FILL CHART

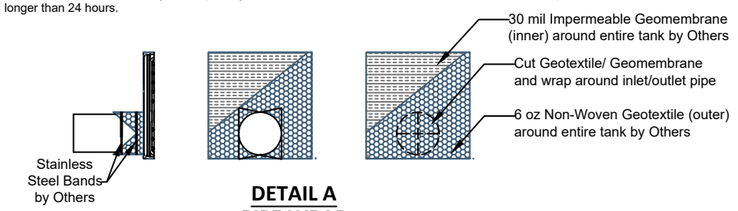
Material Location	Description	Material Classification			Compaction/Density Requirement (NOTE 3)
FINAL FILL Fill starting from the top of the embedment fill layer. (NOTE 1 and 2)	Suitable Fill Materials as noted in the Project Geotechnical Report and noted on the Site Design Engineer's Plans	See Project Geotechnical Report and Site Design Engineer's Plans			Plate Compact or Static Roll loose lifts to densify fill. Use at least two full passes of the equipment to level the layer. Continue until 24 inches of total fill thickness has been placed above the tank. For AASHTO M145 soils, a minimum of 95% of the Standard Proctor Maximum Dry Density is recommended. After 24 inches of fill is placed, place fill in accordance with the engineer of record's relative compaction requirement or to 95% of the Standard Proctor Maximum Dry Density - whichever is greater.
EMBEDMENT FILL Fill Immediately Surrounding the sides and top of tank (NOTE 4) **BEDDING FILL** Fill Immediately below the tank (NOTE 4)	Sand-Gravel Mixtures or Open-Graded Crushed Aggregate Blends	AASHTO M145 A-1, A-2-4, A-3	or	AASHTO M43 3, 357, 4, 467, 5, 56, 57	Plate Compact or Static Roll loose lifts to densify fill. Use at least two full passes of the equipment to level the layer. For AASHTO M145 soils, a minimum of 95% of the Standard Proctor Maximum Dry Density is recommended.

NOTE 1: This layer can include pavement subbase
NOTE 2: If open-graded aggregates are used for embedment fill, fines migration from the final to embedment fill layer may be reduced by installing a layer of 6 oz non-woven geotextile fabric at the final and embedment fill interface.
NOTE 3: See Construction Equipment Table for more information for construction equipment limitations.
NOTE 4: Import or native soils may be used if the soils meet the material classification listed. Fill material should be selected based on classification, groundwater conditions, and tank invert elevation.

CONSTRUCTION EQUIPMENT CHART

Equipment Make (NOTE 1)	Maximum Gross Vehicle Weight (lbs)	Minimum Fill Depth over Tank (in)
Plate Compactor	1,500	6
Compact Track Loader (NOTE 2)	7,500	6
Rubber-Tired Skid Steer (NOTE 3)	7,500	14
Low Ground Pressure Tracked Vehicles (NOTE 4)	20,000	14
Roller - Static Mode	12,000	18
Roller - Vibratory Mode	12,000	24
Dump Trucks and Pans	NOTE 5	

NOTE 1: Vehicles shall make straight runs only across tank footprint.
NOTE 2: Maximum ground pressure = 5 psi
NOTE 3: Maximum axle load = 5,250 lbs
NOTE 4: Maximum ground pressure = 7 psi
NOTE 5: Contact ACO for more information regarding dump truck and pan traffic during construction.
NOTE 6: Backfill material may be temporarily unloaded near the excavation. Material shall not be stockpiled near the excavation for longer than 24 hours.



DETAIL A
PIPE WRAP
NTS

COVER CHART

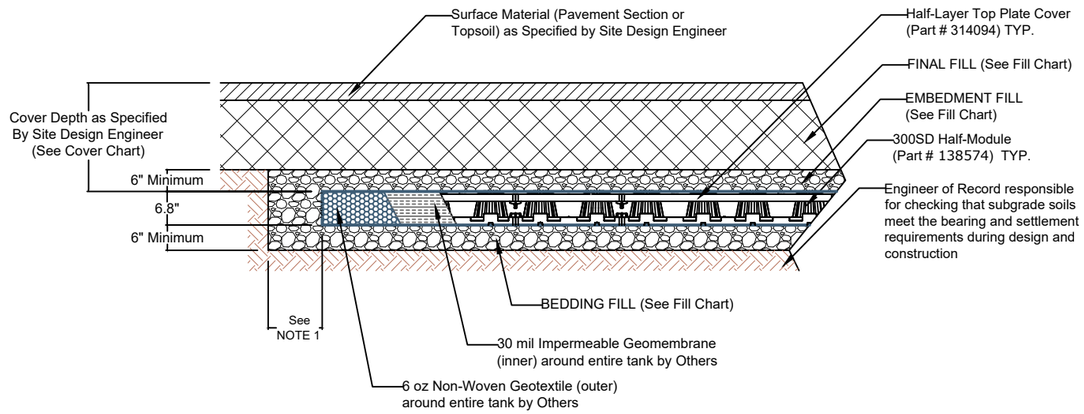
Live Loading Condition	Cover Thickness (inches)	
	Minimum	Maximum
Non-Trafficked Areas (i.e. Landscaping)	12	78
Passenger Vehicles Parking Lot (i.e. Gross Vehicle Weight <10,000 lbs)	18	78
Passenger Vehicle Parking Lot with one weekly AASHTO HS-20 vehicle	24	78
Frequent AASHTO HS-20 Traffic	26	78

NOTE 1: Minimum Cover Thickness in non-trafficked areas is based on landscape surface with a 40 degree load distribution. In trafficked areas, Minimum Cover Thicknesses are based on an asphalt-surfaced pavement with a 30 degree load distribution.
NOTE 2: Calculations assume backfill with a minimum 32-degree angle of internal friction and a maximum density of 120 lbs per cubic foot, and a seasonal groundwater elevation at least 2 feet below the invert of the tank.

PIPE DIAMETER CHART

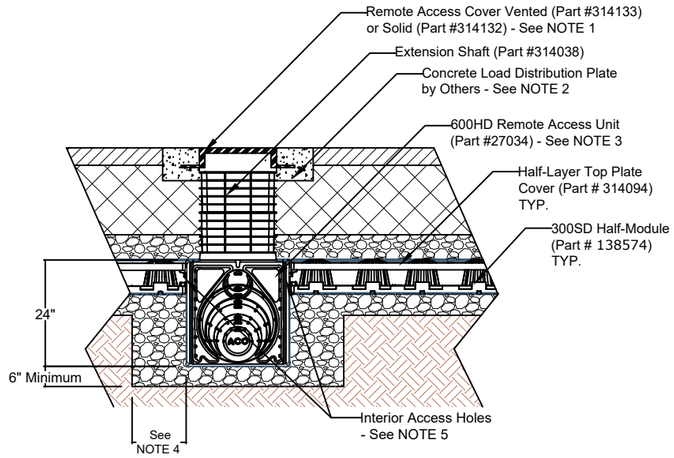
Pipe Location	Pipe Diameter	
	Minimum	Maximum
Module	4 inches	
Remote Access Unit	6 inches	15 inches (See Note 2)

NOTE 1: Cut inlet / outlet pipe hole prior to Module and Remote Access Unit installation.
NOTE 2: If the 600HD Remote Access Unit with Adapter Plate (Part #138140) is used, outlet pipes up to 18-inches in diameter may be installed.



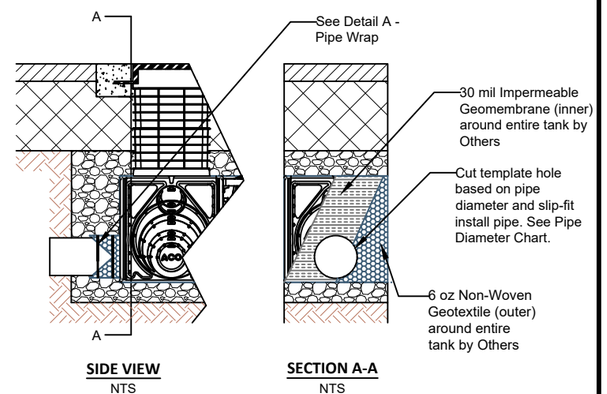
0.5 LAYER 300SD
DETENTION CROSS SECTION
NTS

NOTE 1: The minimum width of sidewall backfill is 12" or large enough to accommodate selected compaction equipment, whichever is greater.
NOTE 2: Side panels are not required along 300 half layers.



0.5 LAYER 300SD
ACCESS UNIT CROSS SECTION
NTS

NOTE 1: Ventilation may be crucial to reducing the pressure build up within the system. If solid access covers are used, alternative methods of ventilation are recommended.
NOTE 2: Concrete Load Plate not required for unpaved applications. Consult Engineer of Record for requirements
NOTE 3: To accommodate the 600HD Remote Access Unit, half-modules may need to be cut in half. See the project-specific layer orientation drawings for more information.
NOTE 4: The minimum width of sidewall backfill is 12" or large enough to accommodate selected compaction equipment, whichever is greater.
NOTE 5: Contractor to cut template holes on interior panels to allow water flow and tank access. Unless otherwise specified in the project drawings, cut 4" diameter template holes near the top of the Remote Access Unit on the three interior sides.



SIDE VIEW NTS
SECTION A-A NTS

0.5 LAYER 300SD
PIPE INSTALLATION
NTS

DRAWN BY	CHECKED BY
A Frye	**J Jonke**
DATE	REV.
12/20/2024	**1**

STORMBRIXX STANDARD DETAILS

300SD SYSTEM - 0.5 LAYER - DETENTION

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