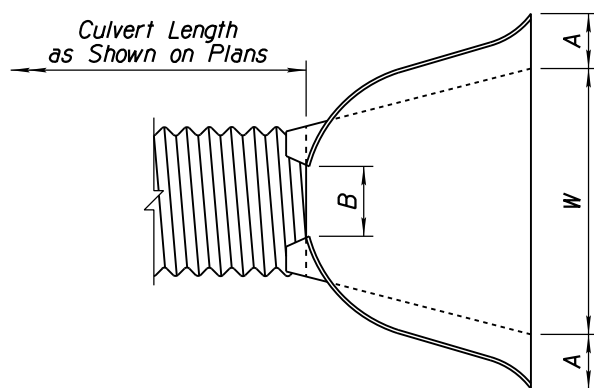
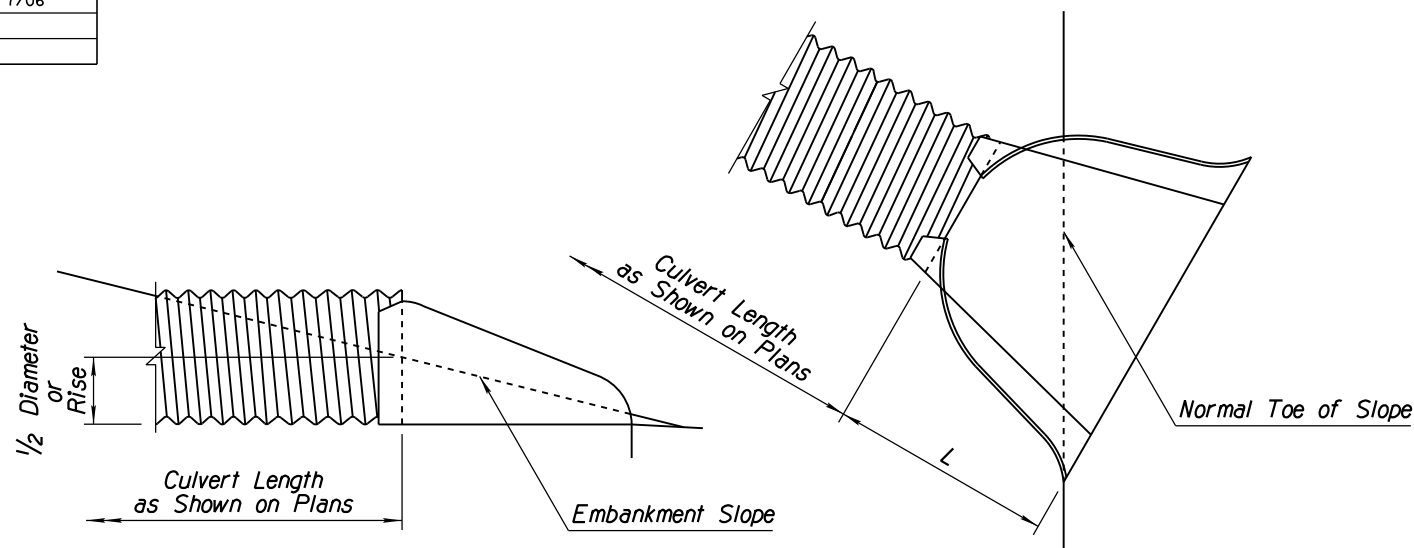


NO.	DESCRIPTION OF REVISIONS	MADE BY	DATE
1	MODIFIED DATA TABLE	BAF	6/98
2	REMOVED 'TYPE 5' REFERENCE	RLF	7/06
3			
4			



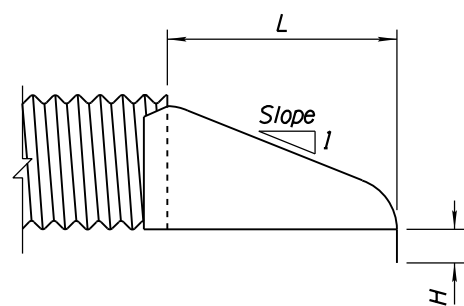
RIGHT ANGLE CULVERT



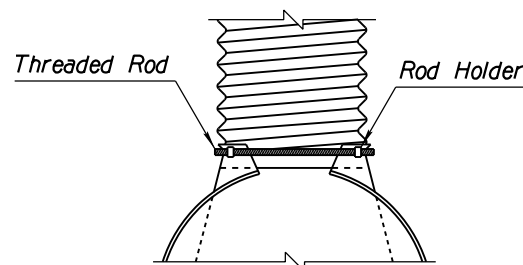
SKewed CULVERT

GENERAL NOTES

1. The end section may be joined to the pipe or connector section by bolts, rivets, dimpled bands, slip-seam bands or threaded rod type fasteners. For allowable connector types, see table.
2. The Type 1 connector is bolted or riveted. Maximum circumferential fastener spacing shall be 12" and with a minimum of 8 fasteners per joint. The Type 1 joint may be used with either annular or helical corrugations.
3. Type 2 and 3 connectors shall only be used with annular or helical pipe with a requisite number of annular corrugations.
- ② 4. Type 4 connector shall only be used with helical pipe.
5. All steel end section components shall be galvanized.
6. Toe of embankment shall be warped to match toe of skewed end section.
7. A berm shall be added to abnormal projections per Std Dwg C-13.10.
8. The foregoing applies to all cross-section configurations.

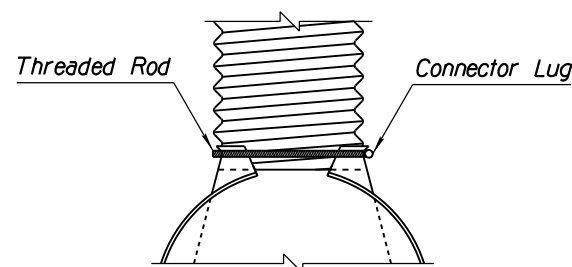


TYPE 2
THREADED ROD CONNECTIONS

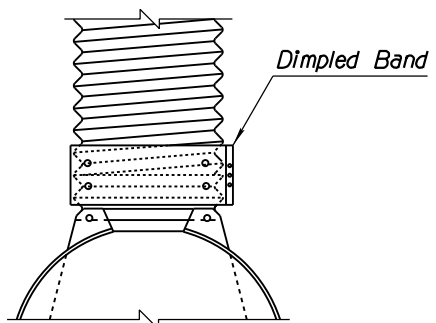


SPACING FOR MULTIPLE
INSTALLATION

Circular Pipe		Dimensions (In)					Approximate Slope	Connection Type
Diameter (In)	Gauge	A ±1	B Maximum	H ±1	L ±1 1/2	W ±2		
18	16	8	8	6	31	36	2 1/2	2, 3, 4
24	16	10	13	6	41	48	2 1/2	2, 3, 4
30	14	12 1/4	12 1/2	8	51	57	2 1/2	2, 4
36	14	14 1/2	12	9	60	72	2 1/2	2, 4
42	12	17	11	10 1/2	69	84	2 1/2	3



TYPE 3
THREADED ROD CONNECTIONS



TYPE 4
DIMPLED BAND CONNECTIONS

Pipe Arch			Dimensions (In)					Approximate Slope	Connection Type
Span (In)	Rise (In)	Gauge	A ±1	B Max	H ±1	L ±1 1/2	W ±2		
21	15	16	7 1/2	11	6	24	36	2 1/2	2, 3, 4
28	20	16	8	16	6	32	48	2 1/2	2, 3, 4
35	24	14	10	16	6	39	60	2 1/2	2, 4
42	29	14	12	12	7 1/2	46	75	2 1/2	2, 4
49	33	12	13 1/2	20	9	53	84	2 1/2	3

APPROVED FOR DESIGN 	STATE OF ARIZONA DEPARTMENT OF TRANSPORTATION ROADWAY STANDARD DRAWINGS	REV. 5/12
APPROVED FOR DISTRIBUTION 	PIPE CORRUGATED METAL END SECTION	DRAWING NO. C-13.25