

SPAN/ RISE	GAGE	DIMENSIONS (In Inches)					APPROX. SLOPE
		A (±1")	B (Max.)	H (±1")	L (±1½")	W (±2")	
17" x 13"	16	6½	8½-9	6	20	30	2½
21" x 15"	16	7½	11	6	24	36	2½
24" x 18"	16	8	12	6	28	42	2½
28" x 20"	16	8	16	6	32	48	2½
35" x 24"	14	10	16	7	39	60	2½
42" x 29"	14	12	18	7½-8	46	75	2½
49" x 33"	12	13½	21	9	53	84	2½
57" x 38"	12	18½	26	12	62	90	2½
64" x 43"	12	18	30	12	69	102	2¼-2
71" x 47"	12/10	18½	36	12	77	114	2¼-1½
77" x 52"	12/10	18	36	12	77	126	2-1½
83" x 57"	12/10	18	44	12	77	135±3	2-1½

NOTES:

- All 3 piece bodies to have 12-gage sides and 10-gage center panels. Multiple panel bodies to have lap seams which are to be tightly joined by galvanized rivets or bolts.
- For the 77" x 52" and 83" x 57" sizes, reinforced edge to be supplemented by galvanized angles. The angles to be attached by galvanized nuts and bolts.
- Angle reinforcement will be placed under the center panel seams on the 77" x 52" and 83" x 57" sizes.
- Galvanized toe plate to be available as an accessory when specified on the order and will be the same gage as the end section.

GENERAL NOTES:

Metal pipe aprons and hardware shall be constructed of galvanized steel in conformance with the requirements of current Standard and Supplemental Specifications and as detailed hereon. Refer to other appropriate Standard Road Plans as well as project plans for additional details of individual culvert installations. Alternate design details may be submitted to the Engineer for approval.



Apron may be attached to culvert pipe as follows:

- If culvert is of circumferential corrugation type:
  - Use an approved bolt or clamp to fasten apron directly to culvert.
- If culvert is of helical corrugation type:
  - Use an approved sizing ring securely fastened to inside diameter of apron to connect to the culvert pipe using a special dimple band connector.
  - "Dimple" bands are not allowed when a positive joint is specified.

See Materials I.M. 441 for Approved Coupling Devices and specific requirements.

Any damage to spelter coat resulting from installation of culvert shall be repaired as directed by the Engineer.

Price bid for "Metal Arch Aprons" shall be considered full compensation for fabrication and installation of metal arch aprons as indicated hereon.

 <b>Iowa Department of Transportation</b> Project Development Division	
<b>STANDARD ROAD PLAN</b>	<b>RF-43</b>
REVISION: Delete M and Q dimensions.  06-07-00 APPROVED BY DESIGN METHODS ENGINEER	REVISION NO. 2 REVISION DATE 10-03-00
METAL ARCH APRONS ( FOR CORRUGATED METAL PIPE )	