

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	57B-31	COOK	62	28
FED. ROAD DIST. NO. 7		ILLINOIS FED. AID PROJECT		CONTRACT NO. 60440

DRILLED SHAFT SCHEDULE

Caisson Mark	Shaft Diameter D	Socket Diameter E	Top Elev. (ft.)	Estimated Bottom Elev. (ft.)	Estimated Length (ft.)	Permanent Casing Length (ft.)	Reinforcement Bars							
							"n" bars			"v" bars			"sp" bars	
							Mark	No.	Size	Mark	No.	Size	Mark	Size
C1	3'-6"	3'-0"	596.19	536.70	59.49	N.R.	n1(E)	12	#10	v1	12	#10	sp1	#4
C2	4'-0"	3'-6"	596.19	536.70	59.49	43.32	n1(E)	16	#10	v1	16	#10	sp2	#4
C3	3'-6"	3'-0"	596.19	536.70	59.49	43.32	n1(E)	12	#10	v1	12	#10	sp1	#4
C4	3'-0"	2'-6"	596.19	536.70	59.49	N.R.	n2(E)	14	#8	v2	14	#8	sp3	#3
C5	3'-6"	3'-0"	597.26	538.80	58.46	N.R.	n1(E)	12	#10	v3	12	#10	sp4	#4
C6	4'-0"	3'-6"	597.26	538.80	58.46	44.26	n1(E)	16	#10	v3	16	#10	sp5	#4
C7	3'-6"	3'-0"	597.26	538.80	58.46	44.26	n1(E)	12	#10	v3	12	#10	sp4	#4
C8	3'-0"	2'-6"	597.26	538.80	58.46	N.R.	n2(E)	14	#8	v4	14	#8	sp6	#3

N.R. - indicates that Permanent Casing is not required.

BAR LIST

Bar	No.	Size	Length	Shape
n1(E)	80	#10	7'-6"	—
n2(E)	28	#8	5'-11"	—
sp1	2	#4	59'-10"	⋈
sp2	1	#4	59'-10"	⋈
sp3	1	#3	59'-10"	⋈
sp4	2	#4	58'-11"	⋈
sp5	1	#4	58'-11"	⋈
sp6	1	#3	58'-11"	⋈
v1	80	#10	33'-4"	—
v2	28	#8	31'-11"	—
v3	80	#10	32'-10"	—
v4	28	#8	31'-6"	—

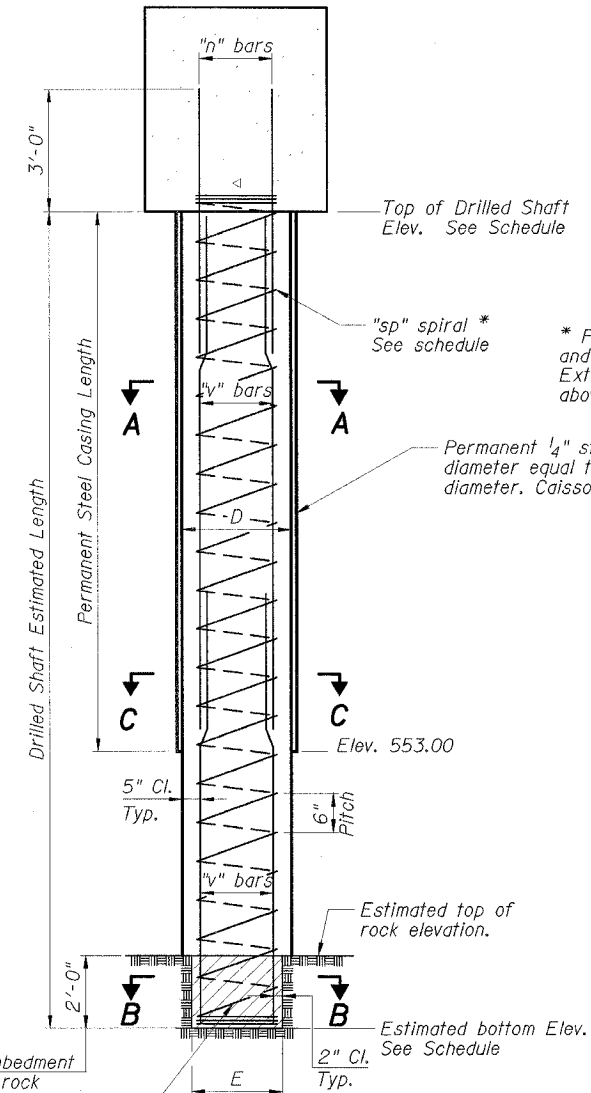
** - Length is Height of Spiral

BILL OF MATERIAL

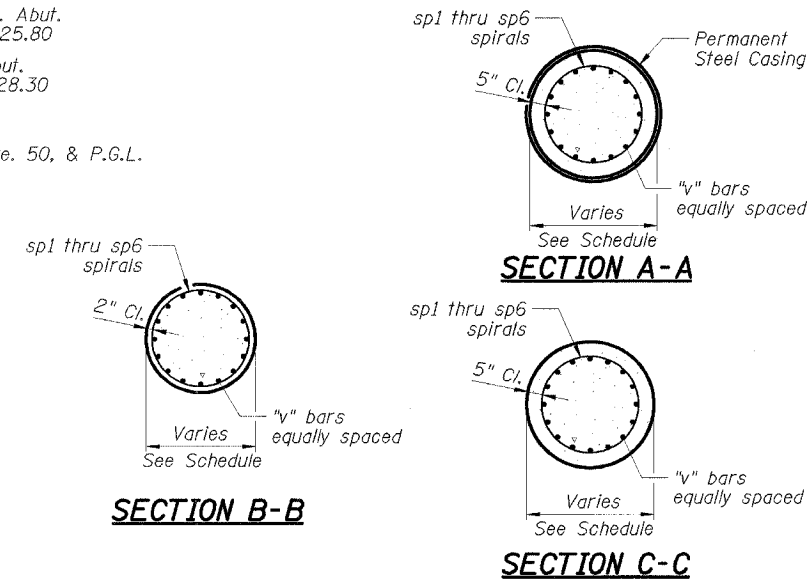
Item	Unit	Total
Reinforcement Bars	Lbs.	32,440
Reinforcement Bars, Epoxy Coated	Lbs.	3020
Drilled Shaft in Soil 36"	Foot	114
Drilled Shaft in Soil 42"	Foot	229
Drilled Shaft in Soil 48"	Foot	114
Drilled Shaft in Rock 30"	Foot	4
Drilled Shaft in Rock 36"	Foot	8
Drilled Shaft in Rock 42"	Foot	4
Permanent Casing	Foot	176

TYP. LAP SPLICE

Bar Size	Min. Lap
#3	1'-6"
#4	2'-0"
#8	4'-6"
#10	7'-3"



TYPICAL DRILLED SHAFT SECTION



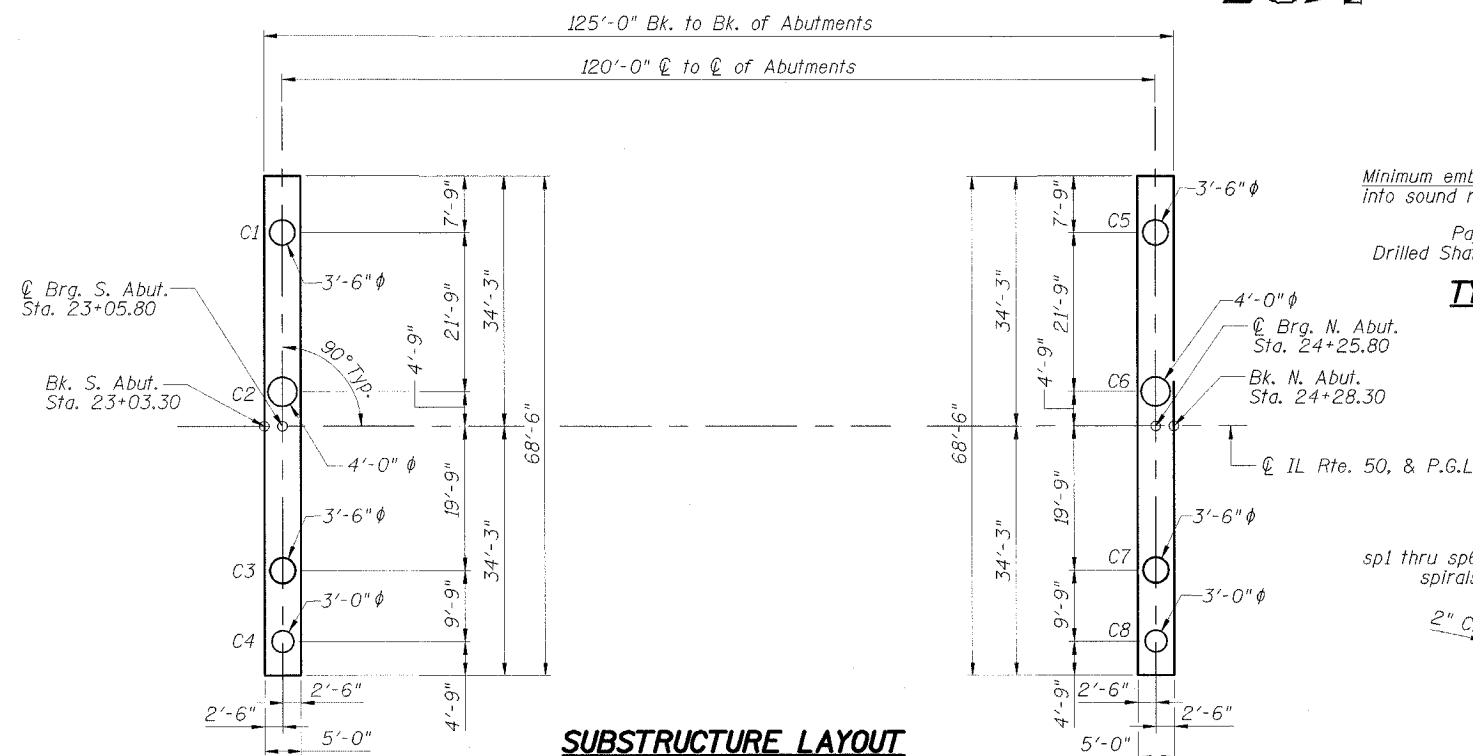
Notes:

- The quantities and detailing are based on the estimated elevations shown on the plans. The actual elevations may differ at each shaft and corresponding adjustments shall be made to the drilled shaft and reinforcement quantities and payment limits.
- Drilled Shafts are sized for a net allowable bearing capacity of 30 tsf.
Minimum Concrete $f'c = 4,000$ psi at 14 Days
Reinforcement $fy = 60,000$ psi
- The Contractor shall note the existence of concrete obstructions up to 5 feet thick at the proposed North and South Abutments.
- The Contractor shall be responsible for locating all utilities and the abandoned water main tunnel prior to drilling of shafts.
- Reinforcement bars designated (E) shall be epoxy coated.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SUBSTRUCTURE LAYOUT & DETAILS
FAP 350 IL ROUTE 50 (CICERO AVE.) OVER
NORTH BRANCH OF THE CHICAGO RIVER
COOK COUNTY STATION 23+65.80
SECTION 57B-31
STRUCTURE NO. 016-2782

SCALE: NONE DRAWN BY: M. Belton
DATE: AUGUST 18, 2006 CHECKED BY: R. Clinton



SUBSTRUCTURE LAYOUT