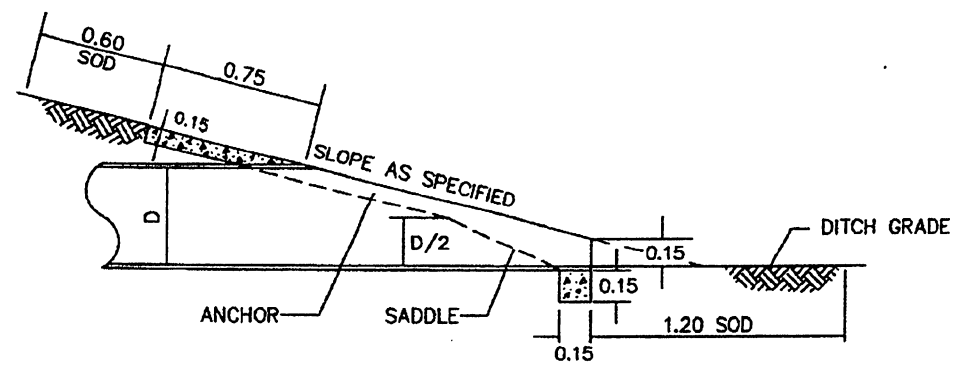
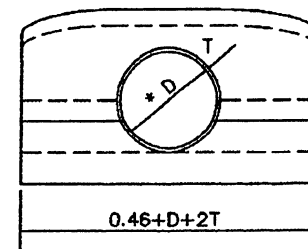


TOP VIEW
NOT TO SCALE



SECTION A-A
NOT TO SCALE



* DIMENSION D VARIES FROM 18" MIN. TO 36" MAX.

ELEVATION
NOT TO SCALE

NOTES

- 1- WHEN USING CORRUGATED METAL PIPES, THE FOLLOWING NOTES SHALL BE FOLLOWED:
 - A- THE MATERIAL USED IN THE FABRICATION OF SLOPED END SECTIONS SHALL CONFORM TO THE APPLICABLE REQUIREMENTS OF:
 - AASHTO M-218 (GALVANIZED STEEL)
 - AASHTO M-274 (ALUMINUM COATED (TYPE 2))
 - AASHTO M-289 (ALUMINUM-ZINC ALLOY COATED)
 - AASHTO M-246 (POLYMER COATED STEEL)
 - AASHTO M-197 (ALUMINUM)
 - ASTM A625 (FIBER BONDED)
 - B- SLOPED END SECTIONS SHALL BE FABRICATED FROM FULL CIRCULAR PIPE, MAY BE FORMED INTO PIPE ARCHES WHEN SPECIFIED, AND SHALL MEET ALL REQUIREMENTS FOR CORRUGATIONS, GAUGE AND OTHER APPLICABLE FABRICATION REQUIREMENTS.
 - C- SEAMS IN THE BEVELED PORTION OF THE END SECTIONS SHOULD BE TACK WELDED TO PROVIDE PROPER HANDLING AND INSTALLATION STRENGTH.
 - D- ALL CUT EDGES SHALL BE CLEANED, DEBURRED AND COATED WITH APPROVED COMPOUND AS RECOMMENDED BY THE SHEET MANUFACTURER.
 - E- SLOPED END SECTIONS SHALL BE SECURELY ANCHORED TO A CONCRETE SLOPE PAVEMENT AND TO A TOE CUT-OFF FOUNDATION TO PREVENT SLOPE SCOURING AND HYDRAULIC UPLIFT.
- 2- PORTLAND CEMENT CONCRETE SHALL BE CLASS A.
- 3- IN SUCH CASES WHEN THE PIPE IS NOT PERPENDICULAR TO THE CONCRETE SLOPE PAVEMENT, THE CONTRACTOR SHALL MODIFY THE DIMENSIONS AS REQUIRED AND SUCH ADJUSTMENTS MUST BE APPROVED BY THE ENGINEER.
- 4- IF PAID AS HEADWALL TYPE D, EXCAVATION, BACKFILL, CONCRETE, REINFORCEMENT AND SOD SHALL BE A SUBSIDIARY OBLIGATION. IF PAID AS CLASS A CONCRETE OR PORTLAND CEMENT CONCRETE FOR DRAINAGE STRUCTURES, EXCAVATION, BACKFILL, REINFORCEMENT AND SOD SHALL BE A SUBSIDIARY OBLIGATION.

EFFECTIVE DATE: DECEMBER 1998

COMMONWEALTH OF PUERTO RICO
DEPARTMENT OF TRANSPORTATION
AND PUBLIC WORKS
HIGHWAY AND TRANSPORTATION AUTHORITY

**DRAINAGE
HEADWALL TYPE D**

RECOMMENDED BY:
[Signature]
DESIGN AREA DIRECTOR
DATE: 12-1-98

APPROVED BY:
[Signature]
EXECUTIVE DIRECTOR
DATE: 8-21-98

APPROVED BY:
[Signature]
DIV. ADM. FHWA-PR DIVISION
DATE: 12-7-98

DATE	REVISION	BY	STD.	DR
12-1998	PAGE RENUMBERED	LV.	DWG.	23 OF 40