

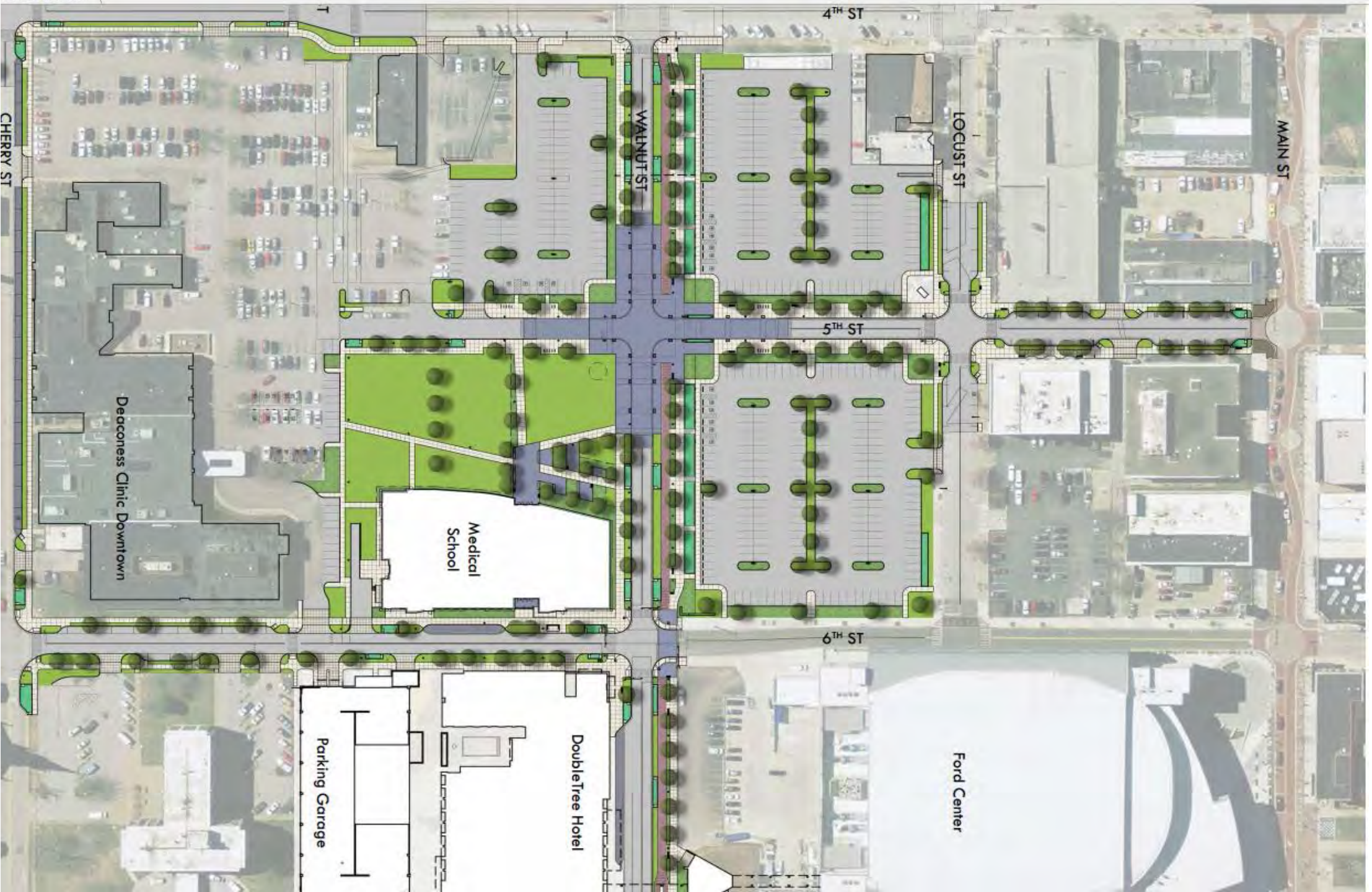
# Medical District Streetscape, City of Evansville Stormwater Quantity Solutions

City of Evansville

ADS























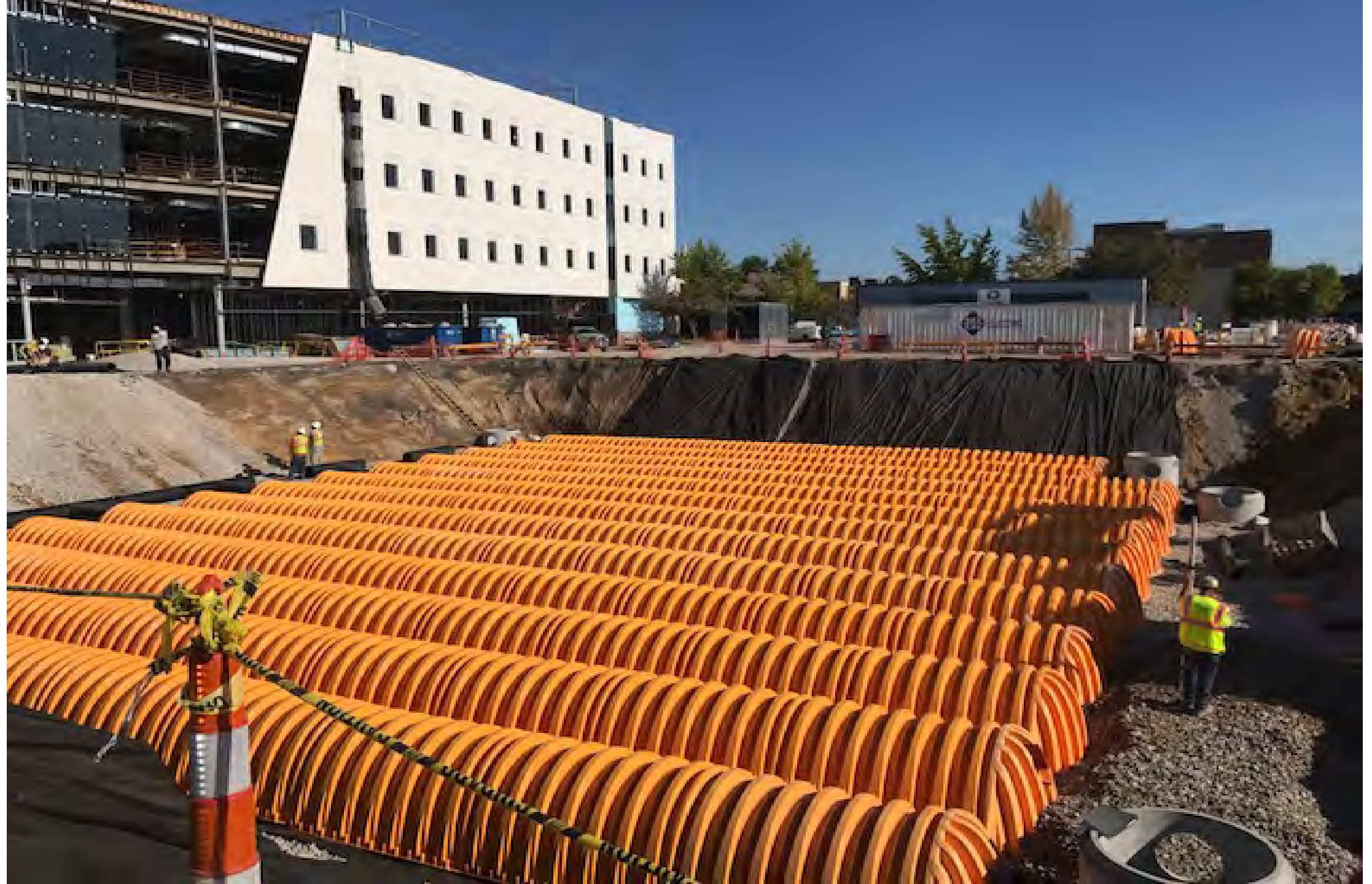




















































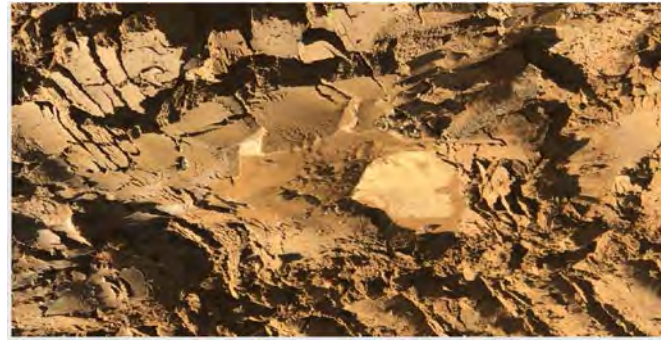
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# Medical District Streetscapes





# Medical District Streetscapes





# Medical District Streetscape Stats

Capture/Store 2" rainfall

144,000 CF Total Storage

17 UGD Beds of StormTech MC3500 &  
MC4500



# **PROPOSED LAYOUT SYSTEM #3/4**

(71) STORMTECH MC-4500 CHAMBERS  
 (10) STORMTECH MC-4500 END CAPS  
 INSTALLED WITH 12" COVER STONE, 36" BASE STONE, 40% STONE VOID  
**INSTALLED SYSTEM VOLUME: 17,398 CF (PERIMETER STONE INCLUDED)**  
 AREA OF SYSTEM: 3,513 FT<sup>2</sup>  
 PERIMETER OF SYSTEM: 256 FT

## **TIER 1 DEEP COVER SPECIAL PROVISIONS**

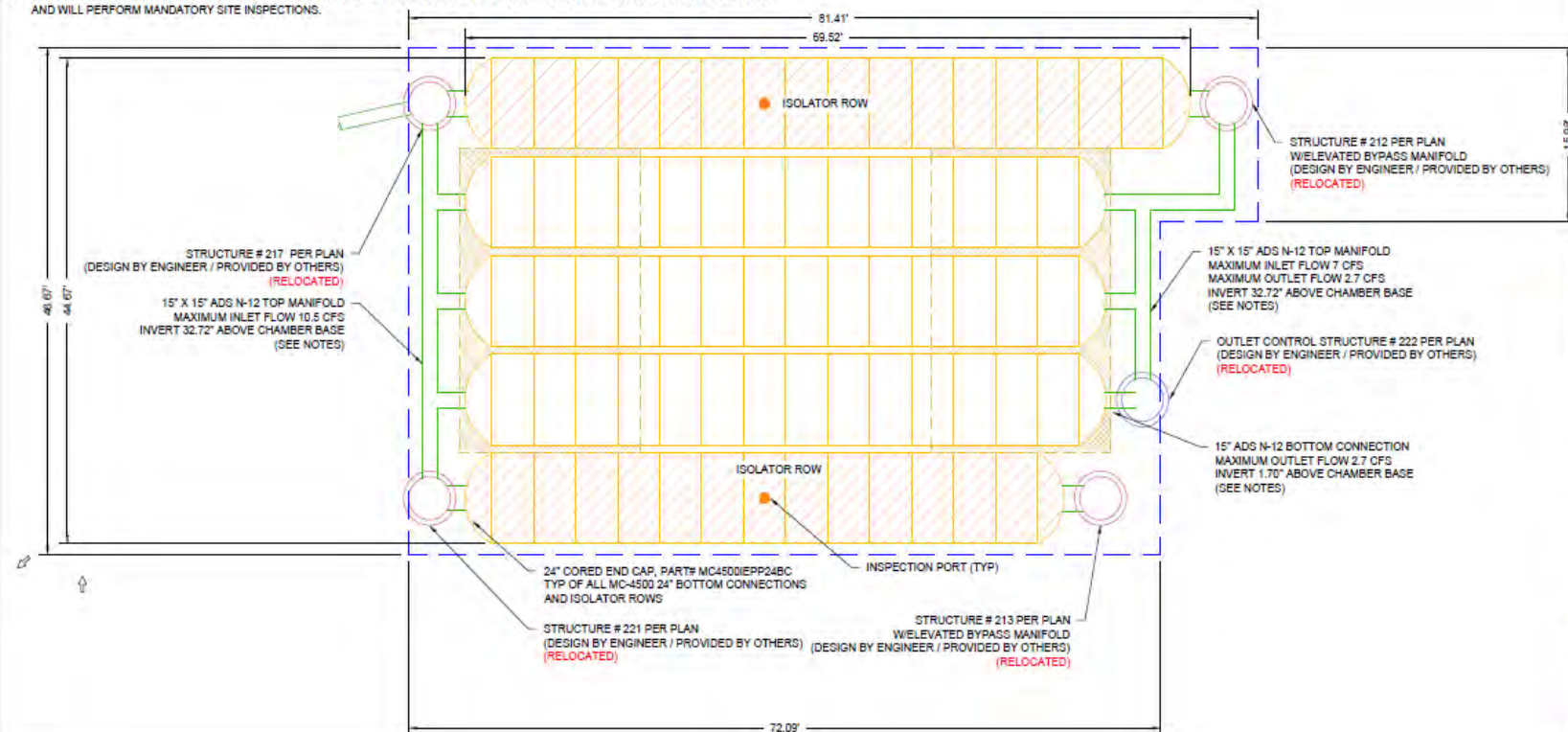
1. INSTALLATION REQUIREMENTS SHALL BE AS SPECIFIED IN THE STORMTECH DESIGN MANUALS AND CONSTRUCTION GUIDES EXCEPT AS MODIFIED IN THESE SPECIAL PROVISIONS.
2. ATTENTION IS CALLED TO "TABLE 1 - ACCEPTABLE FILL MATERIALS" IN THE STORMTECH CONSTRUCTION GUIDE AND ALL OTHER APPEARANCES OF THE "ACCEPTABLE FILL MATERIALS" TABLE. FOR AREAS OF THE SYSTEM WITH COVER ABOVE 7 FEET (2.1 m) FOR THE MC-4500 AND ABOVE 8 FEET (2.4 m) FOR THE MC-3500, EMBEDMENT STONE SHALL BE COMPACTED WITH 1 PASS OF A WALK BEHIND VIBRATORY PLATE COMPACTOR OR JUMPING JACK IN 12" (300 mm) LIFTS.
3. STONE SHALL BE GENERALLY UNIFORM IN SHAPE. FLAT OR ELONGATED STONE IS UNACCEPTABLE. FOR DESCRIPTIONS OF ANGULARITY SEE ASTM D2488 "STANDARD PRACTICE FOR DESCRIPTION AND IDENTIFICATION OF SOILS (VISUAL-MANUAL PROCEDURE)".
4. STONE SHALL BE HARD AND DURABLE. IT IS THE ENGINEER'S OR CONTRACTOR'S RESPONSIBILITY TO SELECT HARD AND DURABLE STONE. STORMTECH CONSIDERS AN LA ABRASION VALUE OF LESS THAN OR EQUAL TO 30 TO BE HARD STONE.
5. FOUNDATION STONE SHALL BE MECHANICALLY COMPACTED WITH A VIBRATORY ROLLER OR VIBRATORY PLATE IN 6" (152 mm) LIFTS.
6. EMBEDMENT STONE MUST BE DUMPED IN PLACE BY A STONE SHOOTER OR CONVEYOR OR EXCAVATOR.
7. MANIFOLD PIPE INSERTION MUST EXTEND A MINIMUM OF 5' INTO CHAMBER END CAPS.
8. INSPECTION DURING THE INSTALLATION BY THE ENGINEER, OWNER OR OTHER REPRESENTATIVE IS RECOMMENDED. THE INSPECTION SHALL INCLUDE OBSERVATIONS OF THE CHAMBER SYMMETRY DURING BACKFILLING TO ENSURE THE CONTRACTOR'S METHODS ARE NOT CAUSING UNACCEPTABLE DISTORTION OF THE CHAMBERS.
9. AN ADS FIELD TECHNICIAN WILL CONDUCT A PRECONSTRUCTION MEETING TO TRAIN ALL REPRESENTATIVES INSPECTING THE PROJECT AND WILL PERFORM MANDATORY SITE INSPECTIONS.

## **NOTES**

- MANIFOLD SIZE TO BE DETERMINED BY SITE DESIGN ENGINEER. SEE TECH SHEET #7 FOR MANIFOLD SIZING GUIDANCE.
- DUE TO THE ADAPTATION OF THIS CHAMBER SYSTEM TO SPECIFIC SITE AND DESIGN CONSTRAINTS, IT MAY BE NECESSARY TO CUT AND COUPLE ADDITIONAL PIPE TO STANDARD MANIFOLD COMPONENTS IN THE FIELD.
- THE SITE DESIGN ENGINEER MUST REVIEW ELEVATIONS AND IF NECESSARY ADJUST GRADING TO ENSURE THE CHAMBER COVER REQUIREMENTS ARE MET.

## **PROPOSED ELEVATIONS**

MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED):	388.00
MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC):	380.31
MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC):	379.81
MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT):	379.81
MINIMUM ALLOWABLE GRADE (TOP OF RIGID CONCRETE PAVEMENT):	379.81
TOP OF STONE:	378.81
TOP OF CHAMBER:	377.81
15" TOP MANIFOLD INVERT:	375.54
24" ISOLATOR ROW INVERT:	373.00
15" BOTTOM CONNECTION INVERT:	372.95
BOTTOM OF CHAMBER:	372.81
BOTTOM OF STONE:	369.81



MEDICAL DISTRICT EVANSVILLE, IN		DATE	11-10-15	DRAWN	CAJLM
		PROJECT #	122511	CHECKED	KMS
		THESE DRAWINGS ARE THE PROPERTY OF STORMTECH. THE SITE DESIGN ENGINEER SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND REGULATORY REQUIREMENTS.			
REV	DATE	DESCRIPTION	CHK	CAJLM	KMS
01	11-10-15	COMBINED BED MOVED ROWS			
02	11-10-15	OF LAYOUT CHANGES PER NEW PLANS			
03	11-10-15	OF LAYOUT CHANGES PER NEW PLANS			
04	11-10-15	OF LAYOUT CHANGES PER NEW PLANS			
05	11-10-15	OF LAYOUT CHANGES PER NEW PLANS			
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98	11-10-15	OF LAYOUT CHANGES PER NEW PLANS			
99	11-10-15	OF LAYOUT CHANGES PER NEW PLANS			
100	11-10-15	OF LAYOUT CHANGES PER NEW PLANS			



## PROPOSED LAYOUT SYSTEM #5

(56) STORMTECH MC-4500 CHAMBERS  
(12) STORMTECH MC-4500 END CAPS  
INSTALLED WITH 12" COVER STONE, 36" BASE STONE, 40% STONE VOID  
INSTALLED SYSTEM VOLUME: 15,258 CF (PERIMETER STONE INCLUDED)  
AREA OF SYSTEM: 3,173 FT<sup>2</sup>  
PERIMETER OF SYSTEM: 347 FT

## PROPOSED ELEVATIONS

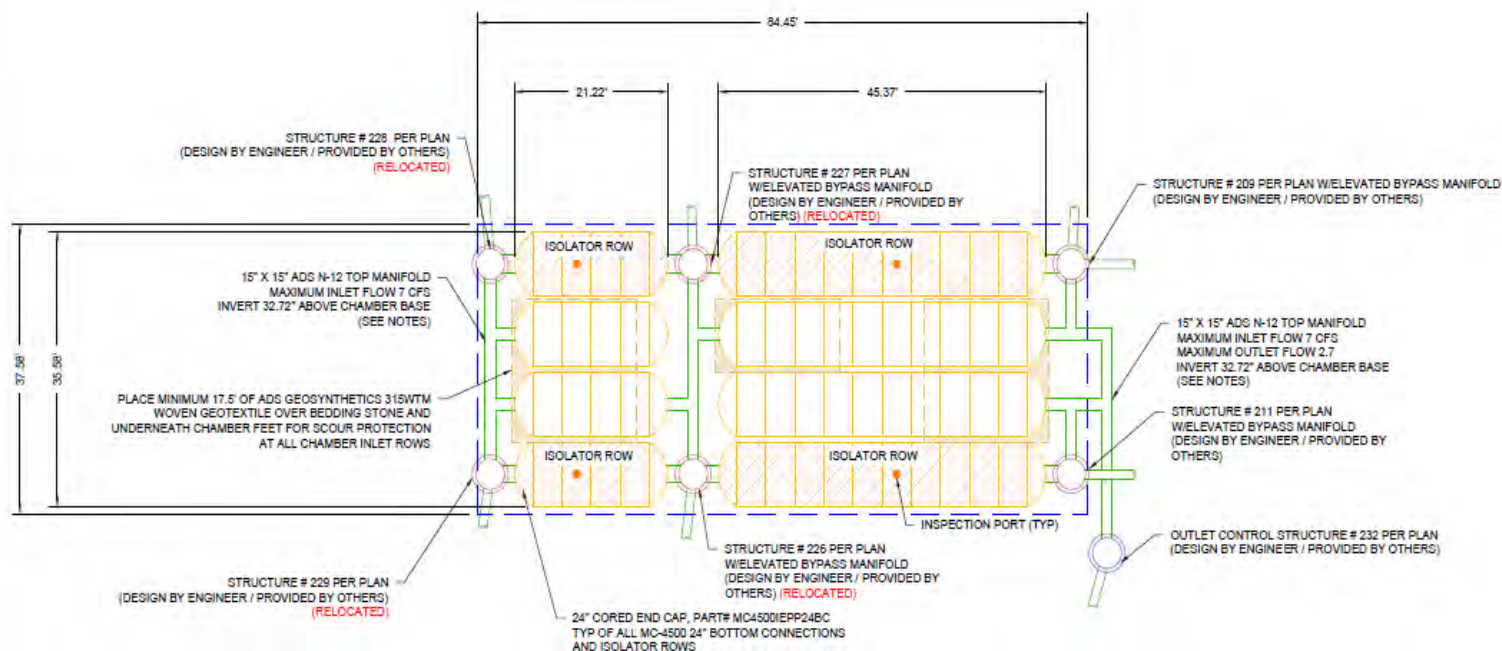
MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED):	388.81
MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC):	382.31
MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC):	381.81
MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT):	381.81
MINIMUM ALLOWABLE GRADE (TOP OF RIGID CONCRETE PAVEMENT):	381.81
TOP OF STONE:	380.81
TOP OF CHAMBER:	379.81
15" TOP MANIFOLD INVERT:	377.54
24" ISOLATOR ROW INVERT:	375.00
BOTTOM OF CHAMBER:	374.81
BOTTOM OF STONE:	371.81

## NOTES

- MANIFOLD SIZE TO BE DETERMINED BY SITE DESIGN ENGINEER. SEE TECH SHEET #7 FOR MANIFOLD SIZING GUIDANCE.
- DUE TO THE ADAPTATION OF THIS CHAMBER SYSTEM TO SPECIFIC SITE AND DESIGN CONSTRAINTS, IT MAY BE NECESSARY TO CUT AND COUPLE ADDITIONAL PIPE TO STANDARD MANIFOLD COMPONENTS IN THE FIELD.

## TIER 1 DEEP COVER SPECIAL PROVISIONS

- INSTALLATION REQUIREMENTS SHALL BE AS SPECIFIED IN THE STORMTECH DESIGN MANUALS AND CONSTRUCTION GUIDES EXCEPT AS MODIFIED IN THESE SPECIAL PROVISIONS.
- ATTENTION IS CALLED TO TABLE 1 - ACCEPTABLE FILL MATERIALS IN THE STORMTECH CONSTRUCTION GUIDE AND ALL OTHER APPEARANCES OF THE "ACCEPTABLE FILL MATERIALS" TABLE. FOR AREAS OF THE SYSTEM WITH COVER ABOVE 7 FEET (2.1 m) FOR THE MC-4500 AND ABOVE 2 FEET (2.4 m) FOR THE MC-3500, EMBEDMENT STONE SHALL BE COMPACTED WITH 1 PASS OF A WALK BEHIND VIBRATORY PLATE COMPACTOR OR JUMPING JACK IN 12" (300 mm) LIFTS.
- STONE SHALL BE GENERALLY UNIFORM IN SHAPE, FLAT OR ELONGATED STONE IS UNACCEPTABLE. FOR DESCRIPTIONS OF ANGULARITY SEE ASTM D2486 "STANDARD PRACTICE FOR DESCRIPTION AND IDENTIFICATION OF SOILS (VISUAL-MANUAL PROCEDURE)".
- STONE SHALL BE HARD AND DURABLE. IT IS THE ENGINEER'S OR CONTRACTOR'S RESPONSIBILITY TO SELECT HARD AND DURABLE STONE. STORMTECH CONSIDERS AN LA ABRASION VALUE OF LESS THAN OR EQUAL TO 30 TO BE HARD STONE.
- FOUNDATION STONE SHALL BE MECHANICALLY COMPACTED WITH A VIBRATORY ROLLER OR VIBRATORY PLATE IN 6" (152 mm) LIFTS.
- EMBEDMENT STONE MUST BE DUMPED IN PLACE BY A STONE SHOOTER OR CONVEYOR OR EXCAVATOR.
- MANIFOLD PIPE INSERTION MUST EXTEND A MINIMUM OF 5' INTO CHAMBER END CAPS.
- INSPECTION DURING THE INSTALLATION BY THE ENGINEER, OWNER OR OTHER REPRESENTATIVE IS RECOMMENDED. THE INSPECTION SHALL INCLUDE OBSERVATIONS OF THE CHAMBER SYMMETRY DURING BACKFILLING TO ENSURE THE CONTRACTOR'S METHODS ARE NOT CAUSING UNACCEPTABLE DISTORTION OF THE CHAMBERS.
- AN ADS FIELD TECHNICIAN WILL CONDUCT A PRECONSTRUCTION MEETING TO TRAIN ALL REPRESENTATIVES INSPECTING THE PROJECT AND WILL PERFORM MANDATORY SITE INSPECTIONS.



MEDICAL DISTRICT EVANSVILLE, IN		DATE	11-10-15	DRAWN	CAJAM	CHECKED	KMS
REV	DRW	CHK	DESCRIPTION	PROJECT #	12311		
1	CA	CA	COMBINED DRAINAGE CHAMBERS				
2	CA	CA	ADJUST CHAMBERS TO NEW PLANS				
<p>4640 TRUENAN BLVD HILLIARD, OH 43026 1-800-733-7473</p> <p>ADVANCED DRAINAGE SYSTEMS, INC.</p> <p>STORMTECH DESIGN BY ENGINEER / PROVIDED BY OTHERS</p> <p>FOR PROJECTS: 15' TO 100' X 4' TO 100' X 10' (SEE NOTES) 15' TO 100' X 10' TO 100' X 10' (SEE NOTES)</p> <p>THIS DRAWING HAS BEEN PREPARED BASED ON INFORMATION PROVIDED TO ADS. IT IS THE RESPONSIBILITY OF THE USER TO VERIFY THE INFORMATION AND TO ENSURE THAT THE PROJECTED CONDITIONS ARE AS SHOWN. ADS IS NOT RESPONSIBLE FOR ANY ERRORS OR OMISSIONS IN THIS DRAWING.</p>							
SHEET				6 OF 26			



# PROPOSED LAYOUT SYSTEM #21

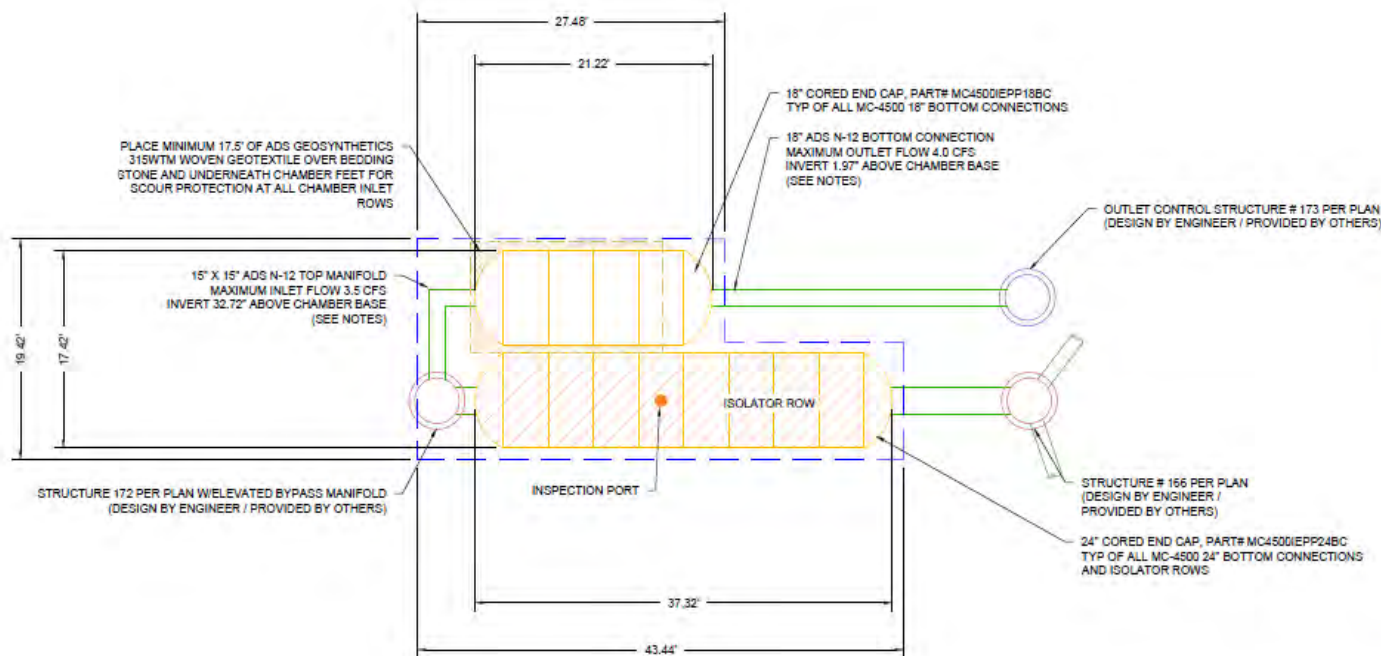
(12) STORMTECH MC-4500 CHAMBERS  
(4) STORMTECH MC-4500 END CAPS  
INSTALLED WITH 12" COVER STONE, 9" BASE STONE, 40% STONE VOID  
INSTALLED SYSTEM VOLUME: 2,737 CF (PERIMETER STONE INCLUDED)  
AREA OF SYSTEM: 698 FT<sup>2</sup>  
PERIMETER OF SYSTEM: 137 FT

## PROPOSED ELEVATIONS

MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED):	387.81
MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC):	383.31
MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC):	382.81
MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT):	382.81
MINIMUM ALLOWABLE GRADE (TOP OF RIGID CONCRETE PAVEMENT):	382.81
TOP OF STONE:	381.81
TOP OF CHAMBER:	380.81
15" TOP MANIFOLD INVERT:	378.54
24" ISOLATOR ROW INVERT:	378.00
18" BOTTOM CONNECTION INVERT:	375.97
BOTTOM OF CHAMBER:	375.81
BOTTOM OF STONE:	375.06

## NOTES

- MANIFOLD SIZE TO BE DETERMINED BY SITE DESIGN ENGINEER. SEE TECH SHEET #7 FOR MANIFOLD SIZING GUIDANCE.
- DUE TO THE ADAPTATION OF THIS CHAMBER SYSTEM TO SPECIFIC SITE AND DESIGN CONSTRAINTS, IT MAY BE NECESSARY TO CUT AND COUPLE ADDITIONAL PIPE TO STANDARD MANIFOLD COMPONENTS IN THE FIELD.



MEDICAL DISTRICT EVANSVILLE, IN	DATE	11-10-15	DRAWN	CAULIN
	PROJECT #	122511	CHECKED	KNS

REV	DATE	DESCRIPTION
12-14-15	CA	COMBINED DRAINAGE ROWS
12-23-16	DAF	LAYOUT CHANGES PER NEW PLANS

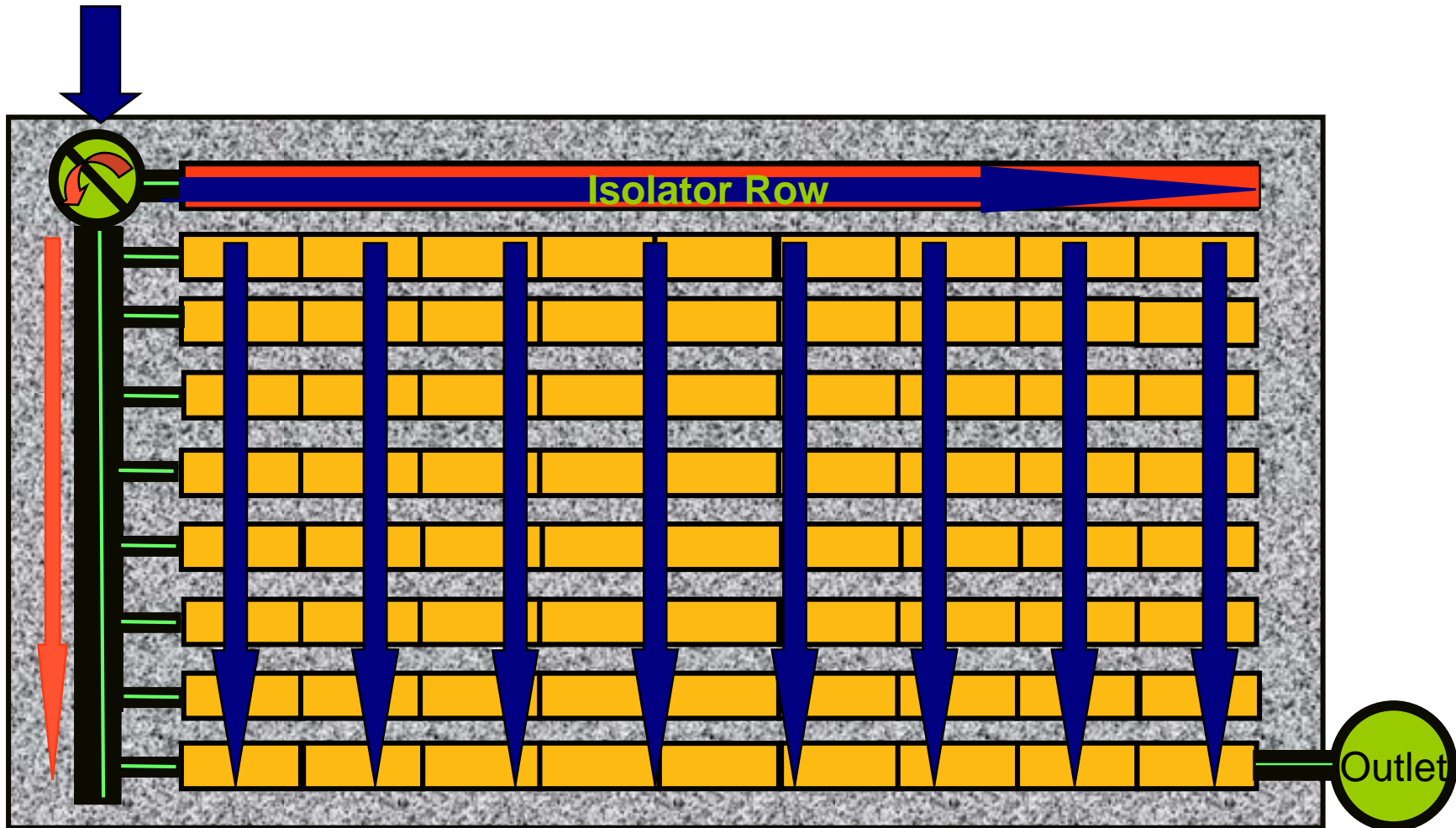
**StormTech**  
www.stormtech.com  
1-800-733-7473  
4640 TRUENAN BLVD  
HILLIARD, OH 43026

**ADS**  
MANUFACTURING SYSTEMS, INC.  
4640 TRUENAN BLVD  
HILLIARD, OH 43026  
1-800-733-7473



# How Does It Work?

Storm Sewer





# Isolator Row





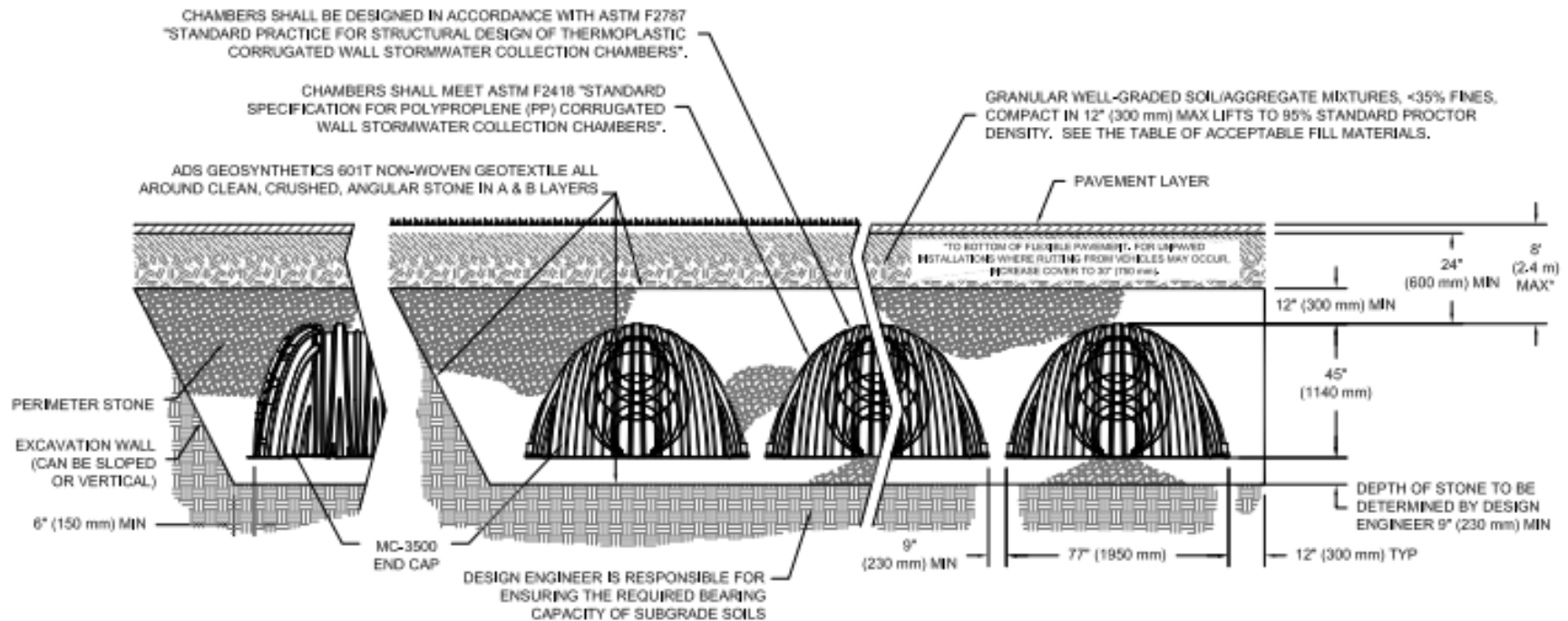
## Isolator Row Treatment Flow Rate

Model	Specific Flow Rate	Bottom Area	Flow Per Model
StormTech SC-310	2.5 gpm/sf	17.7 sf	0.10 cfs
StormTech SC-740	2.5 gpm/sf	27.8 sf	0.15 cfs
StormTech DC-780	2.5 gpm/sf	27.8 sf	0.15 cfs
StormTech MC-3500	2.5 gpm/sf	43.2 sf	0.24 cfs
StormTech MC-4500	2.5 gpm/sf	30.1 sf	0.17 cfs



# Easy to Design

**\*40% of Stone Volume is Void Space Available for Storage Volume\***



**\*FOR COVER DEPTHS GREATER THAN 8.0' PLEASE CONTACT STORMTECH**

THE INSTALLED CHAMBER SYSTEM SHALL PROVIDE THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS SECTION 12.12 FOR EARTH AND LIVE LOADS, WITH CONSIDERATION FOR IMPACT AND MULTIPLE VEHICLE PRESENCES.

## MC-4500 System - Typical Cross Section



# Bearing Capacity Requirements

## 2.0 Foundations for Chambers

**TABLE 2 – MC-4500 Minimum Required Foundation Depth in inches (millimeters)**

Assumes 9" (230 mm) row spacing.

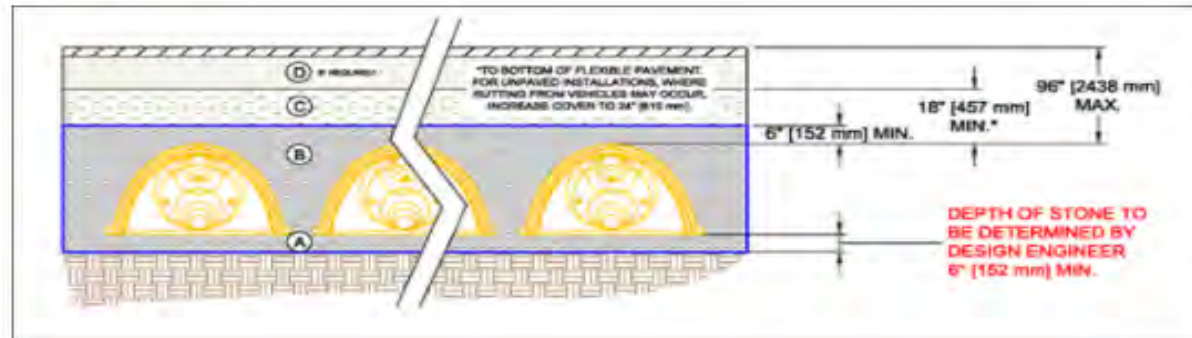
Cover Hgt. ft. (m)	4.4 (211)	4.3 (206)	4.2 (201)	4.1 (196)	4.0 (192)	3.9 (187)	3.8 (182)	3.7 (177)	3.6 (172)	3.5 (168)	3.4 (163)	3.3 (158)	3.2 (153)	3.1 (148)	3.0 (144)	2.9 (139)	2.8 (134)	2.7 (129)	2.6 (124)	2.5 (120)	2.4 (115)	2.3 (110)	2.2 (105)	2.1 (101)	2.0 (96)
2.0 (0.61)	9 (230)	9 (230)	9 (230)	9 (230)	9 (230)	9 (230)	9 (230)	9 (230)	9 (230)	9 (230)	9 (230)	9 (230)	9 (230)	9 (230)	9 (230)	9 (230)	9 (230)	12 (300)	12 (300)	12 (300)	15 (375)	15 (375)	15 (375)	15 (375)	18 (450)
2.5 (0.76)	9 (230)	9 (230)	9 (230)	9 (230)	9 (230)	9 (230)	9 (230)	9 (230)	9 (230)	9 (230)	9 (230)	9 (230)	9 (230)	9 (230)	9 (230)	9 (230)	9 (230)	12 (300)	12 (300)	12 (300)	15 (375)	15 (375)	18 (450)	18 (450)	24 (600)
3.0 (0.91)	9 (230)	9 (230)	9 (230)	9 (230)	9 (230)	9 (230)	9 (230)	9 (230)	9 (230)	9 (230)	9 (230)	9 (230)	9 (230)	9 (230)	9 (230)	12 (300)	12 (300)	12 (300)	15 (375)	15 (375)	18 (450)	18 (450)	18 (450)	24 (600)	24 (600)
3.5 (1.07)	9 (230)	9 (230)	9 (230)	9 (230)	9 (230)	9 (230)	9 (230)	9 (230)	9 (230)	9 (230)	9 (230)	9 (230)	9 (230)	12 (300)	12 (300)	12 (300)	15 (375)	15 (375)	15 (375)	18 (450)	18 (450)	24 (600)	24 (600)	24 (600)	24 (600)
4.0 (1.22)	9 (230)	9 (230)	9 (230)	9 (230)	9 (230)	9 (230)	9 (230)	9 (230)	9 (230)	9 (230)	12 (300)	12 (300)	12 (300)	15 (375)	15 (375)	15 (375)	18 (450)	18 (450)	18 (450)	24 (600)	24 (600)	24 (600)	24 (600)	24 (600)	30 (750)
4.5 (1.37)	9 (230)	9 (230)	9 (230)	9 (230)	9 (230)	9 (230)	9 (230)	9 (230)	12 (300)	12 (300)	12 (300)	12 (300)	15 (375)	15 (375)	15 (375)	18 (450)	18 (450)	24 (600)	24 (600)	24 (600)	24 (600)	30 (750)	30 (750)	30 (750)	30 (750)
5.0 (1.52)	9 (230)	9 (230)	9 (230)	9 (230)	9 (230)	9 (230)	12 (300)	12 (300)	12 (300)	12 (300)	15 (375)	15 (375)	15 (375)	18 (450)	18 (450)	18 (450)	24 (600)	24 (600)	24 (600)	24 (600)	30 (750)	30 (750)	30 (750)	30 (750)	36 (900)
5.5 (1.68)	9 (230)	9 (230)	9 (230)	9 (230)	12 (300)	12 (300)	12 (300)	12 (300)	15 (375)	15 (375)	15 (375)	18 (450)	18 (450)	18 (450)	24 (600)	24 (600)	24 (600)	24 (600)	24 (600)	30 (750)	30 (750)	30 (750)	30 (750)	36 (900)	36 (900)
6.0 (1.83)	9 (230)	9 (230)	12 (300)	12 (300)	12 (300)	12 (300)	15 (375)	15 (375)	15 (375)	15 (375)	18 (450)	18 (450)	18 (450)	24 (600)	24 (600)	24 (600)	24 (600)	24 (600)	30 (750)	30 (750)	30 (750)	30 (750)	36 (900)	36 (900)	36 (900)
6.5 (1.98)	9 (230)	12 (300)	12 (300)	12 (300)	12 (300)	15 (375)	15 (375)	15 (375)	15 (375)	18 (450)	18 (450)	18 (450)	24 (600)	24 (600)	24 (600)	24 (600)	24 (600)	30 (750)	30 (750)	30 (750)	30 (750)	36 (900)	36 (900)	36 (900)	42 (1050)
7.0 (2.13)	12 (300)	12 (300)	12 (300)	12 (300)	15 (375)	15 (375)	15 (375)	15 (375)	18 (450)	18 (450)	18 (450)	24 (600)	24 (600)	24 (600)	24 (600)	24 (600)	30 (750)	30 (750)	30 (750)	30 (750)	36 (900)	36 (900)	36 (900)	42 (1050)	42 (1050)

*NOTE: The design engineer is solely responsible for assessing the bearing resistance (allowable bearing capacity) of the subgrade soils and determining the depth of foundation stone. Subgrade bearing resistance should be assessed with consideration for the range of soil moisture conditions expected under a stormwater system.*



# Acceptable Fill Materials

## SC-Series



Material Location	Description	AASHTO M43 Designation (1)	Compaction/ Density Requirement
D	Fill material for layer D starts from the top of layer C to the bottom of flexible pavement or unpaved finish grade above. Note that pavement sub-base may be part of the D layer.	N/A	Prepare per engineer's plans. Paved installations may have stringent material and preparation requirements.
C	Fill material for layer C starts from the embedment stone (B layer) to 18" (457 mm) above the top of the chamber. Note that pavement sub-base may be part of the C layer.	3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	Begin compaction after 12" (305 mm) of material over the chambers is reached. Compact additional layers in 6" (152 mm) lifts to a minimum 95% standard proctor density. (2) Roller gross vehicle weight not to exceed 12,000 lbs. (53 kN). Dynamic force not to exceed 20,000 lbs. (89 kN).
B	Embedment stone surrounding chambers from the foundation stone to the C layer above.	3, 357, 4, 467, 5, 56, 57	No compaction required.
A	Foundation stone below chambers from subgrade up to the foot (bottom) of the chamber.	3, 357, 4, 467, 5, 56, 57	Plate compact or roll to achieve a 95% standard proctor density.(2)



# Common Questions & Interesting Facts



20 years





# Injection Molded



# The “Family”



**MEETS  
ASTM  
F2418 &  
F2787**



MC-4500

MC-3500

DC-780

SC-740

SC-310

SC-160LP



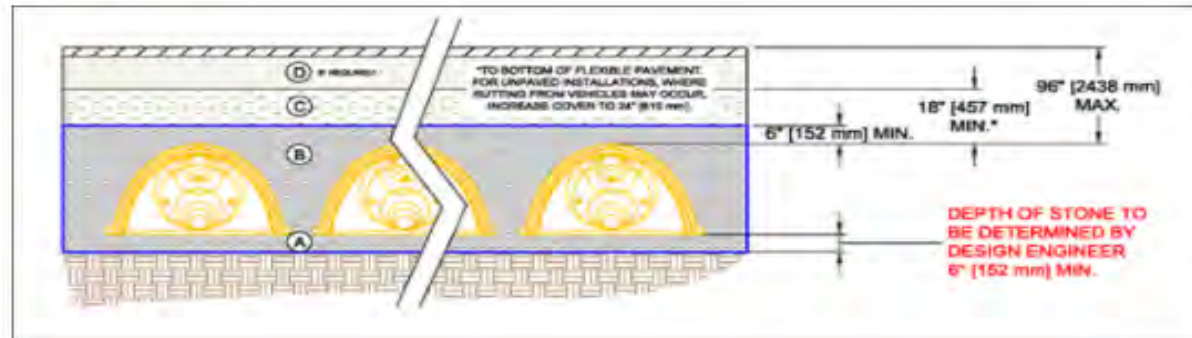
50,000,000 CF of Storage  
Installed Annually

2% of that is in Indiana



# Acceptable Fill Materials

## SC-Series



Material Location	Description	AASHTO M43 Designation (1)	Compaction/ Density Requirement
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A	Foundation stone below chambers from subgrade up to the foot (bottom) of the chamber.	3, 357, 4, 467, 5, 56, 57	Plate compact or roll to achieve a 95% standard proctor density.(2)



# Recycled Concrete as Backfill

## Per ADS Tech Sheet #4

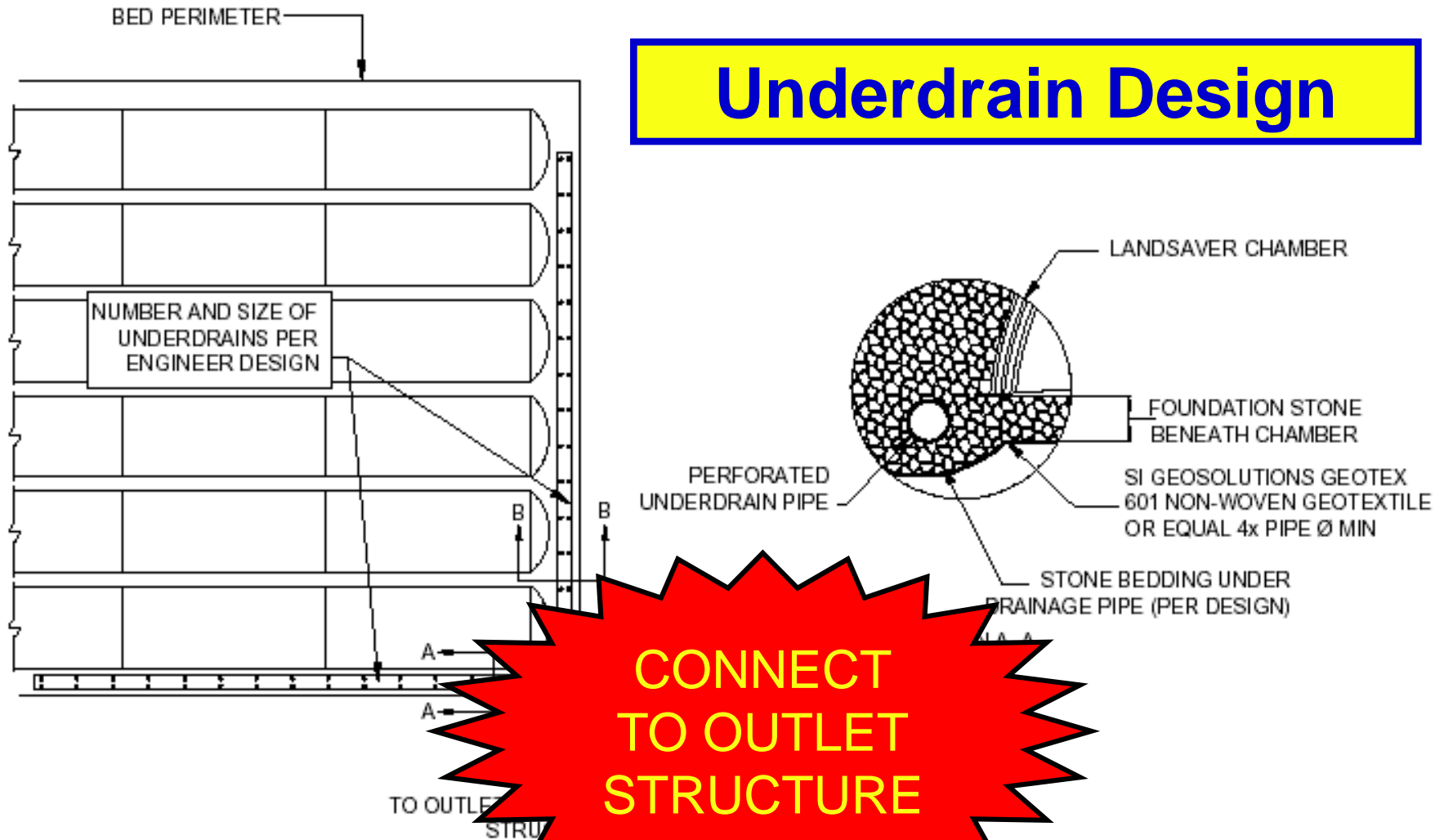
The following are specifications that StormTech recommends for the acceptance of reclaimed crushed concrete based on criteria for structural integrity.

1. Gradation: The gradation shall meet AASHTO M43 gradations as listed in the "Acceptable Fill Materials Table" in the StormTech Design Manual. Note that the material shall be processed such that fines are 5% or less.
2. The material shall meet ASTM D2488 angular or subangular classification.
3. Deleterious materials shall be limited to: a) maximum 20% reclaimed pavement materials and b) maximum 0.15% building materials.
4. Material hardness – Maximum loss of 40% in the LA Abrasion test (AASHTO T96)
5. Freeze-Thaw Resistance – Maximum 12% loss after 5 cycles in magnesium sulfate solution (AASHTO T104)
6. The design shall be in accordance with the StormTech Design Manual and Installation shall be in accordance with the StormTech Installation Instructions.



# Easy to Design

## Underdrain Design





# So What Does a Stormtech System Cost?



\$5-\$7/CF of Storage





# 10" Inspection Port





# StormTech Design Tool





**StormTech**  
*Detection • Retention • Water Quality*  
An **ADS** company



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# StormTech Design Tool



Print Report | E-Mail Report | Reset to Defaults | Generate Drawing | View Profile

## ADS StormTech Design Tool

### Enter Data Here

Project Name:   
 Engineer:   
 Project Date:   
 Project Location:   
 Units: ☒ Imperial ☐ Metric  
 Required Storage Volume:  cubic ft.  
 Chamber Model:   
☐ MC-4500 ☐ MC-5500 ☐ SC-740 ☐ SC-760 ☐ SC-110 ☐ SC-160  
(MC-740, MC-760, SC-110, SC-160 are optional add-ons to the MC-4500 or MC-5500)  
 Min. Depth from Finished Grade to Invert Out:  in.  
 Max. Depth from Finished Grade to Invert Out:  in.  
Storm depth outside of the page shown may be adjustable. Please contact the ADS Technical Services Department at 800-455-0354.  
 Design Constraint: ☒ Width ☐ Length  
 Outlet Control Structure: ☒ Yes (Outlet) ☐ No Outlet  
 Design Constraint Dimension:  ft.  
 Stone Foundation Depth (8 inch min.):  in.  
 Stone Above Chambers (12 inch min. & 96 inch max.):  in.  
 Average Cover Over Chambers (24 inch min. & 96 inch max.):  in.  
 Stone Porosity (Industry Standard = 40%):  %

### Results

#### System Volume and Size

Installed Storage Volume	17201 cubic ft.
Storage Volume Per Chamber	178.9 cubic ft.
Storage Volume Per End Cap	46.9 cubic ft.
Number Of Chambers Required	93 each
Number Of End Caps Required	12 each
Rows/Chambers	3 rows (of 16 chambers)
Leftover Rows/Chambers	3 rows (of 16 chambers)
Maximum Length	124.25 ft.
Maximum Width	44.85 ft.
Approx. Bed Size Required	5508 square ft.

#### System Components

Amount Of Stone Required	738 cubic yards
Volume Of Excavation (Not Including Fill)	1326 cubic yards
Non-woven Filter Fabric Required	1424 square yards
Length Of Isolator Row	119.4 ft.
Woven Isolator Row Fabric	219 square yards

#### Additional Notes

A-1 The volume for the System Components are general estimates and do not include construction for walls.

B-1 The estimate for the "Amount of Stone Required" includes the Stone Required around the perimeter of the structure. But the perimeter stone is not included in the calculation for the "Total Chamber Volume".



ADS Technical Services - 79 Ironwood Rd., Suite 3 - Rocky Hill, CT 06067  
 Please call us at: 800-455-0354  
 Terms of Service  
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EWSU

CSO

Mitigation  
Projects



# Christian Life Center





# Christian Life Center





# Vine Street Parking Lot





# Center of Hope





# Center of Hope





# Industry News:

AASHTO M294R

ADS Barracuda

HP Pipe





**HIGH PERFORMANCE**

Remember:

- Joints
- Stiffness