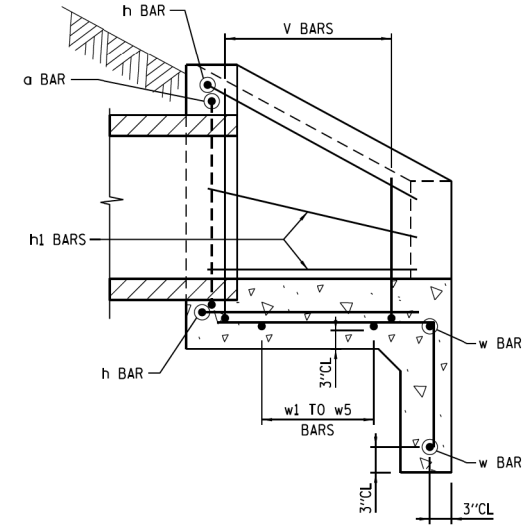
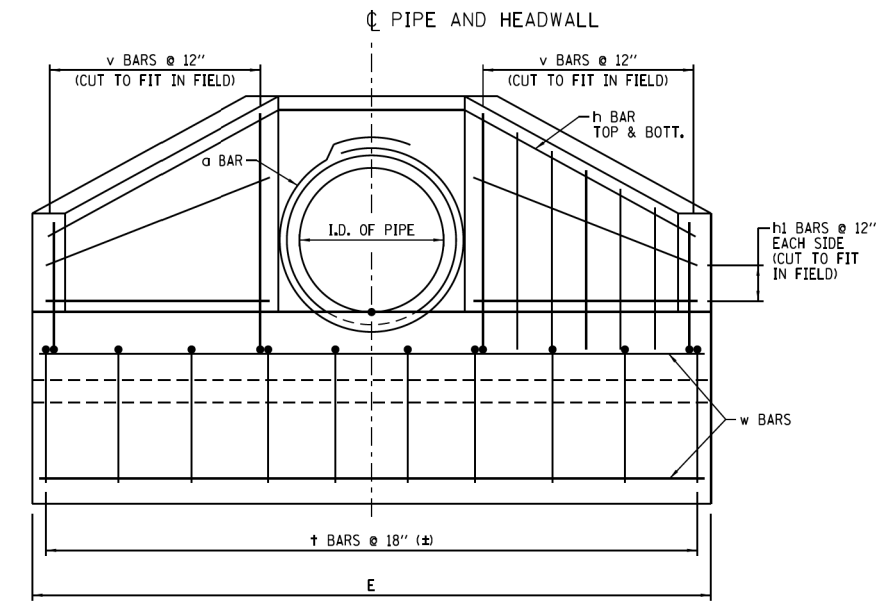


SECTION A-A
(DIMENSIONS)

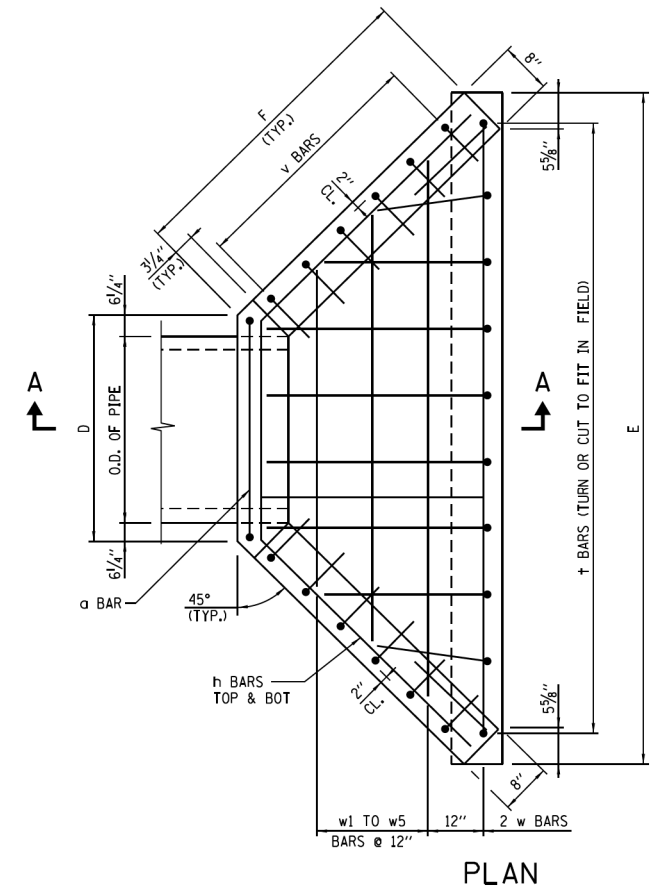


SECTION A-A
(REINFORCEMENT)

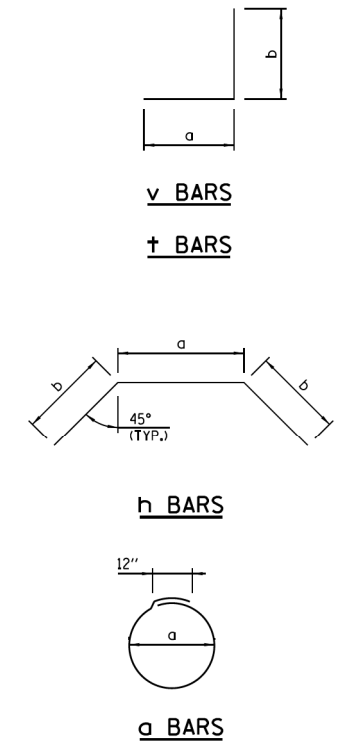


FRONT ELEVATION

NOTE:
1. FOR ADDITIONAL NOTES SEE SHEET 1 OF 2 IN THIS SERIES.



PLAN



HEADWALL - TYPE II
(PIPE DIAMETER ≥ 36")

TABLE OF BARS FOR ONE HEADWALL

BAR	MARK	SIZE	NO.	42" PIPE		48" PIPE		54" I.D. PIPE		60" I.D. PIPE							
				LENGTH	a	b	NO.	LENGTH	a	b	NO.	LENGTH	a	b			
a	#5	2	15'-11"	4'-9"	-	2	17'-9"	5'-4"	-	2	19'-7"	5'-11"	-	2	21'-5"	6'-6"	-
h	#5	2	17'-7"	5'-3"	6'-2"	2	19'-9"	5'-9"	7'-0"	2	22'-0"	6'-4"	7'-10"	2	24'-1"	6'-9"	8'-8"
h1	#5	8	6'-6"	-	-	10	7'-4"	-	-	10	8'-2"	-	-	12	9'-0"	-	-
†	#5	10	6'-1"	1'-6"	4'-7"	11	6'-8"	1'-6"	5'-2"	13	7'-3"	1'-6"	5'-9"	15	7'-10"	1'-6"	6'-4"
v	#5	14	5'-10"	1'-0"	4'-10"	16	6'-6"	1'-0"	5'-6"	16	7'-1"	1'-0"	6'-1"	18	7'-8"	1'-0"	6'-8"
w	#5	2	14'-3"	-	-	2	15'-10"	-	-	2	17'-8"	-	-	2	18'-10"	-	-
w1	#5	1	12'-0"	-	-	1	13'-8"	-	-	1	15'-2"	-	-	1	16'-10"	-	-
w2	#5	1	10'-0"	-	-	1	11'-8"	-	-	1	13'-4"	-	-	1	15'-0"	-	-
w3	#5	1	8'-0"	-	-	1	9'-8"	-	-	1	11'-6"	-	-	1	13'-2"	-	-
w4	#5	-	-	-	-	1	8'-0"	-	-	1	9'-8"	-	-	1	11'-4"	-	-
w5	#5	-	-	-	-	-	-	-	-	-	7'-8"	-	-	1	9'-6"	-	-

TABLE OF DIMENSIONS AND QUANTITIES FOR ONE HEADWALL

INSIDE DIA. OF PIPE	SLOPE OF FILL	DIMENSIONS						CL. SP CONC.	REINF. BARS.
		A	B	C	D	E	F		
42"	1:3	4'-5"	2'-2"	4'-4 1/2"	5'-6"	14'-9"	6'-6 1/4"	3.8 C.Y.	400 #
48"	1:3	5'-0"	2'-5"	4'-11"	6'-0"	16'-4 3/4"	7'-4 1/4"	4.1 C.Y.	450 #
54"	1:3	5'-7"	2'-8"	5'-5 1/2"	6'-7"	18'-1 3/4"	8'-2"	5.6 C.Y.	500 #
60"	1:3	6'-2"	2'-11"	6'-0"	7'-0"	19'-2 3/4"	9'-0"	6.5 C.Y.	600 #

SHEET 2 OF 2



HEADWALLS
TYPE I AND II
STANDARD B30-01

BOWMAN, BARRETT & ASSOCIATES INC.
CONSULTING ENGINEERS
Chicago, Illinois
312.228.0100
www.bbandainc.com

Paul Kovacs
APPROVED... CHIEF ENGINEER... DATE 2-7-2012...

FILE NAME = #FILES#	USER NAME = default	DESIGNED -	REVISIONS -
		DRAWN -	REVISIONS -
		CHECKED - RGR	REVISIONS -
		DATE - 6/19/2012	REVISIONS -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLLWAY STANDARD DRAWING

SCALE: SHEET NO. N/A OF N/A SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	49-1-R-1	LAKE	677	632
CONTRACT NO. 60L77				
ILLINOIS FED. AID PROJECT				

S:\1101\95\CADD\60L77_IL_173\60L77_IL_173\60L77-INT-151TH.dwg