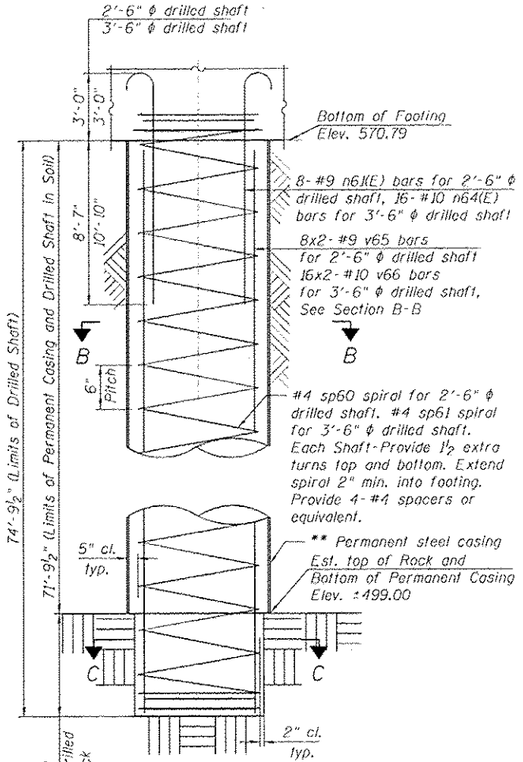
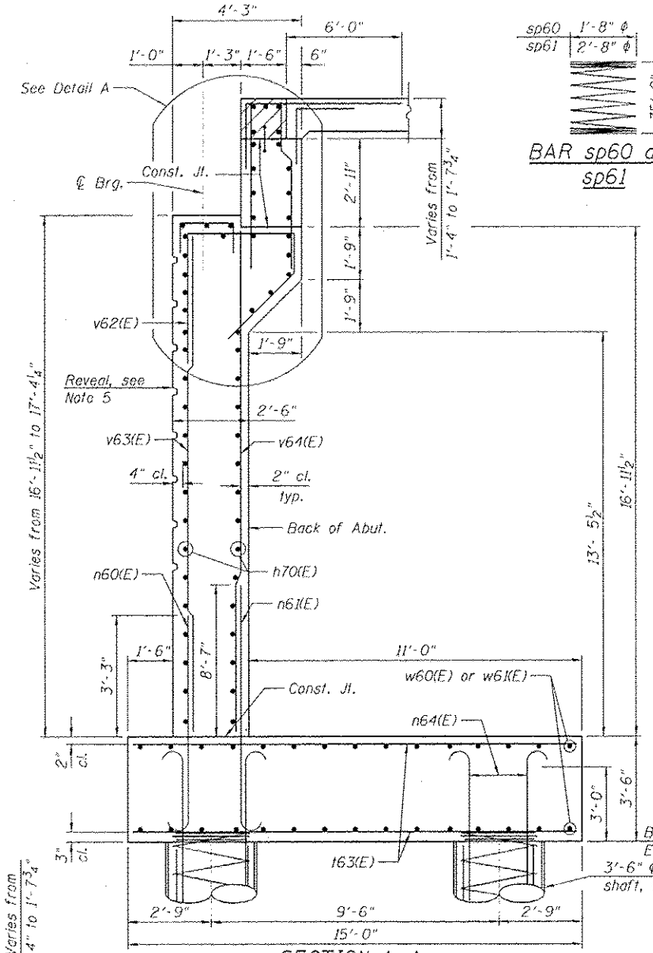
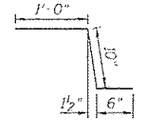


DRILLED SHAFT

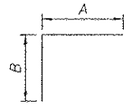


SECTION A-A

BAR sp60 and sp61

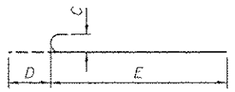


BAR c61(E)



BAR h68(E), n62(E), n63(E) & v67(E)

Bar	A	B
h68(E)	5'-2"	1'-0"
n62(E)	6'-3"	10"
n63(E)	11'-7"	1'-7"
v67(E)	1'-11"	2'-0"

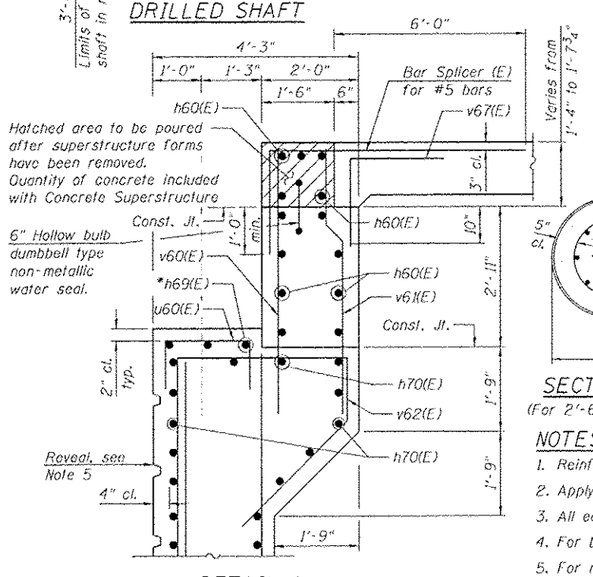


BAR n60(E), n61(E) & n64(E)

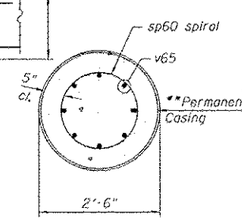
Bar	C	D	E
n60(E)	5"	7"	6'-6"
n61(E)	11¾"	1'-3"	11'-7"
n64(E)	1'-¼"	1'-5"	13'-10"

BAR d61(E), e64(E) & u60(E)

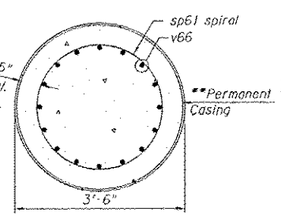
Bar	F	G
d61(E)	1'-1"	9"
e64(E)	2'-2"	1'-0"
u60(E)	1'-9"	1'-0"



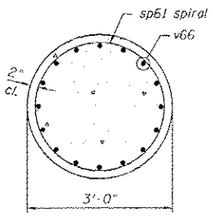
DETAIL A



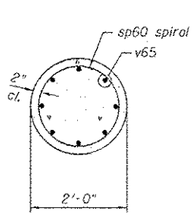
SECTION B-B
(For 2'-6" ϕ drilled shaft)



SECTION B-B
(For 3'-6" ϕ drilled shaft)



SECTION C-C
(For 3'-6" ϕ drilled shaft)



SECTION C-C
(For 2'-6" ϕ drilled shaft)

NOTES:

1. Reinforcement bars designated (E) shall be epoxy coated.
2. Apply concrete sealer to all exposed concrete surfaces of the abutment.
3. All edges shall have standard ¾" chamfer.
4. For bar cutting diagram, see Sheet S1-30.
5. For reveal details, see Sheet S1-31.

⚠ Entire sheet revised

* Space h69(E) bars to miss anchor bolts.

** 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. Pay limits for the Permanent Casing shall be based on the minimum length shown.

BILL OF MATERIAL

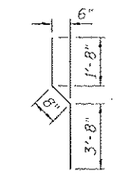
Bar	No.	Size	Length	Shape
b60(E)	22	#5	1'-2"	
c60(E)	6	#5	9'-6"	
c61(E)	6	#5	2'-4"	
d60(E)	38	#5	5'-9"	
d61(E)	46	#5	2'-7"	
d62(E)	80	#7	7'-8"	
d63(E)	8	#5	6'-10"	
d64(E)	12	#7	8'-9"	
e60(E)	4	#4	17'-4"	
e61(E)	4	#4	20'-7"	
e62(E)	4	#4	19'-6"	
e63(E)	4	#4	22'-6"	
e64(E)	8	#4	4'-2"	
h60(E)	26	#5	30'-6"	
h61(E)	24	#5	17'-4"	
h62(E)	24	#5	21'-5"	
h63(E)	24	#5	19'-6"	
h64(E)	24	#5	23'-3"	
h65(E)	16	#5	1'-11"	
h66(E)	24	#5	9'-5"	
h67(E)	12	#5	7'-9"	
h68(E)	96	#5	6'-2"	
h69(E)	3	#5	9'-8"	
h70(E)	84	#5	32'-0"	
n60(E)	62	#5	7'-1"	
n61(E)	187	#9	12'-10"	
n62(E)	40	#5	7'-1"	
n63(E)	89	#9	13'-2"	
n64(E)	256	#10	15'-3"	
sp60	8	#4	75'-0"	
sp61	16	#4	75'-0"	
t60(E)	13	#9	8'-2"	
t61(E)	7	#9	22'-8"	
t62(E)	4	#9	22'-8"	
t63(E)	188	#9	14'-6"	
t64(E)	4	#9	35'-10"	
t65(E)	7	#9	35'-10"	
t66(E)	7	#9	21'-2"	
t67(E)	11	#9	10'-8"	
t68(E)	4	#9	28'-2"	
t69(E)	7	#9	28'-2"	

*** Length is height of spiral

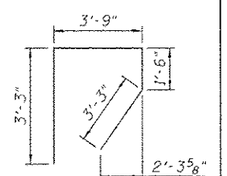
BILL OF MATERIAL (CONT'D)

Bar	No.	Size	Length	Shape
u60(E)	11	#4	3'-9"	
v60(E)	59	#5	6'-2"	
v61(E)	59	#5	6'-0"	
v62(E)	59	#5	11'-9"	
v63(E)	62	#5	16'-10"	
v64(E)	123	#9	16'-10"	
v65	128	#9	41'-7"	
v66	512	#10	42'-8"	
v67(E)	59	#5	3'-11"	
v68(E)	40	#5	21'-9"	
v69(E)	90	#9	21'-9"	
v70(E)	12	#5	6'-1"	
v71(E)	36	#5	4'-4"	
w60(E)	42	#7	29'-4"	
w61(E)	60	#7	33'-1"	
w62(E)	16	#7	17'-2"	
w63(E)	2	#7	16'-3"	
w64(E)	2	#7	17'-4"	
w65(E)	2	#7	24'-9"	
Concrete Structures		Cu Yd	349.6	
Concrete Superstructure		Cu Yd	10.9	
Protective Coat		Sq Yd	18	
Reinforcement Bars		Pound	130,130	
Reinforcement Bars, Epoxy Coated		Pound	77,410	
Permanent Casing		Foot	1,723	
Drilled Shaft in Soil		Cu Yd	515	
Drilled Shaft in Rock		Cu Yd	16	
Concrete Sealer		Sq Ft	2,483	
Geocomposite Wall Drain		Sq Yd	220	
Braced Excavation		Cu Yd	1,606	
Granular Backfill for Structures		Cu Yd	280	
Pipe Underdrains for Structures 6"		Foot	119	

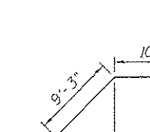
Minimum Bar Laps	
Bar	Lap
#4	2'-7"
#5	3'-3"
#6	3'-10"
#7	5'-2"
#8	6'-9"
#9	8'-7"
#10	10'-10"



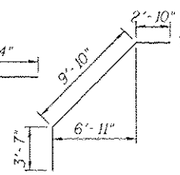
BAR v61(E)



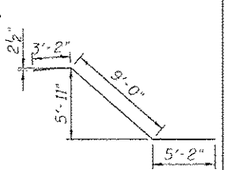
BAR v62(E)



BAR w65(E)



BAR w63(E)



BAR w64(E)

HBM ENGINEERING GROUP, LLC CONSULTING & DESIGN INSPECTION & RATING RESEARCH & TESTING
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOUTH ABUTMENT SECTIONS AND DETAILS
STRUCTURE NO. 016-1709

SCALE: | SHEET S1-29 OF S1 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2013-007R	COOK	317	173
		CONTRACT NO. 60W25		
		ILLINOIS FED. AID PROJECT		

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