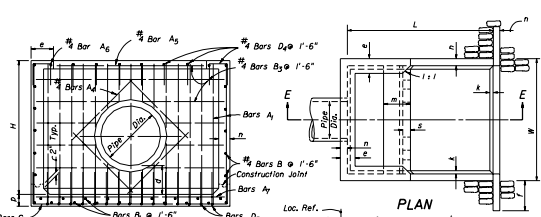
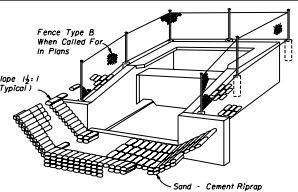


PLAN

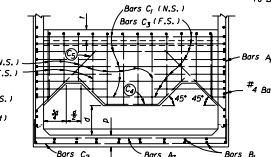


SECTION CC

PLAN

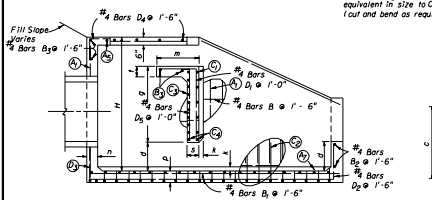


PERSPECTIVE

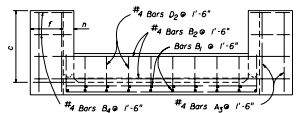


SECTION DD

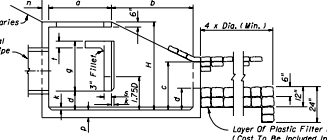
SECTION EE



SECTION BB



VIEW AA



Fill Slope Varies
Max. Physical Slope On Pipe To Be 4:1

Layer Of Plastic Filter Fabric
(Cost To Be Included In Contract Unit Price For Riprap)

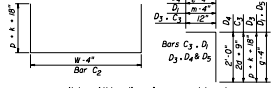
Pipe Size Dia. In.	Area S.F.	G (Max.) (cfs)	Dimensions													Concrete Class I C.Y.	Reinl. Steel Lbs.	Sand Cement Riprap C.Y./Nom.		
			Ft. - In.																	
			W	H	L	a	b	c	d	e	f	g	m	n	p				s	t
30	4.91	59	9-0	6-3	10-8	4-7	6-1	3-4	1-4	1-2	2-6	3-0	1-11	6	6	7	3	6.72	7.36	10.6
36	7.07	85	10-5	7-3	12-4	5-3	7-1	3-10	1-7	1-3	3-0	3-6	2-3	7	7	8	3	10.34	1.072	13.6
42	9.62	115	11-10	8-0	14-0	6-0	8-0	4-5	1-9	1-6	3-0	3-11	2-6	8	8	9	4	14.82	1.429	17.5
48	12.51	151	13-1	9-0	15-8	6-9	8-11	4-11	2-0	1-7	3-0	4-5	2-10	9	9	10	4	20.36	2.000	25.1
54	15.90	191	14-8	9-9	17-4	7-4	10-0	5-5	2-2	1-10	3-0	4-11	3-0	10	10	11	4	27.9	2.659	27.2
60	19.63	236	16-1	10-9	19-0	8-0	11-0	5-11	2-5	1-11	3-0	5-4	3-11	11	11	12	6	34.49	3.552	32.5
66	23.76	295	17-3	11-6	20-6	8-8	12-10	6-5	2-7	2-1	3-0	5-9	3-7	12	12	13	6	42.82	4.472	36.3
72	28.27	359	18-6	12-3	22-0	9-3	12-9	6-11	2-9	2-3	3-0	6-2	3-9	12	12	14	6	50.68	5.426	44.5

GENERAL NOTES

- U-type concrete endwall energy dissipators are intended for use outside the clear zone.
- Chamfer all exposed edges $\frac{1}{4}$ ".
- Concrete meeting the requirements of ASTM C478 (4000 psi) may be used in lieu of Class I Concrete in precast items manufactured in plants which are under the Standard Operating Procedures for the inspection of precast drainage products.
- Reinforcing steel shall have 2" min. cover.
- Endwall to be paid for under the contract unit price for Class I Concrete (Endwalls), CY and Reinforcing Steel (Roadway), LB. Riprap to be paid for under the contract unit price for Riprap (Sand-Cement) (Roadway), CY. Cost of plastic filter fabric to be included in the contract unit price for riprap.
- Fencing, when called for in the plans, to be paid for under the contract unit price for Fencing, Type B, LF. Corner posts and end posts to be paid for under the contract unit price for Corner Post Assembly (Type B Fence), EA, and End Post Assembly (Type B Fence), EA, respectively.

See Index No. 452 for details of Type B Fencing.

Pipe Size	A ₁		A ₂		C ₁		C ₂		C ₃		D ₃	
	Size (No.)	Spacing (Ft.-In.)	Size (No.)	Spacing (Ft.-In.)	Size (No.)	Spacing (Ft.-In.)	Size (No.)	Spacing (Ft.-In.)	Size (No.)	Spacing (Ft.-In.)	Size (No.)	Spacing (Ft.-In.)
30"	4	0-9 1/2	4	1-6	5	0-11	4	0-9 1/2	5	0-5 1/2	4	0-9 1/2
36"	5	1-0	4	1-6	5	0-10	5	1-0	5	0-5	5	1-0
42"	5	0-11	4	1-6	6	1-1	5	0-11	6	0-6 1/2	5	0-11
48"	5	0-9 1/2	4	1-0	6	1-0	5	0-9 1/2	6	0-6	5	0-9 1/2
54"	5	0-8 1/2	4	1-0	7	1-1	5	0-8 1/2	7	0-6 1/2	5	0-8 1/2
60"	6	0-10	5	1-1	7	1-0	6	0-10	7	0-6	6	0-10
66"	6	0-8 1/2	5	0-11 1/2	7	0-11	6	0-8 1/2	7	0-5 1/2	6	0-8 1/2
72"	6	0-7 1/2	5	0-10	7	0-10	6	0-7 1/2	7	0-5	6	0-7 1/2



Note: All bar dimensions are out to out.

BENDING DIAGRAM

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
ROAD DESIGN

U-TYPE CONCRETE ENDWALL ENERGY DISSIPATOR
30" TO 72" PIPE

Name	Date	Approved By
Designed By	AMB 02/84	[Signature]
Drawn By	AMB 02/84	
Checked By	AC 02/84	
Scale	1 of 1	