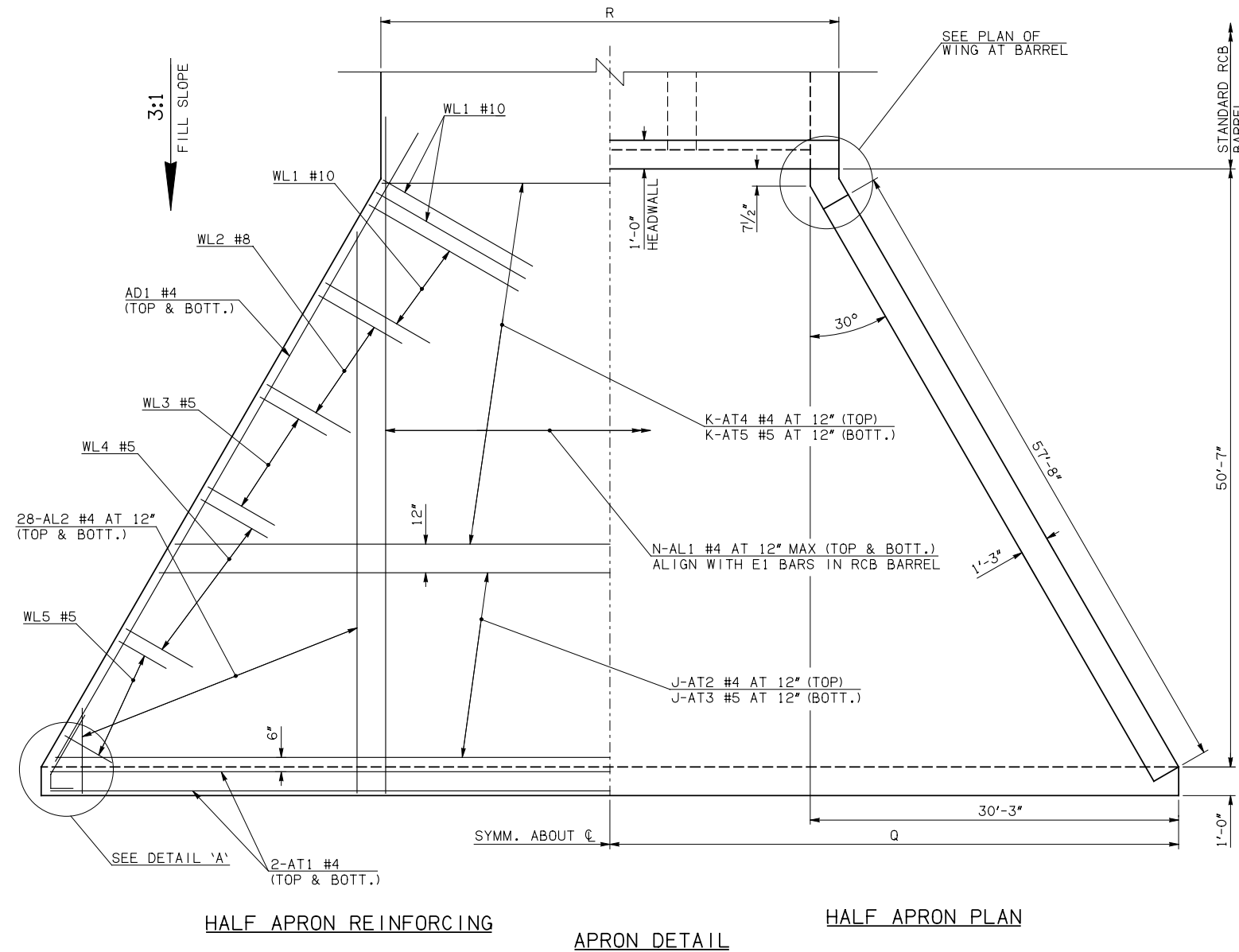
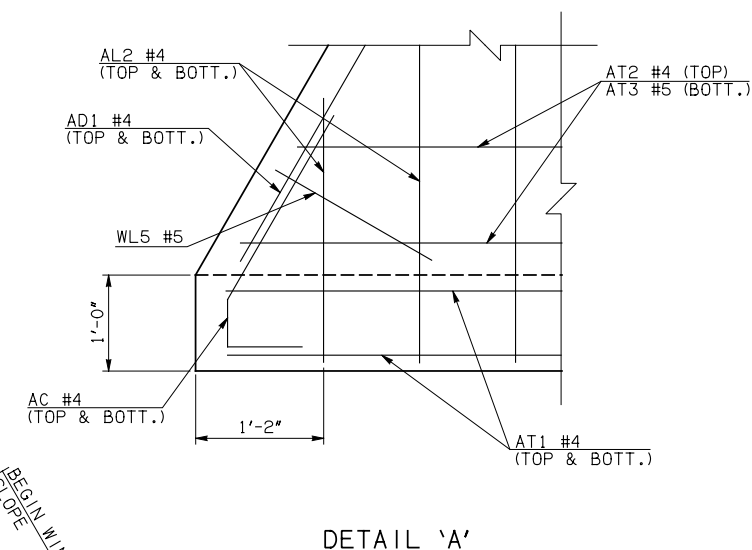
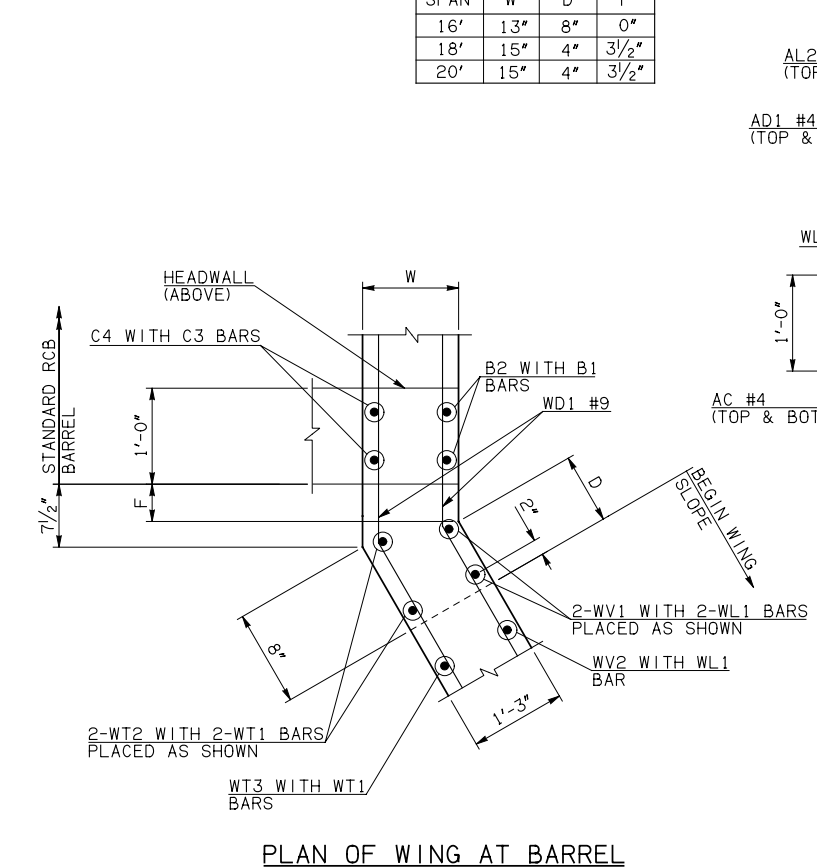


DESCRIPTION	REVISIONS	DATE

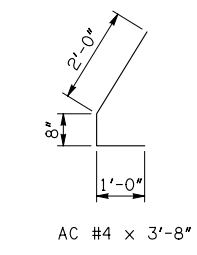


WINGWALL DIMENSIONS			
SPAN	W	D	F
16'	13"	8"	0"
18'	15"	4"	3/2"
20'	15"	4"	3/2"



WINGWALL BAR LIST					
ONE WINGWALL SHOWN; TWO REQUIRED					
MARK	SIZE	QTY.	FORM	LENGTH	REMARKS
WD1	#9	32	BNT	8'-4"	
WH1	#4	2	STR	58'-2"	
② WH2	#4	32	STR	29'-5 1/2" AVG.	3'-6" TO 55'-5"
WH3	#5	2	STR	59'-9"	
WL1	#10	16	BNT	21'-1"	
WL2	#8	28	BNT	17'-6"	
WL3	#5	24	BNT	11'-8"	
WL4	#5	14	BNT	5'-3"	
WL5	#5	11	BNT	4'-11" AVG.	3'-6" TO 6'-4"
WT1	#4	47	STR	3'-6"	
WT2	#4	2	STR	17'-0"	
WT3	#4	47	STR	10'-2 1/2" AVG.	3'-7" TO 16'-10"
WT4	#4	11	STR	2'-11" AVG.	1'-6" TO 4'-4"
WV1	#8	2	STR	17'-0"	
WV2	#8	14	STR	15'-11" AVG.	15'-0" TO 16'-10"
WV3	#6	28	STR	12'-10 1/2" AVG.	10'-11" TO 14'-10"
WV4	#5	26	STR	7'-2" AVG.	3'-7" TO 10'-9"
U1	#4	1	BNT	3'-9"	

APRON VARIABLES						
SPAN	DIM. R	DIM. Q	QTY. J	QTY. K	QTY. N	
16'	52'-2"	55'-3"	0	51	56	
18'	58'-6"	58'-3"	0	51	62	
20'	64'-6"	61'-3"	4	47	68	



APRON AND HEADWALL BAR LIST											
ONE APRON AND ONE HEADWALL SHOWN											
MARK	SIZE	FORM	16' SPAN			18' SPAN			20' SPAN		
			QTY.	LENGTH	REMARKS	QTY.	LENGTH	REMARKS	QTY.	LENGTH	REMARKS
AC	#4	BNT	4	3'-8"		4	3'-8"		4	3'-8"	
AD1	#4	STR	4	60'-0"		4	60'-0"		4	60'-0"	
AL1	#4	STR	112	53'-4"		124	53'-4"		136	53'-4"	
① AL2	#4	STR	112	25'-10 1/2" AVG.	2'-6" TO 49'-3"	112	25'-10 1/2" AVG.	2'-6" TO 49'-3"	112	25'-10 1/2" AVG.	2'-6" TO 49'-3"
AT1	#4	STR	4	112'-8" ③		4	118'-8" ③		4	127'-2" ④	
AT2	#4	STR	51	83'-3 1/2" AVG.	54'-5" TO 112'-2" ③	51	89'-3 1/2" AVG.	60'-5" TO 118'-2" ③	4	124'-11" AVG.	123'-2" TO 126'-8" ④
AT3	#5	STR	51	83'-3 1/2" AVG.	54'-5" TO 112'-2" ③	51	89'-3 1/2" AVG.	60'-5" TO 118'-2" ③	4	124'-11" AVG.	123'-2" TO 126'-8" ④
③ AT4	#4	STR	0			0			47	93'-0" AVG.	66'-5" TO 119'-7"
③ AT5	#5	STR	0			0			47	93'-0" AVG.	66'-5" TO 119'-7"
CH	#4	STR	4	51'-10"		4	58'-2"		4	66'-8" ③	
CL1	#4	BNT	56	4'-4"		62	4'-4"		68	4'-4"	
CL2	#4	BNT	56	4'-3"		62	4'-3"		68	4'-3"	

QUANTITIES				
ITEM	UNIT	16' SPAN	18' SPAN	20' SPAN
CLASS AA CONCRETE	CY	258.30	273.30	288.80
REINFORCING STEEL	LB	27790.00	28810.00	29860.00

NOTE: QUANTITIES ABOVE ARE FOR ONE END SECTION, WHICH IS COMPRISED OF ONE HEADWALL, ONE APRON, AND TWO WINGWALLS.

- ① 4-SETS OF 28-AL2 BARS REQUIRED
- ② 2-SETS OF 16-WH2 BARS REQUIRED
- ③ INCLUDES 2'-6" LAP
- ④ INCLUDES TWO 2'-6" LAPS

APPROVED BY BRIDGE ENGINEER *Debra J. Nuss* DATE 4/09/09

OKLAHOMA DEPT. OF TRANSPORTATION
BRIDGE STANDARD (ENGLISH)
RCB CULVERTS - END SECTION DETAILS
TRIPLE CELL - 15'-0" HEIGHT - 0°
SHEET NO. 1 OF 2

1999 SPECIFICATIONS RCB-E3-H15-0-1 OOE
B-648E