



UNDERGROUND DETENTION SYSTEMS

FEATURES & BENEFITS

- Timewell's Underground Detention Systems are highly efficient and provide a cost-effective way to store storm water.
- Manufactured out of strong, durable, HDPE pipe and fittings.
- Customizable layout designs can be tailored to specific jobsite concerns.
 - Maintains an AASHTO H-25 and HS-25 load rating
 - Available up to 60" in diameter
 - Optional perforations allow stone void volume to be calculated as storage
 - Optional risers allow man-entry and easy cleanout
 - Custom fabricated double and triple manifolds are available
 - Detention tools are available for calculating the amount of pipe needed for desired storage (including perforated systems)



GENERAL INSTALLATION PROCEDURES

Detention Systems shall be installed in accordance with the latest edition of ASTM D2321 and Timewell's installation guidelines.

FOUNDATION: Unsuitable trench bottoms or unyielding material shall be excavated to a depth directed by the engineer and replaced with suitable material. Geotextile may be used to stabilize the trench bottom, if directed by the engineer.

BEDDING: Minimum bedding depth shall be 4". Material shall be Class I or II, as specified by ASTM D2321.

INITIAL BACKFILL: Initial backfill material shall be Class 1 or 2 material as specified by AASHTO D2321 and extend to not less than 6" above the top of the pipe. Compaction and backfill shall be in accordance with ASTM D2321.

FINAL BACKFILL: Suitable materials shall be directed by the engineer for use in non-traffic applications. Areas subjected to traffic require 12" of compaction, and a separation layer of non-woven geotextile may be required. Compaction levels shall be specified at the discretion of the design engineer.

MINIMUM COVER: For H-25 traffic applications a minimum cover of 12" for pipe up to 36" diameter, 24" for sizes 42" through 60" diameter must be used. Minimum cover is measured from the top of the pipe to bottom of flexible pavement or to the top of rigid pavement. Additional cover may be required for construction loads, for vehicles over 75 tons or to prevent flotation. Minimum cover for "green" areas is 12" for all sizes.

ENVIRONMENTAL IMPACT:

Timewell provides underground detention systems that have positive environmental impacts. These systems can serve as an integral part of your project's Best Management Practices.

Our perforated detention systems can allow for percolation into the soil for groundwater recharge, or solid, containing the storm event for a controlled release into a municipal storm sewer. Timewell's underground systems are closed, mitigating and decreasing the health risks and thermal impacts associated with open water storage. Timewell's total approach provides developers a valuable tool to gain land for parking or green areas for aesthetic enhancement.