

**AGREEMENT FOR MAINTENANCE OF
STORM WATER DETENTION SYSTEM**

This agreement is made on 7/27, 2020, by Lake Michigan Credit Union, a State Chartered Credit Union, whose address PO Box 2848, Grand Rapids, Michigan, 49501, ("Developer") and the CITY OF ROCHESTER HILLS (the City), whose address is 1000 Rochester Hills Drive, Rochester Hills, MI 48309.

WHEREAS, Developer owns and occupies the property described in attached **Exhibit A**; and

WHEREAS, Developer has proposed, and the City has approved, a storm water drainage and detention system (the system), which includes a detention basin, for the property as described and depicted in the attached **Exhibit B**; and

WHEREAS, the parties will benefit from the proper use and maintenance of the System and desire to enter into this agreement to provide for the same.

THEREFORE, the parties agree:

1. **Use of the System:**

Components of the System, including the detention basin, shall be used solely for the purpose of detaining storm and surface water on the property until such time as: (i) The City may determine and advise Developer or Developer successors, grantees or assigns, in writing that it is no longer necessary to use the detention basin to detain storm or surface water; and (ii) An adequate alternative for draining storm and surface water has been provided which is acceptable to the City and which includes the granting of such easements to the City or third parties for the alternative drainage system as may be necessary.

2. **Maintenance:**

A. Developer shall be responsible for the proper maintenance, repair and replacement of the System and any part thereof, including the detention basin as detailed in the Maintenance Plan attached as **Exhibit C**.

B. Proper maintenance of the System shall include, but not limited to: (i) Keeping the bottom of the detention basin free from silt and debris; (ii) Removing harmful algae; (iii) Maintaining steel grating across the basin's inlets; (iv) Controlling the effects of erosion; and (v) Any other maintenance that is reasonable and necessary in order to facilitate or accomplish the intended function and purpose of the System.

C. Lake Michigan Credit Union, their successors, grantees, or assigns, accepts full responsibility for the proposed storm sewer design and construction, and if the soil conditions stop promoting good infiltration into the ground a new outlet design will need to be constructed solely at the cost of Lake Michigan Credit Union. The City of Rochester Hills DPS/Engineering will be the sole determining party to determine if this event occurs triggering a new storm sewer outlet needing to be constructed. This is a fully binding effect on the owner and successors and assigns within it, so it runs with the land.

3. **Action by the City:**

In the event Developer or Developer's successors, grantees, or assigns, neglects or fails at any time to properly maintain the System or any part thereof, the City may notify Developer or Developer's successors, grantees or assigns, in writing, and the notice shall include a listing and description of maintenance deficiencies and a demand that they must be corrected within thirty (30) days. The notice shall further specify the date and place for a hearing to be held at least fourteen (14) days after the date of the notice before the City Council, or such other board or official to whom the City Council may delegate responsibility. At the hearing, the City Council (or other board or official) may endorse or modify the listing and description of deficiencies to be corrected and, for good cause, may extend the time within which the deficiencies must be corrected.

Thereafter, if the maintenance deficiencies are not corrected within the time allowed, the City may undertake and make the necessary corrections, and may maintain the System for a period not to exceed one (1) year. Such maintenance of the System by the City shall not be deemed a taking of the property, nor shall the City's actions be deemed to vest in the public any right to use the property. If the City determines maintenance of the system by the City should continue beyond one year, the City shall hold, and provide advance written notice of, a further hearing at which Developer or Developer's successors, grantees or assigns, will not or cannot properly maintain the System, the City may continue to maintain the System for another year, and subject to a similar hearing and determination, in subsequent years.

In the event the City determines an emergency condition caused by or relating to the System threatens the public health, safety or general welfare, the City shall have the right to immediately and without notice enter the property and undertake appropriate corrective action.

4. **Charges:**

The City shall charge to the current owner of the property the cost of maintenance or other corrective action undertaken by the City in accordance with this agreement, plus a ten percent (10%) administrative fee. If not timely paid, the City may assess the charges on the City's tax roll, which charges shall be a lien on the real property and shall be collectable and enforceable in the same manner general property taxes are collected and enforced.

5. **Notice:**

Any notices required under this agreement shall be sent by certified mail to the address for each party set forth below, or to such other addresses as such party may notify the other parties in writing:

To Lake Michigan Credit Union:

PO Box 2848
Grand Rapids, MI 49501
Attention: Steve Compeau

To the City:

Clerk
City of Rochester Hills
1000 Rochester Hills Drive
Rochester Hills, MI 48309

6. **Successors and Assigns:**

This agreement shall bind and inure to the benefit of the parties and their respective successors, grantees and assigns. The rights, obligations and responsibilities hereunder shall run with the land and shall bind all current and future owners of the property.

7. **Recording of Agreement:**

This agreement shall be recorded at the Oakland County Register of Deeds.

LAKE MICHIGAN CREDIT UNION
A State Chartered Credit Union

By: Steve Compeau
Steve Compeau
Vice President
Real Estate, Construction & Security

CITY OF ROCHESTER HILLS

By: _____
Bryan K. Barnett, Mayor

By: _____
Tina Barton, City Clerk

STATE OF MICHIGAN
COUNTY OF OAKLAND

This agreement was acknowledged before me on 7/27, 2020, by Steve Compeau who is the Vice President of Real Estate, Construction & Security at Lake Michigan Credit Union, a State Chartered Credit Union on behalf of the Company.

BRITNEY WURM
NOTARY PUBLIC – STATE OF MICHIGAN
COUNTY OF KENT
My Commission Expires August 30, 2024
Acting in the County of Kent

Britney Wurm
_____, Notary Public
Kent County, Michigan
My commission expires: 8/30/24

STATE OF MICHIGAN
COUNTY OF OAKLAND

This agreement was acknowledged before me on _____, 2020, by Bryan K. Barnett, Mayor, and Tina Barton, Clerk, of the City of Rochester Hills, on behalf of the City.

_____, Notary Public
_____, County, Michigan
My commission expires: _____

Drafted By:
Steve Compeau
Lake Michigan Credit Union
PO Box 2848
Grand Rapids, MI 49501

When Recorded Return to:
Clerks Dept.
City of Rochester Hills
1000 Rochester Hills Drive
Rochester Hills, MI 48309

John Staran
Approved as to form 8/3/20

EXHIBIT A

LEGAL DESCRIPTION OF PROPERTY:

Land situated in the City of Rochester Hills, County of Oakland, State of Michigan, to wit:

Part of the Southeast 1/4 of Section 3, Town 3 North, Range 11 East, Avon Township (now City of Rochester Hills), Oakland County, Michigan, described as: Beginning at a point that is North 89 degrees 10 minutes 00 seconds West along the South line of said Section 3 and the centerline of Tienken Road 1502.50 feet from the Southeast corner of said Section 3; thence North 89 degrees 10 minutes 00 seconds West 149.50 feet along the South line of Section 3; thence North 01 degrees 24 minutes 00 seconds East 524.22 feet; thence South 88 degrees 10 minutes 00 seconds East 149.49 feet; thence South 01 degrees 24 minutes 00 seconds West 521.61 feet to the Point of Beginning and excepting the rights of the public over the Southerly 60.00 feet for Tienken Road.

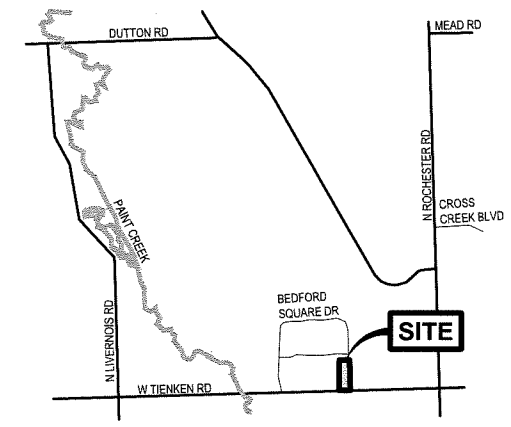
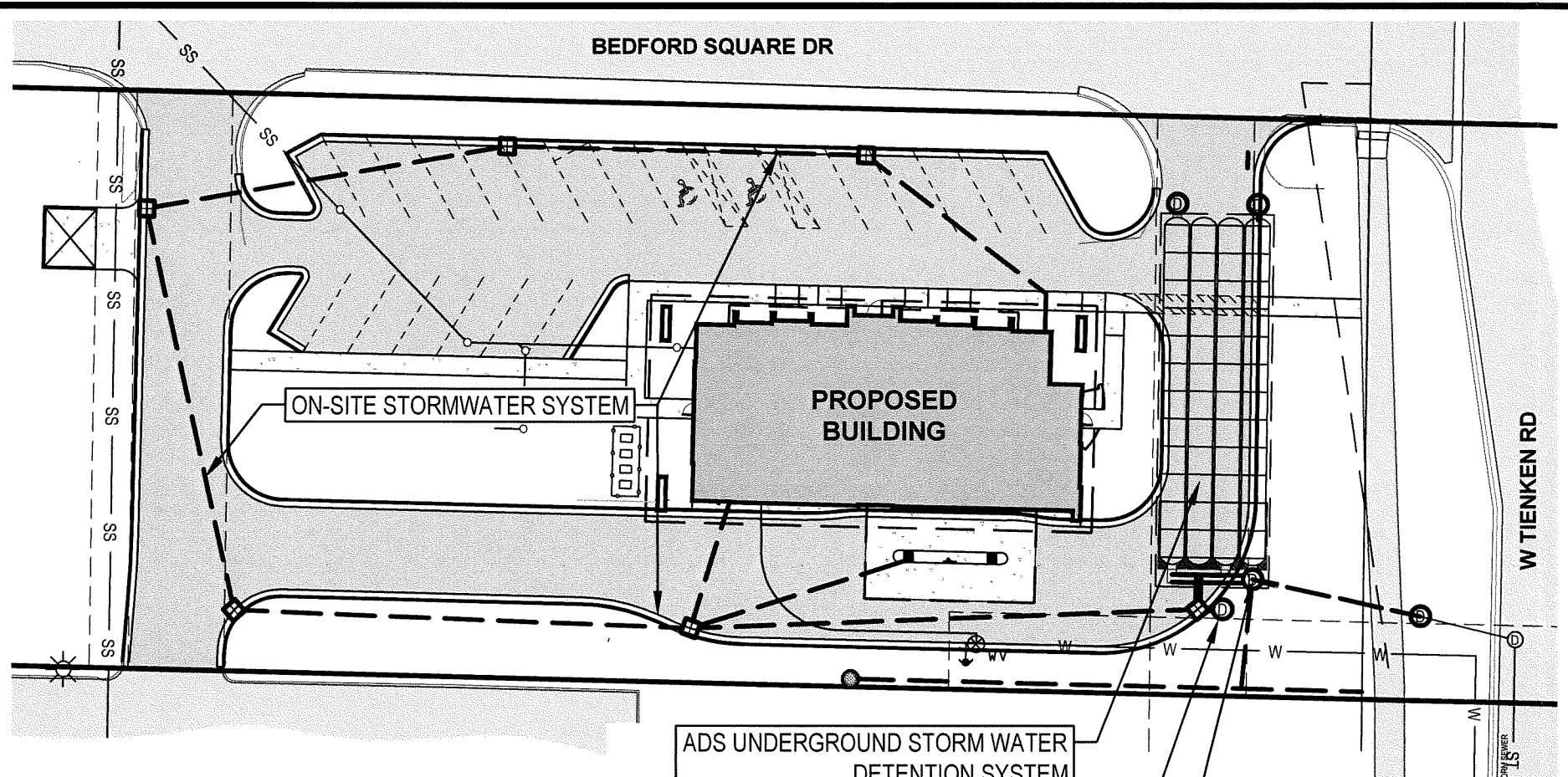
TOGETHER WITH AN UNDIVIDED ONE-HALF (1/2) INTEREST IN A ROADWAY 40.00 FEET IN WIDTH DESCRIBED AS FOLLOWS:

Part of the Southeast 1/4 of Section 3, Town 3 North, Range 11 East, Avon Township (now City of Rochester Hills), Oakland County, Michigan, described as: Beginning at a point that is North 89 degrees 10 minutes 00 seconds West along the South line of said Section 3 and the centerline of Tienken Road 1462.50 feet from the Southeast corner of said Section 3; thence North 89 degrees 10 minutes 00 seconds West 40.00 feet along the South line of Section 3; thence North 01 degrees 24 minutes 00 seconds East 526.61 feet; thence South 88 degrees 10 minutes 00 seconds East 40.00 feet; thence South 01 degrees 24 minutes 00 seconds West 525.92 feet to the point of beginning, and excepting the rights of the public over the Southerly 60.00 feet for Tienken Road, as recorded in Liber 8005, Page 694, Oakland County Records.

(copied Commitment 18.0356 Campbell Title, dated December 10, 2018)

Jenny M.
Approved 6/23/20

EXHIBIT 'B'



LOCATION MAP
NOT TO SCALE

ADS UNDERGROUND STORM WATER
DETENTION SYSTEM

STORMWATER QUALITY UNIT

OUTLET CONTROL STRUCTURE

SCALE: 1" = 40' 0' 20' 40'



NORTH

LAKE MICHIGAN CREDIT UNION

EXHIBIT B

CITY OF ROCHESTER HILLS, OAKLAND COUNTY, MI

DRAWN BY:

V. DATE:

PRJ NO: 19500016

CHECKED BY:

S. DATE:

1 OF 1



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Grand Rapids
217 Grandville Ave., Suite 302
Grand Rapids, MI 49503

Los Angeles Chicago Columbus
Houston Indianapolis St. Louis

*pk AKS
6/1/20*

10/20/2019 11:47 AM
 3/21/2020 11:47 AM
 10/20/2019 11:47 AM

EXHIBIT C

TO AGREEMENT FOR STORM WATER SYSTEM MAINTENANCE

Operations Stormwater Drainage and Maintenance Plan

Lake Michigan Credit Union of Rochester Hills
Rochester Hills, MI

This long term maintenance operations and maintenance plan (O&M) shall use BMP's (Best Management Practices) to ensure that the stormwater management system performs and functions as designed. The stormwater management system is an effective way to enhance the water quality of the stormwater by effectively removing the sediment and pollutants from stormwater runoff. This will help ensure that we save our environment and help protect the valuable land and water resources. This O&M will outline the ownership/facility, underground detention system location, inspection and maintenance checklists, manufacturers O&M manuals. It will also outline the components of:

- System Inspections.
- Removal of trash and litter debris from the site, including roadways/parking lot areas, drive thru, service/dumpster areas, and landscape beds.
- Removal of dirt and sediment in swales, catch basins, water quality units, and sewer pipes.
- Grass mowing and vegetated area maintenance.

Ownership/Facility Manager Contact Information

Lake Michigan Credit Union
Attention: Steve Compeau
PO Box 2848
Grand Rapids, MI 49501

Stormwater Site Plan

The Developer has proposed as shown in "Exhibit B" of the Stormwater Maintenance Agreement plan, a detailed drawing showing the location of the storm water drainage and detention system comprised of storm water detention and water quality treatment facilities and devices, storm sewer pipe, catch basins, manholes, end sections, ditches, swales, open water courses and rip-rap (the "System") for the Property as described and depicted in the Storm Water System Plan attached as "Exhibit B". Stormwater runoff is collected in the parking lot catch basins and water is conveyed by a system of underground pipes to a storm water quality unit. The storm water quality unit provides treatment to the water by removing sediment, pollutants, and floating the system will help assure adequate performance. The structures and sewers shall also be observed during large rain events to ensure proper operation of the system.

Ok ARS
11/18/20

Stormwater System Inspections and Maintenance - Structures

Attached in "Exhibit C" is an inspection and maintenance plan outline for stormwater management structures. The outline of the schedule will give the frequency and descriptions of areas to inspect and maintain in order to ensure the system is functioning as designed. This maintenance checklist shall be performed by personnel that is responsible for the maintenance of the system and may need to be certified for the entry of a confined space. The inspections shall be recorded and maintained by the owner for a minimum of ten (10) years and copies shall be provided to the City of Rochester Hills Engineering Department.

Trash and Litter

The inspection for trash and litter on the property shall be a regular routine. Proper disposal of items shall meet all State and Federal regulations. Parking lot sweeping shall also be performed to help provide a more overall attractive appearance to the outside of the building. Parking lot curb gutters shall also be maintained and kept free of dirt and sediment. A periodic inspection of landscape beds for debris shall be performed as needed. Plants, shrubs and trees shall also be inspected for healthy growth.

Stormwater System Management Maintenance – Underground Detention

Attached is the operation and maintenance manual for the underground stormwater system. This gives an introduction, operation, and maintenance of the overall system. Refer to the manual for overview of the maintenance requirements of the different components to the stormwater system. An inspection and maintenance plan is attached for areas to inspect, inspection timeline schedule, and corrective actions if needed.

Stormwater Pre-Treatment Device (BaySaver Barracuda)

Refer to the attached manufacturer's maintenance manual for all inspection and maintenance requirements for the pre-treatment structure. A record of inspections and maintenance shall be kept for a minimum of ten years.

**INSPECTION AND MAINTENANCE PLAN
STORMWATER MANAGEMENT STRUCTURES (BMPS)**

TASKS	STREET	STORM SEWER SYSTEM	CATCH BASINS & MANHOLES	CATCH BASIN INLETS	OUTLET CONTROL STRUCTURES	DETENTION CHAMBERS	VEGETATED AREAS	ROADWAYS & PARKING AREAS
Inspect for Sediment Accumulation		Annually or as needed	Annually or as needed	Annually or as needed	Annually or as needed	Annually or as needed		
Removal of Sediment Accumulation		Annually or as needed	Annually or as needed	Annually or as needed	Annually or as needed	Annually or as needed		
Inspect and Cleaning for Floatables and Debris			Annually or as needed		Annually or as needed			
Inspection for Erosion							As needed	
Wet Weather Inspection	As needed	As needed	As needed	As needed	As needed	As needed	As needed	As needed
Inspect Inside of Structure, Pipes for Cracks, Pipe Joints, Settlement or Failure		Annually or as needed	Annually or as needed		Annually or as needed	Annually or as needed		

Inspection Comments:

Corrective Action Plan:

Completed By: _____ Date: _____

Maintenance Guide



BaySaver Barracuda™

July 2017

One of the advantages of the BaySaver Barracuda is the ease of maintenance. Like any system that collects pollutants, the BaySaver Barracuda must be maintained for continued effectiveness. Maintenance is a simple procedure performed using a vacuum truck or similar equipment. The systems were designed to minimize the volume of water removed during routine maintenance, reducing disposal costs.

Contractors can access the pollutants stored in the manhole through the manhole cover. This allows them to gain vacuum hose access to the bottom of the manhole to remove sediment and trash. There is no confined space entry necessary for inspection or maintenance.

The entire maintenance procedure typically takes from 2 to 4 hours, depending on the size of the system, the captured material, and the capacity of the vacuum truck.

Local regulations may apply to the maintenance procedure. Safe and legal disposal of pollutants is the responsibility of the maintenance contractor. Maintenance should be performed only by a qualified contractor.

Inspection and Cleaning Cycle

Periodic inspection is needed to determine the need for and frequency of maintenance. You should begin inspecting as soon as construction is complete and thereafter on an annual basis. Typically, the system needs to be cleaned every 1-3 years.

Excessive oils, fuels or sediments may reduce the maintenance cycle. Periodic inspection is important.

Determining When to Clean

To determine the sediment depth, the maintenance contractor should lower a stadia rod into the manhole until it contacts the top of the captured sediment and mark that spot on the rod. Then push the probe through to the bottom of the sump and mark that spot to determine sediment depth.

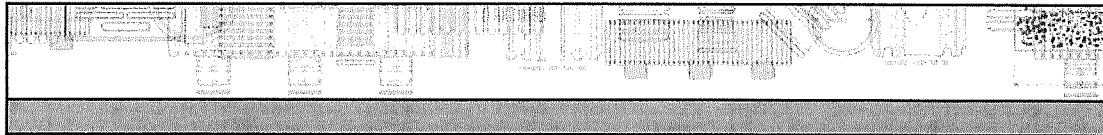
Maintenance should occur when the sediment has reached the levels indicated in the Storage Capacity Chart.

BaySaver Barracuda Storage Capacities

Model	Manhole Diameter	Treatment Chamber Capacity	Standard Sediment Capacity (20" depth)	NJDEP Sediment Capacity (50% of standard depth)
S3	36"	212 gallons	0.44 cubic yards	0.22 cubic yards
S4	48"	564 gallons	0.78 cubic yards	0.39 cubic yards
S5	60"	881 gallons	1.21 cubic yards	0.61 cubic yards
S6	72"	1269 gallons	1.75 cubic yards	0.88 cubic yards
S8	96"	3835 gallons	3.10 cubic yards	1.55 cubic yards
S10	120"	7496 gallons	4.85 cubic yards	2.43 cubic yards

Maintenance Instructions

1. Remove the manhole cover to provide access to the pollutant storage. Pollutants are stored in the sump, below the bowl assembly visible from the surface. You'll access this area through the 10" diameter access cylinder.



2. Use a vacuum truck or other similar equipment to remove all water, debris, oils and sediment. See figure 1.
3. Use a high pressure hose to clean the manhole of all the remaining sediment and debris. Then, use the vacuum truck to remove the water.
4. Fill the cleaned manhole with water until the level reaches the invert of the outlet pipe.
5. Replace the manhole cover.
6. Dispose of the polluted water, oils, sediment and trash at an approved facility.
 - Local regulations prohibit the discharge of solid material into the sanitary system. Check with the local sewer authority for authority to discharge the liquid.
 - Some localities treat the pollutants as leachate. Check with local regulators about disposal requirements.
 - Additional local regulations may apply to the maintenance procedure.

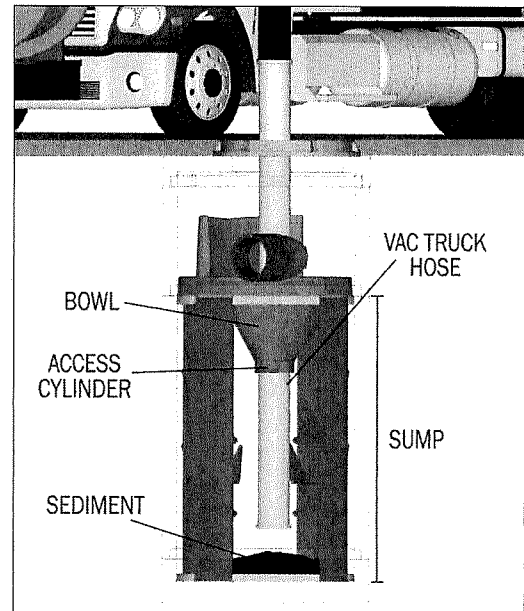
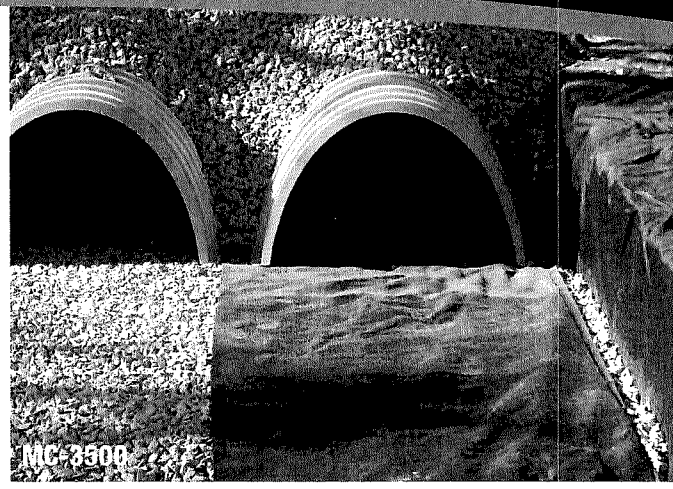


Figure 1

Isolator[®] Row O&M Manual



THE MOST ADVANCED NAME IN WATER MANAGEMENT SOLUTIONS™

THE ISOLATOR[®] ROW

INTRODUCTION

An important component of any Stormwater Pollution Prevention Plan is inspection and maintenance. The StormTech Isolator Row is a technique to inexpensively enhance Total Suspended Solids (TSS) removal and provide easy access for inspection and maintenance.

THE ISOLATOR ROW

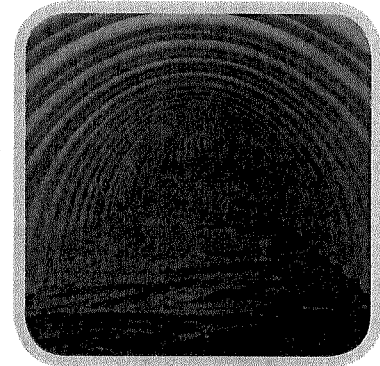
The Isolator Row is a row of StormTech chambers, either SC-160LP, SC-310, SC-310-3, SC-740, DC-780, MC-3500 or MC-4500 models, that is surrounded with filter fabric and connected to a closely located manhole for easy access. The fabric-wrapped chambers provide for settling and filtration of sediment as storm water rises in the Isolator Row and ultimately passes through the filter fabric. The open bottom chambers and perforated sidewalls (SC-310, SC-310-3 and SC-740 models) allow storm water to flow both vertically and horizontally out of the chambers. Sediments are captured in the Isolator Row protecting the storage areas of the adjacent stone and chambers from sediment accumulation.

Two different fabrics are used for the Isolator Row. A woven geotextile fabric is placed between the stone and the Isolator Row chambers. The tough geotextile provides a media for storm water filtration and provides a durable surface for maintenance operations. It is also designed to prevent scour of the underlying stone and remain intact during high pressure jetting. A non-woven fabric is placed over the chambers to provide a filter media for flows passing through the perforations in the sidewall of the chamber. The non-woven fabric is not required over the SC-160LP, DC-780, MC-3500 or MC-4500 models as these chambers do not have perforated side walls.

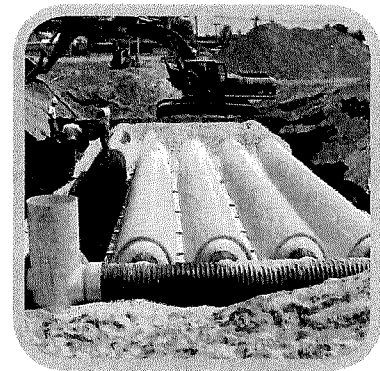
The Isolator Row is typically designed to capture the "first flush" and offers the versatility to be sized on a volume basis or flow rate basis. An upstream manhole not only provides access to the Isolator Row but typically includes a high flow weir such that storm water flowrates or volumes that exceed the capacity of the Isolator Row overflow the weir and discharge through a manifold to the other chambers.

The Isolator Row may also be part of a treatment train. By treating storm water prior to entry into the chamber system, the service life can be extended and pollutants such as hydrocarbons can be captured. Pre-treatment best management practices can be as simple as deep sump catch basins, oil-water separators or can be innovative storm water treatment devices. The design of the treatment train and selection of pretreatment devices by the design engineer is often driven by regulatory requirements. Whether pretreatment is used or not, the Isolator Row is recommended by StormTech as an effective means to minimize maintenance requirements and maintenance costs.

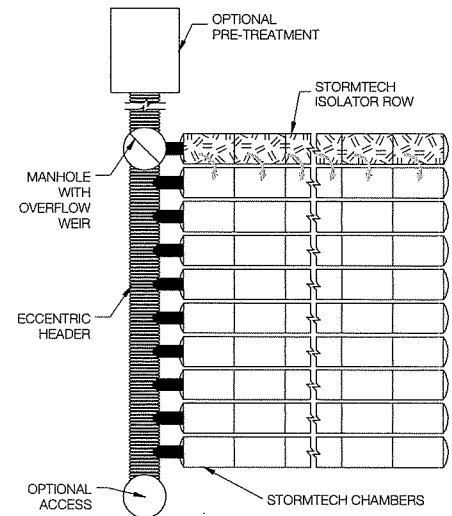
Note: See the StormTech Design Manual for detailed information on designing inlets for a StormTech system, including the Isolator Row.

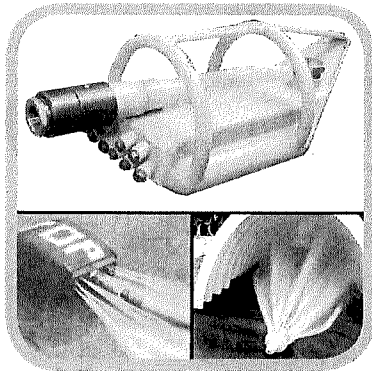


Looking down the Isolator Row from the manhole opening, woven geotextile is shown between the chamber and stone base.



StormTech Isolator Row with Overflow Spillway (not to scale)





ISOLATOR ROW INSPECTION/MAINTENANCE

INSPECTION

The frequency of inspection and maintenance varies by location. A routine inspection schedule needs to be established for each individual location based upon site specific variables. The type of land use (i.e. industrial, commercial, residential), anticipated pollutant load, percent imperviousness, climate, etc. all play a critical role in determining the actual frequency of inspection and maintenance practices.

At a minimum, StormTech recommends annual inspections. Initially, the Isolator Row should be inspected every 6 months for the first year of operation. For subsequent years, the inspection should be adjusted based upon previous observation of sediment deposition.

The Isolator Row incorporates a combination of standard manhole(s) and strategically located inspection ports (as needed). The inspection ports allow for easy access to the system from the surface, eliminating the need to perform a confined space entry for inspection purposes.

If upon visual inspection it is found that sediment has accumulated, a stadia rod should be inserted to determine the depth of sediment. When the average depth of sediment exceeds 3 inches throughout the length of the Isolator Row, clean-out should be performed.

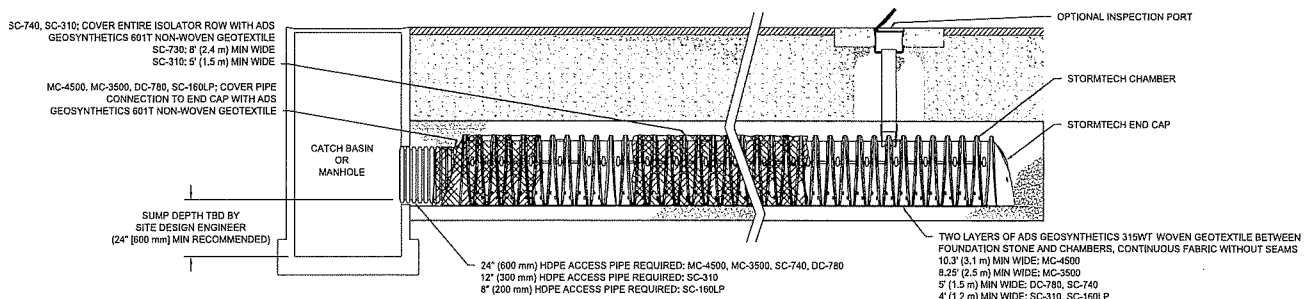
MAINTENANCE

The Isolator Row was designed to reduce the cost of periodic maintenance. By "isolating" sediments to just one row, costs are dramatically reduced by eliminating the need to clean out each row of the entire storage bed. If inspection indicates the potential need for maintenance, access is provided via a manhole(s) located on the end(s) of the row for cleanout. If entry into the manhole is required, please follow local and OSHA rules for a confined space entries.

Maintenance is accomplished with the JetVac process. The JetVac process utilizes a high pressure water nozzle to propel itself down the Isolator Row while scouring and suspending sediments. As the nozzle is retrieved, the captured pollutants are flushed back into the manhole for vacuuming. Most sewer and pipe maintenance companies have vacuum/JetVac combination vehicles. Selection of an appropriate JetVac nozzle will improve maintenance efficiency. Fixed nozzles designed for culverts or large diameter pipe cleaning are preferable. Rear facing jets with an effective spread of at least 45" are best. Most JetVac reels have 400 feet of hose allowing maintenance of an Isolator Row up to 50 chambers long. **The JetVac process shall only be performed on StormTech Isolator Rows that have AASHTO class 1 woven geotextile (as specified by StormTech) over their angular base stone.**

StormTech Isolator Row (not to scale)

Note: Non-woven fabric is only required over the inlet pipe connection into the end cap for SC-160LP, DC-780, MC-3500 and MC-4500 chamber models and is not required over the entire Isolator Row.



ISOLATOR ROW STEP BY STEP MAINTENANCE PROCEDURES

STEP 1

Inspect Isolator Row for sediment.

- A) Inspection ports (if present)
 - i. Remove lid from floor box frame
 - ii. Remove cap from inspection riser
 - iii. Using a flashlight and stadia rod, measure depth of sediment and record results on maintenance log.
 - iv. If sediment is at or above 3 inch depth, proceed to Step 2. If not, proceed to Step 3.
- B) All Isolator Rows
 - i. Remove cover from manhole at upstream end of Isolator Row
 - ii. Using a flashlight, inspect down Isolator Row through outlet pipe
 - 1. Mirrors on poles or cameras may be used to avoid a confined space entry
 - 2. Follow OSHA regulations for confined space entry if entering manhole
 - iii. If sediment is at or above the lower row of sidewall holes (approximately 3 inches), proceed to Step 2. If not, proceed to Step 3.

STEP 2

Clean out Isolator Row using the JetVac process.

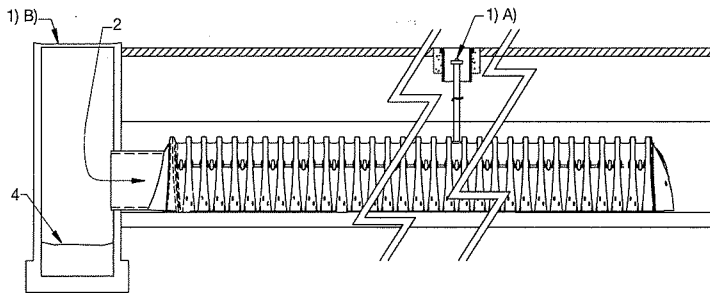
- A) A fixed floor cleaning nozzle with rear facing nozzle spread of 45 inches or more is preferable
- B) Apply multiple passes of JetVac until backflush water is clean
- C) Vacuum manhole sump as required

STEP 3

Replace all caps, lids and covers, record observations and actions.

STEP 4

Inspect & clean catch basins and manholes upstream of the StormTech system.



SAMPLE MAINTENANCE LOG

Date	Stadia Rod Readings		Sediment Depth (1)-(2)	Observations/Actions	Inspector
	Fixed point to chamber bottom (1)	Fixed point to top of sediment (2)			
3/16/11	6.3 ft	none		New installation. Fixed point is CI frame at grade	DJM
9/24/11		6.2	0.1 ft	Some grit felt	SM
6/20/13		5.8	0.5 ft	Mucky feel, debris visible in manhole and in Isolator Row, maintenance due	NV
7/7/13	6.3 ft		0	System jetted and vacuumed	DJM

ADS "Terms and Conditions of Sale" are available on the ADS website, www.ads-pipe.com
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 StormTech® and the Isolator® Row are registered trademarks of StormTech, Inc.
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Advanced Drainage Systems, Inc.
 4640 Trueman Blvd., Hilliard, OH 43026
 1-800-821-6710 www.ads-pipe.com