AGREEMENT FOR
STORM WATER SYSTEM MAINTENANCE

This Agreement is made on May 3, 2016, by Age of Rochester Hills, Inc., of 1245 East Grand Blanc Road, Grand Blanc, Michigan 48439 ("Developer"), and the CITY OF ROCHESTER HILLS (the "City"), whose address is 1000 Rochester Hills Drive, Rochester Hills, MI 48309.

WHEREAS, the Developer owns and proposes to develop the Property described in attached Exhibit A; and

WHEREAS, the proposed development of the Property will alter the natural flow of surface and storm water drainage; and

WHEREAS, Developer has proposed, and the City has approved, a storm water drainage and detention system (the "System") comprised of storm water detention and water quality treatment facilities and devices, storm sewer pipe, catch basins, and manholes for the Property as described and depicted in the Storm Water System Plan attached as Exhibit B; and

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

THEREFORE, the parties agree:

1. **Use of the System:**

Components of the System, including any and all water conveyance, detention and water quality treatment facilities and devices, storm sewer pipe, catch basins, and manholes shall be used solely for the purpose of conveying, detaining and treating storm and surface drainage on the property until such time as: (i) The City determines and notifies Developer or Developer's successors, grantees or assigns, in writing, that it is no longer necessary to convey, detain or treat the storm and surface drainage; and (ii) An adequate alternative for conveying, detaining and treating storm and surface drainage has been provided which is acceptable to the City and which includes the granting of any easements to the City or third parties as may be required or necessary for the alternative drainage system.

2. **Maintenance:**

A. Developer shall be responsible for the proper maintenance, repair and replacement of the System and all parties thereof as detailed in the Maintenance Plan attached as Exhibit C.

B. Proper maintenance of the System shall include, but is not limited to: (i) Removing accumulated sediment, trash and debris from the detention system and at inlet pipes; (ii) Maintaining storm sewer and structures; (iii) Controlling the effects of erosion; (iv) Inspection and cleaning of the water quality treatment device; (v) Inspection of inlet and outlet pipes for structural integrity; (vi) Inspection and cleaning of the storm sewer and catch basins upstream from the detention system; and (vii) Any other maintenance that is reasonable and necessary to facilitate and continue the proper operation and use of the System.

3. **Action by City:**

If, at any time, Developer or Developer's successors, grantees or assigns neglect or fail to properly maintain the System or any part thereof, the City may notify Developer or Developer's successors, grantees or assigns. The notice shall be in writing and shall list and describe maintenance deficiencies and demand that they be corrected within thirty (30) days.

The notice shall further specify a 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 as the City Council may designate. At the hearing, the City Council (or other designated board or official) may affirm or modify the list and description of maintenance deficiencies and, for good cause shown, may extend the time for the deficiencies to be corrected.

Thereafter, if the maintenance deficiencies are not corrected within the time allowed, the City may undertake the necessary corrective actions, and the City may maintain the System for up to one (1) year. Such maintenance of the System by the City shall not be construed to be a trespass or a taking of the Property, nor shall the City's actions vest in the public any right to enter or use the Property. Thereafter, if Developer or Developer's successors, grantees or assigns do not properly maintain the System, the City may, after providing similar written notice, schedule and hold another hearing to determine whether the City should maintain the System for another year, and subject to a similar notice, 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 under this agreement, plus a ten percent (10%) administrative fee. If not timely paid, the City may place 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: Age of Rochester Hills, Inc.
1245 East Grand Blanc Road
Grand Blanc, Michigan 48439

To the City: 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 benefits, burdens, rights, obligations and responsibilities hereunder shall run with the land and shall bind all current and future owners of the Property and any divisions thereof.

7. **Recording of Agreement:**

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

AGE OF ROCHESTER HILLS, INC.

By: _____
Michael Jablonski
Title: Vice-President

CITY OF ROCHESTER HILLS

By: _____
Bryan K. Barnett, Mayor

By: _____
Tina Barton, Clerk

STATE OF MICHIGAN
COUNTY OF GENESEE

This agreement was acknowledged before me on May 3, 2016, by Michael Jablonski who is the Vice-President of the Age of Rochester Hills, Inc., a Michigan Corporation on behalf of the Corporation.

Jeanne Rose Reiter
Jeanne Rose Reiter, Notary Public
Genesee County, Michigan
My commission expires: 02-22-2022
Acting in Genesee County

STATE OF MICHIGAN
COUNTY OF OAKLAND

This agreement was acknowledged before me on _____, 201*, by Bryan K. Barnett, Mayor, and Tina Barton, Clerk, of the City of Rochester Hills, a Michigan Municipal Corporation, on behalf of the Corporation.

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

Drafted by:
Kevin Cook
CHMP, Inc.
5198 Territorial Road
Grand Blanc, MI 48439

When Recorded Return to
City Clerk
City of Rochester Hills
1000 Rochester Hills Drive
Rochester Hills, MI 48309

John Staran
Approved 5/20/16

EXHIBIT 'A'

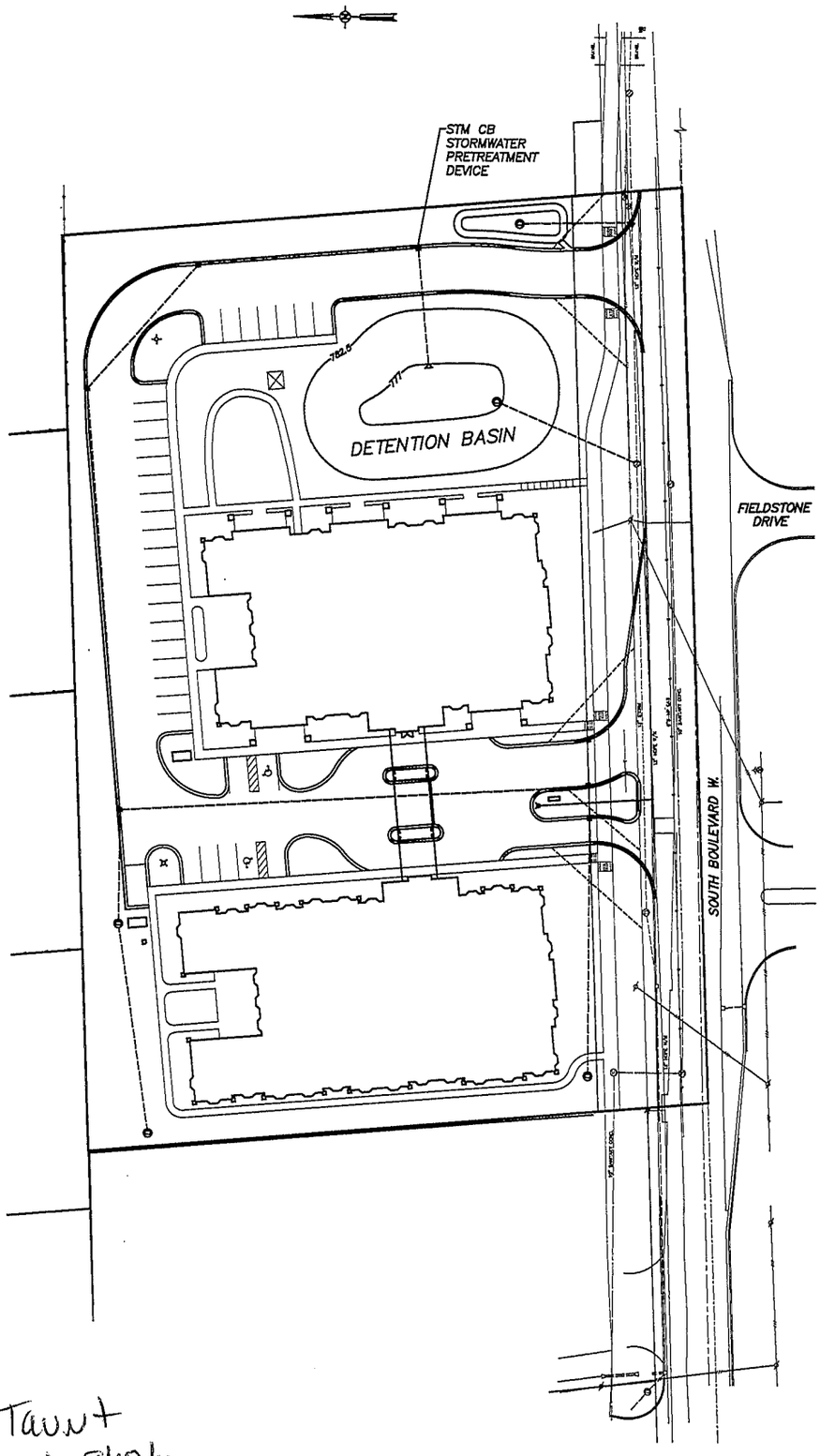
PARCEL NUMBER: 70-15-34-352-035

ALSO DESCRIBED AS/LEGAL DESCRIPTION:

LAND SITUATED IN THE CITY OF ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN, DESCRIBED AS: PART OF THE SOUTHWEST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 34, TOWN 3 NORTH, RANGE 11 EAST, CITY OF ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN, BEING MORE PARTICULARLY DESCRIBED AS BEGINNING AT A POINT ON THE SOUTH SECTION LINE LOCATED NORTH 88 DEGREES 35 MINUTES 00 SECONDS EAST, 325.71 FEET (EAST, 331.28 FEET RECORD) FROM THE SOUTHWEST CORNER OF SAID SECTION; THENCE NORTH 04 DEGREES 48 MINUTES 00 SECONDS WEST, 337.99 FEET; THENCE NORTH 88 DEGREES 35 MINUTES 00 SECONDS EAST, 500.00 FEET; THENCE SOUTH 04 DEGREES 48 MINUTES 00 SECONDS EAST, 337.99 FEET TO A POINT ON THE SOUTH LINE OF SAID SECTION; THENCE SOUTH 88 DEGREES 35 MINUTES 00 SECONDS WEST, 500.00 FEET ALONG SAID LINE TO THE POINT OF BEGINNING. CONTAINING 3.87 ACRES AND IS SUBJECT TO THE ANY EASEMENTS, RESTRICTIONS OF RECORD AND THE RIGHTS OF THE PUBLIC IN SOUTH BOULEVARD (60 FEET WIDE-HALF R.O.W.).

Approved By
Mike Taunt
3/13/17

EXHIBIT 'B'



Mike Taunt
Approved 8/17/16

EXHIBIT 'C'

OPERATION AND MAINTENANCE MANUAL

PINES OF ROCHESTER HILLS
STORMWATER MAINTENANCE PLAN
ROCHESTER HILLS, MICHIGAN

PROPERTY OWNER:
AGE OF ROCHESTER HILLS
1245 E. GRAND BLANC ROAD
GRAND BLANC, MICHIGAN 48439

Prepared by:
CHMP, INC.
5198 Territorial Road
Grand Blanc, MI 48439
Phone: (810) 695-5910
Contact: Kevin Cook, P.E.

OPERATION AND MAINTENANCE MANUAL

INTRODUCTION:

This manual identifies the ownership, operation and maintenance responsibilities for all storm water management systems including the detention system, underground storm sewer system, outlet control structure, and pre-treatment device as incorporated into and detailed on the approved Construction Plans as prepared by CHMP, INC. In order to comply with the local best management practices (BMP) and requirements, this manual should serve as a minimum performance standard. This manual should be retained intact and read in its entirety by all parties responsible for the operations and maintenance of the on-site BMP's.

OWNER:

AGE OF ROCHESTER HILLS
1245 E. GRAND BLANC ROAD
GRAND BLANC, MICHIGAN 48439

PROPERTY INFORMATION:

This Operation and Maintenance Manual covers the storm water systems located at the following subject property:

PARCEL NUMBER: 70-15-34-352-035

ALSO DESCRIBED AS/LEGAL DESCRIPTION:
LAND SITUATED IN THE CITY OF ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN, DESCRIBED AS: PART OF THE SOUTHWEST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 34, TOWN 3 NORTH, RANGE 11 EAST, CITY OF ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN, BEING MORE PARTICULARLY DESCRIBED AS BEGINNING AT A POINT ON THE SOUTH SECTION LINE LOCATED NORTH 88 DEGREES 35 MINUTES 00 SECONDS EAST, 325.71 FEET (EAST, 331.28 FEET RECORD) FROM THE SOUTHWEST CORNER OF SAID SECTION; THENCE NORTH 04 DEGREES 48 MINUTES 00 SECONDS WEST, 337.99 FEET; THENCE NORTH 88 DEGREES 35 MINUTES 00 SECONDS EAST, 500.00 FEET; THENCE SOUTH 04 DEGREES 48 MINUTES 00 SECONDS EAST, 337.99 FEET TO A POINT ON THE SOUTH LINE OF SAID SECTION; THENCE SOUTH 88 DEGREES 35 MINUTES 00 SECONDS WEST, 500.00 FEET ALONG SAID LINE TO THE POINT OF BEGINNING. CONTAINING 3.87 ACRES AND IS SUBJECT TO THE ANY EASEMENTS, RESTRICTIONS OF RECORD AND THE RIGHTS OF THE PUBLIC IN SOUTH BOULEVARD (60 FEET WIDE-HALF R.O.W.).

STORMWATER MAINTENANCE EXHIBIT:

Exhibit 'B' of the Storm Water Maintenance Agreement is the Storm Water System Plan which provides a clear presentation of all components of the storm water system. This system is subject to the long-term operation and maintenance responsibilities detailed in this manual. This system includes:

- Storm sewer pipes
- Storm sewer structures (manholes, inlets, catch basins, etc.)
- Storm detention
- Outlet control structure
- Pre-Treatment Device (CDS unit)

INSPECTIONS;

The frequency of system inspections outlined in the manual and attached exhibits should be considered the minimum, if no events warrant additional inspections. The frequency of inspections should be fine-tuned over time as system specific conditions are better known and the rate at which certain maintenance operations need to be performed is better understood. Maintenance Inspection Checklists are provided for each of the BMP's in this system. Inspections should be performed by personnel responsible for maintenance and may need to be certified for confined space entry, depending on the component being inspected. Operation of the detention system, outlet control structure, and pre-treatment device may need to be inspected by a practicing civil engineer familiar with their operation.

Records of all routine inspections and any work performed on the system for maintenance, repair or replacement should be maintained by the owner and kept for a minimum of ten (10) years. A copy of all records should be provided to the City of Rochester hills Engineering Division. The records should include this manual, all inspection sheets, approved construction plans and as-built documents, a maintenance log of work performed to the system(s) and contact information for the system inspector, civil engineer, landscape architect, geotechnical engineer and contractor involved with the system.

STORM WATER SYSTEMS MAINTENANCE:

Regular inspection and maintenance of BMP's are necessary if these facilities are to consistently perform up to expectations. Stormwater systems are expected to perform quality and quantity control functions as long as the land use they serve exists. Failure to maintain these systems can create the following adverse impacts:

- Increased pollutants to surrounding surface water features
- Potential loss of life or property resulting from catastrophic failure of the facility

- Aesthetic or nuisance conditions, such as mosquitoes or reduced property values due to a degraded facility appearance.

Most of these impacts can be avoided through proper and timely inspection and maintenance. A major concern associated with these impacts is the general public's expectations related to the quality of life provided, in part, by construction of these systems. Inadequate maintenance means the general public may have a false sense of security. The most common cause of stormwater system failure is the lack of adequate and proper operation, inspection, maintenance and management.

Good design and construction can reduce subsequent maintenance needs and costs, but they cannot eliminate the need for maintenance altogether. Maintenance requires a long-term commitment of time, money, personnel and equipment. Monitoring the overall performance of the stormwater management system is a major aspect of any maintenance program.

The maintenance responsibilities for these systems lie with the current property owner and transfer with the property in perpetuity. If maintenance of the system is not performed, the City of Rochester Hills reserves the right to enter the property and perform all necessary work at the property owner's cost. Refer to the *Agreement for Storm Water System Maintenance* for additional details.

General Maintenance Items:

Parking Lot Sweeping:
Routine sweeping of all paved surfaces provides a more attractive appearance and removes accumulations of sediment and trash that tend to migrate into stormwater management systems during rainfall events. Parking lot sweeping should be performed quarterly or as necessary to limit sediment and trash build-up.

Grass Mowing and Maintenance:
Mowing requirements at a facility should be designed to the specific site conditions, grass types and seasonal variations in climate. Grassed areas require periodic fertilizing, de-thatching and soil conditioning in order to maintain healthy growth. Provisions will need to be made to reseed and reestablish grass cover in areas damaged by sediment accumulation, stormwater flow, erosion, or other causes. Dead turf will need to be replaced after being discovered. Inspection of the grass areas and other landscaping features should be made annually.

Tash and Debris Removal:
Removal of trash and debris form all areas of the property should be performed monthly. Removal of these items will prevent damage to vegetated areas and eliminate their potential to inhibit the operation of any of the stormwater management systems. Sediment, debris and trash that are removed and collected should be disposed of according to local, State and Federal regulations at suitable disposal and/or recycling centers.

Stormwater System Management Items:

The following narratives give an overview of the maintenance requirements of the different components of the stormwater system. The inspection checklists attached to this report offer a more complete listing of what should be inspected, when inspection should occur and the likely frequency of maintenance activities.

Storm Sewer and Structures:
Catch basins, inlets, manholes, outlet control structures, and storm sewer pipes should be inspected to check for sediment accumulation and clogging, floatable debris, dead vegetation, etc. The structures and sewers should also be observed during a wet weather event to ensure their proper operation. Accumulated sediment and debris should be removed on an annual basis or as needed based on observed conditions. Structural repairs or maintenance should occur as needed based on observed conditions such as cracks, spalling, joint failure, leakage, misalignment, or settlement of structures. A civil engineer should be retained if problems are thought to exist.

Stormwater Pre-Treatment Devices:
Refer to the attached maintenance manuals from the manufacturer for all inspection and maintenance requirements for the pre-treatment structures.

The following pages include inspection checklists for the various devices and components listed above as well as the manufacturer's manuals for the stormwater pre-treatment structures.

STORMWATER SEWER SYSTEM

DATE/TIME OF INSPECTION: _____

INSPECTOR: _____

STORMWATER SEWER SYSTEM MAINTENANCE TASKS AND SCHEDULE POST CONSTRUCTION MAINTENANCE ACTIVITIES MONITORING/INSPECTION	SYSTEM COMPONENTS Catch Basins, Inlets, and Manholes	Storm Sewer Pipes	Rip Rap	Buffer Strip	FREQUENCY	COMMENTS
Inspect for Sediment Accumulation	X	X			Annually	
Inspect for Floatables, dead vegetation and debris	X	X		X	Annually and after major rainfall	
Inspect for erosion			X	X	Annually	
Inspect all components during wet weather and compare to as-built plans	X	X			Annually	
Inspect inside of structures and pipes for cracks, spalling, joint failure, settlement, sagging and misalignment.	X	X			Annually	
PREVENTATIVE MAINTENANCE Remove accumulated sediment	X	X			Annually or as needed	
Remove floatables, dead vegetation and debris	X	X		X	Annually or as needed	
REMEDIAL ACTIONS Repair/stabilize areas of erosion			X	X	As Needed	
Structural Repairs	X	X			As Needed	
Make adjustments/repairs to ensure proper functioning	X	X	X		As Needed	

SUMMARY:

INSPECTORS REMARKS: _____

_____

_____

_____

OVERALL CONDITION OF FACILITY: _____

RECOMMENDED ACTIONS NEEDED: _____

DATES ANY MAINTENANCE MUST BE COMPLETED BY: _____

OUTLET CONTROL AND OVERFLOW STRUCTURES

DATE/TIME OF INSPECTION: _____

INSPECTOR: _____

OUTLET CONTROL AND OVERFLOW MAINTENANCE TASKS AND SCHEDULE POST CONSTRUCTION MAINTENANCE ACTIVITIES MONITORING/INSPECTION	SYSTEM COMPONENTS Structures	Outlet Pipes	Rip Rap	Grates	FREQUENCY	COMMENTS
Inspect for Sediment Accumulation	X	X	X		Annually	
Inspect for Floatables, dead vegetation and debris	X	X	X	X	Annually and after major rainfall	
Inspect for erosion			X		Annually	
Inspect all components during wet weather and compare to as-built plans*	X	X	X	X	Annually	
Inspect inside of structures and pipes for cracks, spalling, joint failure, settlement, sagging and misalignment.	X	X			Annually	
PREVENTATIVE MAINTENANCE						
Remove accumulated sediment	X	X	X		Annually or as needed	
Remove floatables, dead vegetation and debris	X	X	X	X	Annually or as needed	
Replace or wash/clean stone filter jacket	X				As needed	
REMEDIAL ACTIONS						
Repair/stabilize areas of erosion			X		As Needed	
Structural Repairs	X	X			As Needed	
Make adjustments/repairs to ensure proper functioning	X	X	X	X	As Needed	

*A civil engineer should be retained to observe basin operation

SUMMARY:

INSPECTORS REMARKS: _____

_____

_____

_____

OVERALL CONDITION OF FACILITY: _____

RECOMMENDED ACTIONS NEEDED: _____

DATES ANY MAINTENANCE MUST BE COMPLETED BY: _____

SEDIMENATATION AND DETENTION BASINS

DATE/TIME OF INSPECTION: _____

INSPECTOR: _____

SEDIMENTATION AND DETENTION BASINS MAINTENANCE TASKS AND SCHEDULE POST CONSTRUCTION MAINTENANCE ACTIVITIES MONITORING/INSPECTION	SYSTEM COMPONENTS Riprap at Inlets	Overflow Spillway	Sideslopes & Banks	Buffer Strip	Basins	FREQUENCY	COMMENTS
Inspect for Sediment Accumulation	X	X			X	Annually	
Inspect for Floatables, dead vegetation and debris	X	X	X	X	X	Annually and after major rainfall	
Inspect for erosion	X	X	X	X	X	Annually	
Inspect all components during wet weather and compare to as-built plans*	X	X			X	Annually	
Inspect for invasive plant species			X	X	X	Annually	
PREVENTATIVE MAINTENANCE							
Remove accumulated sediment	X	X			X	Annually or as needed	
Remove floatables, dead vegetation and debris	X	X	X	X	X	Annually or as needed	
Professional application of herbicide for invasive species that maybe present			X	X	X	Annually or as needed	
Repair Erosion and/or reseed bare areas	X	X	X	X	X	Annually or as needed	
REMEDIAL ACTIONS							
Repair/stabilize areas of erosion	X	X	X	X	X	As Needed	
Structural Repairs	X	X				As Needed	
Make adjustments/repairs to ensure proper functioning	X	X			X	As Needed	
Excavate and reshape Sed. Basin after major sediment removal (once sediment accumulates to 6"-12" or re-suspension of sediment is observed)*					X	As Needed	

*A civil engineer should be retained to observe basin operation

SUMMARY:

INSPECTORS REMARKS: _____

_____

_____

_____

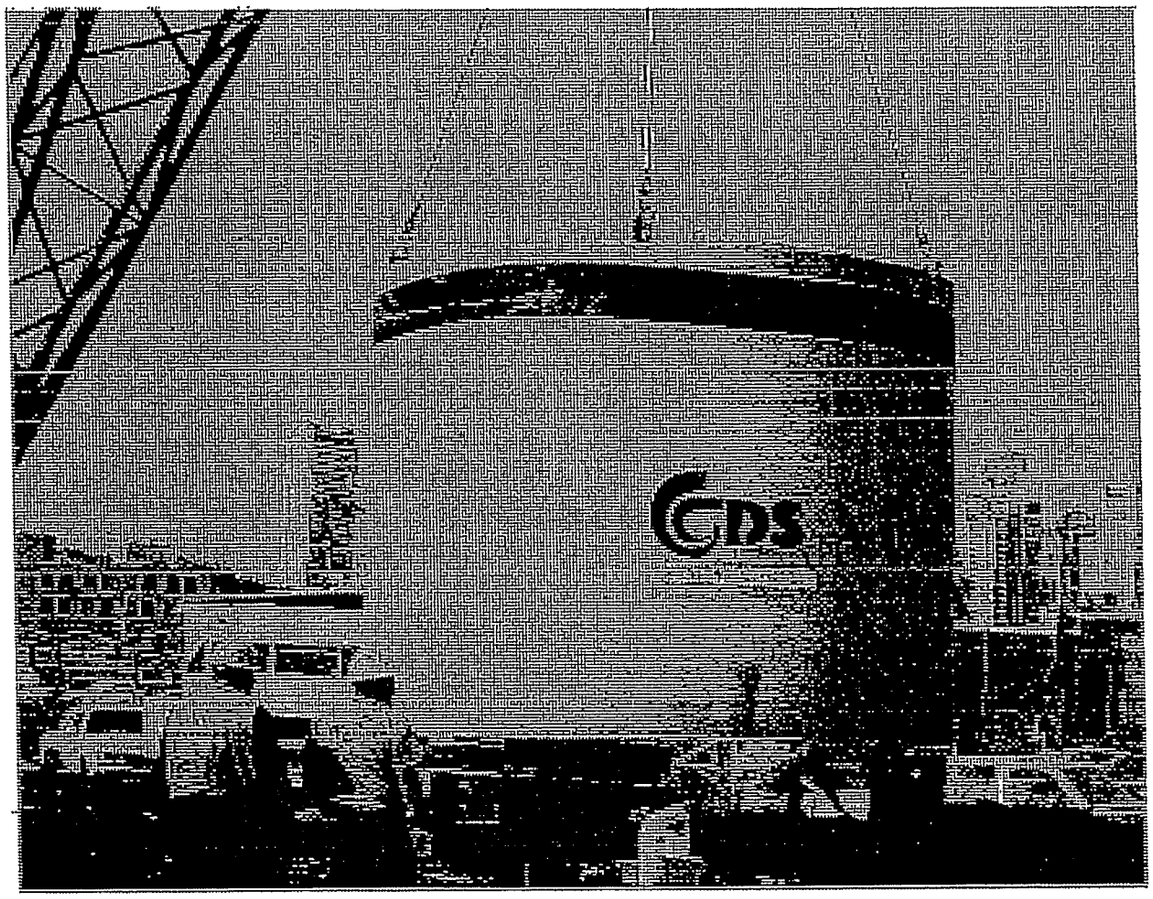
OVERALL CONDITION OF FACILITY: _____

RECOMMENDED ACTIONS NEEDED: _____

DATES ANY MAINTENANCE MUST BE COMPLETED BY: _____

CONTECH
ENGINEERED SOLUTIONS

CDS® Inspection and Maintenance Guide



CDS TECHNOLOGIES

Maintenance

The CDS system should be inspected at regular intervals and maintained when necessary to ensure optimum performance. The rate at which the system collects pollutants will depend more heavily on site activities than the size of the unit. For example, unstable soils or heavy winter sanding will cause the grit chamber to fill more quickly but regular sweeping of paved surfaces will slow accumulation.

Inspection

Inspection is the key to effective maintenance and is easily performed. Pollutant transport and deposition may vary from year to year and regular inspections will help ensure that the system is cleaned out at the appropriate time. At a minimum, inspections should be performed twice per year (e.g. spring and fall) however more frequent inspections may be necessary in climates where winter sanding operations may lead to rapid accumulations, or in equipment washdown areas. Installations should also be inspected more frequently where excessive amounts of trash are expected.

The visual inspection should ascertain that the system components are in working order and that there are no blockages or obstructions in the inlet and separation screen. The inspection should also quantify the accumulation of hydrocarbons, trash, and sediment in the system. Measuring pollutant accumulation can be done with a calibrated dipstick, tape measure or other measuring instrument. If absorbent material is used for enhanced removal of hydrocarbons, the level of discoloration of the sorbent material should also be identified during inspection. It is useful and often required as part of an operating permit to keep a record of each inspection. A simple form for doing so is provided.

Access to the CDS unit is typically achieved through two manhole access covers. One opening allows for inspection and cleanout of the separation chamber (cylinder and screen) and isolated sump. The other allows for inspection and cleanout of sediment captured and retained outside the screen. For deep units, a single manhole access point would allows both sump cleanout and access outside the screen.

The CDS system should be cleaned when the level of sediment has reached 75% of capacity in the isolated sump or when an appreciable level of hydrocarbons and trash has accumulated. If absorbent material is used, it should be replaced when significant discoloration has occurred. Performance will not be impacted until 100% of the sump capacity is exceeded however it is recommended that the system be cleaned prior to that for easier removal of sediment. The level of sediment is easily determined by measuring from finished grade down to the top of the sediment pile. To avoid underestimating the level of sediment in the chamber, the measuring device must be lowered to the top of the sediment pile carefully. Particles at the top of the pile typically offer less resistance to the end of the rod than consolidated particles toward the bottom of the pile. Once this measurement is recorded, it should be compared to the as-built drawing for the unit to determine weather the height of the sediment pile off the bottom of the sump floor exceeds 75% of the total height of isolated sump.

Cleaning

Cleaning of a CDS systems should be done during dry weather conditions when no flow is entering the system. The use of a vacuum truck is generally the most effective and convenient method of removing pollutants from the system. Simply remove the manhole covers and insert the vacuum hose into the sump. The system should be completely drained down and the sump fully evacuated of sediment. The area outside the screen should also be cleaned out if pollutant build-up exists in this area.

In installations where the risk of petroleum spills is small, liquid contaminants may not accumulate as quickly as sediment. However, the system should be cleaned out immediately in the event of an oil or gasoline spill should be cleaned out immediately. Motor oil and other hydrocarbons that accumulate on a more routine basis should be removed when an appreciable layer has been captured. To remove these pollutants, it may be preferable to use absorbent pads since they are usually less expensive to dispose than the oil/water emulsion that may be created by vacuuming the oily layer. Trash and debris can be netted out to separate it from the other pollutants. The screen should be power washed to ensure it is free of trash and debris.

Manhole covers should be securely seated following cleaning activities to prevent leakage of runoff into the system from above and also to ensure that proper safety precautions have been followed. Confined space entry procedures need to be followed if physical access is required. Disposal of all material removed from the CDS system should be done in accordance with local regulations. In many jurisdictions, disposal of the sediments may be handled in the same manner as the disposal of sediments removed from catch basins or deep sump manholes.

CDS Model	Diameter		Distance from Water Surface to Top of Sediment Pile		Sediment Storage Capacity	
	ft	m	ft	m	yd3	m3
CDS2015-4	4	1.2	3.0	0.9	0.9	0.7
CDS2015	5	1.5	3.0	0.9	0.9	0.7
CDS2020	5	1.5	3.5	1.1	1.3	1.0
CDS2025	5	1.5	4.0	1.2	1.9	1.0
CDS3020	6	1.8	4.0	1.2	2.1	1.6
CDS3030	6	1.8	4.6	1.4	2.1	1.6
CDS3035	6	1.8	5.0	1.5	2.1	1.6
CDS4030	8	2.4	4.6	1.4	5.6	4.3
CDS4040	8	2.4	5.7	1.7	5.6	4.3
CDS4025	8	2.4	6.2	1.9	5.6	4.3
CDS5640	10	3.0	6.3	1.9	8.7	6.7
CDS5655	10	3.0	7.7	2.3	8.7	6.7
CDS5668	10	3.0	9.3	2.8	8.7	6.7
CDS5678	10	3.0	10.5	3.1	8.7	6.7

Table 1: CDS Maintenance Indicators and Sediment Storage Capacities

Support

- Drawings and specifications are available at www.contechstormwater.com.
- Site-specific design support is available from our engineers.

Contech Engineered Solutions LLC provides site solutions for the civil engineering industry. Contech's portfolio includes bridges, drainage, sanitary sewer, stormwater, earth stabilization and wastewater treament products. For information, visit www.ContechES.com or call 800.338.1122

CONTECH ENGINEERED SOLUTIONS
800.925.5240
www.ContechES.com

CDS Inspection & Maintenance Log

CDS Model: _____ Location: _____

Date	Water depth to sediment[1]	Floatable Layer Thickness[2]	Describe Maintenance Performed	Maintenance Personnel	Comments

1. The water depth to sediment is determined by taking two measurements with a stadia rod: one measurement from the manhole opening to the top of the sediment pile and the other from the manhole opening to the water surface. If the difference between these measurements is less than the values listed in table 1 the system should be cleaned out. Note: to avoid underestimating the volume of sediment in the chamber, the measuring device must be carefully lowered to the top of the sediment pile.

2. For optimum performance, the system should be cleaned out when the floating hydrocarbon layer accumulates to an appreciable thickness. In the event of an oil spill, the system should be cleaned immediately.