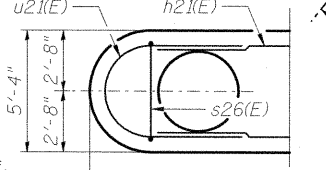
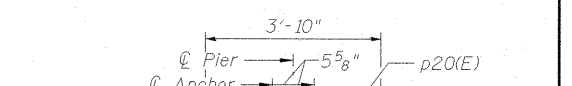


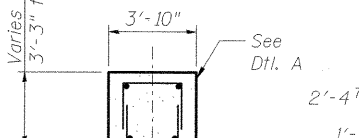
**ANCHOR BOLT
INSTALLATION DETAIL**



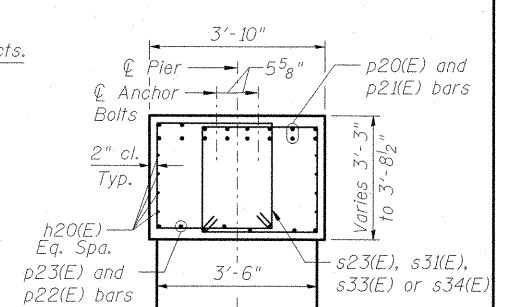
SECTION A-A SECTION B-B



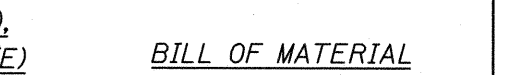
SECTION D-D



DETAIL A (CANTILEVER ENDS)

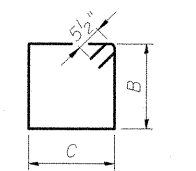


DETAIL A (MIDSPAN)



BARS s24(E), s25(E) & s35(E)

Bar	A
s24(E)	2'-6 1/2"
s25(E)	2'-2"
s35(E)	2'-8"



BARS s23(E), s26(E) s31(E), s33(E) & s34(E)

Bar	B	C
s23(E)	3'-5"	2'-7"
s26(E)	5'-8"	5'-0"
s31(E)	3'-7 1/4"	2'-7"
s33(E)	3'-3 1/2"	2'-7"
s34(E)	3'-6 1/2"	2'-7"

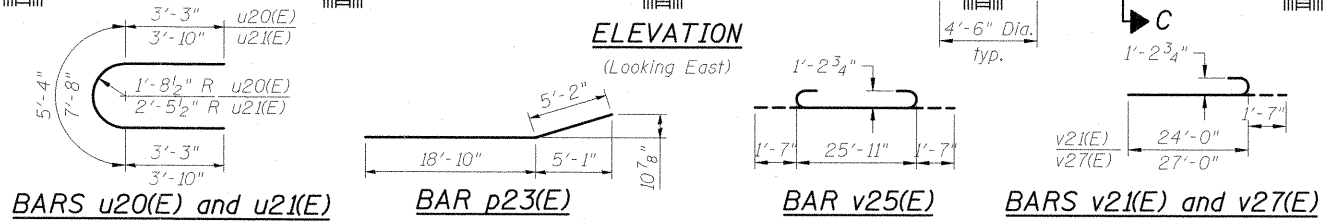
MINIMUM BAR LAP
 #5(E) Bar = 3'-3"
 #6(E) Bar = 3'-10"
 #7(E) Bar = 5'-2"
 #8(E) Bar = 6'-9"

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h20(E)	24	#5	25'-9"	
h21(E)	48	#6	22'-8"	
p20(E)	32	#8	31'-9"	
p21(E)	16	#8	20'-9"	
p22(E)	8	#7	33'-2"	
p23(E)	16	#7	24'-0"	
p24(E)	8	#5	12'-7"	
p27(E)	8	#5	11'-5"	
s23(E)	16	#5	12'-11"	
s24(E)	32	#5	7'-8"	
s25(E)	16	#5	6'-11"	
s26(E)	61	#5	22'-3"	
s31(E)	20	#5	13'-4"	
s33(E)	28	#5	12'-8"	
s34(E)	60	#5	13'-2"	
s35(E)	40	#5	7'-11"	
sp(E)	5	#5	47'-9"	~
sp1(E)	5	#5	25'-5"	~
u20(E)	6	#5	11'-10"	
u21(E)	10	#5	15'-4"	
v20(E)	50	#11	24'-0"	
v21(E)	50	#11	25'-7"	
v25(E)	100	#11	29'-1"	
v26(E)	50	#11	21'-0"	
v27(E)	50	#11	28'-7"	
Structure Excavation		Cu. Yd.	48.0	
Concrete Structures		Cu. Yd.	319.3	
Reinforcement Bars, Epoxy Coated		Pound	54,250	
Mechanical Splicers		Each	100	
Drilled Shaft in Soil		Cu. Yd.	149.1	
Drilled Shaft in Rock		Cu. Yd.	14.7	

* The quantities and reinforcement detailing are based on the top of shaft and the estimated top of rock elevations shown and may change based on the actual top of rock encountered at each shaft and the final top of shaft elevation.

** Allowable substitution: Provide 1/2 extra turns top and bottom with 135° standard hook into core at ends of spiral



Cast steps monolithically with cap. Space cap reinforcement to miss anchor bolts. ** Length is height of spiral.

CMT
 CRAWFORD MURPHY & TILLY, INC.
 CONSULTING ENGINEERS
 SPRINGFIELD, IL ■ AURORA, IL ■ ST. LOUIS, MO
 ROCKFORD, IL ■ PEORIA, IL ■ CHICAGO, IL

USER NAME = Gary Davis	DESIGNED = MCC	REVISED =
	CHECKED = ATI	REVISED =
PLOT SCALE =	DRAWN = GLD	REVISED =
PLOT DATE = 1/10/2012	CHECKED = ATI	REVISED =

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PIER 2 DETAILS
STRUCTURE NO. 100-0094 (E.B.)**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
331	(IX)-1VB-1	WILLIAMSON	367	199
			CONTRACT NO. 98859	
ILLINOIS FED. AID PROJECT				

FILE NAME = I:\Jobs\0906503\Draws\Structural\plans\pier 2.s BRIDGE.dgn