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SWMIBMP DETAILS

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CORPORATE OFFICES  
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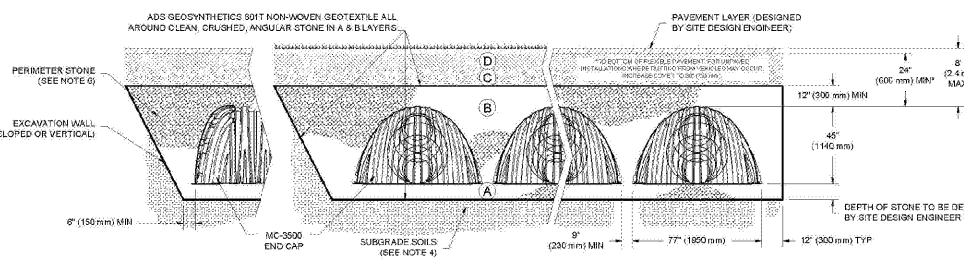
COMM # 4252  
DATE: 11-2-18  
REVISION  
DATE: 2-22-19  
4-4-19

C3.9

### ACCEPTABLE FILL MATERIALS: STORMTECH MC-3500 CHAMBER SYSTEMS

MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	FINAL FILL: FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF 'F' (SEE 'F' DIMENSION OR UNLESS OTHERWISE SPECIFIED) GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. FILL WITH ASBESTOS-FREE, NON-FLAMMABLE, NON-TOXIC MATERIAL AND PREPARATION REQUIREMENTS.
C	INITIAL FILL: FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 2" (50mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	AASHTO M145 A-1, A-2, A-3 OR AASHTO M43 3, 3B, 4, 4B, 5, 5B, 5F, 6, 6B, 7, 7B, 8, 8B, 9, 10	BEGIN COMPACTIONS AFTER 24" (600mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 12" (300mm) MAX LIFT TO A MIN. 98% PROCTOR DENSITY FOR WELLS GRADED MATERIAL AND 90% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS.
B	EMBEDMENT STONE: FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	AASHTO M43 3, 4	NO COMPACTION REQUIRED.
A	FOUNDATION STONE: FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	AASHTO M43 3, 4	FLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE.†

PLEASE NOTE:  
1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR, FOR EXAMPLE, A SPECIFICATION FOR A STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE."  
2. STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 4" (100mm) MAX LIFTS USING TWO FULL COVERS WITH A VIBRATORY COMPACTOR.  
3. WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.



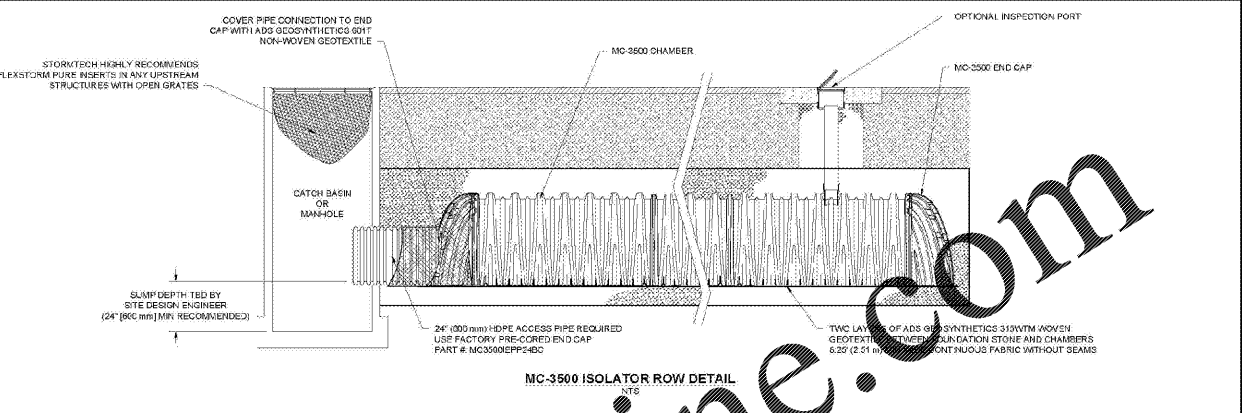
#### NOTES:

- MC-3500 CHAMBERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM F2418 "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL, STORMWATER COLLECTION CHAMBERS".
- MC-3500 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- "ACCEPTABLE FILL MATERIALS" TABLE ABOVE PROVIDES MATERIAL LOCATIONS, DESCRIPTIONS, GRADATIONS, AND COMPACTION REQUIREMENTS FOR FOUNDATION, EMBEDMENT, AND FILL MATERIALS.
- THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS. PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
- ONCE LAYER 'C' IS PLACED, ANY SOLID MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'D' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.

STANDARD CROSS SECTION  
MC-3500  
REV: 11/19/14  
DATE: 11/19/14  
DRAWN: JAW  
CHECKED: JAW  
PROJECT #:  
DESCRIPTION:  
REV: 11/19/14  
DATE: 11/19/14  
DRAWN: JAW  
CHECKED: JAW  
PROJECT #:  
DESCRIPTION:

StormTech  
4860 TREHARNS BLVD  
HALLSDALE OH 43024  
937.252.7473

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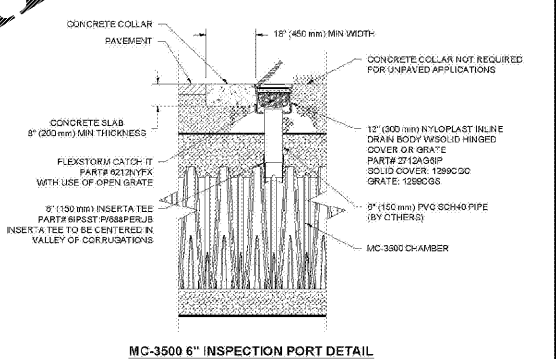


#### INSPECTION & MAINTENANCE

- STEP 1: INSPECT ISOLATOR ROW FOR SEDIMENT  
A. INSPECTION PORTS (IF PRESENT)  
A.1. REMOVE COVER LID ON INSPECTION PORT IN LINE DRAIN  
A.2. REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED  
A.3. USING A FLASHLIGHT AND STADIUM ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG  
A.4. LOWER A CAMERA INTO ISOLATOR ROW FOR VISUAL INSPECTION OF SEDIMENT LEVELS (IF AVAILABLE)  
A.5. IF SEDIMENT IS AT, OR ABOVE, 3" (80mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 1.  
B. ALL ISOLATOR ROWS  
B.1. REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW  
B.2. USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW FOR SEDIMENT AND OUTLET PIPE  
B.3. MIRRORS OR PILES OF CHAMBERS MAY BE USED TO AUGMENT INSPECTION OF SPACED SPICES  
B.4. FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY AND VENTILATION MANHOLES  
B.5. IF SEDIMENT IS AT, OR ABOVE, 3" (80mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 1.
- STEP 2: CLEAN OUT ISOLATOR ROW USING THE JETVAC PROCESS  
A. A FIXED GULBERT CLEANING HOZZE WITH A PULSING SPREAD OF 45° TO 60° IS PREFERRED.  
B. APPLY MULTIPLE PASSES OF JETVAC UNTIL DEBRIS IS PUSHED TO CLEAN.  
C. VACUUM STRUCTURE SUMP AS REQUIRED.
- STEP 3: REPLACE ALL COVERS, GRATINGS, FILTERS, AND LIDS. RECORD OBSERVATIONS AND ACTIONS.
- STEP 4: INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.

#### NOTES

- INSPECT ISOLATOR ROWS AT LEAST YEAR OF COMPLETION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATION OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.
- CONTACT JETTING AND CLEANING ANALYST OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.



StormTech  
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### STORMTECH MC-3500 CHAMBER

Designed to meet the most stringent industry performance standards, the superior structural integrity and load carrying capacity with a cost-effective method to save valuable land and protect water resources. The StormTech system is designed primarily to be used under parking lots, thus maximizing land usage for private businesses and public organizations.

StormTech MC-3500 Chamber (per 10 chambers)  
Nominal Chamber Specifications  
Size (L x W x H)  
2,265 mm x 1,352 mm x 1,143 mm  
Chamber Storage  
14.8 m³ (521 cu ft)  
Min. Installed Storage\*  
176 m³ (6,231 cu ft)

StormTech MC-3500 End Cap (per 10 caps)  
Nominal End Cap Specifications  
Size (L x W x H)  
26.0" x 77" x 45.2"  
673 mm x 1,960 mm x 1,143 mm  
End Cap Storage  
14.8 m³ (521 cu ft)  
Min. Installed Storage\*  
48.0 m³ (1,692 cu ft)

Weight  
134 lbs (60.8 kg)  
10 chambers/pallet  
7 and cap/pallet

\*Based on a depth of 22" (559mm) of stone above the chamber. Actual storage capacity will vary based on stone gradation and compaction.

### MC-3500 TECHNICAL SPECIFICATION

NOMINAL CHAMBER SPECIFICATIONS  
SIZE (W x H x INSTALLED LENGTH)  
77.0" x 45.0" x 86.0" (1960mm x 1143mm x 2184mm)  
CHAMBER STORAGE  
14.8 CUBIC FEET (5.98 m³)  
MINIMUM INSTALLED STORAGE\*  
176 CUBIC FEET (6,231 m³)

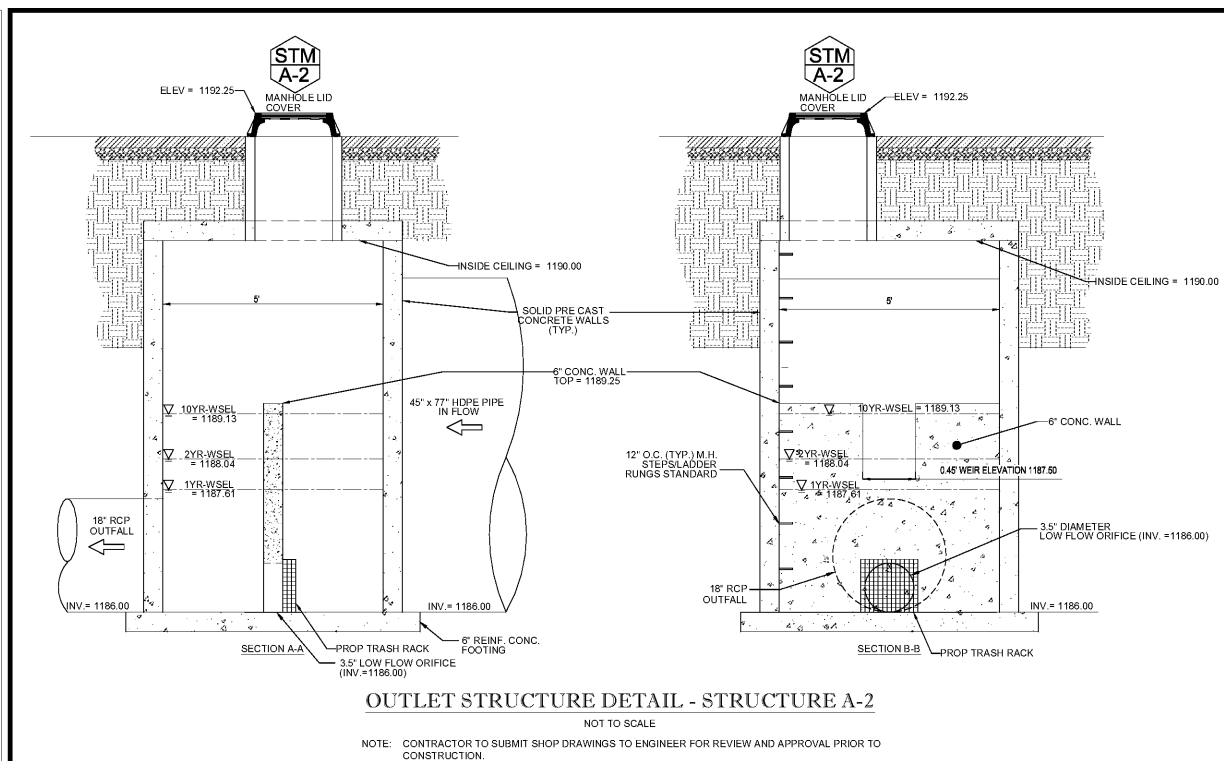
NOMINAL END CAP SPECIFICATIONS  
SIZE (W x H x INSTALLED LENGTH)  
77.0" x 45.0" x 22.5" (1960mm x 1143mm x 571mm)  
END CAP STORAGE  
14.8 CUBIC FEET (5.98 m³)  
MINIMUM INSTALLED STORAGE\*  
48.0 CUBIC FEET (1,692 m³)

\*BASED ON 22" (559mm) STONE ABOVE. IF (220mm) STONE FOUNDATION AND BETWEEN CHAMBERS, 12" (305mm) STONE PERIMETER IN FRONT OF END CAPS AND 40% STONE POROSITY.

PART #	STUB	B	C
MC3500EP001	6" (150mm)	33.2" (844mm)	—
MC3500EP002	8" (200mm)	31.1" (791mm)	3.9" (97mm)
MC3500EP003	10" (250mm)	29.0" (736mm)	3.8" (97mm)
MC3500EP101	12" (300mm)	26.3" (667mm)	3.8" (97mm)
MC3500EP102	14" (350mm)	23.3" (594mm)	3.5" (89mm)
MC3500EP103	16" (400mm)	20.8" (529mm)	3.2" (81mm)
MC3500EP201	24" (600mm)	14.4" (366mm)	2.0" (51mm)

NOTE: ALL DIMENSIONS ARE NOMINAL.

CUSTOM PRECUTTED INVERTS ARE AVAILABLE UPON REQUEST. INVERTS IN MANHOLES INCLUDE 12.5" (318mm) SIZE ON S2E AND 15.4" (391mm) ECCENTRIC MANIFOLDS. CUSTOM INVERT LOCATIONS ON THE MC-3500 END CAP CUT IN THE FIELD ARE NOT RECOMMENDED FOR PIPE SIZES GREATER THAN 18" (457mm). THE INVERT LOCATION IN COLUMN 'B' ARE THE HIGHEST POSSIBLE FOR THE PIPE SIZE.



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PROJECT No. V183205 SCALE: AS NOTED  
DRAWN BY / CHECKED BY: DSH/JOR CAD: LD.S1