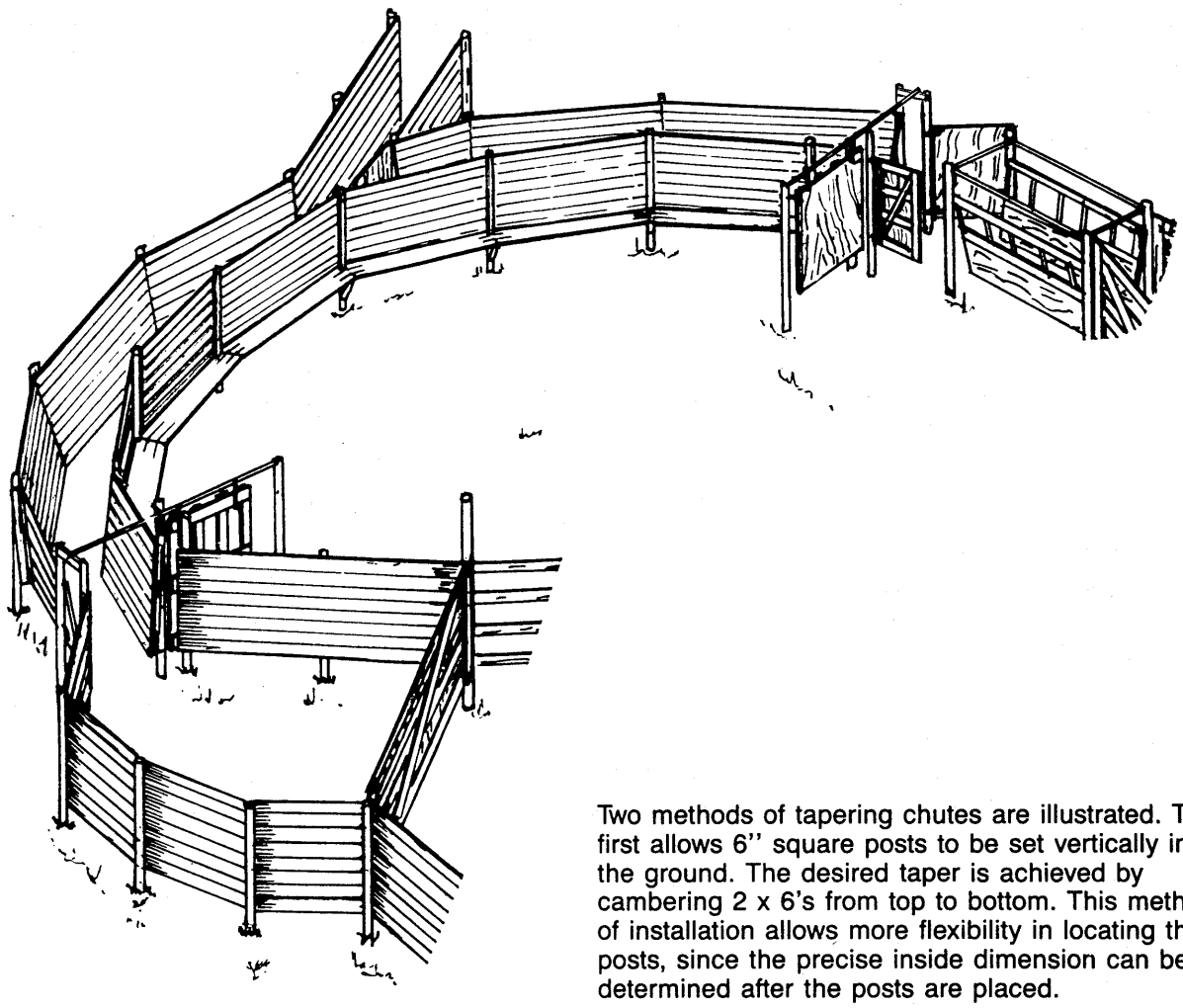
Saskatchewan
Agriculture
and Food

Agricultural
Engineering
Branch

Plan S - 184

Working Chute Cross Sections

COMPLETE INSTRUCTIONS



This plan shows three methods of constructing beef cattle working chutes. These single file chutes are designed with solid sides to prevent balking and with catwalks for operator convenience.

A straight wall chute 28'' wide will accommodate most commercial cattle breeds. When handling calves, filler panels will be required to prevent the smaller animals from turning around.

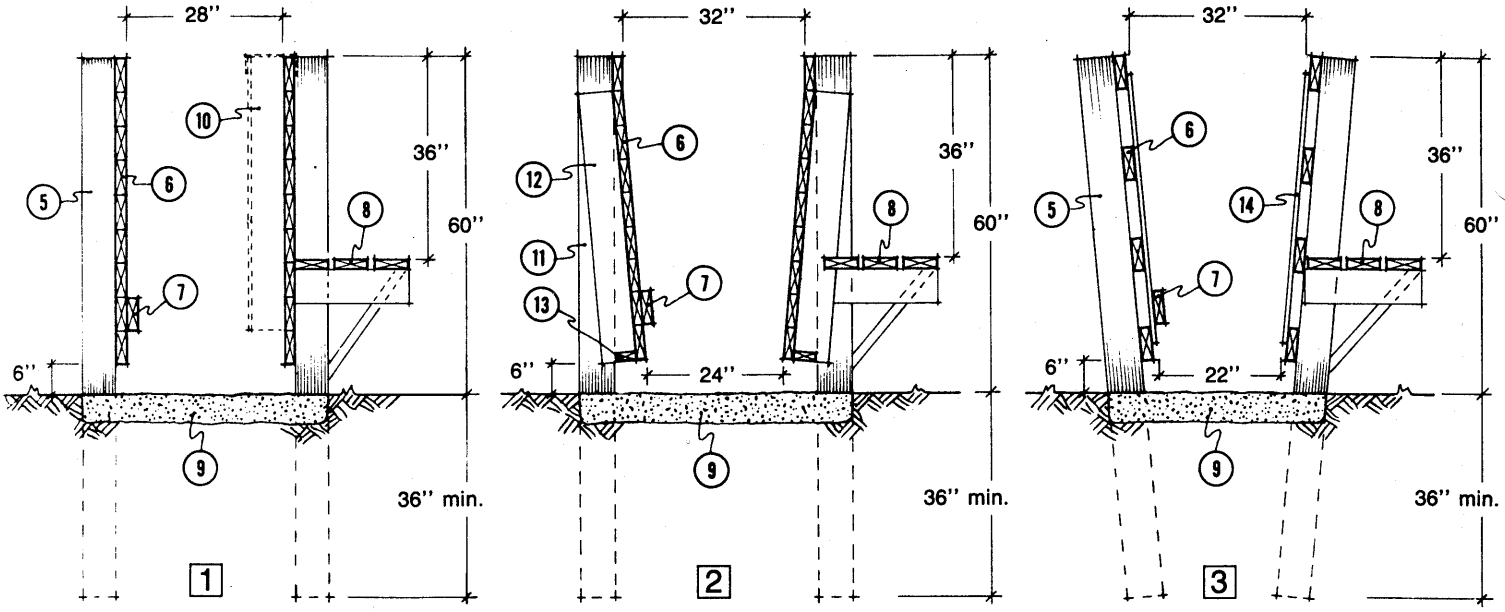
An effective method of accommodating varying animal sizes is to taper the working chute. This allows a wide top dimension for larger animals and a reduced bottom dimension for calves.

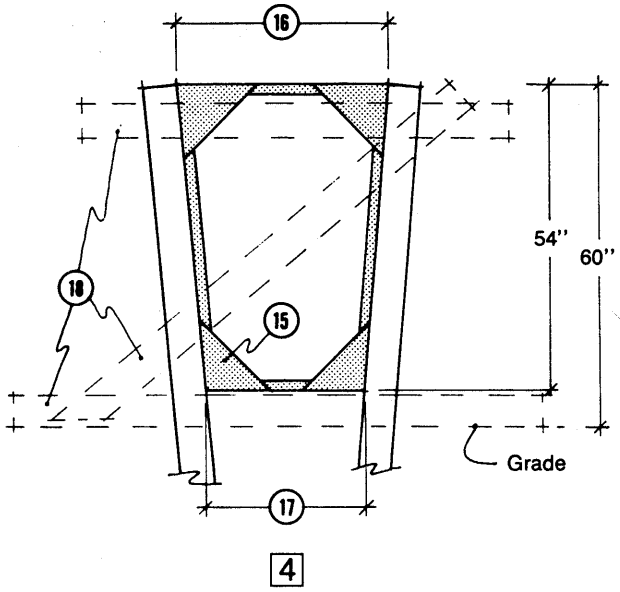
Two methods of tapering chutes are illustrated. The first allows 6'' square posts to be set vertically in the ground. The desired taper is achieved by cambering 2 x 6's from top to bottom. This method of installation allows more flexibility in locating the posts, since the precise inside dimension can be determined after the posts are placed.

The second method of tapering a chute is to place the posts at an angle. Because post location is more critical with this method, a jig should be used to position the posts uniformly. Installation is more convenient when a backhoe is used to excavate a trench for each pair of posts on the radius of the circle. The trench provides more flexibility in locating the posts than two post holes.

For commercial cattle, the recommended top width for tapered chutes is 32'' measured 5 ft. above grade. The bottom width is measured 6'' above grade and will vary with installation method. Widths as little as 12'' have been used, however 18'' to 24'' is more typical. Bulls or large cattle breeds will require an additional 2'' to 4'' of width.

To obtain another copy of this leaflet, contact your local Extension Service agricultural engineer or extension agrologist.





*** Important: Adjust widths for bulls, exotic, purebred or unusually large animals.**

1. Straight Wall Chute Section
2. Tapered Wall Chute Section w/Vertical Posts
3. Tapered Wall Chute Section w/Slanted Posts
4. Jig used for setting posts in [3]
5. 6" round or square posts
6. 2 x 6 rough lumber rails
7. emergency step (optional); continuous 2 x 6 approx. 18" above grade
8. catwalk; 3 - 2 x 6 flat, on 2 x 6 each side of post, 2 x 6 brace to post
9. optional 4" thick rough surfaced concrete pad to outside of posts
10. optional filler for handling small cattle; 2 x 6 @ 24" o.c. and 48" high plywood, suspend from top chute rail
11. 6" square posts
12. 2 x 6 x 48" long, spiked to each side of post
13. 2 x 4 blocking between (12)
14. min. 5/8" pressure treated plywood on rails
15. jig
16. 32" + 2 x (thickness of finishing materials)
17. dimension (16) minus 10"
18. scabs nailed onto posts to hold them in place until tamped solid, nail bottom scab on @ 60" to establish grade line

Note:

- for bulls, exotic, purebred or unusually large cattle, add 2" to all chute widths
- jig (15) can be laid on the ground, then posts scabbed and moved to location

March 1989