Storm Water Management Practice Maintenance Agreement

Metal Era, Inc., as "Owner" of the property described below, in accordance with Chapter 32 City of Waukesha Storm Water Management and Erosion Control, agrees to install and maintain storm water management practice(s) on the subject property in accordance with approved plans and Storm Water Management Plan conditions. The owner further agrees to the terms stated in this document to ensure that the storm water management practice(s) continues serving the intended functions in perpetuity. This Agreement includes the following exhibits:

Exhibit A: Legal Description of the real estate for which this Agreement applies ("Property").
Exhibit B: Location Map(s) – shows an accurate location of each storm water management practice affected by this Agreement.
Exhibit C: Maintenance Plan – prescribes those activities that must be carried out to maintain compliance with this Agreement.

Note: After construction verification has been accepted by the City of Waukesha, for all planned storm water management practices, an addendum(s) to this agreement shall be recorded by the Owner showing design and construction details. The addendum(s) may contain several additional exhibits, including certification by City of Waukesha of Storm Water and Erosion Control Permit termination, as described below.

Name and Return Address

City of Waukesha
130 Delafield Street
Waukesha, WI 53188

Through this Agreement, the Owner hereby subjects the Property to the following covenants, conditions and restrictions:

1. The Owner shall be responsible for the routine and extraordinary maintenance and repair of the storm water management practice(s) and drainage easements identified in Exhibit B until Storm Water and Erosion Control Permit termination by the City of Waukesha in accordance with Chapter 32 of the County Code of Ordinances.
2. After Storm Water and Erosion Control Permit termination under 1., the current Owner(s) shall be solely responsible for maintenance and repair of the storm water management practices and drainage easements in accordance with the maintenance plan contained in Exhibit C.
3. The Owner(s) shall, at their own cost, complete inspections of the storm water management practices at the time intervals listed in Exhibit C, and conduct the inspections by a qualifies professional, file the reports with the City of Waukesha after each inspection and complete any maintenance or repair work recommended in the report. The Owner(s) shall be liable for the failure to undertake any maintenance or repairs. After the work is completed by the Contractor, the qualified professional shall verify that the work was properly completed and submit the follow-up report to the City within 30 days.
4. In addition, and independent of the requirements under paragraph 3 above, the City of Waukesha, or its designee, is authorized to access the property as necessary to conduct inspections of the storm water management practices or drainage easements to ascertain compliance with the intent of this Agreement and the activities prescribed in Exhibit C. The City of Waukesha may require work to be done which differs from the report described in paragraph 3 above, if the City of Waukesha reasonably concludes that such work is necessary and consistent with the intent of this agreement. Upon notification by the City of Waukesha of required maintenance or repairs, the Owner(s) shall complete the specified maintenance or repairs within a reasonable time frame determined by the City of Waukesha.
5. If the Owner(s) do not complete an inspection under 3. above or required maintenance or repairs under 4. above within the specified time period, the City of Waukesha is authorized, but not required, to perform the specified inspections, maintenance or repairs. In the case of an emergency situation, as determined by the City of Waukesha, no notice shall be required prior to the City of Waukesha performing emergency maintenance or repairs. The City of Waukesha may levy the costs and expenses of such inspections, maintenance or repair related actions as a special charge against the Property and collected as such in accordance with the procedures under s. 66.0627 Wis. Stats. or subch. VII of ch. 66 Wis. Stats.

6. This Agreement shall run with the Property and be binding upon all heirs, successors and assigns. After the Owner records the addendum noted above, the City of Waukesha shall have the sole authority to modify this agreement upon a 30-day notice to the current Owner(s).

Dated this ___ day of _____, 20__.

Owner:

_____

Metal Era, Inc.
Tony Mallinger, President

Acknowledgements

State of Wisconsin:
County of Waukesha

Personally came before me this ____ day of _____, 20__, the above named Tony Mallinger to me known to be the person who executed the foregoing instrument and acknowledged the same.

_____.

Notary Public, Waukesha County, WI
My commission expires:_____.

This document was drafted by:

CJ Engineering
Christopher Jackson, PE

For Certification Stamp

Exhibit A – Legal Description

The following description and reduced copy map identifies the land parcel(s) affected by this Agreement. For a larger scale view of the referenced document, contact the Waukesha County Register of Deeds office.

Project Identifier: **Metal Era, Inc.** Acres**: 10.804**
Date of Recording: **November 10, 2015**
Map Produced By: **CJ Engineering, LLC.**
Legal Description: **Lot 1 of CSM No. 11383, located in all that part of the Southwest ¼ of the Northeast ¼ of Section 34, Township 7N, Range 19E, City of Waukesha, Waukesha County, Wisconsin.**

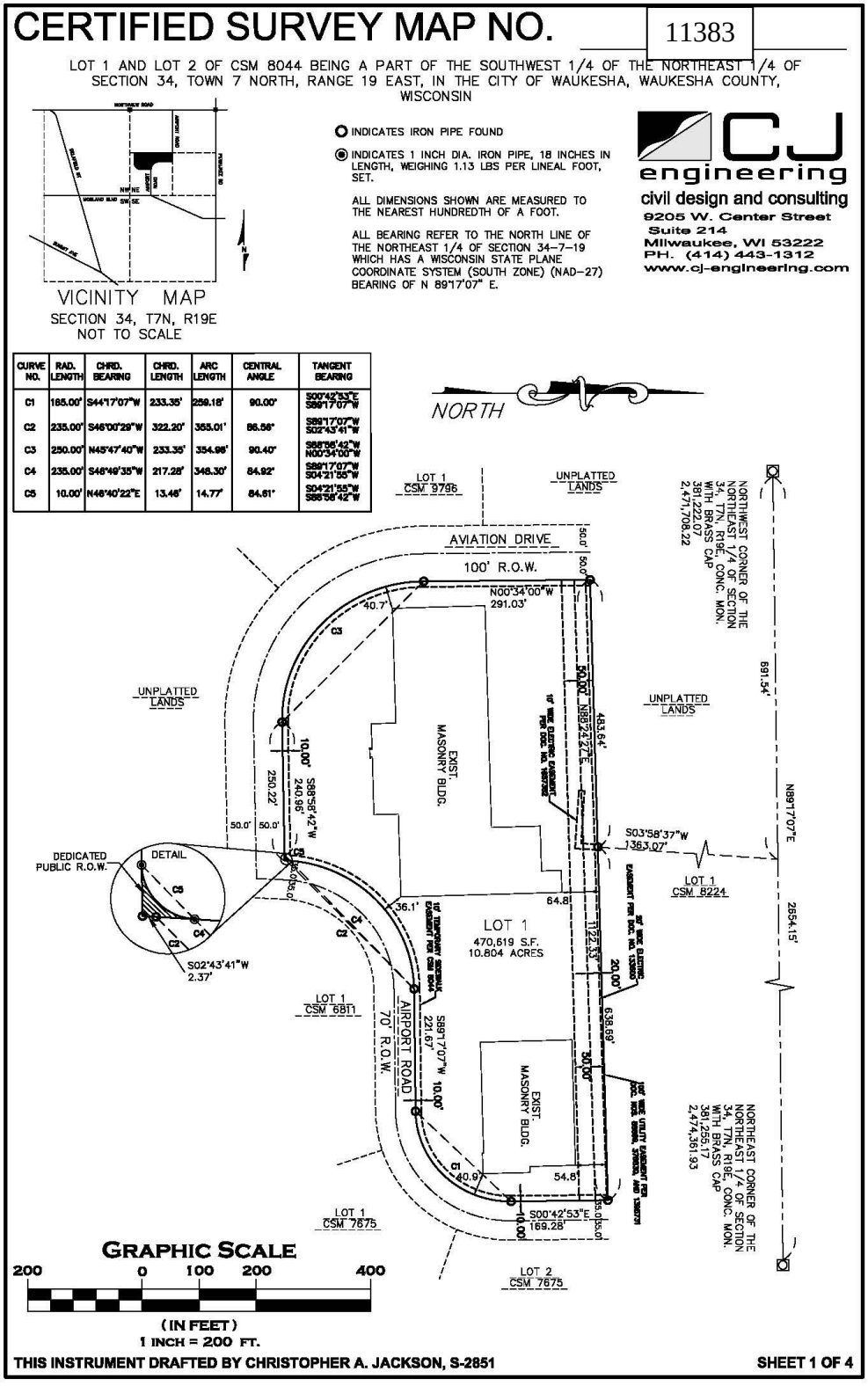


Exhibit B - Location Map
Storm Water Management Practices Covered by this Agreement

The storm water management practices covered by this Agreement are depicted in the reduced copy of a portion of the construction plans, as shown below. The practices include an underground storm water system and a bio-retention basin and all associated pipes, earthen berms and other components of these practices. All of the noted storm water management practices are located within a drainage easement in Lot 1 and of the CSM

Project Name**:** **Metal Era, Inc.**
Storm water Practices**:** **Underground Storm Water System, Bioretention Basin**
Location of Practices**:** **In an easement located in Lot 1 of CSM 11383**

Figure 1
Storm Water Practices

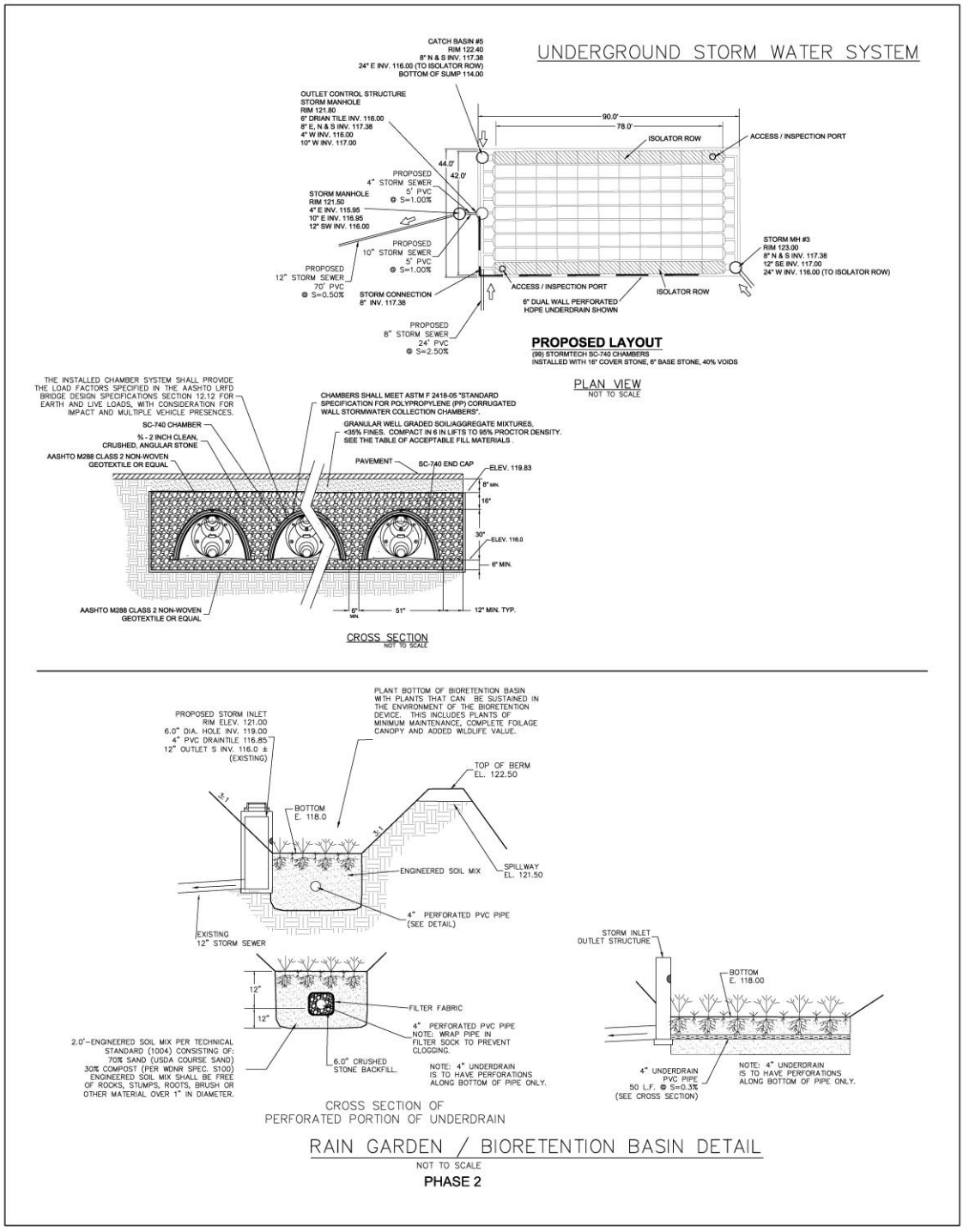


Exhibit B Continued - Location Map

Storm Water Management Practices Covered by this Agreement

Figure 2

Storm Water Practices Location

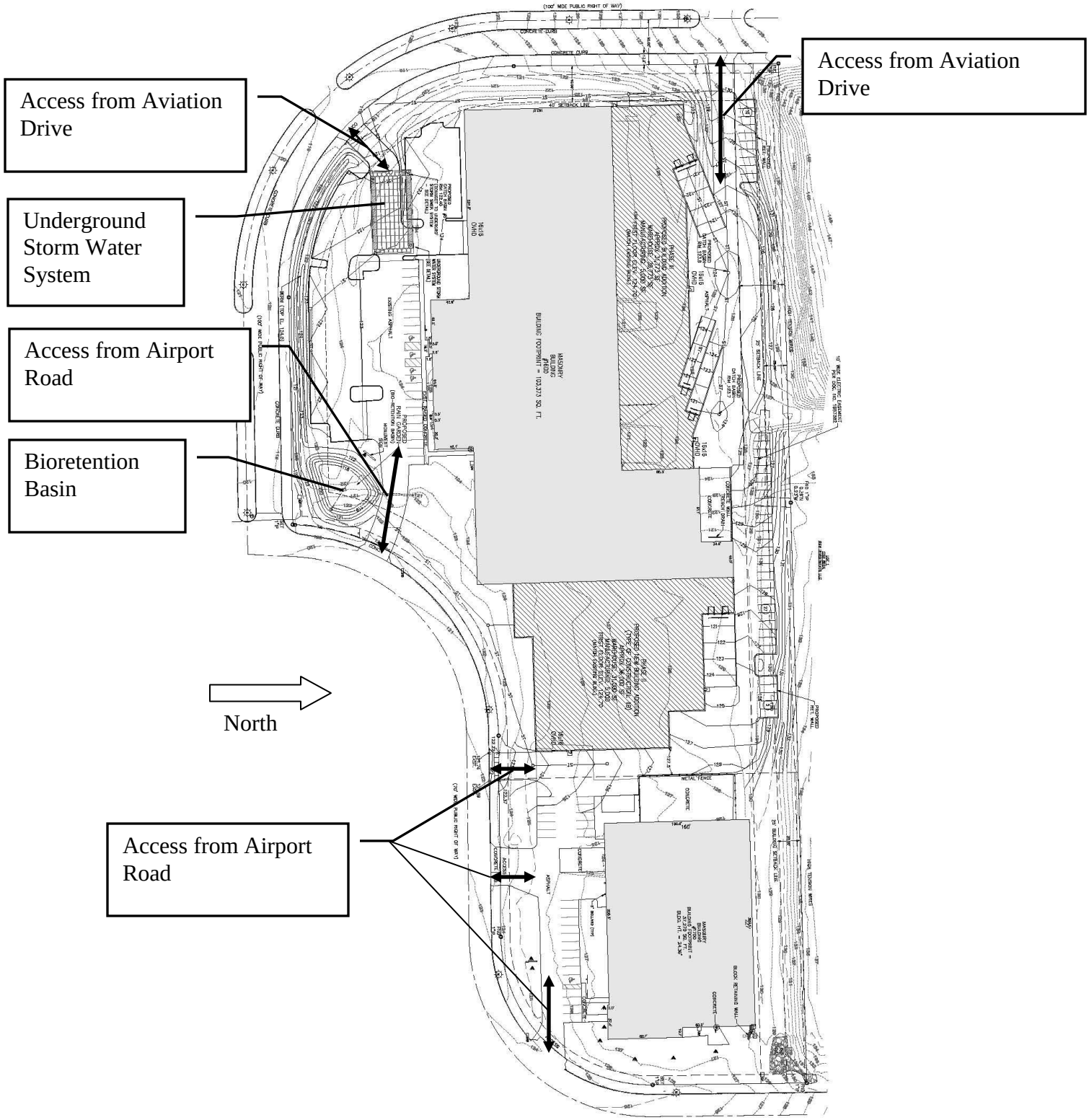


Exhibit B Continued - Location Map

Storm Water Management Practices Covered by this Agreement

Figure 3

Storm Water Easements

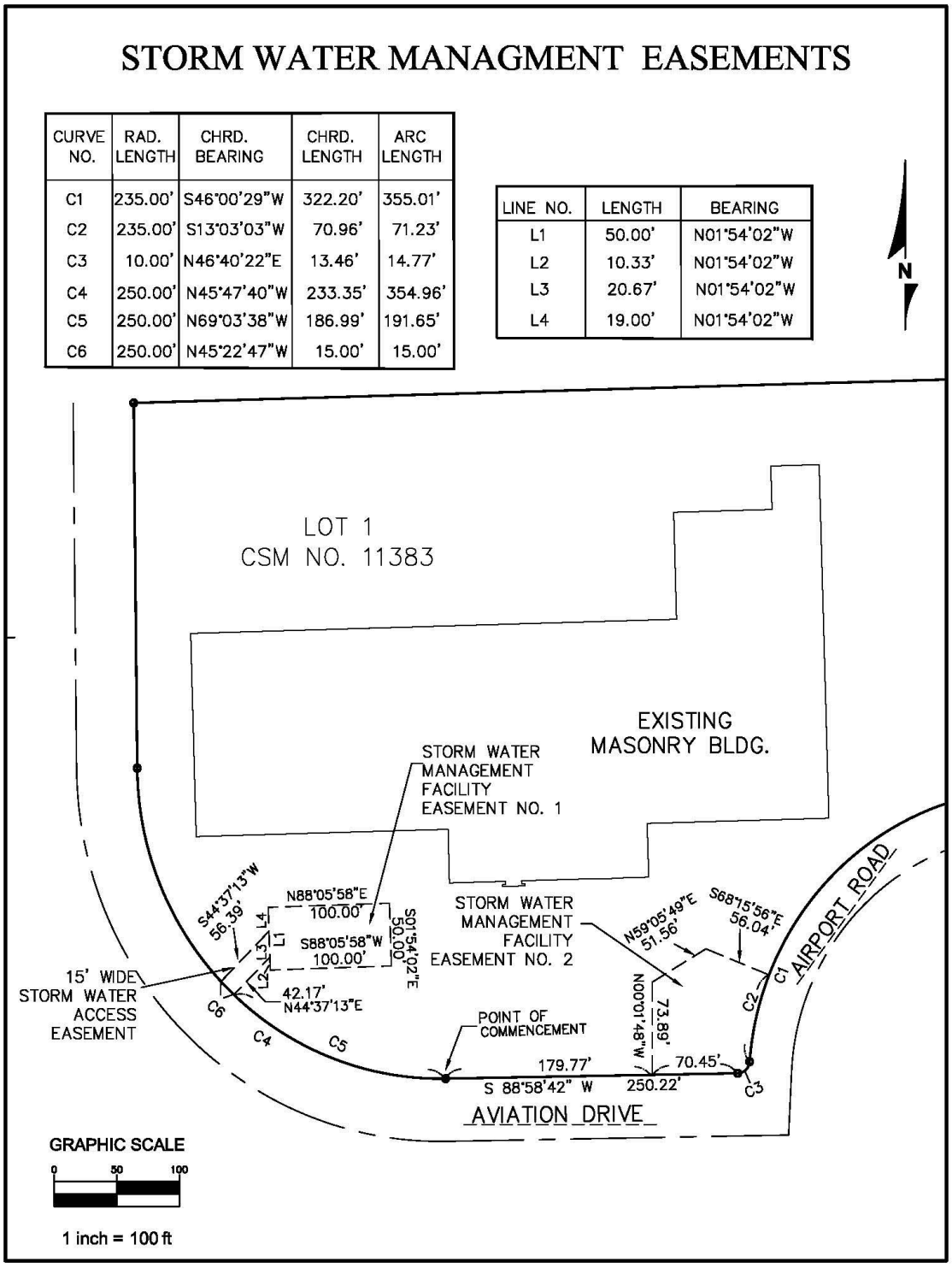


Exhibit C

Bioretention Basin
Storm Water Practice Maintenance Plan

Minimum Maintenance Requirements for Bioretention Basin

System Description:
The storm water management facility includes a bioretention basin on the north side of the property. The basin is designed to reduce runoff rates and provide water quality from the site by intercepting the runoff and allowing it to seep (infiltrate) into the engineered soil layer and through the 6" perforated under-drain pipes. During larger storm events, runoff will enter the standpipe and outlet pipe into wetlands at the west end of the site. To function correctly, the bioretention basin size, depth and outlet structures must be maintained as specified in this Agreement.

Bioretention Basin Minimum Maintenance Requirements:
To ensure the proper function of the bioretention basin, the following list of maintenance activities are required to be performed by the owner or authorized qualified representative:

1. A minimum of 70% soil cover made up of plants must be maintained on the basin bottom. The basin sides shall be a storm water seed mix per landscape plan. Maintain plants and grasses per qualified landscape contractor recommendations.
2. Seasonal (early spring) inspection of the soil surface for the presence of sodium accumulation due to the introduction of chlorides for winter maintenance of the parking lot should occur. It is also recommended that the soil be flushed with 1" of clean water 3-4 times each spring. Consider reducing sodium/salting or use sodium alternatives.
3. The bioretention basin and all components (vegetation, inlets, outlets, etc.) should be inspected after each heavy rain of 1.5" or more. If the basin is not draining properly (within 72 hours), further inspection may be required by persons with expertise in storm water management and/or soils.
    - If basin is not draining, the 4" drain tile should be cleared of any blockages or obstructions. Expose the stone and soil immediately around the pipe, clear blockages and replace per approved design.
    - If soil testing shows that the soil surface has become crusted, sealed or compacted, Engineered soil should be replaced. Expose 6" drain tile and verify it is clear of obstructions. Remove and replace engineered soil per WDNR specifications. Replace basin plantings per approved Landscape Plan for the project. Engineered soil shall be tested for pH between 5.5 and 6.5.
    - If sedimentation is determined to be causing the failure, the accumulated sediment must be removed and the area replanted in accordance with the approved Landscape Plan for the project. Sediment removed shall be deposited offsite at an appropriate soil disposal facility.
4. All outlet pipes, other flow control devices must be kept free of debris. Any blockage must be removed immediately.
5. Any eroding areas must be repaired immediately to prevent premature sediment build-up in the system. Erosion matting is recommended for repairing grassed areas.

6. Heavy equipment and vehicles must be kept off of the bottom and side slopes of basin to prevent soil compaction. Soil compaction will reduce infiltration and may cause failure of the basin, resulting in ponding water
7. No additional trees are to be planted or allowed to grow on the earthen berms or bottom of the basin. On the berms, tree root systems can reduce soil compaction and cause berm failure. On the basin bottom, trees may shade out the native grasses. Woody vegetation must be removed.
8. Check for invasive species growth and remove per species specific recommended practices.
9. No grading or filling of the basin or berms other than for sediment removal is allowed.
10. Two required inspections a year shall be conducted in spring (between March 15th and April 15th). An inspection form must be completed and documented by a qualified person that represents the Owner. Any needed maintenance must be documented and scheduled for immediate repair. All repairs must be documented, preferably with photographs.

11. Snow shall not be dumped directly onto the conditioned planting bed.

12. See chart below for maintenance activity and frequency:

Activity	**Frequency**
Water Plants	As necessary during first growing season
Water as necessary during dry periods	As needed after first growing season
Re-mulch void areas	As needed
Treat diseased trees and shrubs	As needed
Inspect soil and repair eroded areas	Monthly
Remove litter and debris	Monthly
Add additional mulch	Once per year

13. Any other repair or maintenance needed to ensure the continued function of the infiltration basin as ordered by the City of Waukesha under the provisions listed on page 1 of this Agreement.
14. The titleholder(s) or their designee must document all inspections as specified above. Documentation shall include as a minimum: (a) Inspectors Name, Address and Telephone Number, (b) Date of Inspections, (c) Condition Report of the Storm Water Management Practice, (d) Corrective Actions to be Taken and Time Frame for Completion, (e) Follow-up Documentation after Completion of the Maintenance Activities. All documentation is to be delivered to the attention of the City Engineer at the City of Waukesha Engineering Department on January 10th and July 10th of each year.

Underground Storm Water System Minimum Maintenance Requirements:

System Description:
A Stormtech underground storm water system located under the Southwest parking lot is utilized for storm water management purposes. Under large storm events, storm water runoff is collected and stored within the underground storm water system and eventually drains to the existing storm sewer system located in Aviation Drive.

12.1 ISOLATOR ROW INSPECTION

Regular inspection and maintenance are essential to assure a properly functioning stormwater system. Inspection is easily accomplished through the manhole or optional inspection ports of an Isolator Row. Please follow local and OSHA rules for a confined space entry.

Inspection ports can allow inspection to be accomplished completely from the surface without the need for a confined space entry. Inspection ports provide visual access to the system with the use of a flashlight. A stadia rod may be inserted to determine the depth of sediment. If upon visual inspection it is found that sediment has accumulated to an average depth exceeding 3" (76 mm), cleanout is required.

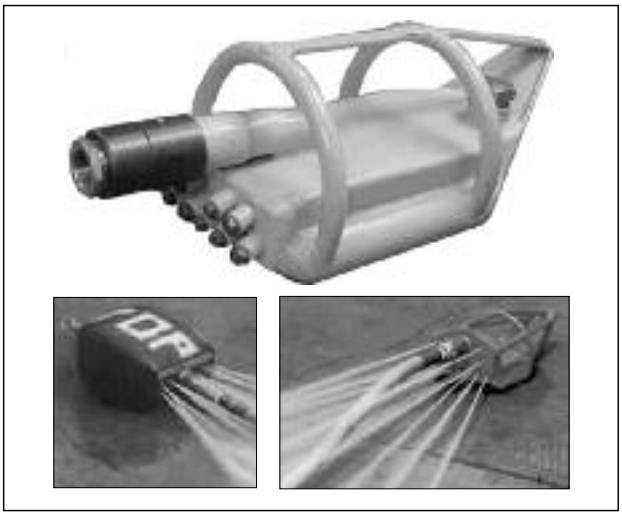
A StormTech Isolator Row should initially be inspected immediately after completion of the site's construction. While every effort should be made to prevent sediment from entering the system during construction, it is during this time that excess amounts of sediments are most likely to enter any stormwater system. Inspection and maintenance, if necessary, should be performed prior to passing responsibility over to the site's owner. Once in normal service, a StormTech Isolator Row should be inspected bi-annually until an understanding of the sites characteristics is developed. The site's maintenance manager can then revise the inspection schedule based on experience or local requirements.

12.2 ISOLATOR ROW MAINTENANCE

JetVac maintenance is recommended if sediment has been collected to an average depth of 3" (76 mm) inside the Isolator Row. More frequent maintenance may be required to maintain minimum flow rates through the Isolator Row. 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, a wave of suspended sediments is flushed back into the manhole for vacuuming. Most sewer and pipe maintenance companies have vacuum/ JetVac combination vehicles. Fixed nozzles designed for culverts or large diameter pipe cleaning are preferable. Rear facing jets with an effective spread of at least 45" (1143 mm) are best. The JetVac process shall only be performed on StormTech Rows that have AASHTO class 1 woven geotextile over the foundation stone (ADS 315ST or equal).

Looking down the Isolator Row.

A typical JetVac truck. (This is not a StormTech product.)



Examples of culvert cleaning nozzles appropriate for Isolator Row maintenance. (These are not StormTech products.)

12.0 Inspection & Maintenance

STORMTECH 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

iv. If sediment is at, or above, 3" (76 mm) 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. Follow OSHA regulations for confined space entry if entering manhole

2. Mirrors on poles or cameras may be used to avoid a confined space entry

iii. If sediment is at or above the lower row of sidewall holes [approximately 3" (76 mm)] 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" (1143 mm) or more is preferable

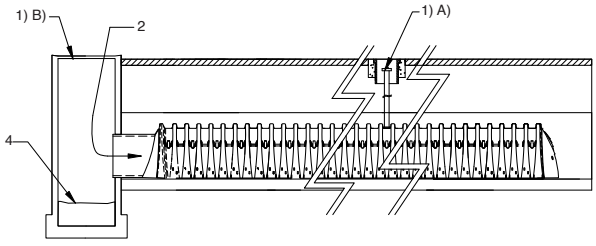
B) Apply multiple passes of JetVac until back-flush water is clean

C) Vacuum manhole sump as required during jetting

Step 3) Replace all caps, lids and covers

Step 4) Inspect and clean catch basins and manholes upstream of the StormTech system following local guidelines.

Figure 20 – StormTech Isolator Row (not to scale)



12.3 ECCENTRIC PIPE HEADER INSPECTION

Theses guidelines do not supercede a pipe manufacturer's recommended I&M procedures. Consult with the manufacturer of the pipe header system for specific I&M procedures. Inspection of the header system should be carried out quarterly. On sites which generate higher levels of sediment more frequent inspections may be necessary. Headers may be accessed through risers, access ports or manholes. Measurement of sediment may be taken with a stadia rod or similar device. Clean-out of sediment should occur when the sediment volume has reduced the storage area by 25% or the depth of sediment has reached approximately 25% of the diameter of the structure.

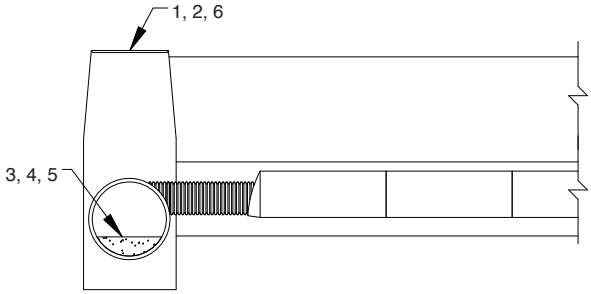
12.4 ECCENTRIC PIPE MANIFOLD MAINTENANCE

Cleanout of accumulated material should be accomplished by vacuum pumping the material from the header. Cleanout should be accomplished during dry weather. Care should be taken to avoid flushing sediments out through the outlet pipes and into the chamber rows.

Eccentric Header Step-by-Step Maintenance Procedures

1. Locate manholes connected to the manifold system
2. Remove grates or covers
3. Using a stadia rod, measure the depth of sediment
4. If sediment is at a depth of about 25% pipe volume or 25% pipe diameter proceed to step 5. If not proceed to step 6.
5. Vacuum pump the sediment. Do not flush sediment out inlet pipes.
6. Replace grates and covers
7. Record depth and date and schedule next inspection

Figure 21 – Eccentric Manifold Maintenance



Please contact StormTech's Technical Services Department at 888-892-2894 for a spreadsheet to estimate cleaning intervals.

1. Any required repair or maintenance needed to ensure the continued function of the *Stormtech* underground storm water system as ordered by the City of Waukesha under the provisions listed on page 1 of this Agreement.
2. The titleholder(s) or their designee must document all inspections as specified above. Documentation shall include as a minimum: (a) Inspectors Name, Address and Telephone Number, (b) Date of Inspections, (c) Condition Report of the Storm Water Management Practice, (d) Corrective Actions to be Taken and Time Frame for Completion, (e) Follow-up Documentation after Completion of the Maintenance Activities. All documentation is to be delivered to the attention of the City Engineer at the City of Waukesha Engineering Department on January 10th and July 10th of each year.