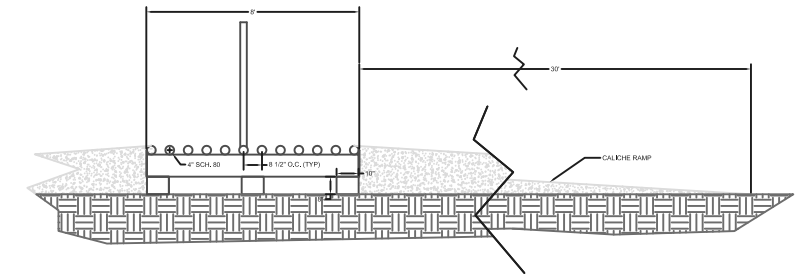


CATTLE GUARD SECTION A-A  
SCALE: N.T.S.



CATTLE GUARD SECTION B-B  
SCALE: N.T.S.

UNIVERSITY LANDS  
CATTLE GUARD SPECIFICATIONS 8' x 30'  
9-13-11

Cattle Guards shall be constructed and installed according to the following specifications and photos.

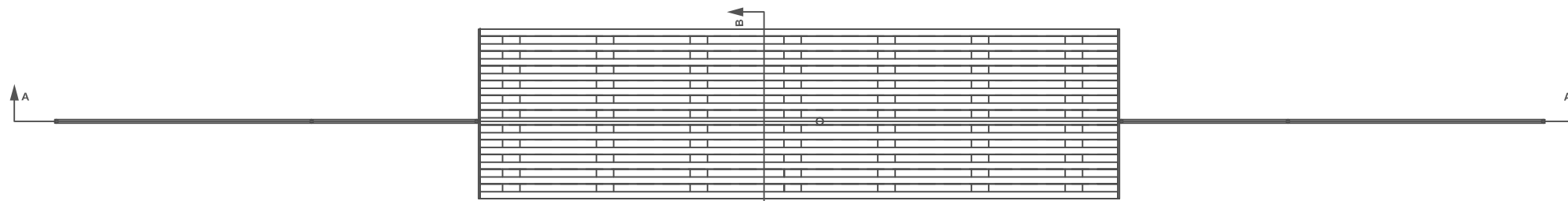
**Dimensions:**

1. H-Braces coming into the cattle guard shall be placed 30 feet apart running directly into the center of the cattle guard.
2. No gates or gaps need to be installed on either side of the cattle guard.
3. Overall width of the cattle guard shall be 30 feet.
4. Depth of the cattle guard shall be 8 feet.
5. Height of the cattle guard from ground level shall be a minimum of 22 inches.

**Materials, Construction, and Installation:**

All pipe used shall be schedule 80 steel pipe and all joints welded.

1. 3 wood ties/timbers 8" x 10" x 30' (height x width x length) or the equivalent, to be used as seals or blocks, shall be placed directly on top of level ground, running perpendicular to the road. The wood ties shall be equally spaced with a 33 inch gap between each tie (43 inch centers).
2. 7- 10 inch O.D. schedule 80 steel pipe shall be placed on top of the wood ties, running parallel to the road. These 10" pipe should be 8 feet long and spaced evenly across the wood ties with a 44 inch gap between each pipe (54 inch centers). The 10 inch pipes on the outside shall be centered 18 inches from the end of the wood seals and the 4 inch rails above.
3. 12 - 4 inch O.D. schedule 80 steel pipe shall be placed on top of the 10 inch support pipes running perpendicular to the 10 inch pipe and road. These pipe shall be 30 feet in length and be welded to the 10 inch support pipes below. The 4 inch pipes shall have about a 4 1/2 inch gap between each pipe (8 1/2 inch centers). 2 inch pieces of sucker rod shall be cut and welded to the 10 inch and 4 inch pipe on both sides of the 4 inch pipe where it sits for support.
4. 1/2 inch sheet metal shall be welded to both ends of the 10 inch support pipes to keep caliche from filling into the middle of the cattle guard. These pieces of sheet metal should be 30 feet long x 1 foot in height so as to seal from the top of the wood ties up to the top of the first 4 inch pipe rail.
5. Pipe wings will not have to be constructed or installed on the cattle guard.
6. 2- four foot high gates, one 16 feet long and the other 14 feet long, made of 2 inch square tubing for the frame and 4 inch sheep and goat paneling shall be hung across the cattle guard. Some form of a locking device shall be constructed so as to insert locks and keep both gates shut and locked at all times.
7. A 2 7/8 inch pipe shall be buried in the center of the cattle guard, 16 feet from one end of the cattle guard. This 2 7/8 inch pipe shall be buried 48 inches deep and be sticking up 20 inches above ground. A 2 3/8 inch pipe, 130 inches long shall be slide down into the 2 7/8 inch pipe. This pipe will be used to latch the 16 and 14 foot gates.
8. Caliche ramps shall be built running up to both sides of the cattle guard. The ramps should start a minimum of 30 feet from the cattle guard and gradually slope to the top of the cattle guard, flush with the top of the 4 inch rails.



CATTLE GUARD DETAIL  
SCALE: N.T.S.

SEPT 2011

# UNIVERSITY LANDS - 8' x 30' CATTLE GUARD DETAILS & SPECIFICATIONS