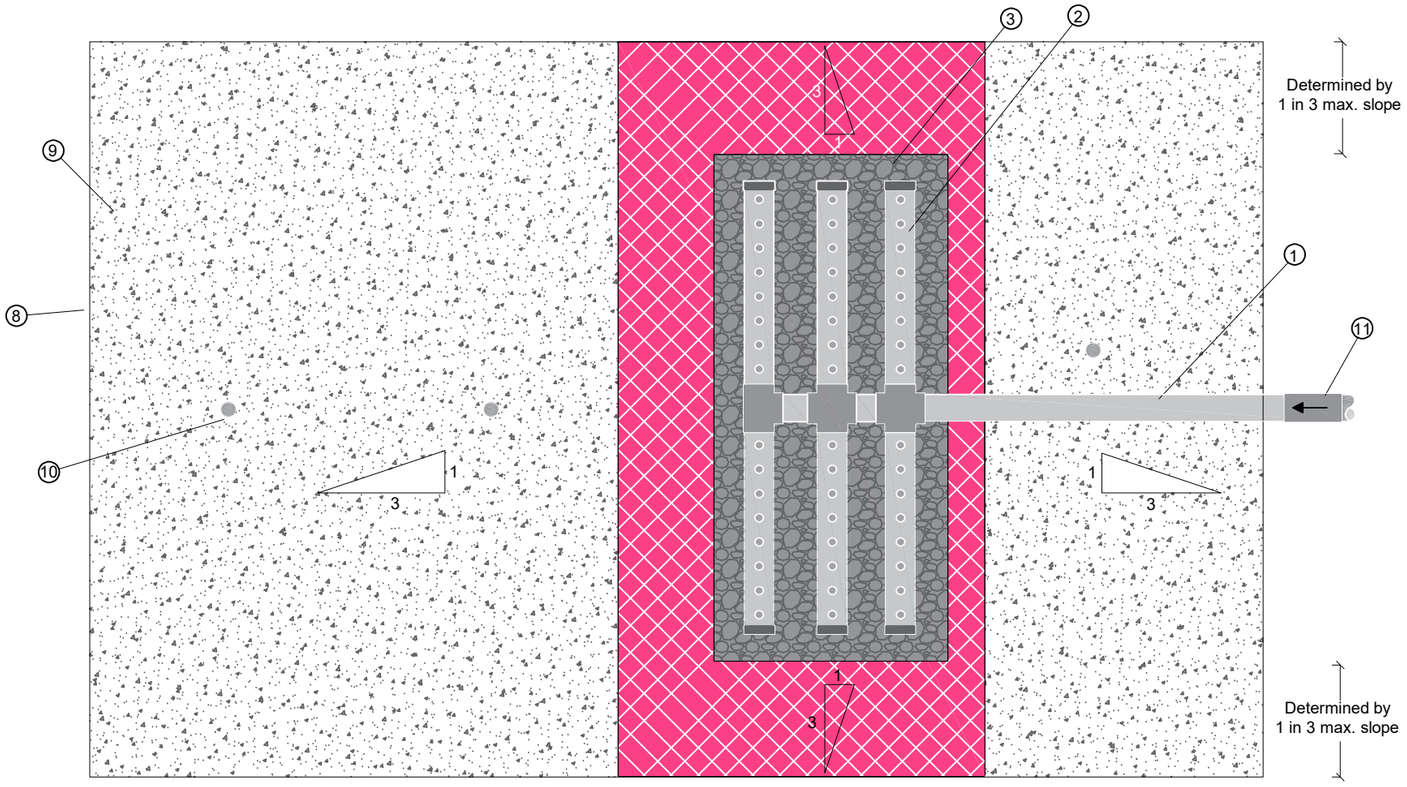
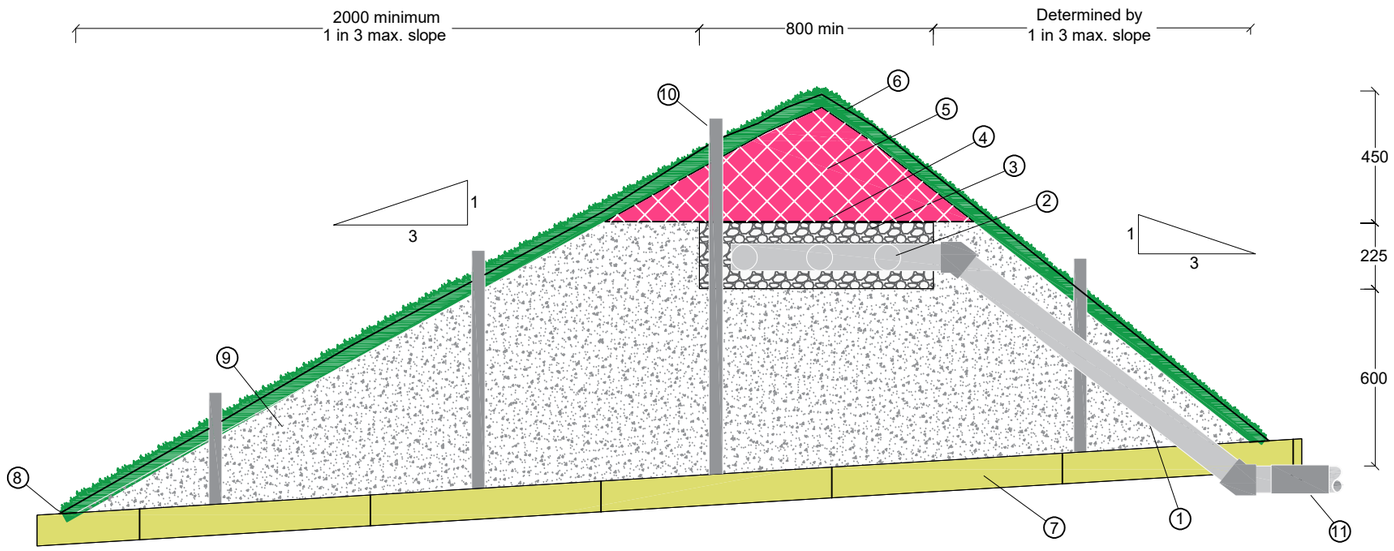
Mound System - PLAN VIEW



SECTION VIEW



Minimum Components and Design Requirements

1. Inlet pipe, typically 100 mm PVC pipe. This may be by gravity feed through dosing siphon if there is sufficient static head from holding tank, or otherwise by pumped application.
2. Distribution manifold, designed and installed to provide even distribution. Typically 100 mm sewer-grade PVC (unpressurised distribution) with 30 mm perforations or 50 mm lines with 6 mm perforation at 400 mm centres (low-pressure dosing). The number and arrangement of dispersal laterals may be varied to suit size and shape of mound system and hydraulic requirements.
3. Coarse aggregate (20 - 40 mm).
4. Geotextile liner or filter cloth.
5. Soil or clay.
6. 50 mm topsoil and turf cover over the entire mound system.
7. The base of the Wisconsin mound must be keyed into the original soil surface 200mm - 300mm and the soil ameliorated and treated with gypsum at the time of the installation.
8. Toe or front edge of mound system.
9. Sand media fill. In some circumstances, existing site soil materials (eg. sands and stones) may be used to build the filtration mound.
10. Inspection ports, typically 50 mm piezometers.
11. Non-return valve.

Notes

a. Wisconsin Mounds must be turfed to prevent erosion and to maximise shedding of rainfall off the bed. A maximum grade of 1 in 3 is required for all mound surfaces
b. For very long mounds, these may be broken into 2 or more individual mound systems (eg. where allotment width is less than required mound width).
c. On steep sites (> 15 % grade), slope modification may be necessary prior to mound installation.
d. Use of in-situ materials for mound filtration media should be confirmed by geotechical investigation.
e. May be used to treat / dispose of both primary and secondary quality effluent.
f. Mound(s) to be installed parallel to site contours.
g. In clay soils surface preparation is required. The base and side walls of the bathed excavation should be ripped and scoured to a depth of 15 - 30mm to reduce sealing,
And the addition of gypsum at 0.5kg/m2 is required on the base and side walls
of the bathed excavation.
h. Plumbing and drainage works should be performed by licensed trades persons in accordance with council requirements.
i. All pipe work and fittings should comply with relevant Australian Standards.
j. All materials should be durable and non-corrosive components with an expected operating life of at least 15 years.
k. Effluent should be evenly distributed throughout the mound to prevent 'short-circuiting' and ensure that optimum operating conditions are maintained over the total available area.
l. The mound systems should be maintained in such a manner as to prevent any run-off of effluent of the mound system to adjoining allotments, public places and natural waterways.
m. Upslope run on diversion mound / trench may be required to prevent stormwater ingress.
Maintenance and Management
a. The owner/occupier should maintain the mound systems. Regular maintenance should include: ensuring there is adequate surface cover (e.g grass) and crop management (i.e. weed control and harvesting of vegetation).
b. Annual inspection(s) of the system to be carried in accordance with council requirements.
c. Owner/operator should maintain records of all maintenance, service inspections and pumpouts performed.

Final

CLIENT / PROJECT: Clarence Valley Council	TITLE: Example Mounded Treatment/Dispersal System		DESIGNED: SM	DATUM: na	SHEET 5	
			DRAWN: RL	HORIZONTAL RATIO: na	OF SHEETS 8	
All measurements in mm unless otherwise specified	PROJECT: OSM Strategy	PROJECT REFERENCE / DRAWING NUMBER: C0005	REVIEWED: SM	VERTICAL RATIO: na	PAPER SIZE: A3	

REV.	DISCRIPTION	DATE	ISSUED
1.0	Mound system unit design.	08/07/2025	RL
2.0	Final mound system unit design.	10/07/2025	SM