


Mound Design Notes - Aitkin county

Property Owner: Robert Wander Date: 10/20/22
Site Address: 39545 State Hwy 18 Aitkin MN 56431 PID: 36-0-046200
Comments: Mound design may not follow Aitkin co. Auto fill form for mound design.

- 1 This is a type III mound, (On Fill and Disturbed soils, Soil Separation 30") sized for a 2 bedroom system.
- 2 Existing well location is off the SW corner of house. (Tank and mound will be Plus 70 ft)
- 3 Existing tanks to be pumped, collapsed, and removed. Existing drainfield to be removed (approx. 18" to 24" deep)
Excavate existing drainfield to bottom of rockbed, Absorption and rockbed area fill with Washed Sand, to Elv.= 99'
Excavated area outside of absorption area fill with clean sand, fill to existing grade. (Existing approx. bed 10' x 25')
- 4 The house is gravity flow from North side of house, install clean-out where connection to existing pipe is made.
- 5 Lot is Flat, install 1650 Jacobson compartment tank for gravity flow from house. (Side inlet, Water proof if possible).
Install tank low enough for drainback from mound to pump tank.
Install effluent filter in septic tank outlet. Install alarm on Effluent filter. Insulate tank tops.
- 6 The berm Downslope and West berms are at 4:1. The Upslope and East end Berms are at 3:1
The upslope berm toe is at 100 ft from CL of hwy 18' as survey marked. Downslope berm toe is 20 ft from garage.
- 7 Elevation contour of rock bed upslope edge is 99'. East berm will be approx. 5 ft. from property line.
The area size of the rock bed is 10' x 25'. Absorption area is 25' x 30'.
Sand absorption area is 5 ft. up slope + 10 ft. rockbed + 9 downslope = approx. 24 ft. wide sand base.
Berms are 9ft. Upslope, 14ft. Down slope, 10ft. Rock bed = approx. 32ft. Wide.
Overall mound size is approx. 32' wide x 51' long and approx. 3' high. End berms are 21ft. Wide.
West end berm is 13 ft wide, East end berm is 10 ft wide.
- 8 The bench mark is the nail on the Telephone Ped Post NE of mound area, BM = Elv. 100'.
The top of the deep well cap is Elv. = 100.4'
Installer to double check bench mark. Installer should confirm bench mark and sand height Elv. with inspector.
- 9 Installer should record bench mark Elv. and sand height on installation inspection form.
The top of the sand and bottom of rock bed is Elv. 100'.
- 9 It is important that the soils do not get compacted, and that clean Washed sand is used.
- 10 The Jacobson 1650 tank will be gravity flow from dwelling. Install the pump for 7 demand doses per day. approx. 49 gallons per dose, 3.9 inches of tank level. Install alarm at 3 inches from pump on level.
Install all manholes, inspection pipes and clean-outs to grade or above. (Recommend min. 4" above grade)
Install a 2" supply pipe from tank to end manifold in rock bed, install so pipe drains back to tank.
Install 1.5" laterals with 9" of rock under them. (Install Lateral clean-outs at far end of laterals. Recommended)
- 11 **DRIP 1/4" perf holes spaced 3 ft. on center.**
Install 4" inspection pipe to bottom of rock bed, secure in rock bed and raise to above final grade.
- 12 Install Event counter on Effluent pump, calibrate pump and give gallons per event to Owner.
- 13 Designer does not guarantee or warranty any Type III systems.
Designed to Aitkin Co. and MPCA recommendations and requirements.


Designer Signature

Brummer Septic LLC.
Design Company

L-1347
License#

This System will require an Aitkin Co. Operator permit, annual inspection
There will be 2 alarms on this system one on the Effluent filter, one on the pump tank.
Owner and installer are responsible for owner knowing how system is maintained.
Owner should clean Effluent filter at least twice a year and check alarms and pump.