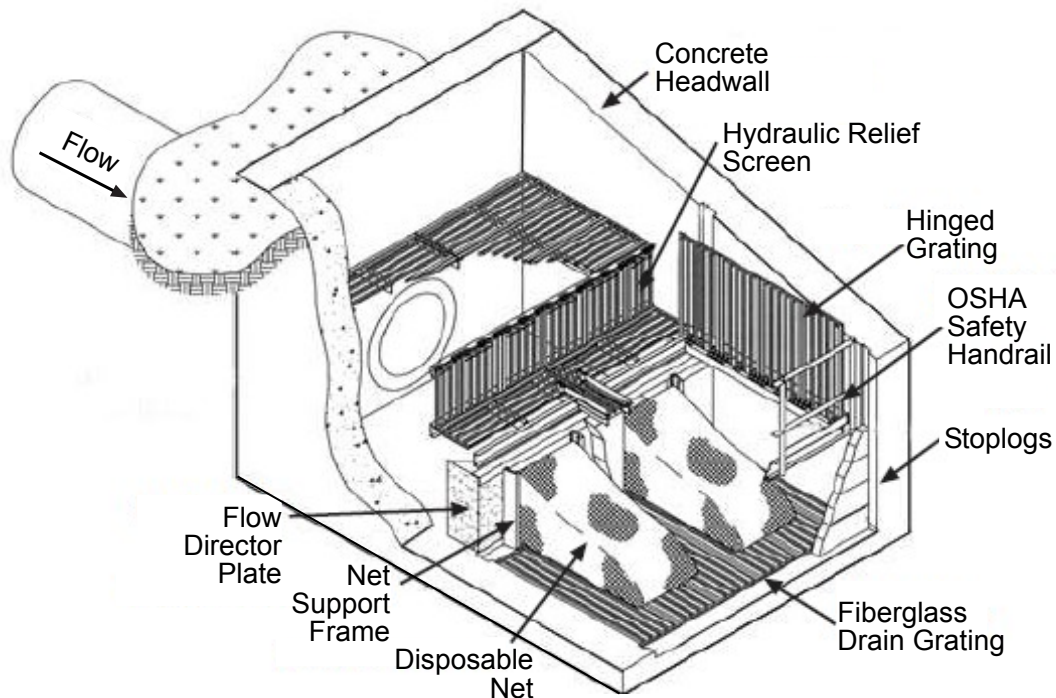


End-Of-Pipe Netting TrashTrap®



The End-Of-Pipe Netting TrashTrap® system is a modular structure installed at the end of the outfall pipe, configured for one or more nets based on site-specific parameters. The End-Of-Pipe system is designed to match existing pipe inverts and outfalls. A hydraulic relief screen, located upstream of the nets, assures 100% screening of the flow under all conditions and provides additional system capacity. The screen is inclined in the direction of flow so that any debris caught on the screen falls into the nets as the water level recedes. The screen will also work as a weighted relief valve, if required, to reduce back pressure. Plastic grating under the nets allows them to drain dry. The disposable nets and support frame are typically housed in a concrete outlet chamber at the end of the pipe, between concrete/metal wing or side walls. Since this system is located at the end of the pipe, there may be a need for a security fence surrounding the entire site.

Sizing Parameters

The three parameters that determine the End-Of-Pipe Netting TrashTrap® capacity are:

- Peak flow volume (Q) which the system must transmit;
- Peak velocity (V) which the system will experience;
- Floatables volume anticipated during maximum wet weather event.

Rational equation is used to compute the peak flow rate: $Q = C \times I \times A$, where Q = design flow rate (cubic feet per second, cfs); C = runoff coefficient (dimensionless)*; I = design rainfall intensity (inches per hour, as determined per rainfall isohyetal map); and A = subdrainage area (acres).

(*Check local hydrology manual for runoff coefficient guidance.)

For most outfalls, the flow (Q) and velocity (V) are the limiting parameters. Once these are determined and the system is sized, there is normally sufficient net capacity to handle several wet weather events before net change-out is required. Rule of thumb ratio for estimating floatables content in wet weather flows is two cubic feet of floatables per million gallons of CSO/stormwater. (Note: One cubic foot of “drip-dry” floatables typically weighs 25 to 30 pounds.)

Specifications

- The systems are designed to handle flow velocities up to five feet per second at the mouth of the nets. If higher velocities are expected, velocity-dissipating devices must be designed into the unit and installed ahead of the nets.
- Data from US EPA-sponsored projects documented trash and floatables capture above 95%.
- Type 316 stainless steel or hot-dipped galvanized steel, welded to ASTM standards, is used for all structural components. All hardware is to the same standard as the material of construction.
- Overflow grating, hydraulic relief grating and access area are also constructed of type 316 stainless steel or hot-dipped galvanized steel.
- Grating is either fiberglass reinforced plastic (FRP) or type 316 stainless steel, with load factors selected for the application.
- Netting TrashTrap® systems are designed and manufactured for a life expectancy in excess of 25 years.
- The disposable mesh nets are a knotless woven synthetic material produced to meet Fresh Creek® proprietary specifications. A variety of net sizes, mesh openings and frame shapes are available to meet specific requirements. Heavier duty materials and a range of apertures are also available for more severe conditions.

Installation

One major benefit of the End-Of-Pipe Netting TrashTrap® system is its ease of installation. The prefabricated, modular nature of the system reduces on-site installation time and cost. End-Of-Pipe units may be retrofitted into an existing concrete or metal structure without requiring modification. Installation requires a crane with the appropriate lifting capacity and normal hand tools. Since the systems do not use power, there is no need to install electric or hydraulic power at the site.

Maintenance

Net change-out records will determine whether sufficient quantities of trash and floatables have been captured to require replacement after a wet weather event. This is determined by periodic visual inspection. There is no confined-space entry required during routine service because the disposable nets are held in LiftMaster™ net frames which are lifted from upstream by reaching into the top of the End-Of-Pipe system. A hoist truck for changing the nets and a container for holding the full nets are used for maintenance. A crew of two can accomplish the net change-out in less than thirty minutes, depending on the number of nets. The full nets are disposed of at a licensed landfill. Road access to the site is required for the service vehicle.

Detailed specifications for other models of Netting TrashTrap® systems are available by contacting Fresh Creek Technologies, Inc. or visiting our website.



1384 Pompton Avenue, Suite 2, Cedar Grove, New Jersey 07009

Phone: 800.741.9486 • 973.237.9099 • Fax: 973.237.0744

fresh@freshcreek.com

www.freshcreek.com