
n (E)	60	#10	8'-11"	⊔
$n_1(E)$	60	#10	6'-11"	⊔
$n_2(E)$	6	#8	8'-2"	⊔
p (E)	36	#8	27'-3"	—
$p_1(E)$	8	#5	27'-3"	—
s (E)	46	#6	13'-8"	□
$s_1(E)$	110	#8	19'-8"	⊔
$s_2(E)$	45	#6	6'-2"	⊔
$s_3(E)$	110	#8	17'-6"	⊔
$sp_1(E)$	1	#5	10'-0"	∧∧∧
$sp_2(E)$	1	#5	10'-7"	∧∧∧
$sp_3(E)$	1	#5	11'-3"	∧∧∧
$sp_4(E)$	1	#5	11'-10"	∧∧∧
$sp_5(E)$	1	#5	12'-5"	∧∧∧
$sp_6(E)$	1	#5	13'-1"	∧∧∧
$sp_7(E)$	72	#5	9'-2"	○
t (E)	62	#8	11'-8"	—
u (E)	4	#8	13'-7"	⊔
$u_1(E)$	36	#5	8'-11"	⊔
v (E)	6	#8	8'-4"	—
$v_1(E)$	10	#10	9'-0"	—
$v_2(E)$	10	#10	11'-0"	—
$v_3(E)$	10	#10	9'-9"	—
$v_4(E)$	10	#10	11'-9"	—
$v_5(E)$	10	#10	10'-5"	—
$v_6(E)$	10	#10	12'-5"	—
$v_7(E)$	10	#10	11'-2"	—
$v_8(E)$	10	#10	13'-2"	—
$v_9(E)$	10	#10	11'-10"	—
$v_{10}(E)$	10	#10	13'-10"	—
$v_{11}(E)$	10	#10	12'-7"	—
$v_{12}(E)$	10	#10	14'-7"	—
w (E)	26	#8	30'-4"	—

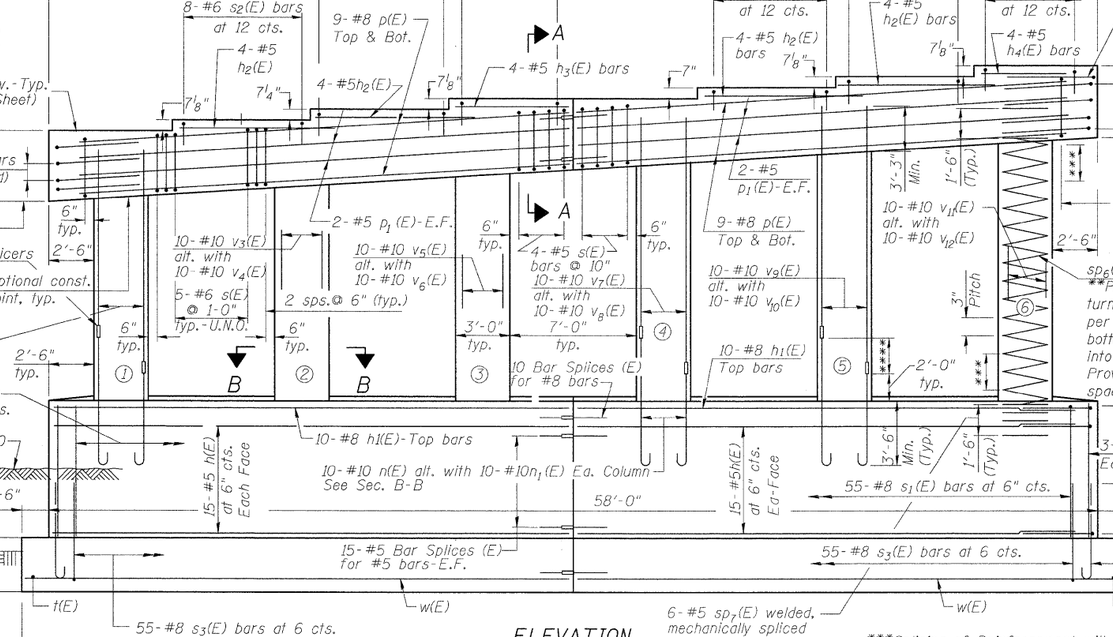
Structure Excavation	Cu. Yd.	77
Rock Excavation for Structures	Cu. Yd.	122
Concrete Structures	Cu. Yd.	127
Mechanical Splicers	Each	120
Reinforcement Bars, Epoxy Coated	Pound	36,675

Note: Length of sp1(E) through sp6(E) is height of spiral.

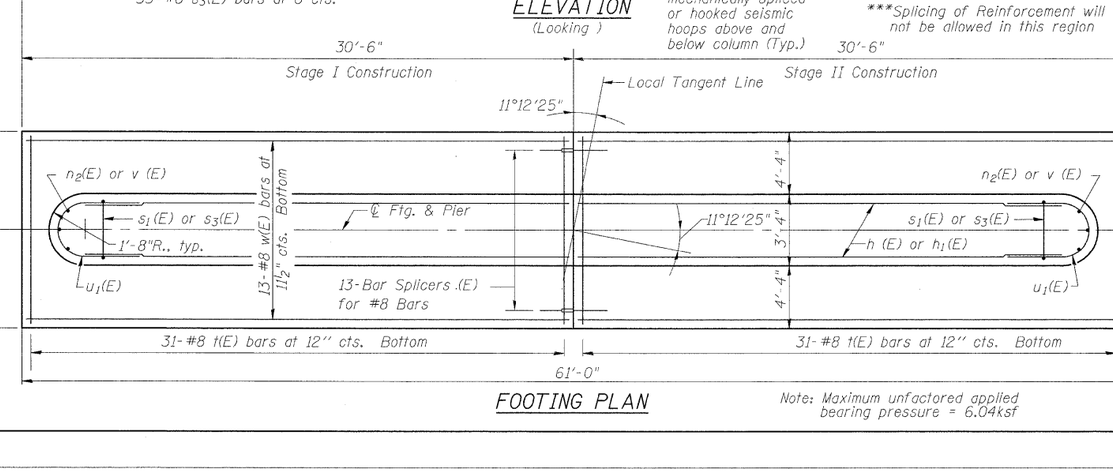


BARS n (E) or n1(E)

END VIEW



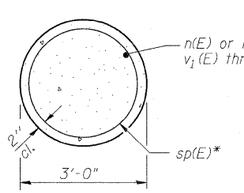
ELEVATION
(Looking)



FOOTING PLAN

Note: Maximum unfactored applied bearing pressure = 6.04ksf

BARS $s_1(E)$ or $s_2(E)$ or $s_3(E)$



SEC. B-B

**Allowable substitutions, provide $1\frac{1}{2}$ extra turns top and bottom with 135° standard hook into core at ends of spiral

*$sp_1(E)$ - for Col 1
$sp_2(E)$ - for Col 2
$sp_3(E)$ - for Col 3
$sp_4(E)$ - for Col 4
$sp_5(E)$ - for Col 5
$sp_6(E)$ - for Col 6

MIN. BAR LAP

#5 - 2'-2"
#6 - 2'-7"
#7 - 3'-5"
#8 - 4'-6"
#9 - 5'-9"

BEARING SEAT ELEV.

Girder	Elevation
1	601.63
2	602.23
3	602.83
4	603.42
5	603.42
6	604.01
7	604.60
8	605.19

DESIGNED	- CCS
CHECKED	- WPM
DRAWN	- MD
CHECKED	- WPM

9-28-09

MACTEC

PIER DETAILS
STRUCTURE NO. 067-0042

	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SHEET NO.25	809	67-1HBR	Monroe	144	89
34 SHEETS			CONTRACT NO. 76977		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		