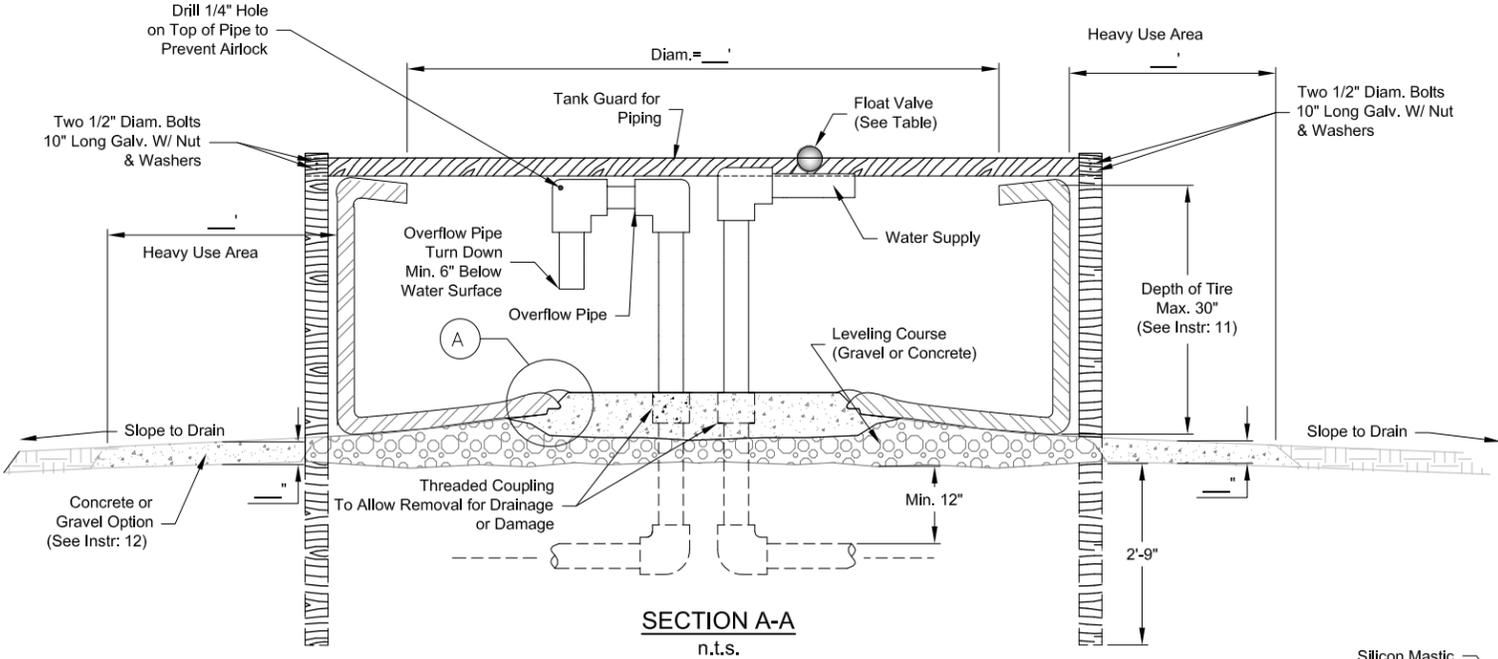


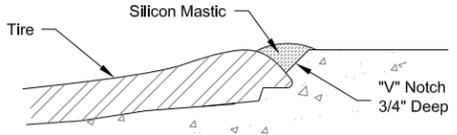
TYPICAL PLAN VIEW
n.t.s

TROUGH SCHEDULE												
Field Location	Trough Number	Tire Diameter (in.)	Trough Capacity (gal.)	Trough Base Material, Type	Trough Base Thickness (in.)	Pipe Press. Rating (p.s.i.)	Inflow Pipe Diameter (in.)	Overflow Pipe Diameter (in.)	Float Valve (in.)	Float Valve (gpm)	Float Valve (psi)	Drain Pipe Diameter (in.)

NOTES:
1. There is a minimum of 3 days water supply between all troughs on site.



SECTION A-A
n.t.s.



DETAIL A

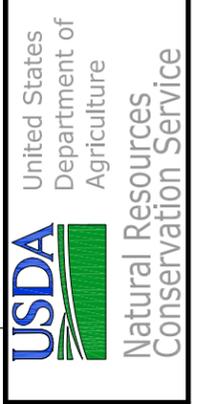
STEP BY STEP INSTALLATION INSTRUCTIONS

1. Install inflow and outflow pipelines.
2. After inflow and outflow pipelines are placed and backfilled thoroughly compact trench area underneath the planned tank and pad at the area marked in the field.
3. Cut away part of sidewall at the top of the trough. Inspect tire, there shall be no exposed metal after cutting tire. Do not cut the bottom tire bead. To protect grazing animals from digesting rubber, tire cutting shall NOT occur in field with grazing animals.
4. The tire shall be thoroughly scrubbed and pressure washed on the inside prior to use. Tire casing shall be free of cuts, rips, and holes. The tire shall not be worn beyond the tread depth.
5. It is the responsibility of the landowner/operator to determine that the tire is free of chemicals that are injurious to livestock. The landowner/operator is hereby cautioned that ingestion of rubber by horses and goats could jeopardize the health of the animal.
6. Use gravel to fill under and around pipes and to level tire.
7. Use synthetic fiber reinforcement at a rate of 1.5 lbs per cubic yard of concrete.
8. Pour a minimum 5" thickness of concrete around water supply and overflow pipes and work under edge of tire. Form a "V" notch in the concrete (see detail A) after the top surface is smooth.
9. Fill "V" notch with silicon mastic.
10. Provide an escape device for small birds and animals that may become entrapped. A ramp constructed of a piece of expanded metal extending from the water surface to the top sidewall. See Sheet 3 of 3.
11. Maximum height of trough (tire width) is 30 inches for cattle or 12 inches for sheep and goats. Larger tire widths may be used if the tank is buried below grade to achieve proper trough height.
12. Provide heavy use area either (A) Concrete or (B) Gravel
 (A) Concrete: Thickness _____", Width _____", 3000 PSI.
 (B) Gravel: Thickness _____", Width _____", 3000 PSI.
13. Lumber shall be Chromated Copper Arsenate (CCA) treated with 0.4 LBS/Cu.Ft. as a minimum retention of preservation and comply to ASTM D-1760 specification.

Revisions		
Date	Approved	Title

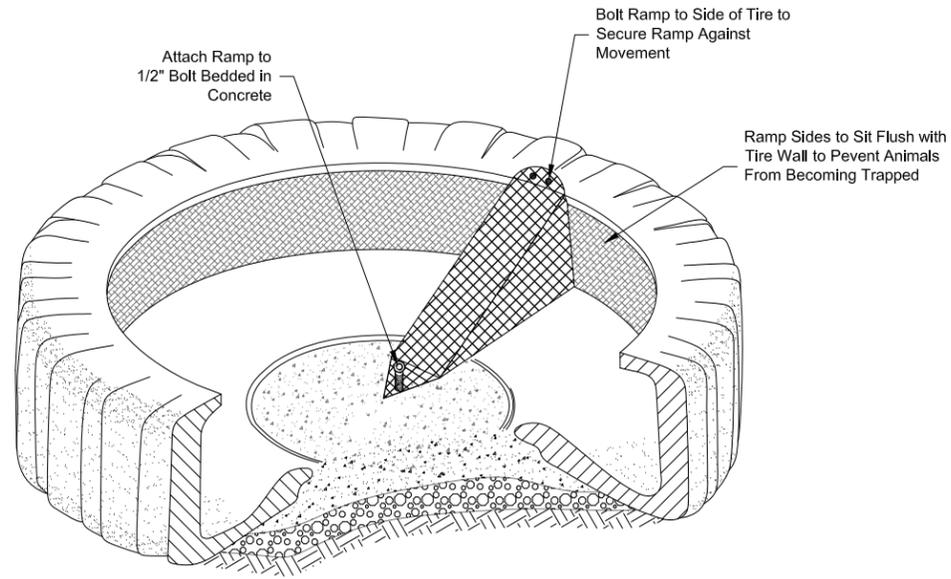
Date _____
Designed _____
Drawn _____
Checked _____
Approved _____

Rubber Tire Trough Livestock Watering Facility



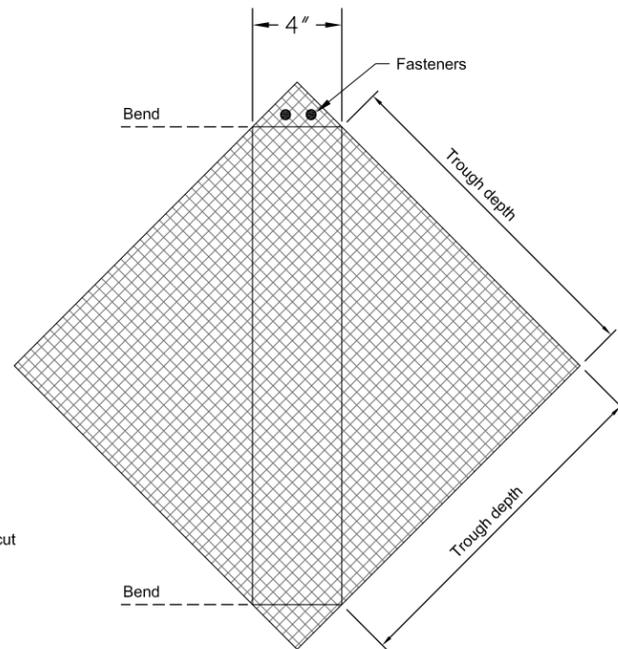
File No. FL-614C.dwg

Drawing No.



EXPANDED METAL GRATING RAMP
n.t.s.

Expanded metal grating (with 1/2 inch mesh) is an effective wildlife escape structure. Use cutting diagram, as shown on this sheet, with the length (A) matching the depth of the trough. The top corner bends over the rim of the trough and is attached with screws or bolts.

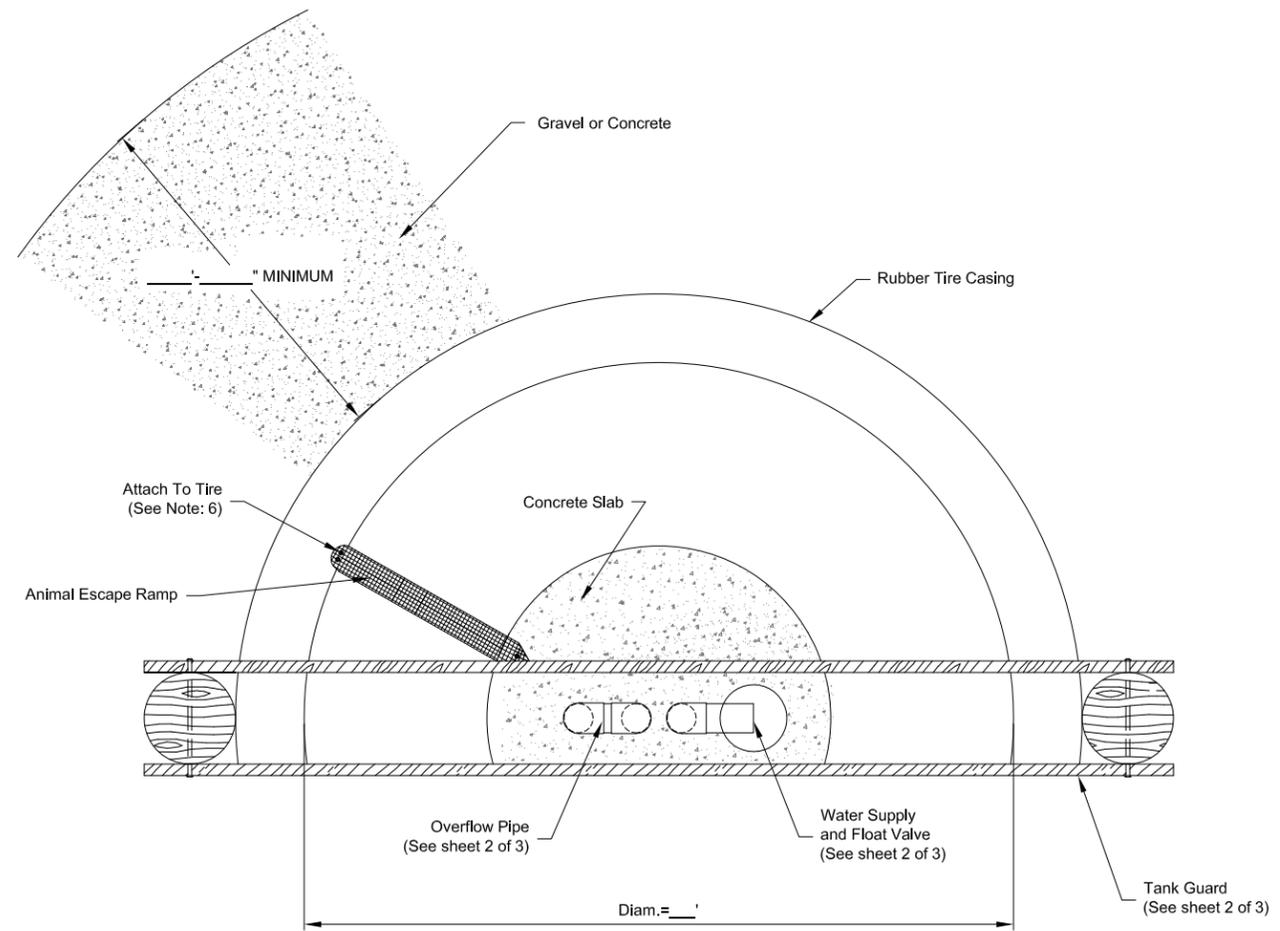


CUTTING AND BENDING DIAGRAM
n.t.s.

NOTE: Ramp will need to be custom cut to fit flush with inside tire wall.

Notes:

1. Escape structure shall extend down into the water and be in contact with inside wall of the trough so animals swimming along the perimeter will find the structure, rather than becoming trapped behind or beneath it or missing it entirely.
2. Escape structure shall extend to the bottom of the trough, so as to be effective even if the water level drops sharply.
3. Escape structures shall be sloped no steeper than 45 degrees, to allow animals to climb out without slipping back into the water.
4. Escape structure shall be built of grippable, long lasting materials, such as painted or coated metal grating.
5. Expandable metal escape structures shall be 13 or 11-gauge with 1/2 inch mesh and shall be finished with a rust-inhibiting paint or coating.
6. Escape structures shall be firmly attached to the trough rim. Recommend attaching ramp with metal-tapping screw and washer, or a bracket with a bolt and wing nut for easy removal during trough maintenance. Secured attachment shall keep ramp from being knocked loose by livestock, animals or freezing water.



Date	
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Drawn	
Checked	
Approved	

Rubber Tire Trough Livestock Watering Facility
Wildlife Escape Ramp Optional Detail



File No.
FL-614C.dwg

Drawing No.

Revisions		
Date	Approved	Title

Sheet 3 of 3

Rubber Tire Trough Livestock Watering Facility Wildlife Escape Ramp Optional Detail	
Standard DWG. No.	FL-614C3
Date	02/2015
Sheet	3 of 3