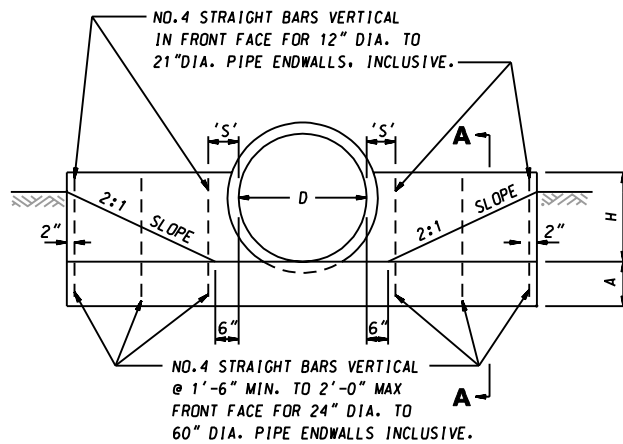
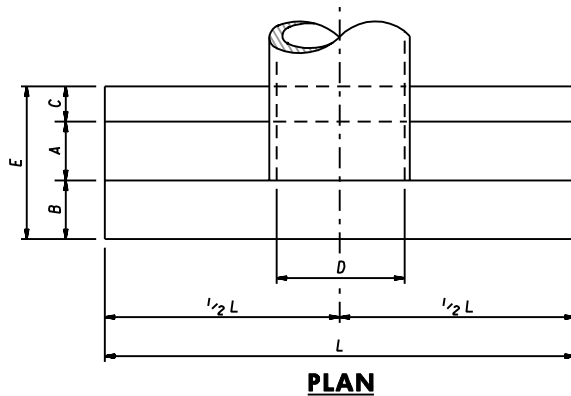
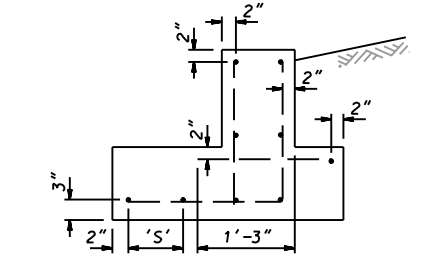




ELEVATION

QUANTITIES FOR ESTIMATING PURPOSES ONLY

OPENING		DIMENSIONS						QUANTITIES	
D	AREA	A	B	C	E	H	L	CONC.	STEEL
INCHES	SQ. FT							C.Y.	LBS.
12	0.79	9"	6"	6"	1'-9"	0'-10"	4'-0"	0.27	24
15	1.23	9"	6"	6"	1'-9"	1'-0 1/2"	4'-9"	0.34	26
18	1.77	9"	6"	6"	1'-9"	1'-3"	5'-6"	0.41	29
21	2.40	9"	6"	6"	1'-9"	1'-5"	6'-3"	0.48	33
24	3.14	9"	14"	6"	2'-5"	1'-6"	7'-0"	0.67	38
27	3.98	9"	14"	6"	2'-5"	1'-8"	7'-9"	0.77	49
30	4.91	9"	14"	6"	2'-5"	1'-9"	8'-6"	0.85	53
33	5.94	9"	14"	6"	2'-5"	1'-11"	9'-3"	0.95	56
36	7.07	12"	16"	10"	3'-2"	2'-0"	10'-0"	1.65	85
42	9.62	12"	16"	10"	3'-2"	2'-3"	11'-6"	1.96	96
48	12.57	12"	16"	10"	3'-2"	2'-6"	13'-0"	2.27	106
54	15.90	12"	20"	12"	3'-8"	2'-9"	14'-6"	2.86	121
60	19.64	12"	20"	12"	3'-8"	3'-0"	16'-0"	3.22	143



NO.4 STRAIGHT BARS HORIZONTAL @ 1'-7" MAX C/C BOTH FACES- BOTTOM BARS TO BE FULL LENGTH ALL ENDWALLS.

NO.4 STRAIGHT BARS HORIZONTAL @ 1'-0" C/C BOTH SIDES OF OPENING FOR 36" TO 60" DIA. PIPE ENDWALLS.

NO. 4 BENT BARS @ 1'-0" C/C- ALL ENDWALLS.

1-NO.4 STRAIGHT BAR HORIZONTAL- ALL ENDWALLS.

2-NO.4 STRAIGHT BARS HORIZONTAL FOR 36" TO 60" DIA. PIPE ENDWALLS.

SECTION A - A

'S' DISTANCE

4" FOR 12" DIA. TO 21" DIA. PIPES INCLUSIVE.
6" FOR 24" DIA. TO 36" DIA. PIPES INCLUSIVE.
8" FOR 42" DIA. TO 60" DIA. PIPES INCLUSIVE.

GENERAL NOTES

SPECIFICATIONS: LATEST S.H.A.
CONCRETE SHALL BE MIX NO.2
REINFORCING: DEFORMED STEEL BARS-NO.4
CHAMFER: ALL EXPOSED EDGES 1"x1" OR AS DIRECTED.

SPECIFICATION 305	CATEGORY CODE ITEMS
APPROVED <i>Kirk G. McCall</i> DIRECTOR - OFFICE OF HIGHWAY DEVELOPMENT	
APPROVAL • SHA REVISIONS	APPROVAL • FEDERAL HIGHWAY ADMINISTRATION
APPROVAL 8-28-86	APPROVAL 12-12-86
REVISED 10-1-01	REVISED
REVISED	REVISED
REVISED	REVISED



Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

STANDARD END SUPPORT WALL
METAL OR CONCRETE ROUND PIPE

STANDARD NO. MD 350.01