

Stormwater Operation, Maintenance and Pollution Prevention Plan

For a Proposed

5-Lot Major Subdivision Saugatucket Farms

216 Saugatucket Road
South Kingstown, Rhode Island
AP 42, Lot 8

Prepared for:

Denali Building Co. Inc.
Attn: Mr. Peter Abbenante Jr.
620 Old Baptist Rd.
N. Kingstown, RI 02852

Submission Date:

June 2025

Submitted by:

JCE

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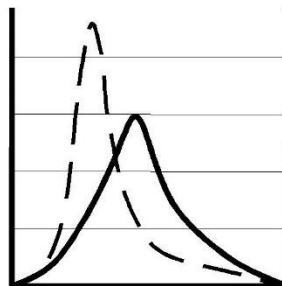


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OPERATION, MAINTENANCE and POLLUTION PREVENTION PLAN

In accordance with the Rhode Island Stormwater Design and Installation Standards Manual (RISDISM), Joe Casali Engineering, Inc. (JCE) has prepared the following Operation, Maintenance and Pollution Prevention Plan for the stormwater management system for the proposed 5-Lot Major Subdivision located in South Kingstown, Rhode Island. The subject property, located at 216 Saugatucket Road, is also known as Tax Assessor's Plat Map (AP) 42, Lot 8 in South Kingstown, Rhode Island.

1 BASIC INFORMATION

Owner: Denali Building Company
Address: 620 Old Baptist Road
City: North Kingstown, RI 02852

Homeowner's Association: To Be Determined

2 POLLUTION PREVENTION AND SOURCE CONTROL MITIGATION

The following pollution prevention and source control mitigation measures shall be followed in order to meet Minimum Stormwater Management Standard No. 3 (Section 3.2.3 of RISDM):

2.1 Solid Waste Containment

Proper containment of solid waste will help prevent introduction into drainage systems and polluting waterways. Residents of the Town of South Kingstown have the option of contracting with a private hauler or taking their trash and recycling to the Rose Hill Regional Transfer Station located at 163 Rose Hill Road, Peace Dale, RI 02883.

2.2 Roads and Paved Area Management

Roads and paved areas are a large piece of Rhode Island's impervious surfaces and are often directly connected to storm drainage systems. The following will help prevent introduction into drainage systems and polluting waterways:

1. Driveway Sweeping

- a. Roadways shall be swept as necessary between March 15 and November 30, in early Spring after snowmelt and in late Fall to address leaf litter.
- b. After sweeping, grounds shall be checked for effectiveness. Grounds must be swept again if large amounts of debris or sediment remain on pavement.
- c. All sweepings shall be disposed of in accordance with all local, state and federal regulations.

2. Deicing and Salt Storage

- a. Salt for deicing paved areas during the winter months shall be limited to the maximum extent practicable.
- b. Sand containing the minimum volume of calcium chloride (or approved equivalent) required for handing may be applied as part of routine winter maintenance activities to all paved areas.
- c. Sand and deicing chemicals shall be stored under cover so as to prevent their exposure to stormwater. Ideally, they would be stored under a roof but at minimum they must be covered by a weighted tarp located on an impervious surface.

3. Snow Disposal

- a. No snow shall be stored within any of the proposed stormwater practices.
- b. Debris shall be cleared from the site and properly disposed of at the end of the snow season.

4. Lawn, Garden and Landscape Management

- a. Grounds operation and maintenance staff shall incorporate a soil evaluation every three years to determine suitability for supporting a lawn and to optimize growing conditions. Soil characteristics such as pH, fertility, compaction, texture, and earthworm content shall be tested.
- b. Grass seed shall be University of Rhode Island No. 2 Improved seed mix or approved equal.
- c. During spring and fall, lawn areas shall be cut no less than 1½ inches to stimulate root growth. During summer months, lawns shall not be cut shorter than 2 to 3 inches to discourage weed growth.
- d. If fertilizing is desired, the following points shall be considered:
 - i. Fertilize no more than twice a year, once in Spring and once in Fall.
 - ii. Fertilize at a rate of no more than ½ lb. of nitrogen per 1000 ft².
 - iii. Apply fertilizer carefully to avoid spreading on impervious surfaces such as paved walkways, driveways and parking areas.
 - iv. Use slow-release fertilizers to encourage more complete uptake
 - v. Grass blades retain 30-40 percent of nutrients applied in fertilizers. Reduce fertilizer applications by 30%.
 - vi. Fertilizer shall not be applied when rain is expected.
- e. To the maximum extent practicable, weeds shall be dug or pulled out. Chemical herbicides shall be used as a last resort to spot-treat weeds.
- f. If irrigation is deemed necessary, established lawns need no more than one inch of water per week to prevent dormancy during dry periods. Use timers to water before 9 a.m. to avoid evaporative loss.

3 STORMWATER BMP OPERATION & MAINTENANCE

Regular maintenance of the proposed drainage system will prevent premature failure of the drainage and water quality treatment benefits of the system. Heavy sediment loads in these areas can clog the underground infiltration system and result in premature failure.

All post-construction operation and maintenance activities shall be the responsibility of the Owners and/or their agents. All post-construction maintenance activities shall be documented and kept on file and made available at the request of the Town or the Rhode Island Department of Environmental Management (RIDEM). All sediments removed from site drainage facilities shall be disposed of properly and in accordance with applicable local and state regulations.

The following inspection and maintenance must be performed:

3.1 Flared Ends

The flared end sections shall be checked quarterly or after any major rain event with more than 2-inches of rain. Remove trash and debris as necessary. Remove built up sediment if within 12-inches of inlet or outlet pipe.

3.2 Sediment Forebay

A fixed vertical depth marker shall be installed in the middle of the forebay to measure depth of the sediment build up. Sediment build-up should be removed when it reaches a depth of 6-inches or 25% of the sediment storage volume. Sediment shall be legally disposed of at a landfill or other permitted facility or handled similarly to contents from street sweeping activities. Vegetation within the sediment forebay shall be limited to a height of 18 inches.

3.3 Sand Filter

The sand filter shall be inspected following at least the first two precipitation events of at least 1.0 inch to ensure that the system is functioning properly. Thereafter, the sand filters shall be monitored and maintained to assure proper function, grass growth and survival. Grasses shall be replaced on an as-needed basis during the growing season.

Silt and sediment shall be removed from the sand filter when the accumulation exceeds one inch, or when water ponds on the surface of the sand filter for more than 48 hours. The top few inches of material shall be removed and shall be replaced with fresh soil meeting the sand filter topsoil specifications. Soil erosion gullies shall be repaired when they occur. Fertilizer or pesticides shall not be applied to grasses within the sand filters. Trash and debris shall be removed as necessary.

4 O&M BUDGET

The long-term operation and maintenance budget for this site was estimated using cost estimate data from the Environmental Protection Agency’s (EPA) National Stormwater Calculator. The yearly maintenance program described in Section 3 is estimated to cost approximately \$2,000 annually.

First Year (4 Inspections)	\$4,000
Annual Maintenance	\$2,000

The maintenance of these BMPs will be the responsibility of the Homeowner’s Association.

5 LEGAL

All sediments removed from the drainage facilities above shall be disposed of properly and in accordance with all applicable Local, State and Federal regulations.

Appendix A

Maintenance Checklists

Flared End Sections Operation, Maintenance, and Management Inspection Checklist

Project:

Location:

Site Status:

Date:

Time:

Inspector:

Maintenance Item	Satisfactory / Unsatisfactory	Comments
• Debris Cleanout (Annual, After Major Storms)		
Flared end section clear of trash/debris		
• Sediment Cleanout (Annual, After Major Storms)		
Sediment accumulation doesn't yet require cleanout		
• Outlets (Annual, After Major Storms)		
Good condition/No need for repair		
No evidence of erosion		

Comments:

Actions to be Taken:

Sand Filter Operation, Maintenance, and Management Inspection Checklist

Project:

Location:

Site Status:

Date:

Time:

Inspector:

MAINTENANCE ITEM	SATISFACTORY / UNSATISFACTORY	COMMENTS
1. Debris Cleanout (Annual, After Major Storms)		
Contributing areas clean of debris		
Filtration facility clean of debris		
Inlet and outlets clear of debris		
2. Oil and Grease (Annual, After Major Storms)		
No evidence of filter surface clogging		
Activities in drainage area minimize oil and grease entry		
3. Vegetation (Semi-annually)		
Contributing drainage area stabilized		
No evidence of erosion		
Area mowed and clipping removed		

MAINTENANCE ITEM	SATISFACTORY / UNSATISFACTORY	COMMENTS
4. Water Retention Where Required (Annual, After Major Storms)		
Water holding chambers at normal pool		
No evidence of leakage		
5. Sediment Deposition (Annual, After Major Storms)		
Filter chamber free of sediments		
Sedimentation chamber not more than half full of sediments		
6. Structural Components (Annual, After Major Storms)		
No evidence of structural deterioration		
Any grates are in good condition		
No evidence of spalling or cracking of structural parts		
7. Outlet/Overflow Spillway (Annual, After Major Storms)		
Good condition, no need for repairs		
No evidence of erosion (if draining into natural channel)		
8. Overall Function of Facility (Annual, After Major Storms)		
Evidence of flow bypassing facility		
No noticeable odors		

Comments:

Actions to be Taken:

Appendix B

Stormwater BMP Location Map

A.P. 42, LOT 10
N/F JANE D CASE

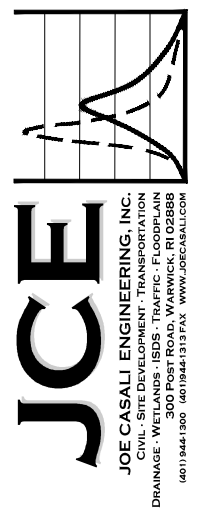
A.P. 34-4, LOT 33
N/F PAUL W
GESHLIDER

A.P. 34-4, LOT 1
N/F WILLIAM C
JOHNSON II &
CATHERINE W
TRUST

A.P. 42, LOT 11
N/F KRISTEN &
CHRISTOPHER
MICHALIK

A.P. 42, LOT 7
N/F KEVIN R &
DONNA J EMERY

A.P. 42, LOT 2
N/F ALBERTA COPELAND



SAUGATUCKET FARMS
216 SAUGATUCKET ROAD
S. KINGSTOWN, RHODE ISLAND
AP 42, LOT 8

NO.	DATE	DESCRIPTION

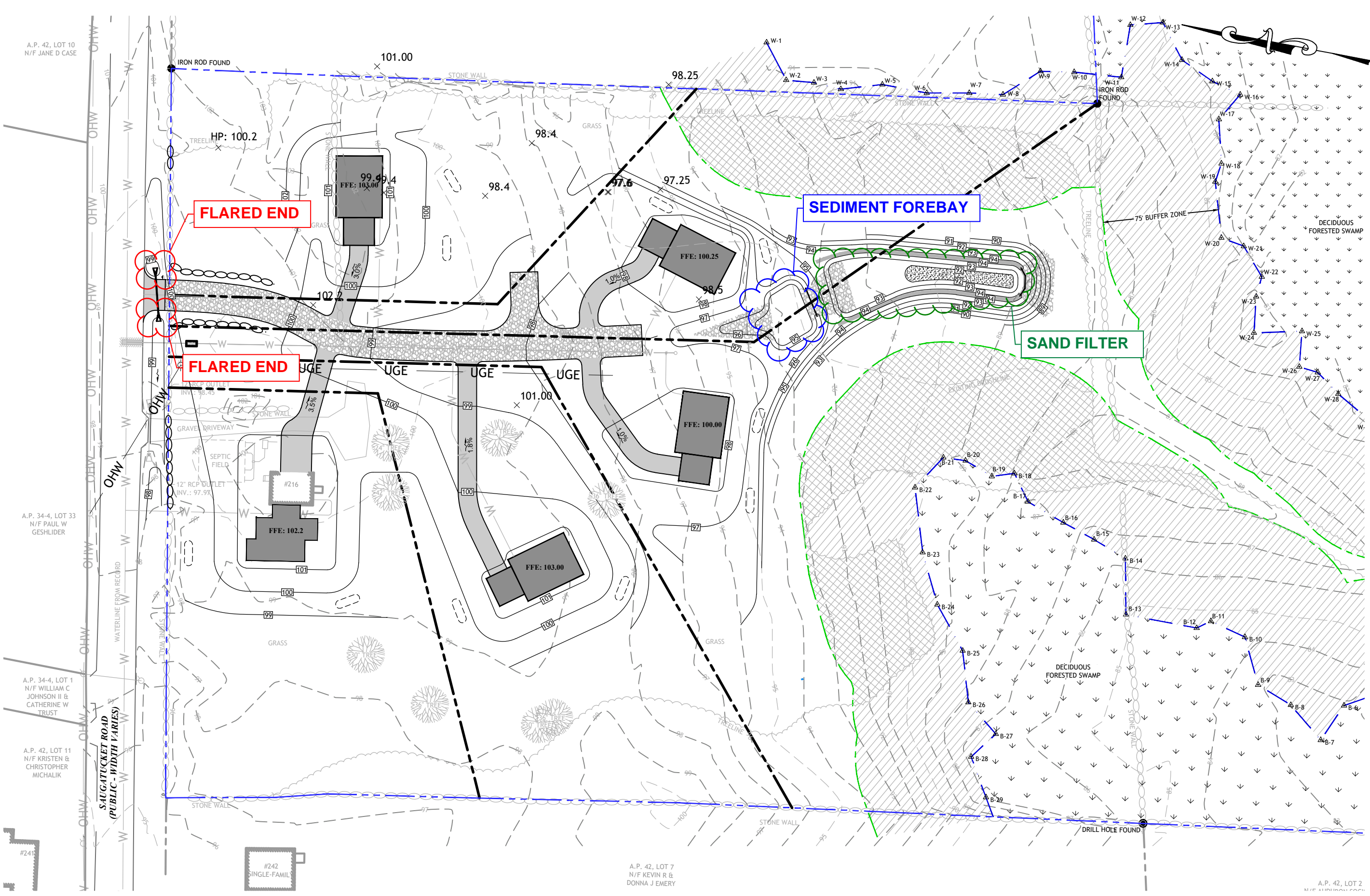
DESIGNED BY: DRD
 DRAWN BY: SEP
 CHECKED BY: JAC
 DATE: JUNE 2025
 PROJECT NO: 23-32

PRELIMINARY, NOT FOR CONSTRUCTION

BMP LOCATION MAP

SHEET 1 OF 1

Q:\24-20 Denali Corp\ACAD\216 Saugatucket Rd [PERMIT SET].dwg Jun. 13, 2025 3:55pm



BMP LOCATION MAP
1" = 60'

Appendix C

Sample Legal Agreement

(Please note this is a sample legal agreement. The Applicant shall engage an attorney to draft a formal agreement once Homeowner's Association is formed.)

Stormwater Facility Maintenance Agreement

THIS AGREEMENT, made and entered into this ____ day of _____, 20____, by and between Denali Building Company, hereinafter called the "Landowner", and the Town of South Kingstown hereinafter called the "Town". WITNESSETH, that WHEREAS, the Landowner is the owner of certain real property described as Tax Assessor's Plat 42, Lot 8 as recorded by deed in the land records of the Town of South Kingstown Deed Book ____ Page ____ hereinafter called the "Property".

WHEREAS, the Landowner is proceeding to build on and develop the property; and WHEREAS, the Site Plan known as "Permit Documents for a Proposed 5-Lot Major Subdivision – Saugatucket Farms," prepared by Joe Casali Engineering, Inc., dated June 2025, hereinafter called the "Plan", which is expressly made a part hereof, as approved or to be approved by the Town, provides for detention of stormwater within the confines of the property; and

WHEREAS, the Town and the Landowner, its successors, and assigns, agree that the health, safety, and welfare of the residents of the Town of South Kingstown require that on-site stormwater management facilities be constructed and maintained on the Property; and

WHEREAS, the Town requires that on-site stormwater management facilities as shown on the Plan be constructed and adequately maintained by the Landowner, its successors and assigns.

NOW, THEREFORE, in consideration of the foregoing premises, the mutual covenants contained herein, and the following terms and conditions, the parties hereto agree as follows:

1. The on-site stormwater management facilities shall be constructed by the Landowner, its successors and assigns, in accordance with the plans and specifications identified in the Plan.
2. The Landowner, its successors and assigns shall adequately maintain the stormwater management facilities in accordance with the required Operation and Maintenance Plan. This includes all pipes, channels or other conveyances built to convey stormwater to the facility, as well as all structures, improvements, and vegetation provided to control the quantity and quality of the stormwater. Adequate maintenance is herein defined as good working condition so that these facilities are performing their design functions. The Stormwater Best Management Practices Operation, Maintenance and Management Checklists are to be used to establish what good working condition is acceptable to the Town.
3. The Landowner, its successors and assigns, shall inspect the stormwater management facility and submit an inspection report annually. The purpose of the inspection is to assure safe and

proper functioning of the facilities. The inspection shall cover the entire facilities, berms, outlet structure, basin areas, access roads, etc. Deficiencies shall be noted in the inspection report.

4. The Landowner, its successors and assigns, hereby grant permission to the Town, its authorized agents and employees, to enter upon the Property and to inspect the stormwater management facilities whenever the Town deems necessary. The purpose of inspection is to follow-up on reported deficiencies and/or to respond to citizen complaints. The Town shall provide the Landowner, its successors and assigns, copies of the inspection findings and a directive to commence with the repairs if necessary.
5. In the event the Landowner, its successors and assigns, fails to maintain the stormwater management facilities in good working condition acceptable to the Town, the Town may enter upon the Property and take whatever steps are deemed necessary to correct deficiencies identified in the inspection report and to charge the costs of such repairs to the Landowner, its successors and assigns. This provision shall not be construed to allow the Town to erect any structure of permanent nature on the land of the Landowner outside of the easement for the stormwater management facilities. It is expressly understood and agreed that the Town is under no obligation to routinely maintain or repair said facilities, and in no event shall this Agreement be construed to impose any such obligation on the Town.
6. The Landowner, its successors and assigns, will perform the work necessary to keep these facilities in good working order as appropriate. In the event a maintenance schedule for the stormwater management facilities (including sediment removal) is outlined on the approved plans, the schedule will be followed.
7. In the event the Town, pursuant to this Agreement, performs work of any nature, or expends any funds in performance of said work for labor, use of equipment, supplies, materials, and the like, the Landowner, its successors and assigns, shall reimburse the Town upon demand, within thirty (30) days of receipt thereof for all actual costs incurred by the Town hereunder.
8. This Agreement imposes no liability of any kind whatsoever on the Town and the Landowner agrees to hold the Town harmless from any liability in the event the stormwater management facilities fail to operate properly.
9. This Agreement shall be recorded among the land records of the Town of South Kingstown and shall constitute a covenant running with the land, and shall be binding on the Landowner, its administrators, executors, assigns, heirs and any other successors in interests.

WITNESS the following signatures and seals:

Company/Corporation/Partnership Name (Seal)

By:

(Type Name and Title)

The foregoing Agreement was acknowledged before me this ____ day of ____ 20 ____,

by:

NOTARY PUBLIC

My Commission Expires:

By:

(Type Name and Title)

The foregoing Agreement was acknowledged before me this ____ day of

____ 20 ____, by:

NOTARY PUBLIC

My Commission Expires:

Approved as to Form:

Town Attorney Date