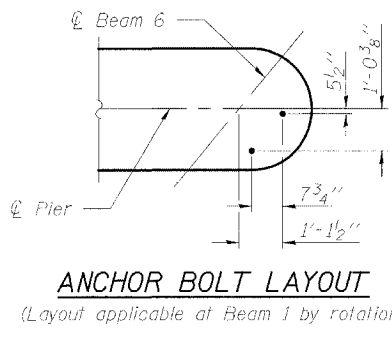
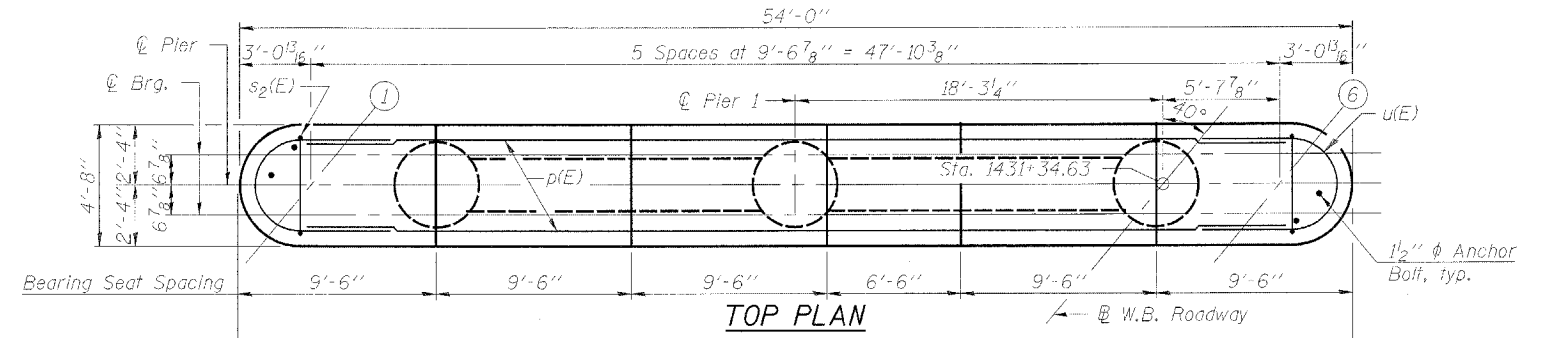


Contract #68206

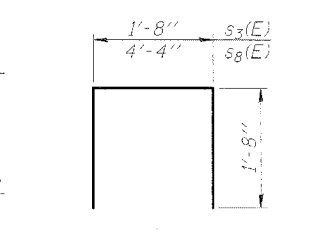
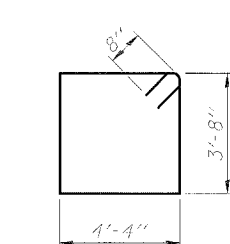
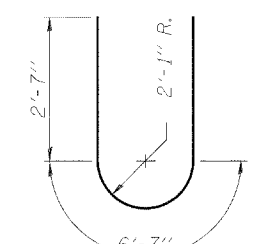
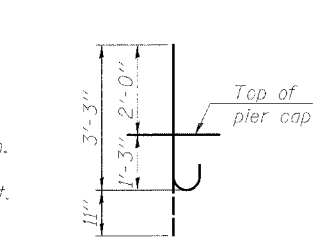
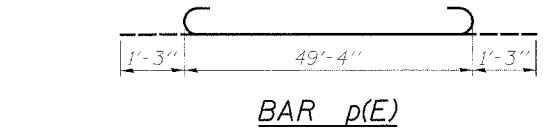
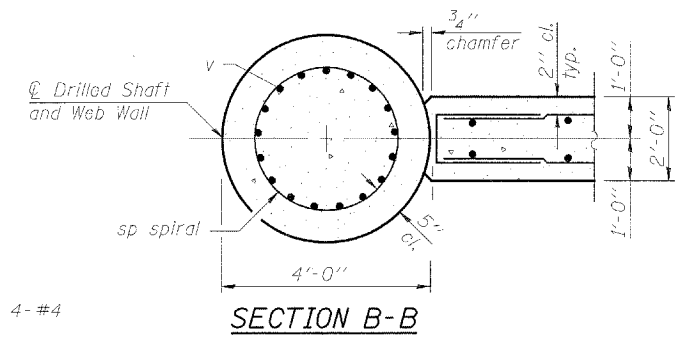
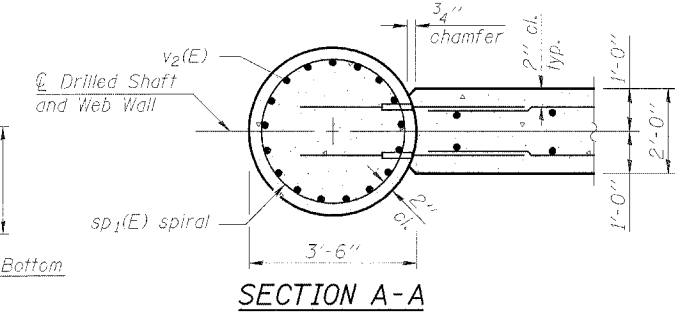
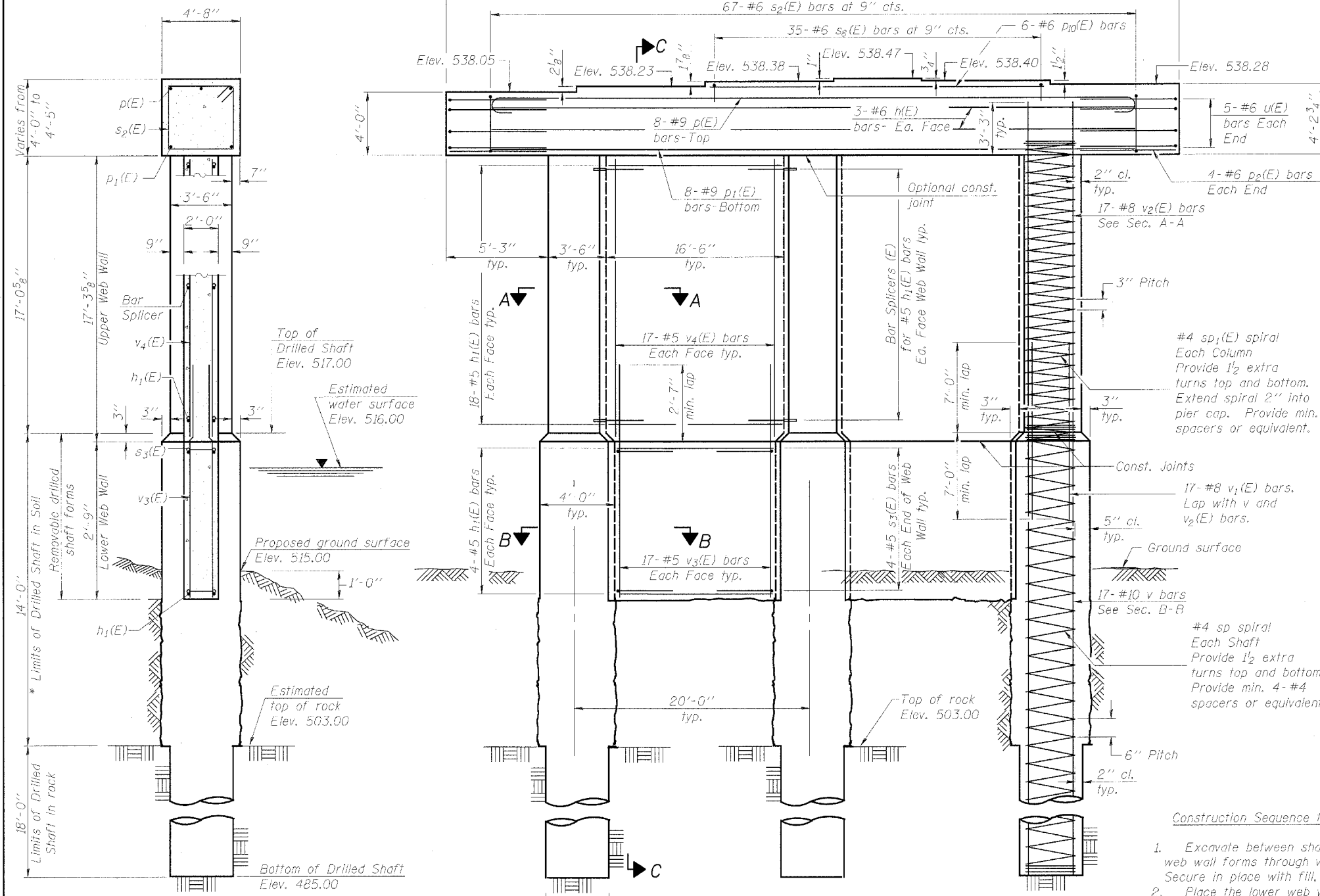
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	6	#6	49'-4"	—
h ₁ (E)	88	#5	15'-8"	—
p(E)	8	#9	51'-10"	—
p ₁ (E)	8	#9	49'-4"	—
p ₂ (E)	8	#6	6'-0"	—
p ₁₀ (E)	6	#6	25'-3"	—
s ₂ (E)	57	#6	17'-4"	□
s ₃ (E)	16	#5	5'-0"	□
s ₈ (E)	35	#6	7'-8"	□
sp	3	#4	31'-8"	⋈
sp ₁ (E)	3	#4	17'-1"	⋈
u(E)	10	#6	11'-9"	—
v	51	#10	31'-8"	—
v ₁ (E)	51	#8	14'-0"	—
v ₂ (E)	51	#8	20'-2"	—
v ₃ (E)	68	#5	5'-4"	—
v ₄ (E)	68	#5	17'-0"	—
v ₅ (E)	30	#8	4'-2"	—
Underwater Structure Excavation Protection Location-1	Each		1	
Drilled Shaft in Soil 48" Dia.	Foot		42	
Drilled Shaft in Rock 42" Dia.	Foot		54	
Concrete Structures	Cu. Yd.		106.1	
Reinforcement Bars, Epoxy Coated	Pound		15330	
Reinforcement Bars	Pound		8270	
Bar Splicers	Each		144	

Reinforcement Bars designated (E) shall be epoxy coated.
 Cast steps monolithically with cap.
 Space cap reinforcement to miss anchor balls.
 Minimum lap for spirals = 3'-0"
 **Length is height of spiral.



ANCHOR BOLT LAYOUT
 (Layout applicable at Beam 1 by rotation)



Construction Sequence for Web Wall:

- Excavate between shafts to elevation of web wall base and set lower web wall forms through water to bear on the circular edge of drilled shafts. Secure in place with fill, struts or tie forms together as required.
- Place the lower web wall reinforcement cage into the forms using spacers to maintain proper clearances.
- If the forms can be sealed against the shafts and streambed to allow dewatering, the reinforcement and the concrete placement may be completed in the dry. Alternatively, the rebar cage can be lowered into position through water and the concrete discharged at the base of the excavation through a tremie pipe or pump hose, displacing water, sediment, and tained concrete out the top of the forms.
- Construct Columns.
- Construct upper web walls.

* 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.

DESIGNED	KLH
CHECKED	EML
DRAWN	EML
CHECKED	KLH

HORNER & SHIFRIN, INC.
 ENGINEERS ARCHITECTS PLANNERS

PIER 1 DETAILS - W.B. STRUCTURE
ILLINOIS ROUTE 336 OVER
EAST FORK OF THE LAMOINE RIVER
F.A.P. ROUTE 315 - SECTION 34-6, 55-1
HANCOCK COUNTY; STA. 1432+02.61
STRUCTURE NO. 034-0511 (E.B.)
STRUCTURE NO. 034-0512 (W.B.)

Note:
 For location and spacing of v₅(E) bars see sheet 10 of 36.