



BMP T5.10C Downspout Dispersion Systems

What is the purpose?

Downspout Dispersion Systems are designed to eliminate a point discharge by dispersing the flow inside a trench that can overflow into a grassy area. Pipe outlets are considered point discharges with high flow rates. Dispersion trenches provide a way to dissipate that flow, protecting the ground from erosion and affecting downstream properties.

Where should it be used?

Downspout Dispersion Systems

can only be used if Full Dispersion, Downspout Infiltration System and Rain Garden BMPs are not feasible and the site is 1 acre or larger. These systems cannot be used to directly infiltrate runoff from pollutant-generating surfaces (e.g. driveways).

How do I build it?

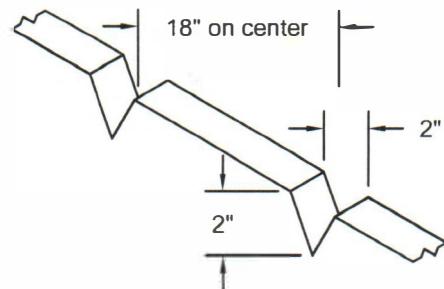
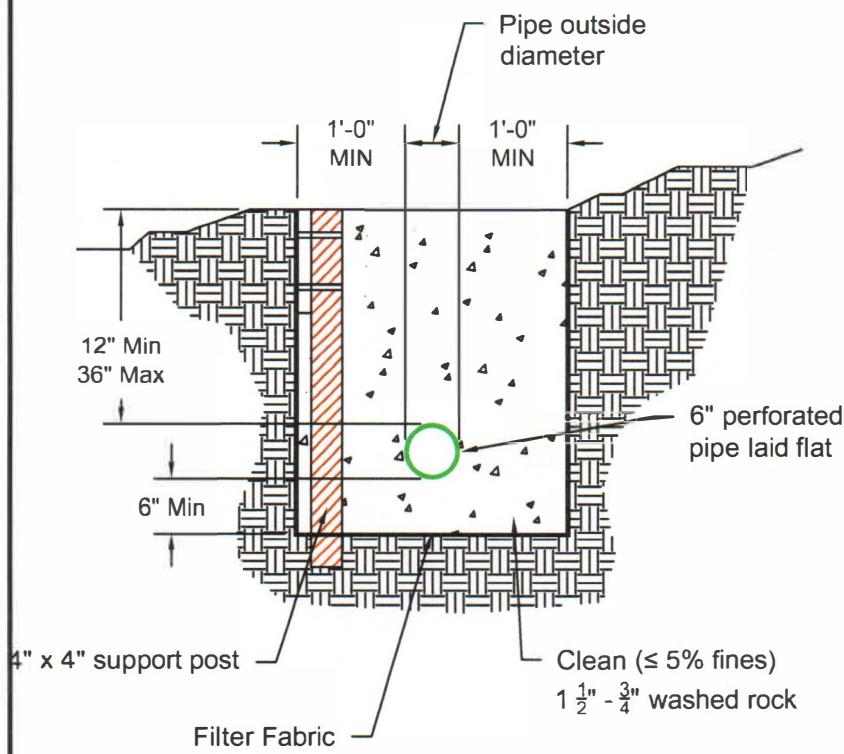
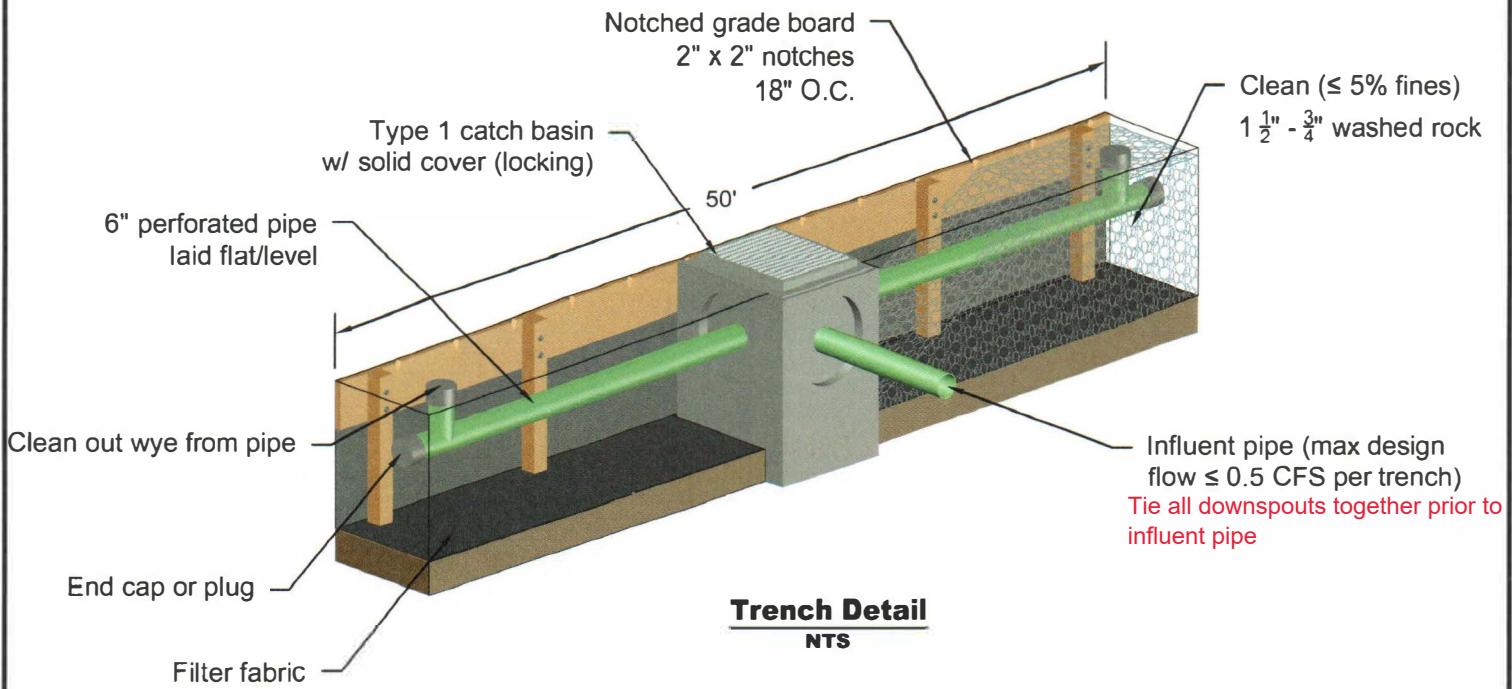
Install the dispersion trench size according to the table below. If you cannot tie all downspouts together prior to the trench, you will need to install separate trenches. The infiltration trench must be a minimum of 10 feet away from the structure, perpendicular to and centered on the pipe from the roof drains. See the drawing on the reverse side of this handout.

How do I maintain it?

Dispersion systems require little to no maintenance as long as debris does not get inside it and clog up the system. Keep yard debris away from the trench location.

Minimum Sizes For Residential Construction

Total Roof Area	Number of Downspouts	Trench length (in feet)	
		Piped (pg 2)	Alternative (pg 3)
1500 sq. ft. or less	4 or more	40	20
2000 sq. ft.	4	45	30
	6 or more		20
2500 sq. ft.	4		40
	6		30
	8 or more		20
3000 sq. ft. or more	4		50
	6		40
	8		30
	10 or more		20



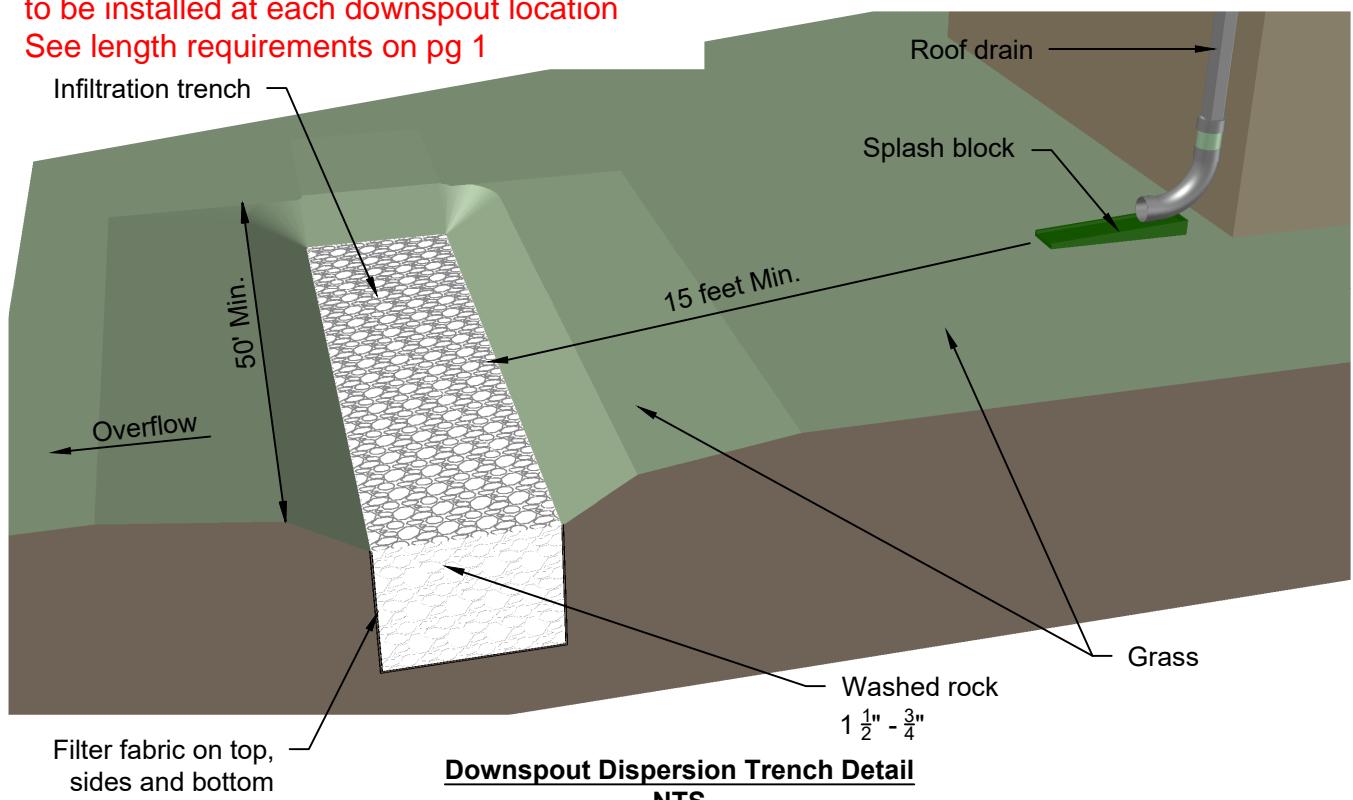
NOTES:

1. This trench shall be constructed so as to prevent point discharge and/or erosion
2. Trenches may be placed no closer than 50 feet to one another. (100 feet along flowline)
3. Trench and grade board must be level. Align to follow contours of site. Install down gradient of structure.
4. Support post spacing as required by soil conditions to ensure grade board remains level

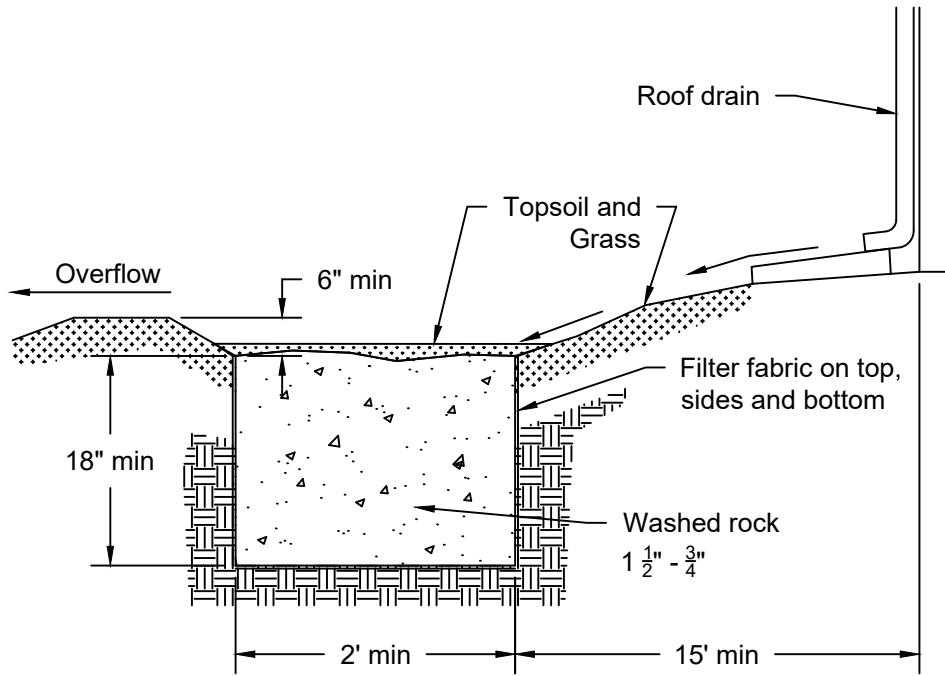


Standard Dispersion Trench and Notched Grade Board

Use of this alternative system requires a trench to be installed at each downspout location
See length requirements on pg 1



Downspout Dispersion Trench Detail
NTS



Infiltration Trench Cross Section
NTS