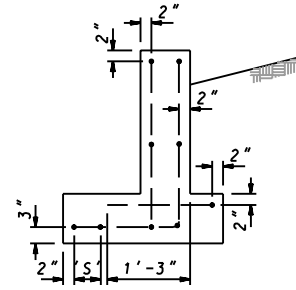
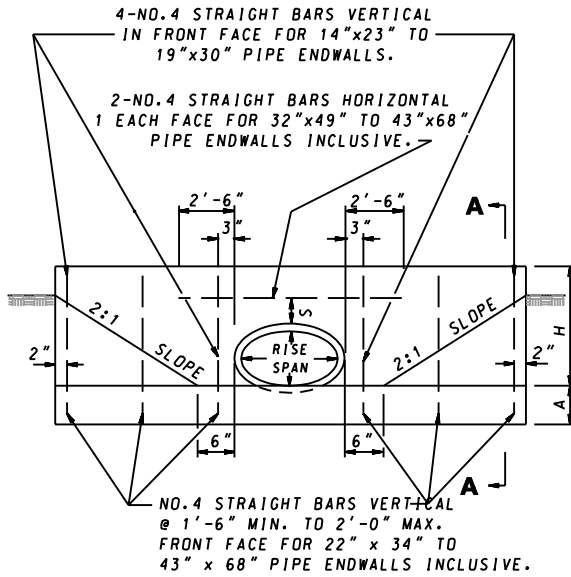


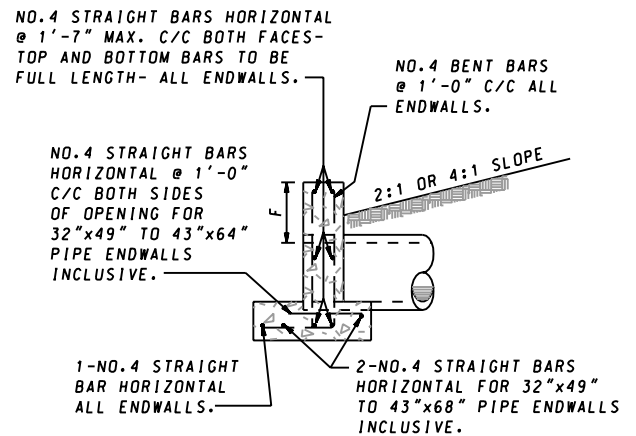
**PLAN**



**DISPOSITION OF BARS DETAIL**



**ELEVATION**



**SECTION A-A**

**QUANTITIES FOR ESTIMATING PURPOSES ONLY**

OPENING		DIMENSIONS							QUANTITIES	
D	AREA	A	B	C	E	F	H	L	CONC. C.Y.	STEEL LBS.
RISE x SPAN INCHES	SO. FT.									
14X23	1.8	9"	8"	6"	1'-11"	12"	2'-2"	8'-7"	0.88	56
19X30	3.3	9"	8"	6"	1'-11"	12"	2'-6"	10'-6"	1.15	63
22X34	4.1	9"	14"	6"	2'-5"	13"	2'-11"	12'-6"	1.74	100
24X38	5.1	9"	14"	6"	2'-5"	13"	3'-1"	13'-6"	1.92	116
27X42	6.3	9"	14"	6"	2'-5"	13"	3'-4"	14'-10"	2.19	124
29X45	7.4	9"	14"	10"	2'-9"	14"	3'-7"	16'-0"	2.61	141
32X49	8.8	12"	16"	10"	3'-2"	14"	3'-10"	17'-0"	4.08	202
34X53	10.2	12"	16"	10"	3'-2"	14"	4'-0"	18'-0"	4.40	210
38X60	12.9	12"	16"	10"	3'-2"	15"	4'-5"	20'-4"	5.23	266
43X68	16.6	12"	20"	12"	3'-8"	15"	4'-10"	22'-8"	6.52	307

**'S' DISTANCES**

6" FOR 14" x 23" TO 27" x 42" INCLUSIVE.  
8" FOR 29" x 45" TO 43" x 68" INCLUSIVE.

**GENERAL NOTES**

SPECIFICATIONS: LATEST S.H.A.  
CONCRETE: SEE S.H.A. SPECIFICATIONS  
REINFORCEMENT: DEFORMED STEEL BARS NO.4  
CHAMFER: ALL EXPOSED EDGES 1"x1" OR AS DIRECTED.

SPECIFICATION **305** CATEGORY CODE ITEMS

APPROVED *Kirk G. McCall*  
DIRECTOR - OFFICE OF HIGHWAY DEVELOPMENT

APPROVAL • SHA REVISIONS	APPROVAL • FEDERAL HIGHWAY ADMINISTRATION
APPROVAL 10-1-01	APPROVAL 9-27-01
REVISED 8-12-02	REVISED
REVISED	REVISED
REVISED	REVISED

**SHA** State Highway Administration

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

**STANDARD TYPE C ENDWALL**  
**HORIZONTAL ELLIPTICAL CONCRETE PIPE**

**STANDARD NO. MD 355.02**