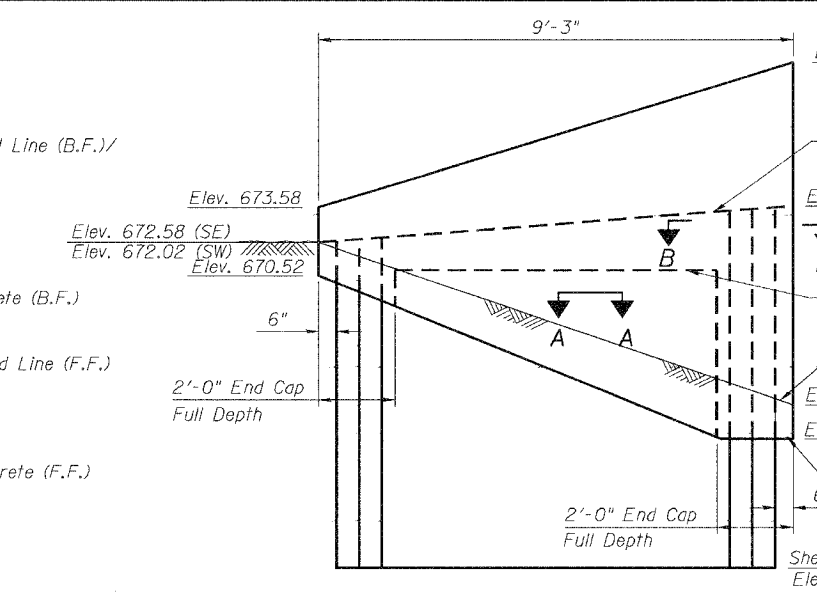
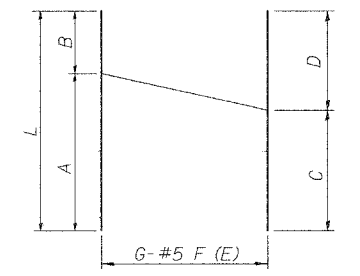


ELEVATION
(Northeast Wingwall shown,
Northwest Wingwall opposite hand)



ELEVATION
(Southwest Wingwall shown,
Southeast Wingwall opposite hand)



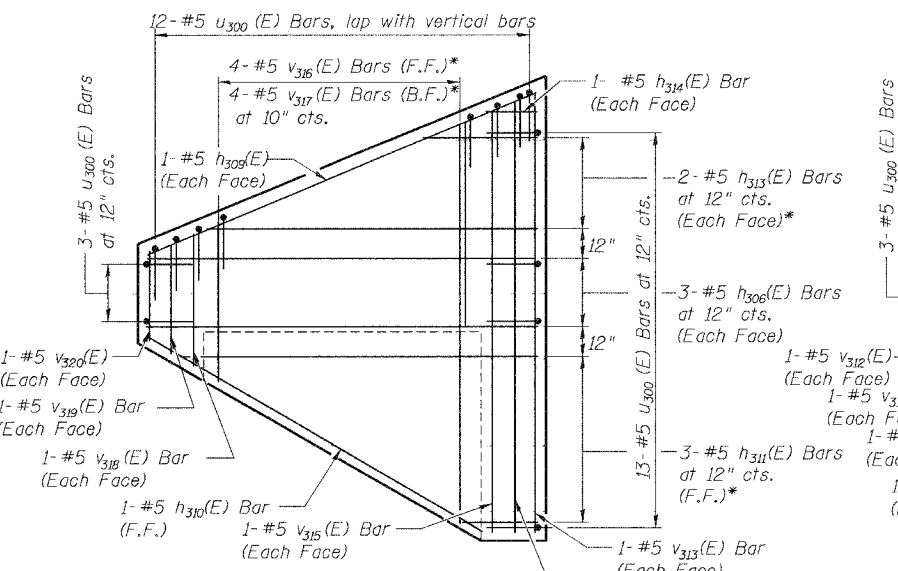
	F	L	A	B	C	D	G
FF h ₃₀₅	10'-1"	8'-1"	2'-0"	5'-8"	4'-5"	3	
FF h ₃₀₇	9'-10"	7'-7"	2'-3"	5'-10"	4'-0"	2	
BF h ₃₀₇	9'-10"	7'-7"	2'-3"	5'-10"	4'-0"	2	
FF v ₃₀₈	17'-10"	11'-10"	6'-0"	9'-6"	18'-4"	3	
BF v ₃₀₉	9'-2"	5'-9"	3'-5"	4'-10"	4'-4"	3	

CUTTING DIAGRAM
South Wingwalls

Order bars full length. Cut as shown and place according to length required for shape of wall.

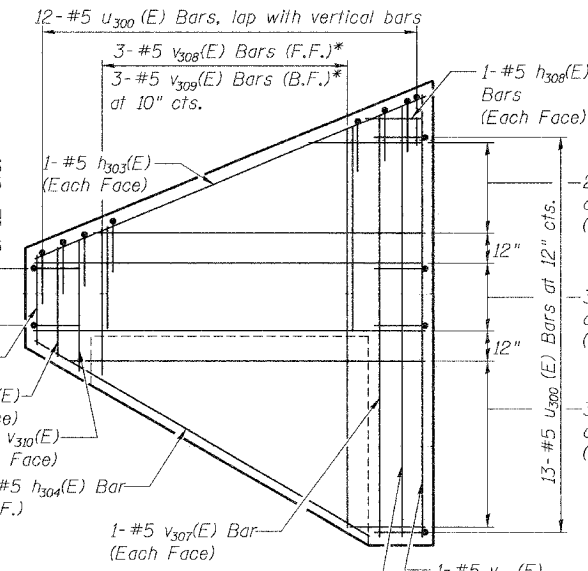
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a300 (E)	200	# 5	17' - 10"	
a301 (E)	166	# 5	11' - 2"	
a302 (E)	168	# 4	4' - 1"	
d300 (E)	36	# 4	4' - 6"	
d301 (E)	70	# 6	4' - 9"	
d302 (E)	36	# 5	4' - 4"	
h300 (E)	234	# 4	28' - 2"	
h301 (E)	72	# 5	28' - 4"	
h302 (E)	34	# 5	18' - 6"	
h303 (E)	4	# 5	10' - 0"	
h304 (E)	2	# 5	9' - 5"	
h305 (E)	6	# 5	10' - 1"	
h306 (E)	24	# 5	8' - 9"	
h307 (E)	8	# 5	9' - 10"	
h308 (E)	4	# 5	0' - 11"	
h309 (E)	4	# 5	10' - 3"	
h310 (E)	2	# 5	9' - 1"	
h311 (E)	6	# 5	9' - 6"	
h312 (E)	4	# 5	2' - 6"	
h313 (E)	8	# 5	9' - 7"	
h314 (E)	4	# 5	0' - 9"	
u300 (E)	112	# 5	4' - 10"	
v300 (E)	440	# 4	6' - 1"	
v301 (E)	12	# 4	10' - 4"	
v302 (E)	12	# 4	5' - 9"	
v303 (E)	70	# 6	5' - 1"	
v304 (E)	36	# 5	5' - 1"	
v305 (E)	4	# 5	13' - 7"	
v306 (E)	4	# 5	13' - 2"	
v307 (E)	4	# 5	12' - 9"	
v308 (E)	6	# 5	17' - 10"	
v309 (E)	6	# 5	9' - 2"	
v310 (E)	4	# 5	4' - 10"	
v311 (E)	4	# 5	3' - 10"	
v312 (E)	4	# 5	2' - 9"	
v313 (E)	4	# 5	13' - 5"	
v314 (E)	4	# 5	12' - 11"	
v315 (E)	4	# 5	12' - 6"	
v316 (E)	6	# 5	17' - 1"	
v317 (E)	6	# 5	8' - 5"	
v318 (E)	4	# 5	4' - 5"	
v319 (E)	4	# 5	3' - 3"	
v320 (E)	4	# 5	2' - 2"	
Concrete Box Culverts		Cu. Yd.	144.5	
Reinforcement Bars, Epoxy Coated		Pound	18,670	
Permanent Steel Sheet Piling		Sq. Ft.	934	
Form Liner Textured Surface		Sq. Ft.	136	



WINGWALL REINFORCING

(Northeast Wingwall shown,
Northwest Wingwall opposite hand)
* See Field Cutting Diagram

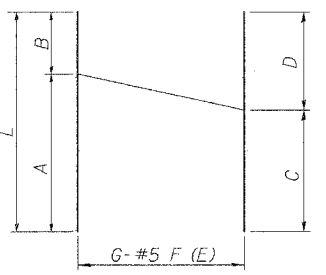


WINGWALL REINFORCING

(Southwest Wingwall shown,
Southeast Wingwall opposite hand)
* See Field Cutting Diagram

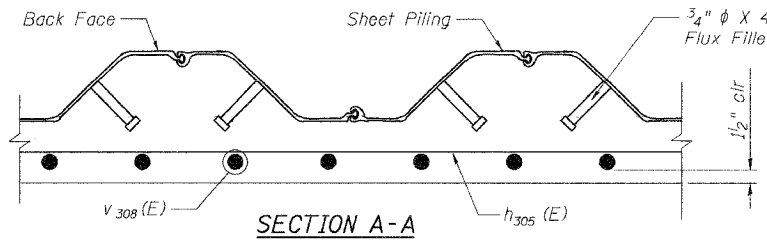
	F	L	A	B	C	D	G
FF h ₃₁₁	9'-6"	7'-8"	1'-10"	5'-4"	4'-2"	3	
FF h ₃₁₃	9'-7"	7'-3"	2'-4"	5'-7"	4'-0"	2	
BF h ₃₁₃	9'-7"	7'-3"	2'-4"	5'-7"	4'-0"	2	
FF v ₃₁₆	17'-1"	11'-7"	5'-6"	9'-2"	7'-11"	3	
BF v ₃₁₇	8'-5"	5'-6"	2'-11"	4'-6"	3'-11"	3	

Order bars full length. Cut as shown and place according to length required for shape of wall.

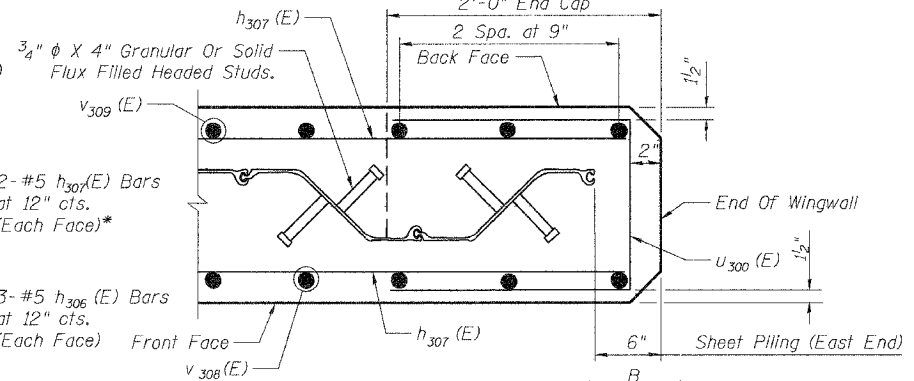


CUTTING DIAGRAM
North Wingwalls

DESIGNED	JRS
CHECKED	RLP
DRAWN	DMG
CHECKED	JRS



SECTION A-A
South Wingwall shown. Others similar.

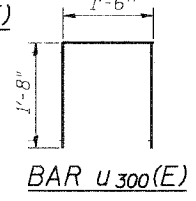


SECTION B-B

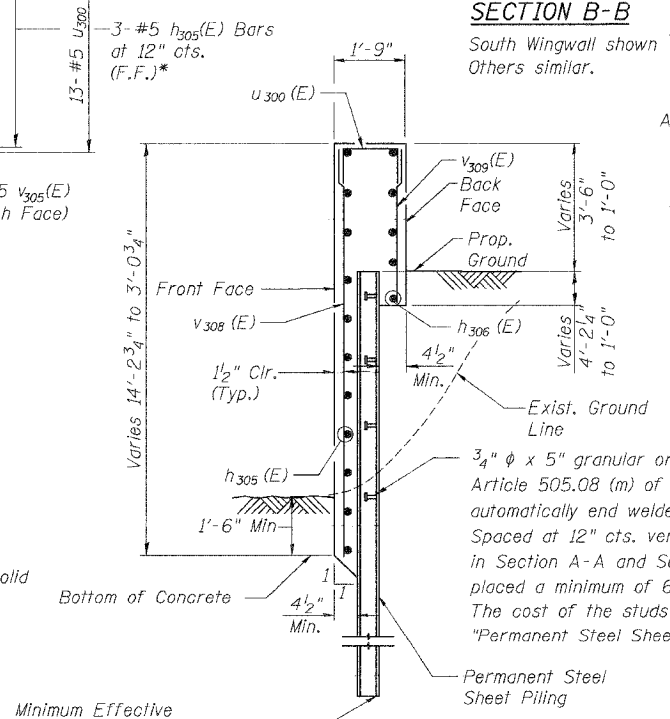
South Wingwall shown
Others similar.

BAR	A	B
d300 (E)	2'-9"	1'-9"
d301 (E)	3'-5"	1'-4"
d302 (E)	3'-0"	1'-4"

**BARS d300 (E)
thru d302 (E)**

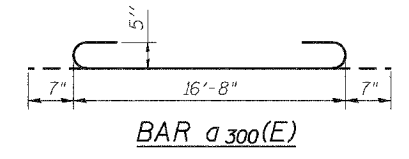


BAR u300 (E)



TYPICAL SECTION

South Wingwall shown
Others similar.



BAR a300 (E)

Notes: Reinforcement bars designated (E) shall be epoxy coated.
Bars indicated thus 12x4-#5 etc. indicates 12 lines of bars with 4 lengths per line.

WINGWALL DETAILS

LUNT AVENUE OVER WILLOW CREEK
SECTION 02-00048-00-BR
COOK COUNTY
STATION 18+00.83