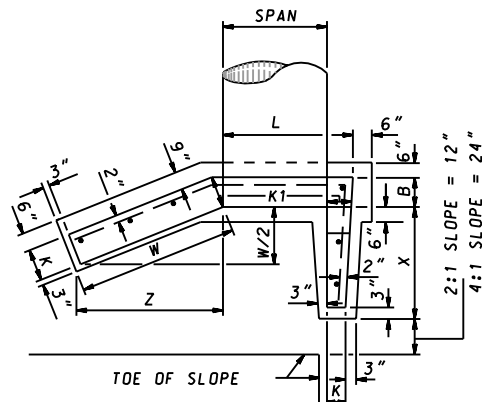


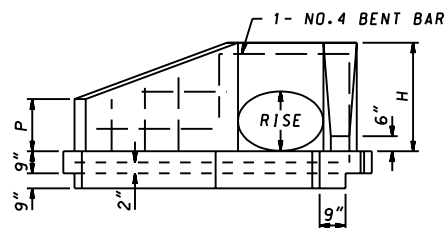
ISOMETRIC VIEW



PLAN

QUANTITIES FOR ESTIMATING PURPOSES ONLY

SLOPE 2:1												
OPENING		DIMENSIONS									QUANTITIES	
SIZE INCHES S x R	AREA SQ. FT.	ENDWALL			WINGS						1-ENDWALL 2-WINGS	
		L	B	H	W	X	Z	K ₁	K	P	CONC. CU. YDS.	STEEL LBS.
17"x13"	1.23	2'-2"	9"	1'-9"	2'-3"	1'-10"	2'-0"	9"	7"	1'-3"	0.60	39
21"x15"	1.77	2'-6"	9"	1'-9"	2'-3"	1'-10"	2'-0"	9"	7"	1'-3"	0.62	40
24"x18"	2.40	2'-9"	9"	2'-0"	2'-7"	2'-5"	2'-3"	9"	8"	1'-5"	0.80	45
28"x20"	3.14	3'-1"	9"	2'-4"	3'-0"	3'-0"	2'-7"	9"	8"	1'-7"	0.98	59
35"x24"	4.91	3'-11"	12"	2'-11"	4'-0"	4'-0"	3'-5"	12"	11"	2'-1"	1.77	85
42"x29"	7.07	4'-6"	12"	2'-11"	4'-0"	4'-0"	3'-5"	12"	11"	2'-1"	1.82	86
49"x33"	9.62	5'-1"	12"	3'-6"	4'-8"	5'-2"	4'-1"	12"	11"	2'-6"	2.35	117
57"x38"	12.57	5'-9"	12"	4'-0"	5'-4"	6'-2"	4'-7"	12"	11"	2'-10"	2.73	185




ELEVATION

SLOPE 4:1												
OPENING		DIMENSIONS									QUANTITIES	
SIZE INCHES S x R	AREA SQ. FT.	ENDWALL			WINGS						1-ENDWALL 2-WINGS	
		L	B	H	W	X	Z	K ₁	K	P	CONC. CU. YDS.	STEEL LBS.
17"x13"	1.23	2'-2"	9"	1'-7"	2'-6"	3'-8"	2'-2"	9"	8"	1'-3"	0.86	46
21"x15"	1.77	2'-6"	9"	1'-11"	3'-0"	5'-0"	2'-7"	9"	8"	1'-5"	1.10	69
24"x18"	2.40	2'-9"	9"	2'-1"	3'-3"	4'-0"	2'-10"	9"	8"	1'-6"	1.22	72
28"x20"	3.14	3'-1"	9"	2'-2"	3'-6"	6'-0"	3'-0"	9"	8"	1'-7"	1.34	76
35"x24"	4.91	3'-11"	12"	2'-8"	4'-6"	8'-0"	3'-11"	12"	11"	2'-2"	2.35	107
42"x29"	7.07	4'-6"	12"	3'-4"	5'-6"	10'-4"	4'-9"	12"	11"	2'-7"	3.20	150
49"x33"	9.62	5'-1"	12"	3'-3"	5'-6"	10'-4"	4'-9"	12"	11"	2'-7"	3.23	151
57"x38"	12.57	5'-9"	12"	3'-9"	6'-6"	12'-4"	5'-8"	12"	11"	3'-0"	3.98	185

GENERAL NOTES

- SPECIFICATIONS: LATEST S.H.A.
- CONCRETE SHALL BE MIX NO.2
- REINFORCING: DEFORMED STEEL BARS
 - VERTICAL NO.6 BARS 12" C/C
 - HORIZONTAL NO.4 BARS 12" C/C HOOKED ON ONE END
- 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
REVISD 10-1-01	REVISD
REVISD	REVISD
REVISD	REVISD

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

**STANDARD TYPE F ENDWALL
 METAL PIPE ARCH**

STANDARD NO. MD 359.01