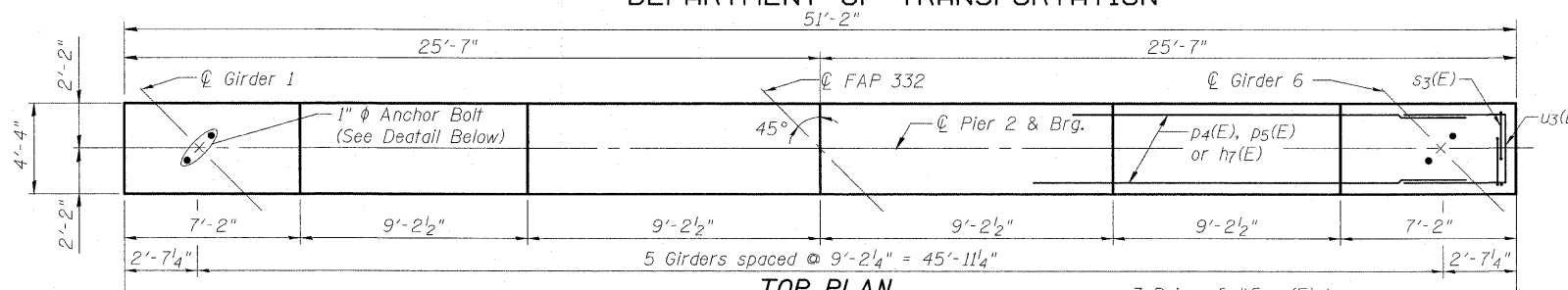


STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

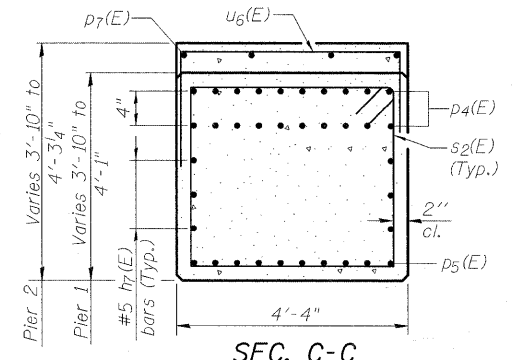
Notes:  
Space reinforcement in cap to miss anchor bolts.  
Pour steps monolithically with cap.  
For details of piles, see sheet 24 of 27.  
All Mechanical Splices shall be staggered.  
Stagger Mechanical Splice locations of  $u_5(E)$  bars in crashwall by alternating the placement of the bars long leg on each face.  
Cut bottom footing bars to fit between piles.  
Clear cover noted to mechanical splice, where applicable.

**PILE DATA**

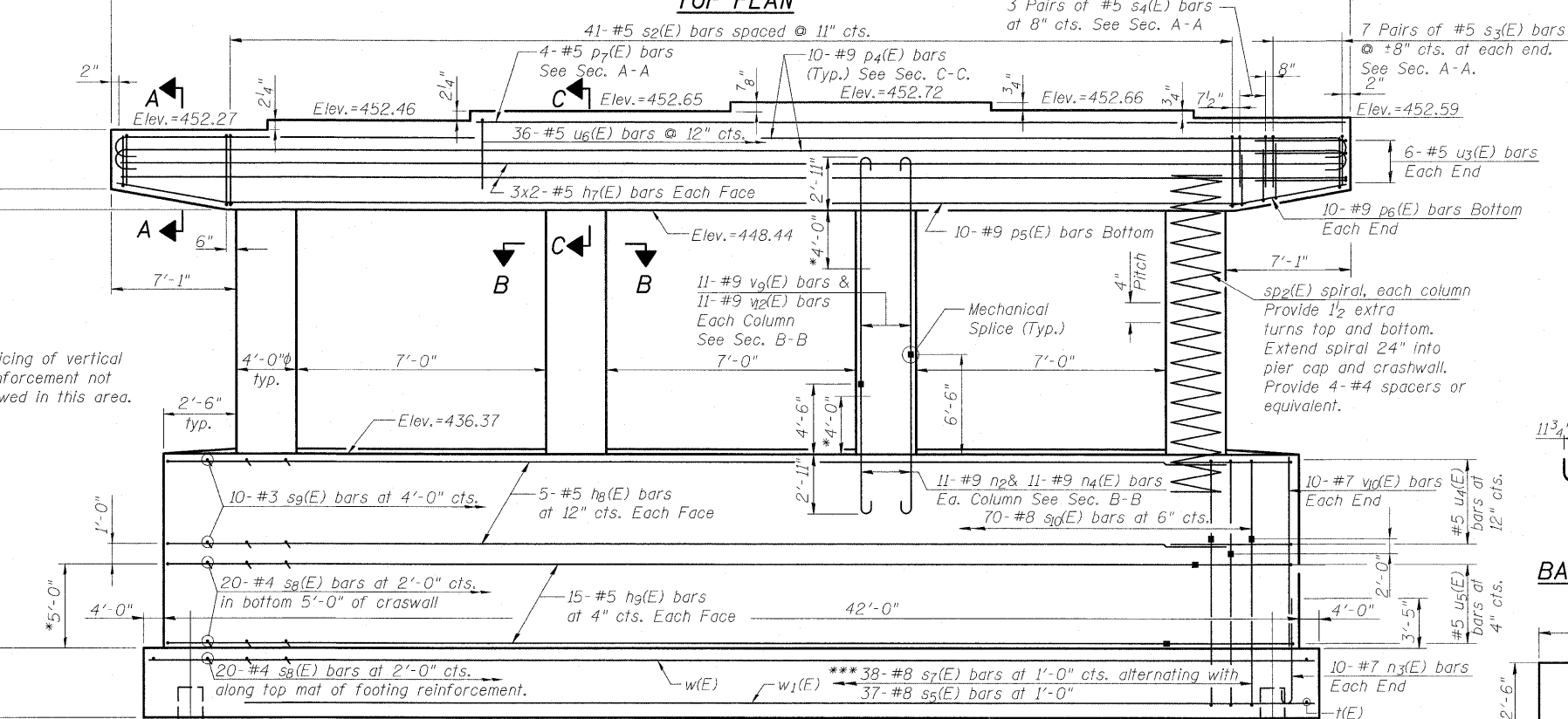
Type: HP 14x73  
Nominal Required Bearing: 578k  
Factored Resistance Available: 289k  
Est. Length: 18'-0"  
No. Production Piles: 30  
No. Test Piles: None



**TOP PLAN**



**SEC. C-C**



**ELEVATION**  
(Looking East)

**PIER 2 BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
$h_7(E)$	12	#5	26'-3"	—
$h_8(E)$	10	#5	37'-0"	—
$h_9(E)$	30	#5	31'-0"	—
$n_2(E)$	44	#9	8'-11"	—
$n_3(E)$	20	#8	7'-1"	—
$n_4(E)$	44	#9	10'-11"	—
$p_4(E)$	20	#9	53'-4"	—
$p_5(E)$	10	#9	37'-8"	—
$p_6(E)$	20	#9	6'-6"	—
$p_7(E)$	4	#5	34'-5"	—
$s_2(E)$	41	#5	16'-4"	—
$s_3(E)$	56	#5	8'-0"	—
$s_4(E)$	24	#5	9'-2"	—
$s_5(E)$	75	#8	9'-2"	—
$s_7(E)$	75	#8	11'-2"	—
$s_8(E)$	320	#4	5'-4"	—
$s_9(E)$	50	#3	5'-4"	—
$s_{10}(E)$	75	#8	11'-6"	—
$s_{12}(E)$	4	#5	16'-1"	—
$t(E)$	200	#8	14'-6"	—
$u_3(E)$	12	#5	7'-4"	—
$u_4(E)$	10	#5	12'-2"	—
$u_5(E)$	30	#5	13'-2"	—
$u_6(E)$	36	#5	8'-1"	—
$v_9(E)$	44	#9	12'-0"	—
$v_{10}(E)$	20	#8	9'-11"	—
$v_{12}(E)$	44	#9	10'-0"	—
$w(E)$	32	#5	25'-8"	—
$w_1(E)$	48	#5	17'-8"	—

Structure Excavation	Cu. Yd.	238.0
Concrete Structures	Cu. Yd.	215.5
Reinforcement Bars, Epoxy Coated	Pound	36,280
Furnishing Steel	Foot	540
Piles, HP 14x73	Foot	540
Driving Piles	Foot	540
Pile Shoes	Each	30
Mechanical Splicers	Each	298

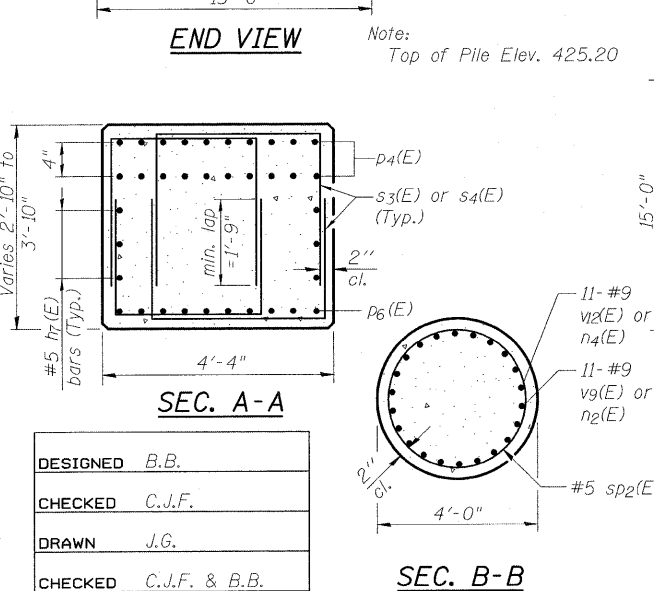
\*\* Length is height of spiral.  
For additional reinforcement details see sheet 18 of 27.

**PIER 2  
ILLINOIS ROUTE 1  
OVER NORFOLK SOUTHERN RR  
STA. 757+97.66**

**MINIMUM BAR LAP**

#5 bar = 1'-8"

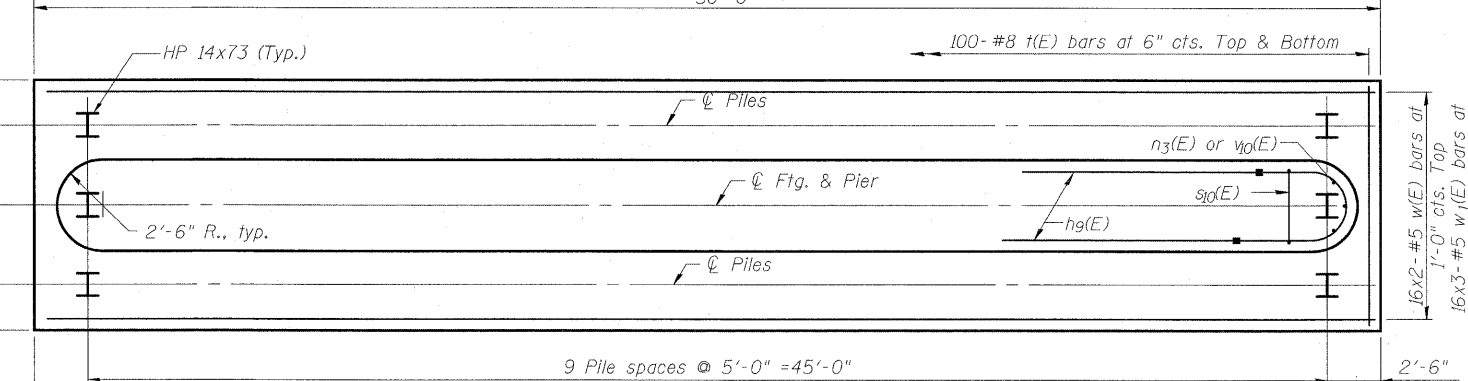
Rev. Sheet 9-7-10



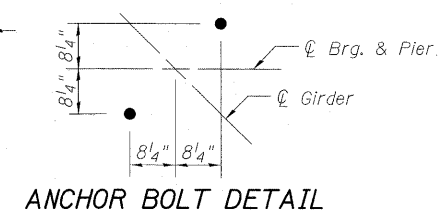
**SEC. A-A**

**SEC. B-B**

DESIGNED	B.B.
CHECKED	C.J.F.
DRAWN	J.G.
CHECKED	C.J.F. & B.B.



**FOOTING PLAN**



**ANCHOR BOLT DETAIL**

**BERNARDIN LOCHMUELLER & ASSOCIATES, INC.**  
3 Oak Drive  
Maryville, IL 62962-5635  
Local (618) 288-4665  
Fax 618-288-4666

SHEET NO. 19	F.A.P. R.T.E. 332	SECTION 103B-1	COUNTY WABASH	TOTAL SHEETS 90	SHEET NO. 53
27 SHEETS	SN 093-0023		CONTRACT NO. 94754		
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT 332					

11:54:51 AM 7/15/2010 \Bridges\0930023-94754.dgn