NOTES:

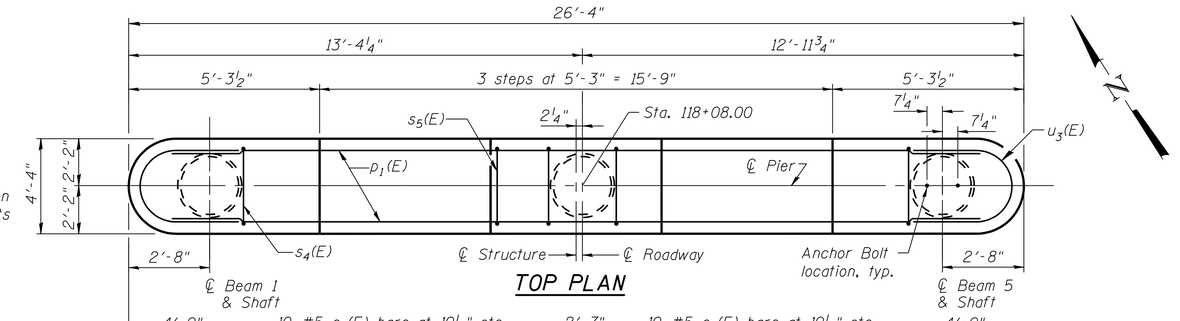
Pay limits for the Permanent Casing are based on the minimum length shown.

Cast steps monolithically with cap.

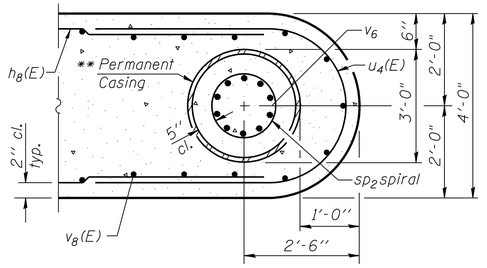
Space cap reinforcement to miss anchor bolts.

See Sheet 20 of 24 for Mechanical Splicer Details.

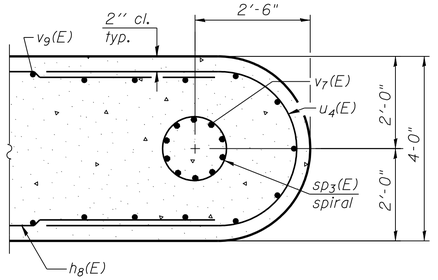
*If the prevailing water surface elevation during construction is consistently different than estimated on the plans, the contractor may propose an adjustment to the top of the drilled shaft elevation as part of their installation procedure. The top of all drilled shafts within a substructure unit shall be constructed to the same elevation and extend above the prevailing water surface. The quantities and reinforcement detailing are based on the top of shaft and the estimated elevations shown and may change based on the actual elevations encountered at each shaft and the final top of shaft elevation.



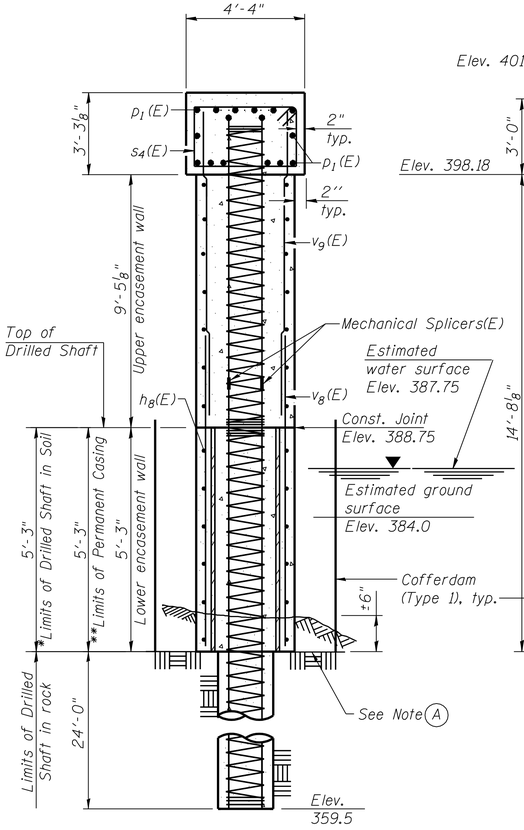
TOP PLAN



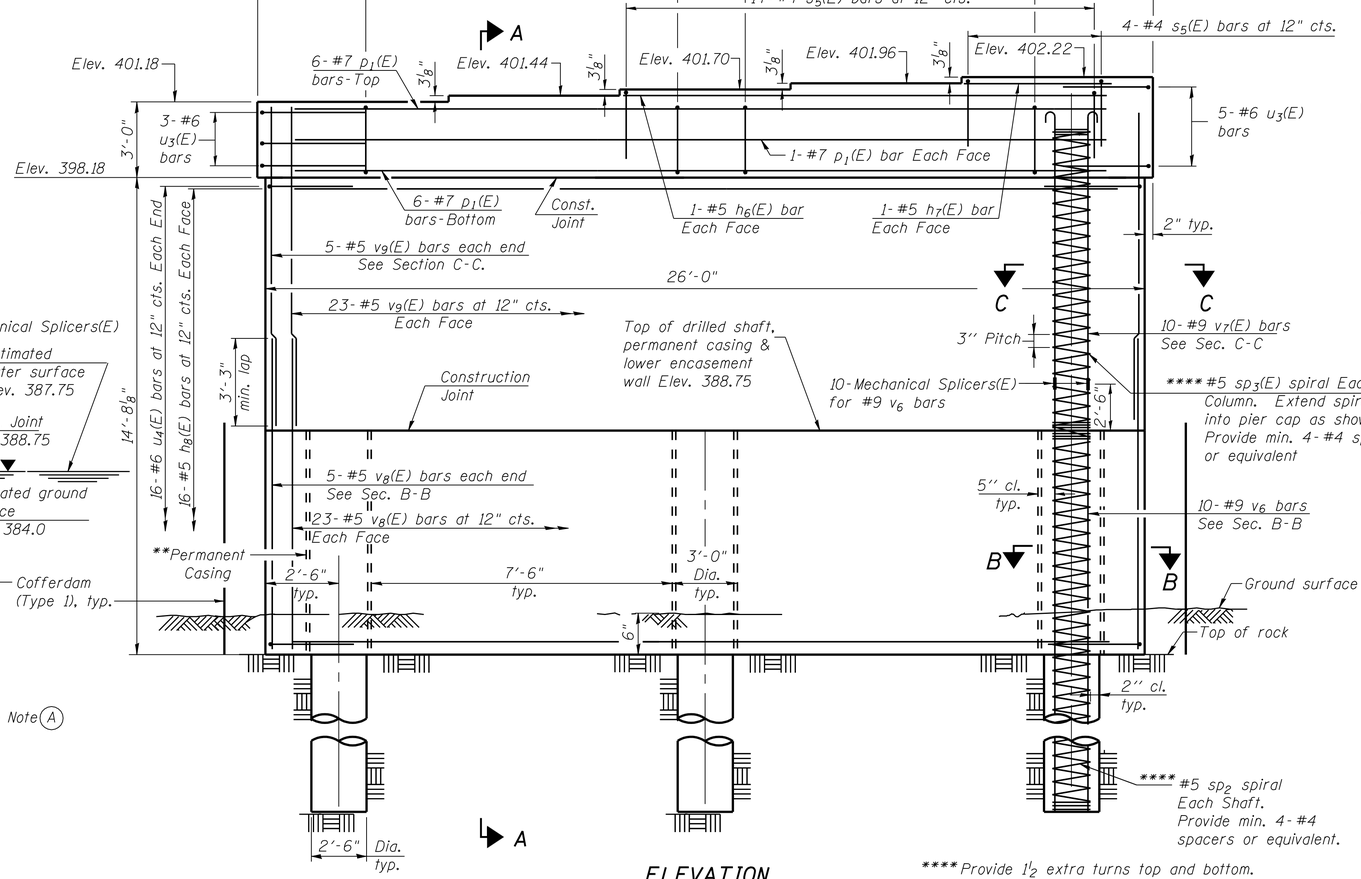
SECTION B-B



SECTION C-C



SECTION A-A



ELEVATION

(Looking North)

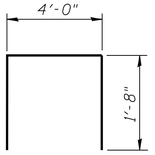
Note (A): Minimum bottom of permanent casing is at estimated top of rock, Elev. 383.5

** Contractor is responsible for determining the casing thickness and the actual tip elevation to be used. See Article 516.06(d) of the Standard Specifications.

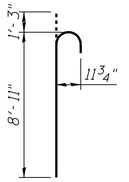
CONSTRUCTION SEQUENCE FOR ENCASEMENT WALLS:

1. Install Cofferdam (Type 1), See Special Provisions.
2. Excavate between and outside of shafts to base of lower encasement wall.
3. Set lower encasement wall forms into place and secure at top and bottom as required to maintain proper clearance from shaft.
4. Place the lower encasement wall reinforcement cage into forms using spacers to maintain proper clearances from shaft and forms.
5. The reinforcement and the concrete placement shall be completed in the dry.
6. Prepare construction joint at top of drilled shafts and lower encasement wall.
7. Splice upper encasement wall reinforcement and cage length to lower encasement and shaft reinforcement, form and pour upper encasement wall.

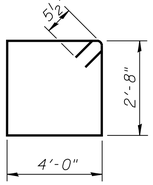
***** Provide 1 1/2 extra turns top and bottom. Shop weld together extra spiral turns per AWS D1.4. As a substitution, provide 1 1/2 extra turns top and bottom with 135° standard hook into core at ends of spiral.



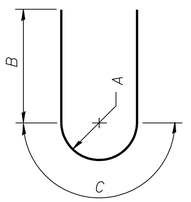
BAR s_5(E)



BAR v_7(E)



BAR s_4(E)



BAR u_3(E) or u_4(E)

A, B & C DIMENSIONS

Bar	A	B	C
u_3(E)	1'-11 3/8"	4'-5"	6'-1 1/2"
u_4(E)	1'-10"	4'-5"	5'-9 1/8"

BILL OF MATERIAL

	Bar	No.	Size	Length	Shape
	h_6(E)	2	#5	13'-7"	
	h_7(E)	2	#5	3'-1"	
	h_8(E)	32	#5	22'-0"	
	p_1(E)	14	#7	22'-0"	
	s_4(E)	20	#5	14'-3"	
	s_5(E)	18	#4	7'-4"	
***	sp_2	3	#5	29'-3"	
***	sp_3(E)	3	#5	10'-10"	
	u_3(E)	8	#6	15'-0"	
	u_4(E)	32	#6	14'-8"	
	v_6	30	#9	31'-9"	
	v_7(E)	30	#9	9'-10"	
	v_8(E)	56	#5	8'-8"	
	v_9(E)	56	#5	12'-0"	
	Cofferdam Excavation		Cu. Yd.		8
	Concrete Structures		Cu. Yd.		65.0
	Reinforcement Bars		Pound		5800
	Reinforcement Bars, Epoxy Coated		Pound		5870
	Cofferdam (Type 1), Location 2		Each		1
	Drilled Shaft in Soil		Cu. Yd.		4.1
	Drilled Shaft in Rock		Cu. Yd.		13.1
	Permanent Casing		Foot		15.8

*** Length is height of spiral

FILE NAME = ...\0930024-74217-018-pier-2.dgn
CB PROJECT NO 08053-5

Coombe-Bloxdorf P.C.
-CIVIL ENGINEERS-
-STRUCTURAL ENGINEERS-
-LAND SURVEYORS-
Design Firm License No. 184-002703

USER NAME = _MML_	DESIGNED - GB/MCB	REVISED -	
	CHECKED - MCB	REVISED -	
PLOT SCALE = 0:1.00 ':' / IN.	DRAWN - TFG	REVISED -	
PLOT DATE = 10/3/2013	CHECKED - MCB	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER 2
STRUCTURE NO. 093-0024
SHEET NO. 18 OF 24 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1B	(12A)B-1	WABASH	52	40
		CONTRACT NO. 74217		
	ILLINOIS FED. AID PROJECT			