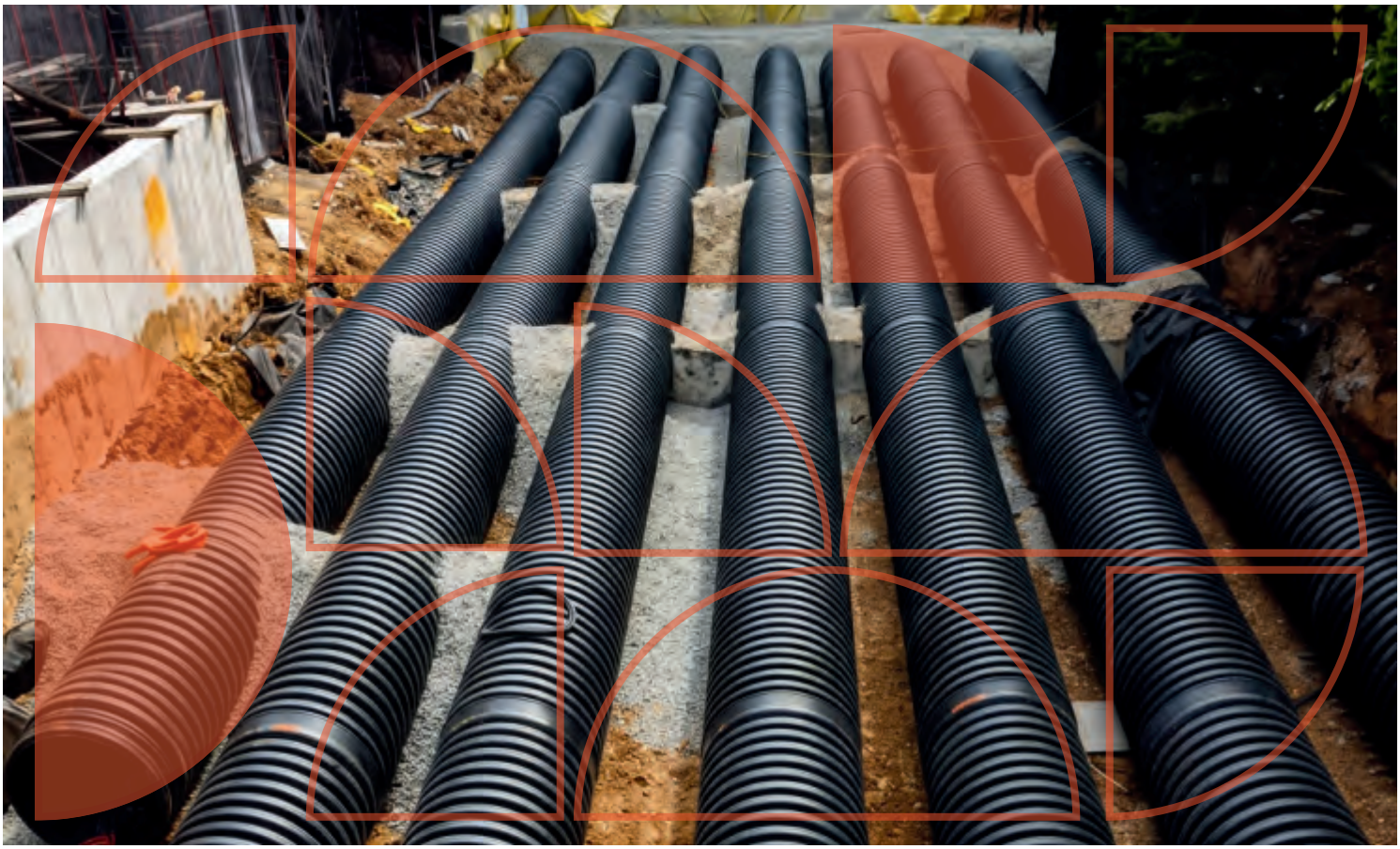
TDR STORMBREAKER®

RETENTION / DETENTION SYSTEMS

TDR PIPE



TDR STORMBREAKER® is a strong and reliable underground retention system specifically designed to prevent hazardous stormwater runo . The engineering of this system allows for rainwater storage and attenuation, catering to various non-potable uses such as irrigation, cleaning, and equipment cooling in industrial applications. This system provides a sustainable solution for intelligent water management and environmental protection.

SCOPE

This specification describes retention and detention systems for stormwater collection. These systems attenuate stormwater runo flow during severe storm conditions. Custom-designed for any terrain and space configuration, TDR STORMBREAKER® is available in solid (non-perforated) configuration for watertight retention systems and perforated configuration for infiltration systems.

PIPE REQUIREMENTS

TDR STORMBREAKER® retention and detention systems utilize TDR ULTRA® HDPE Corrugated Pipe with the following characteristics:

Pipe Construction:

TDR ULTRA® WT (Watertight) pipe features a dual-wall structure:

- Corrugated exterior with reinforced double-arch corrugations for structural strength
- Smooth black interior liner for optimized hydraulic performance
- Dual-layer co-extruded integrated bell-and-spigot for simplified assembly
- Manning's roughness coe cient (n) for hydraulic design: 0.010

STANDARDS

- 4 inches through 10 inches: AASHTO M252, ASTM F2648, and ASTM F667
- 12 inches through 60 inches: AASHTO M294, ASTM F2306, ASTM F2648, and ASTM F667

JOINTS

For Closed Watertight Systems:
TDR ULTRA® pipe shall be joined with a watertight dual-wall integrated bell-and-spigot joint meeting the requirements of:

- AASHTO M252
- AASHTO M294
- ASTM F2306
- ASTM F2648

The joint shall be watertight per ASTM D3212.
Gasket Requirements:

- Pre-installed gaskets shall meet ASTM F477 specifications
- Water-based lubricants (TDR-supplied or equivalent) shall be used during joint assembly
- Refer to TDR Installation Guideline for detailed procedures

For Infiltration Systems:
TDR ULTRA® pipe shall be joined with HDPE split couplers or other TDR-recommended accessories. Only fittings and accessories supplied or recommended by TDR Pipe shall be utilized to ensure system compatibility and performance integrity.

INSTALLATION

Minimum Cover Requirements:
The following minimum cover depths shall be maintained based on pipe diameter and traffic conditions:
Non-Traffic Areas:

- 12 inches through 60 inches diameter: 12 inches (0.30 m) minimum cover

Trafficked Areas:

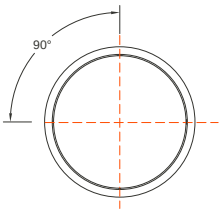
- 12 inches through 36 inches diameter: 12 inches (0.30 m) minimum cover
- 42 inches through 60 inches diameter: 24 inches (0.60 m) minimum cover

Maximum cover height depends on materials used for embedment and haunching. Consult TDR's Technical Service for specific guidance. Contact your TDR representative for the latest Installation Guideline and recommendations.

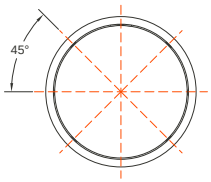
INFILTRATION

For infiltration applications, perforations can be customized based on third-party soil permeability studies and design requirements.
Perforation specifications are available in multiple patterns to accommodate various infiltration rates and soil conditions.
Consult TDR's Technical Department for detailed information on infiltration system design, perforation patterns, and project-specific recommendations.

PATTERN A



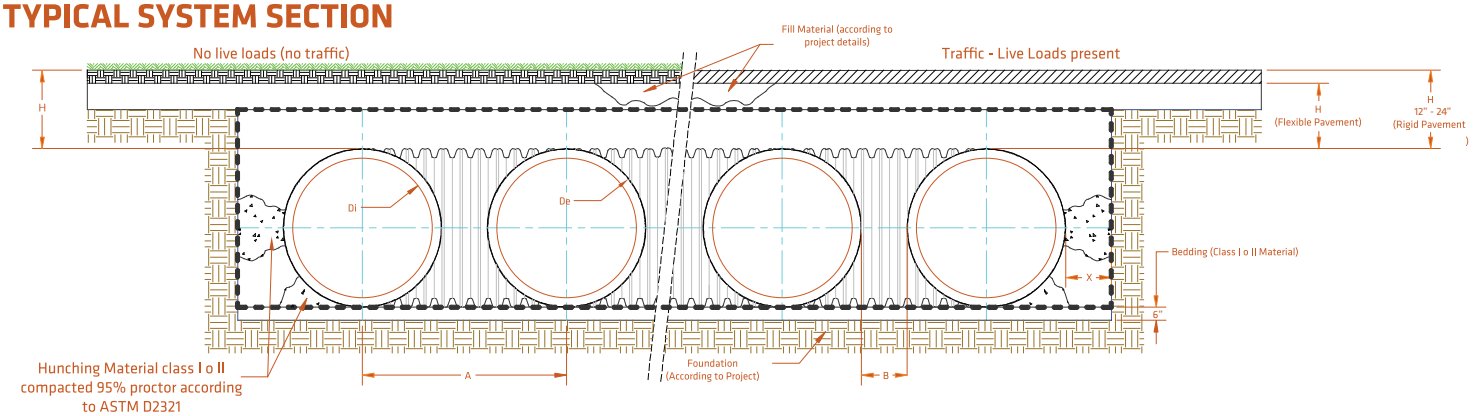
PATTERN B



DIMENSIONS

Nominal ID in /mm)	24" (600)	30" (750)	36" (900)	42" (1050)	48" (1200)	60" (1500)
OD ± 1% in /mm)	27.9" (708)	34.6" (879)	41.4" (1052)	47.5" (1208)	55.7" (1415)	68.1" (1729)

TYPICAL SYSTEM SECTION



Note: ALL DATA IS FOR REFERENCE ONLY PLEASE REFER TO PROJECT SPECIFICATIONS FOR MORE DETAILS

September 2026