

SOIL EROSION AND SEDIMENT CONTROL PLAN

**ROSEBROOK COMMONS
1747 WEST MAIN ROAD
MIDDLETOWN, RHODE ISLAND**

Assessors Map 111, Lot 8 & 9

Prepared for:

**CVDD II, LLC & CENZ Corporation
4 Fox Place
Providence, RI 02903**

Prepared by:

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Lincoln, RI 02865**

April 2022

Soil Erosion and Sediment Control Plan

For:

Rosebrook Commons

1733 & 1747 W Main Rd

Middletown RI, 02842

Assesors Map 111, Lot 8 & 9

Owner:

Mesoella Development Corporation

Derek Mesoella

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Operator:

*TO BE DETERMINED UPON
CONTRACT AWARD*

Company Name

Name

Address

City, State, Zip Code

Telephone Number

Email Address

Estimated Project Dates:

Start Date: September 2022

Completion Date: May 2026

SESC Plan Prepared By:

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**SESC Plan
Preparation Date:**

April 1, 2022

**SESC Plan Revision
Date:**

OPERATOR CERTIFICATION

Upon contract award, the OPERATOR must sign this certification statement before construction may begin.

I certify under penalty of law that this document and all attachments were prepared under the direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that it is the responsibility of the owner/operator to implement and amend the Soil Erosion and Sediment Control Plan as appropriate in accordance with the requirements of the RIPDES Construction General Permit.

Operator Signature:

Date

Contractor Representative: Name

Contractor Title: Title

Contractor Company Name: Company Name (if applicable)

Address: Mailing Address

Phone Number: Phone Number

Email Address: Email

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INTRODUCTION

The purpose of erosion, runoff, and sedimentation control measures is to prevent pollutants from leaving the construction site and entering waterways or environmentally sensitive areas during and after construction. This SESC Plan has been prepared prior to the initiation of construction activities to address anticipated worksite conditions. The control measures depicted on the site plan and described in this narrative should be considered the minimum measures required to control erosion, sedimentation, and stormwater runoff at the site. Since construction is a dynamic process with changing site conditions, it is the operator's responsibility to manage the site during each construction phase so as to prevent pollutants from leaving the site. This may require the operator to revise and amend the SESC Plan during construction to address varying site and/or weather conditions, such as by adding or realigning erosion or sediment controls to ensure the SESC Plan remains compliant with the RIPDES Construction General Permit. Records of these changes must be added to the amendment log attached to the SESC Plan, and to the site plans as "red-lined" drawings. Please Note: **Even if practices are correctly installed on a site according to the approved plan, the site is only in compliance when erosion, runoff, and sedimentation are effectively controlled throughout the entire site.**

It is the responsibility of the site owner and the site operator to maintain the SESC Plan at the site, including all attachments, amendments and inspection records, and to make all records available for inspection by RIDEM during and after construction. (RIPDES CGP - Part III.G)

The site owner, the site operator, and the designated site inspector are required to review the SESC Plan and sign the Party Certification pages (Section 8). The primary contractor (if different) and all subcontractors (if applicable) involved in earthwork or exterior construction activities are also required to review the SESC Plan and sign the certification pages before construction begins.

Any questions regarding the SESC Plan, control measures, inspection requirements, or any other facet of this document may be addressed to the RIDEM Office of Water Resources, at 401-222-4700 or via email: water@dem.ri.gov.

SOIL EROSION AND SEDIMENT CONTROL PLAN GUIDANCE

SECTION 1: SITE DESCRIPTION

1.1 Project/Site Information

Project/Site Name:

- Rosebrook Commons
- Rosebrook Commons is proposed to be an affordable housing development with mixed use and commercial space. The proposed development will include eight buildings, parking lots, sidewalks, utilities and stormwater management. The mixed use development will be located on RI Route 114 (W Main Road) in Middletown RI.

Project Street/Location:

- 1733 & 1747 W Main Road
- See Attachment-A

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The following are estimates of the construction site area:

- Total Project Area 15.56 acres
- Total Project Area to be Disturbed 10.11 acres

Yes No The Limits of Disturbance have been marked in the field

1.3 *Natural Heritage Area Information*

RIPDES CGP - Part III.H

Are there any Natural Heritage Areas being disturbed by the construction activity or will discharges be directed to the Natural Heritage Area as a result of the construction activity?

Yes No

1.4 *Historic Preservation/Cultural Resources*

Are there any historic properties, historic cemeteries or cultural resources on or near the construction site?

Yes No

Describe how this determination was made and summarize state or tribal review comments:

- No registered historic properties, historic cemeteries, or cultural resources were observed on the state resources in the vicinity of the project area

SECTION 2: EROSION, RUNOFF, AND SEDIMENT CONTROL

RIPDES Construction General Permit – Part III.J.1 – Erosion, Runoff, and Sediment Controls

2.1 *Avoid and Protect Sensitive Areas and Natural Features*

Areas of existing and remaining vegetation and areas that are to be protected as identified in the Section 1.6 of the SESC Plan must be clearly identified on the SESC Site Plans for each Phase of Construction. Prior to any land disturbance activities commencing on the site, the Contractor shall physically mark limits of disturbance (LOD) on the site and any areas to be protected within the site, so that workers can clearly identify the areas to be protected.

Feature Requiring Protection	Construction Phase #	Method of Protection	Sheet #
Catch Basins	All	Temporary Inlet Protection	C2.1 & C2.2
Northern Wetland	All	Compost Filter Sock	C2.1 & C2.2
Southern Wetland	All	Compost Filter Sock	C2.1 & C2.2

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2.2 Minimize Area of Disturbance

Will >5 acres be disturbed in order to complete this project?

Yes No

Will <5 acres be disturbed or will disturbance activities be completed within a six (6) month window?

Yes No

As a project disturbing 10.11 acres over a period greater than 6 months, the Site is required to utilize phasing.

Based on the answers to the above questions will phasing be required for this project?

Yes No

The project will be constructed in phases. The phasing plan will be coordinated by the Contractor and Owner.

1) Construction to the West

- a. Although the limit of disturbance is >5 acres, a portion of the project site will be used for stockpiling soil and construction materials. All soil stockpiles shall be stabilized in accordance with the RISESC Handbook.
- b. Erosion controls shall be installed prior to disturbance
- c. Site clearing and demolition.
- d. Two buildings to the west foundations shall be constructed.
- e. Retaining wall installation.
- f. Utility installation and stormwater management grading.
- g. Near completion of the two buildings being constructed, parking lots, sidewalks and other site features shall be installed.

2) Construction to the East

- a. The Although the limit of disturbance is >5 acres, a portion of the project site will be used for stockpiling soil and construction materials. All soil stockpiles shall be stabilized in accordance with the RISESC Handbook.
- b. Erosion controls shall be installed prior to disturbance
- c. Site clearing and demolition.
- d. Six buildings to the east foundations shall be constructed.
- e. Retaining wall installation.
- f. Utility installation and stormwater management grading.
- g. Near completion of the six buildings being constructed, parking lots, sidewalks and other site features shall be installed.

PHASING PLAN

The following are estimates of each phase of the construction project:

Phase No. or Identifier	#1 Site clearing to the West
Total Area of Phase	7.17 acres
Area to be Disturbed	4.82 acres

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Description of Construction Sequencing for Phase #1

Proper sequencing of construction activities is essential to maximize the effectiveness of erosion, runoff, and sediment control measures. Construction sequencing of construction activities for each phase must address the following elements:

1. Installation of control measures identifying limits of disturbance and areas internal to the site that require protection before start of land disturbance.
2. Installation of all erosion, runoff, and sediment controls and temporary pollution prevention measures that are required to be in place and functional before any earthwork begins. This shall be done in accordance with the RI SESC Handbook and/or the RI Department of Transportation Standard Specifications for Road and Bridge Construction (as amended). Upon acceptable completion of site preparation and installation of erosion, runoff, and sediment controls and temporary pollution prevention measures, site construction activities may commence.
3. Upon commencement of site construction activities, the operator shall initiate appropriate stabilization practices on all disturbed areas as soon as possible, but not more than fourteen (14) days after the construction activity in that area has temporarily or permanently ceased. Such temporary or permanent soil stabilization measures must be installed prior to initiating land disturbance in subsequent phases.
4. Routine inspection and maintenance and/or modification of erosion, runoff, and sediment controls and temporary pollution prevention measures while earthwork is ongoing is required.
5. Final site stabilization of any disturbed areas after earthwork has been completed and removal of temporary erosion, runoff, and sediment controls and temporary pollution prevention measures.

Phase No. or Identifier	#2 Site clearing to the East
Total Area of Phase	8.39 acres
Area to be Disturbed	5.29 acres (new building footprint will be stabilized)

Description of Construction Sequencing for Phase #2

Proper sequencing of construction activities is essential to maximize the effectiveness of erosion, runoff, and sediment control measures. Construction sequencing of construction activities for each phase must address the following elements:

1. Installation of control measures identifying limits of disturbance and areas internal to the site that require protection before start of land disturbance.
2. Installation of all erosion, runoff, and sediment controls and temporary pollution prevention measures that are required to be in place and functional before any earthwork begins. This shall be done in accordance with the RI SESC Handbook and/or the RI Department of Transportation Standard Specifications for Road and Bridge Construction (as amended). Upon acceptable completion of site preparation and installation of erosion, runoff, and sediment controls and temporary pollution prevention measures, site construction activities may commence.
3. Upon commencement of site construction activities, the operator shall initiate appropriate stabilization practices on all disturbed areas as soon as possible, but not more than fourteen (14) days after the construction activity in that area has temporarily or permanently ceased. Such temporary or permanent soil stabilization measures must be installed prior to initiating land disturbance in subsequent phases.

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4. Routine inspection and maintenance and/or modification of erosion, runoff, and sediment controls and temporary pollution prevention measures while earthwork is ongoing is required.
5. Final site stabilization of any disturbed areas after earthwork has been completed and removal of temporary erosion, runoff, and sediment controls and temporary pollution prevention measures.

2.3 Minimize the Disturbance of Steep Slopes

Are steep slopes (>15%) present within the proposed project area?

Yes No

Steep Slopes area present on site as a result of previous development and the fill of the site due to high groundwater.

2.4 Preserve Topsoil

Site owners and operators must preserve existing topsoil on the construction site to the maximum extent feasible and as necessary to support healthy vegetation, promote soil stabilization, and increase stormwater infiltration rates in the post-construction phase of the project.

Will existing topsoil be preserved at the site?

Yes No

Due to the property being partially contaminated per the properties Post-Construction Soil Management Plan or Remedial Action Work Plan, as applicable the topsoil shall be capped.

Soil compaction must be minimized by maintaining limits of disturbance throughout construction. In instances where site soils are compacted the site owner and operator must restore infiltration capacity of the compacted soils by tilling or scarifying compacted soils and amending soils as necessary to ensure a minimum depth of topsoil is available in these areas. In areas where infiltrating stormwater treatment practices are located compacted soils must be amended such that they will comply the design infiltration rates.

Compacted soil shall be suitably amended, tilled and revegetated at the completion of construction

2.5 Stabilize Soils

Upon completion and acceptance of site preparation and initial installation of erosion, runoff, and sediment controls and temporary pollution prevention measures, the operator shall initiate appropriate temporary or permanent stabilization practices during all phases of construction on all disturbed areas as soon as possible, but not more than fourteen (14) days after the construction activity in that area has temporarily or permanently ceased.

Any disturbed areas that will not have active construction activity occurring within 14 days must be stabilized using the control measures depicted in the SESC Site Plans, in accordance with the *RI SESC Handbook*, and per manufacturer product specifications.

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Only areas that can be reasonably expected to have active construction work being performed within 14 days of disturbance will be cleared/grubbed at any one time. It is NOT acceptable to clear and grub the entire construction site if portions will not be active within the 14-day time frame. Proper phasing of clearing and grubbing activities shall include temporary stabilization techniques for areas cleared and grubbed that will not be active within the 14-day time frame.

All disturbed soils exposed prior to October 15 of any calendar year shall be seeded by that date if vegetative measures are the intended soil stabilization method. Any such areas that do not have adequate vegetative stabilization, as determined by the site operator or designated inspector, by November 15, must be stabilized through the use of non-vegetative erosion control measures. If work continues within any of these areas during the period from October 15 through April 15, care must be taken to ensure that only the area required for that day's work is exposed, and all erodible soil must be restabilized within 5 working days. In limited circumstances, stabilization may not be required if the intended function of a specific area of the site necessitates that it remain disturbed (i.e. construction of a motocross track).

Temporary Vegetative Control Measures

- Grass seeding will be the main vegetative control used on the site. Upon the completion of grading activities, any disturbed or otherwise unstabilized soil will be promptly protected.

Temporary Non-Vegetative Control Measures

- Compost filter socks are proposed and were selected for their proven efficiency in trapping sediments, their ease of installation, and their low impact to the site.

Permanent Vegetative Control Measures

- Grass seeding will be the main vegetative control used on the site. upon the completion of grading activities, any disturbance or otherwise unstabilized soil will be promptly protected by the application of a plantable soil, where necessary, and an appropriate seed mixture.

Permanent Non-Vegetative Control Measures

Permanent turf reinforcement mats shall be placed on the spillway slopes for stormwater BMPs. Please see plan sheet C5.1 and C5.2.

2.6 Protect Storm Drain Outlets

Temporary or permanent outlet protection must be used to prevent scour and erosion at discharge points through the protection of the soil surface, reduction in discharge velocities, and through the promotion of infiltration. Outlets often have high velocity, high volume flows, and require strong materials that will withstand the forces of stormwater. Storm drain outlet control measures also offer a last line of protection against sediment entering environmentally sensitive areas.

All stormwater outlets that may discharge sediment-laden stormwater flow from the construction site must be protected using the control practices depicted on the approved plan set and in accordance with the *R/SESC Handbook*.

Will temporary or permanent point source discharges be generated at the site as the result of construction of sediment traps or basins, diversions, and conveyance channels?

Yes No

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Temporary sediment traps shall be discharged as sheet flow through the sediment trap outlet. Alternatively, the Contractor can discharge stormwater after sediment removal to the approved outlet

2.7 Establish Temporary Controls for the Protection of Post-Construction Stormwater Treatment Practices

Temporary measures shall be installed to protect permanent or long-term stormwater control and treatment measures as they are installed and throughout the construction phase of the project so that they will function properly when they are brought online.

Will long-term stormwater treatment practices be installed at the site?

Yes No

Long-term stormwater treatment practices include seventeen bioretention areas, a tree box filter and infiltration basins. These features shall be protected by compost filter socks during construction.

2.8 Divert or Manage Run-on from Up-gradient Areas

Is stormwater from off-site areas anticipated to flow onto the project area or onto areas where soils will be disturbed?

Yes No

2.9 Retain Sediment Onsite through Structural and Non-Structural Practices

SEDIMENT BARRIERS must be installed along the perimeter areas of the site that will receive stormwater from disturbed areas. This also may include the use of sediment barriers along the contour of disturbed slopes to maintain sheet flow and minimize rill and gully erosion during construction. Installation and maintenance of sediment barriers must be completed in accordance with the maintenance requirements specified by the product manufacturer or the *RI SESC Handbook*.

Will sediment barriers be utilized at the toe of slopes and other downgradient areas subject to stormwater impacts and erosion during construction?

Yes No

Will sediment barriers be utilized along the contour of slopes to maintain sheet flow and minimize rill and gully erosion during construction?

Yes No

Compost filter socks are proposed and were selected for their proven efficiency in trapping sediments, their ease of installation, and low impact to the site.

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SEDIMENT BARRIERS			
Construction Phase #	Sediment Barrier Type	Sediment Barrier is Labeled on Sheet #	Detail is on Sheet #
1	Compost Filter Sock, perimeter	C2.1	C9.1
2	Compost Filter Sock, perimeter	C2.2	C9.1

INLET PROTECTION will be utilized to prevent soil and debris from entering storm drain inlets. These measures are usually temporary and are implemented before a site is disturbed. ALL stormwater inlets &/or catch basins that are operational during construction and have the potential to receive sediment-laden stormwater flow from the construction site must be protected using control measures outlined in the *RI SESC Handbook*.

For more information on inlet protection refer to the *RI SESC Handbook*, Inlet Protection control measure.

Maintenance

The operator must clean, or remove and replace the inlet protection measures as sediment accumulates, the filter becomes clogged, and/or as performance is compromised. Accumulated sediment adjacent to the inlet protection measures should be removed by the end of the same work day in which it is found or by the end of the following work day if removal by the same work day is not feasible.

Do inlets exist adjacent to or within the project area that require temporary protection?

Yes No

Temporary inlet protection will be installed prior to construction, as shown on C2.1 and C2.2.

The following lists the proposed storm drain inlet types selected from Section Six of the *RI SESC Handbook*. Each row is unique for each phase and inlet protection type.

INLET PROTECTION			
Construction Phase #	Inlet Protection Type	Inlet Protection is labeled on Sheet #	Detail(s) is/are on Sheet #
1	Silt Sack inlet protection	C2.1	C9.1
2	Silt Sack inlet protection	C2.2	C9.1

CONSTRUCTION ENTRANCES will be used in conjunction with the stabilization of construction roads to reduce the amount of sediment tracking off the project. This project has avoided placing construction entrances on poorly drained soils where possible. Where poorly drained soils could not be eliminated, the detail includes subsurface drainage.

Any construction site access point must employ the control measures on the approved SESC site plans and in accordance with the *RI SESC Handbook*. Construction entrances shall be used in conjunction with the stabilization of construction roads to reduce the amount of mud picked up by construction vehicles. All construction access roads shall be constructed prior to any roadway accepting construction traffic.

The site owner and operator must:

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1. Restrict vehicle use to properly designated exit points.
2. Use properly designed and constructed construction entrances at all points that exit onto paved roads so that sediment removal occurs prior to vehicle exit.
3. When and where necessary, use additional controls to remove sediment from vehicle tires prior to exit (i.e. wheel washing racks, rumble strips, and rattle plates).
4. Where sediment has been tracked out from the construction site onto the surface of off-site streets, other paved areas, and sidewalks, the deposited sediment must be removed by the end of the same work day in which the track out occurs. Track-out must be removed by sweeping, shoveling, or vacuuming these surfaces, or by using other similarly effective means of sediment removal.

Will construction entrances be utilized at the proposed construction site?

Yes No

CONSTRUCTION ENTRANCE			
Construction Phase #	Soil Type at the Entrance	Entrance is located on Sheet #	Detail is on Sheet #
1	C	C2.1	C9.1

STOCKPILE CONTAINMENT will be used onsite to minimize or eliminate the discharge of soil, topsoil, base material or rubble, from entering drainage systems or surface waters. All stockpiles must be located within the limit of disturbance, protected from run-on with the use of temporary sediment barriers and provided with cover or stabilization to avoid contact with precipitation and wind where and when practical.

Stock pile management consists of procedures and practices designed to minimize or eliminate the discharge of stockpiled material (soil, topsoil, base material, rubble) from entering drainage systems or surface waters.

For any stockpiles or land clearing debris composed, in whole or in part, of sediment or soil, you must comply with the following requirements:

1. Locate piles within the designated limits of disturbance.
2. Protect from contact with stormwater (including run-on) using a temporary perimeter sediment barrier.
3. Where practicable, provide cover or appropriate temporary vegetative or structural stabilization to avoid direct contact with precipitation or to minimize sediment discharge.
4. NEVER hose down or sweep soil or sediment accumulated on pavement or other impervious surfaces into any stormwater conveyance, storm drain inlet, or surface water.
5. To the maximum extent practicable, contain and securely protect from wind.

Topsoil, fill or on-site common borrow are expected to be generated and shall be stored at the site and surrounded on all sides by sediment barriers. Stockpiles should be located outside the 50-foot wetland buffer. Refer to RI SESC Handbook, Stockpile and Staging Management Control Measures for additional guidance. Any on-site common borrow stockpiles shall be stockpiled on top of, and covered with, at least 1 layer of 6-mil polyethylene sheeting according to the Remedial Action Work Plan for the site. All stockpiles shall remain covered with polyethylene sheeting unless being actively managed to protect

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against wind-blown dusts and potential sediment migration. Stockpile covering shall be inspected daily and any punctures or tears observed shall be repaired immediately. In the event of larger soil quantities, soil may be stored inside lined roll-off containers. No excavated material may be placed directly on the ground surface.

STOCKPILE CONTAINMENT				
Construction Phase #	Run-on measures necessary? (yes/no)	Stabilization or Cover Type	Stockpile Containment Measure	Sheet #
1	No	Polyethylene Sheeting	Compost Filter Sock	C9.1
2	No	Polyethylene Sheeting	Compost Filter Sock	C9.1

CONSTRUCTED SEDIMENT STRUCTURES

TEMPORARY SEDIMENT TRAPS will be utilized onsite. There will be no disturbed drainage areas greater than one acre that will be exposed for longer than six months. Design and sizing calculations in accordance with the *RI SESC Handbook*, Section Six are found in Attachment H of this SESC Plan. A summary of the calculations are provided below:

Are temporary sediment traps required at the site?

Yes No

SEDIMENT TRAPS				
Construction Phase #	Exposed Area (acres)	Trap #	Sheet #	Detail found on Sheet#
Phase 1	1.80	TST-01	C2.1	C9.1
Phase 1	0.79	TST-02	C2.1	C9.1
Phase 1	1.87	TST-03	C2.1	C9.1
Phase 2	2.04	TST-04	C2.2	C9.1
Phase 2	2.87	TST-05	C2.2	C9.1

Trap #	Wet Storage Volume (cu.ft)	Dry Storage Volume (cu.ft.)	Cleanout Depth (ft)	Provide Reference to Location of Supporting Design and Sizing Calculations
TST-01	3,825	3,396	5'	Attachment H
TST-02	1,530	1,436	5'	Attachment H
TST-03	3,825	3,356	5'	Attachment H
TST-04	4,973	4,296	5'	Attachment H
TST-05	6,248	5,336	5'	Attachment H

All traps will be functional and installed prior to disturbance in the contributing drainage area. Access for sediment removal is provided on the plans with cleanout depth requirements. The removed sediment will be utilized onsite or disposed of properly off-site.

TEMPORARY SEDIMENT BASIN(S) will be utilized onsite. Every effort must be made to prevent erosion and control it near the source.

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Are temporary sediment basins required at the site?

Yes No

2.10 Properly Design Constructed Stormwater Conveyance Channels

Are temporary stormwater conveyance practices required in order to properly manage runoff within the proposed construction project?

Yes No

Temporary diversion swales or berms shall be used to convey stormwater to the temporary sediment traps in accordance with RI SESC Control Handbook

The conveyance will be maintained as depicted on SESC Site Plans and in accordance with the *RI SESC Handbook* and if applicable.

2.11 Erosion, Runoff, and Sediment Control Measure List

It is expected that this table and corresponding Inspection Reports will be amended as needed throughout the construction project as control measures are added or modified.

Phase No. #		
Location/Station	Control Measure Description/Reference	Maintenance Requirement
Perimeter (See Sheet C2.1&C2.2)	Compost Filter Sock. Section Six, Sediment Control Measures – Straw Wattles, Compost Tubes and Fiber Rolls – <i>RI SESC Handbook</i> .	Inspection should be made after each storm event and repair or replacement should be made promptly as needed. Cleanout of accumulated sediment behind the filter sock if sediment accumulates to at least ½ of the original height of the barrier becomes filled with sediment. Compost filter sock should be inspected regularly, and sediment shall be cleared often to prevent buildup or damages
Entrance to the Site (See Sheet C2.1&C2.2)	Stone Stabilized Pad. Section Six: Sediment Control Measures – Construction Entrances – <i>RI SESC Handbook</i> .	The entrance shall be maintained in a condition which will prevent tracking or flowing of sediment onto paved surfaces. Provide periodic top dressing with additional stone or additional length as conditions demand. Roads adjacent to entrance shall be clean at

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		<p>the end of each day.</p> <p>If maintenance alone is not enough to prevent excessive track out, increase length of entrance, modify construction access road surface, or install washrack or mudrack.</p>
<p style="text-align: center;">Stockpiles</p> <p>(See Sheet C2.1&C2.2)</p>	<p>Stockpile Management. Section Three: Pollution Prevention and Good Housekeeping – Stockpile and Staging Area Management – <i>RI SESC Handbook</i>.</p>	<p>Inspections should be made daily of the polyethylene sheeting and sediment control condition.</p> <p>Inspections of sediment and surface water buildup should be made weekly during the rainy season and bi-monthly during the non-rainy season.</p>
<p style="text-align: center;">Temporary Sediment Trap</p> <p>(See Sheet C2.1&C2.2)</p>	<p>Temporary Sediment Trap. Section Six: Sediment Control Measures – Temporary Sediment Traps – <i>RI SESC Handbook</i>.</p>	<p>Inspections should be made after rainfall events greater than 0.25 in. and/or once a week. Sediment should be removed when one half of the required wet storage volume has been achieved. A sediment marker shall be installed in the trap for visual identification of when the trap has accumulated enough sediment to require clean out.</p>

SECTION 3: CONSTRUCTION ACTIVITY POLLUTION PREVENTION

The purpose of construction activity pollution prevention is to prevent day to day construction activities from causing pollution.

This section describes the key pollution prevention measures that must be implemented to avoid and reduce the discharge of pollutants in stormwater. Example control measures include the proper management of waste, material handling and storage, and equipment/vehicle fueling/washing/maintenance operations.

Where applicable, include *RI SESC Handbook* or the *RI Department of Transportation Standard Specifications for Road and Bridge Construction* (as amended) specifications.

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3.1 Existing Data of Known Discharges from Site

Are there known discharges from the project area?

Yes No

Describe how this determination was made:

- Site Survey and field observations

If yes, list discharges and locations:

Is there existing data on the quality of the known discharges?

Yes No

If yes, provide data:

- N/A

3.2 Prohibited Discharges

The following discharges are prohibited at the construction site:

- Contaminated groundwater, unless specifically authorized by the DEM. These types of discharges may only be authorized under a separate DEM RIPDES permit.
- Wastewater from washout of concrete, unless the discharge is contained and managed by appropriate control measures.
- Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds, and other construction materials.
- Fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance. Proper storage and spill prevention practices must be utilized at all construction sites.
- Soaps or solvents used in vehicle and equipment washing.
- Toxic or hazardous substances from a spill or other release.

All types of waste generated at the site shall be disposed of in a manner consistent with State Law and/or regulations.

Will any of the above listed prohibited discharges be generated at the site?

Yes No

Wastewater from washout of concrete and fuels, oils or other pollutants from construction equipment operations has the potential to be generated at the site. Concrete washout areas shall be utilized during construction. Proper storage and spill prevention practices shall be utilized to prevent discharge from construction vehicle operations.

3.3 Proper Waste Disposal

Building materials and other construction site wastes must be properly managed and disposed of in a manner consistent with State Law and/or regulations.

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- A waste collection area shall be designated on the site that does not receive a substantial amount of runoff from upland areas and does not drain directly to a waterbody or storm drain.
- All waste containers shall be covered to avoid contact with wind and precipitation.
- Waste collection shall be scheduled frequently enough to prevent containers from overflowing.
- All construction site wastes shall be collected, removed, and disposed of in accordance with applicable regulatory requirements and only at authorized disposal sites.
- Equipment and containers shall be checked for leaks, corrosion, support or foundation failure, or other signs of deterioration. Those that are found to be defective shall be immediately repaired or replaced.

Is waste disposal a significant element of the proposed project?

Yes No

Waste disposal will be limited to removal of demolished material in addition to waste as a result of utility and site construction. All wastes shall be disposed of in a manner consistent with State and Local Regulations. Excess construction soils shall be sampled prior to off-site disposal to a properly licensed facility. Sampling will follow the analytical requirements stipulated in the Post-Construction Soil Management Plan and the Remedial Action Work Plan, as applicable.

3.4 *Spill Prevention and Control*

All chemicals and/or hazardous waste material must be stored properly and legally in covered areas, with containment systems constructed in or around the storage areas. Areas must be designated for materials delivery and storage. All areas where potential spills can occur and their accompanying drainage points must be described. The owner and operator must establish spill prevention and control measures to reduce the chance of spills, stop the source of spills, contain and clean-up spills, and dispose of materials contaminated by spills. The operator must establish and make highly visible location(s) for the storage of spill prevention and control equipment and provide training for personnel responsible for spill prevention and control on the construction site.

Are spill prevention and control measures required for this particular project?

Yes No

Spills related to construction vehicles and materials shall be prevented by the following procedures:

1. No vehicles shall be left unattended in project areas, which, in the event of a hazardous material spill, would flow into any portion of the drainage system.
2. Vehicles shall be fueled in areas and using procedures that will not lead to a discharge of fuel into Waters of the State.
3. In the event of a release of hazardous material, the equipment operator shall take all measures to stop and/or contain the leak and without exacerbating the release and attempt to remove equipment from areas likely to cause a discharge of hazardous materials into Water of the State. Further, site supervisors, and the Owner and his Representative shall be contacted and, should it be determined that the spill is of a reportable quantity, the RIDEM shall be notified. A licensed hazardous waste remediation contractor shall be engaged to remediate any such spills in accordance with RIDEM Regulations and procedures.

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Any hazardous materials used for construction shall be stored away from the drainage system components and protected from precipitation. In the event of a release beyond the ability of construction staff to contain, emergency services of the Town of Middletown, and the State of Rhode Island, and a licensed hazardous waste remediation contractor shall be contacted for assistance.

To prevent pollution of surface waters, the following construction procedures shall be prohibited:

1. Dumping of or discharging of spoil material or excessively turbid water into any drainage structures, stream corridor, any wetland, or any surface waters.
2. Indiscriminate, arbitrary or capricious operations of equipment in any drainage structures, stream corridors, any wetlands, or any surface waters.
3. Pumping of silt-laden water from trenches or other excavations into any drainage structures, surface waters, any stream corridors or any wetlands. All disposal of silt-laden water shall be carried out within the use of approved filter basins.
4. Disposal of trees, brush, and other debris in any stream corridors, any wetlands, any surface waters, or at unspecified locations.
5. Disposal of excess or unsuitable excavation material in wetlands or floodplain areas, even with permission of the property owner.
6. Open burning of project debris.
7. Location of storage stockpiles in environmentally sensitive areas.

3.5 Control of Allowable Non-Stormwater Discharges

Are there allowable non-Stormwater discharges present on or near the project area?

Yes No

List of allowable non-stormwater discharge(s) and the associated control measure(s):

- Washdown of vehicles where no detergents are used, the use of water to control dust, uncontaminated groundwater, irrigation drainage, pavement wash waters where spills or leaks of toxic or hazardous materials have not occurred (unless all spilled materials have been removed), and where detergents are not used.
- All allowable non-stormwater discharges shall be controlled with temporary erosion controls including perimeter control, inlet control, and temporary sedimentation structures.

Are there any known or proposed contaminated discharges, including anticipated contaminated dewatering operations, planned on or near the project area?

Yes No

If the Contractor determines that dewatering is necessary, dewatering must be performed in accordance with applicable regulations for protection of water quality and effluent disposal requirements promulgated by the RIDEM per the site's Post-Construction Soil Management Plan or Remedial Action work plan for contaminated ground water.

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3.6 Control Dewatering Practices

Site owners and operators are prohibited from discharging groundwater or accumulated stormwater that is removed from excavations, trenches, foundations, vaults, or other similar points of accumulation, unless such waters are first effectively managed by appropriate control measures.

Examples of appropriate control measures include, but are not limited to, temporary sediment basins or sediment traps, sediment socks, dewatering tanks and bags, or filtration systems (e.g. bag or sand filters) that are designed to remove sediment. Uncontaminated, non-turbid dewatering water can be discharged without being routed to a control.

At a minimum the following discharge requirements must be met for dewatering activities:

1. Do not discharge visible floating solids or foam.
2. To the extent feasible, utilize vegetated, upland areas of the site to infiltrate dewatering water before discharge. In no case will surface waters be considered part of the treatment area.
3. At all points where dewatering water is discharged, utilize velocity dissipation devices.
4. With filter backwash water, either haul it away for disposal or return it to the beginning of the treatment process.
5. Replace and clean the filter media used in dewatering devices when the pressure differential equals or exceeds the manufacturer's specifications.
6. Dewatering practices must involve the implementation of appropriate control measures as applicable (i.e. containment areas for dewatering earth materials, portable sediment tanks and bags, pumping settling basins, and pump intake protection.)

Is it at all likely that the site operator will need to implement construction dewatering in order to complete the proposed project?

Yes No

- Dewatering may be required. All proposed dewatering activities are to comply with the RI SESC Handbook. Dewatering activities shall be in accordance with Contract Documents and shall be approved by Owner or Owner's Representative. If the Contractor determines that dewatering is necessary, dewatering must be performed in accordance with applicable regulations for protection of water quality and effluent disposal requirements promulgated by the RIDEM per the site's Post-Construction Soil Management Plan or the Remedial Action work plan for contaminated ground water.

3.7 Establish Proper Building Material Staging Areas

All construction materials that have the potential to contaminate stormwater must be stored properly and legally in covered areas, with containment systems constructed in or around the storage areas. Areas must be designated for materials delivery and storage. Designated areas shall be approved by the site owner/engineer. Minimization of exposure is not required in cases where the exposure to precipitation and to stormwater will not result in the discharge of pollutants, or where exposure of a specific material or product poses little risk of stormwater contamination (such as final products and materials intended for outdoor use).

Materials stored on the site will be protected from exposure to precipitation through the use of tarps or other cover. All construction debris shall be properly disposed of and/or covered at the end of each working day to avoid contact with precipitation.

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Earthwork materials stockpiles shall be surrounded by erosion controls to prevent sediment from being carried downstream. In addition, all on-site common borrow shall be placed on, and covered with, 1 layers of 6-mil polyethylene sheeting per the site's Remedial Action Work Plan. Larger soil volumes may be stored inside lined roll-off containers.

3.8 Minimize Dust

Dust control procedures and practices shall be used to suppress dust on a construction site during the construction process, as applicable. Precipitation, temperature, humidity, wind velocity and direction will determine amount and frequency of applications. However, the best method of controlling dust is to prevent dust production. This can best be accomplished by limiting the amount of bare soil exposed at one time. Dust Control measures outlined in the *RI SESC Handbook* shall be followed. Other dust control methods include watering, chemical application, surface roughening, wind barriers, walls, and covers.

Upon completion of site preparation and grading activities, exposed soil will be wetted and/or covered with a minimum 6-mil thickness polyethylene sheeting to mitigate dust generation and contamination migration.

3.9 Designate Washout Areas

At no time shall any material (concrete, paint, chemicals) be washed into storm drains, open ditches, streets, streams, wetlands, or any environmentally sensitive area. The site operator must ensure that construction waste is properly disposed of, to avoid exposure to precipitation, at the end of each working day.

Will washout areas be required for the proposed project?

Yes No

Washout shall remain within specified locations (i.e. concrete washout area) on site as shown on Sheet C2.1 & C2.2. Washout areas shall be constructed and maintained in accordance with the *RI SESC Handbook*.

When temporary concrete washout facilities are no longer required for work, the hardened concrete, slurries, and liquids shall be removed and properly disposed of.

3.10 Establish Proper Equipment/Vehicle Fueling and Maintenance Practices

Vehicle fueling shall not take place within regulated wetlands or buffer zone areas, or within 50-feet of the storm drain system. Designated areas shall be depicted on the SESC Site Plans, or shall be approved by the site owner.

Vehicle maintenance and washing shall occur off-site, or in designated areas depicted on the SESC Site Plans or approved of by the site owner. Maintenance or washing areas shall not be within regulated wetlands or buffer zone areas, or within 50-feet of the storm drain system. Maintenance areas shall be clearly designated, and barriers shall be used around the perimeter of the maintenance area to prevent stormwater contamination.

Construction vehicles shall be inspected frequently for leaks. Repairs shall take place immediately. Disposal of all used oil, antifreeze, solvents and other automotive-related chemicals shall be according to applicable regulations; at no time shall any material be washed down the storm drain or in to any environmentally sensitive area.

See section 3.4 of this report.

3.11 Chemical Treatment for Erosion and Sediment Control

Chemical stabilizers, polymers, and flocculants are readily available on the market and can be easily applied to construction sites for the purposes of enhancing the control of erosion, runoff, and sedimentation. The following guidelines should be adhered to for construction sites that plan to use treatment chemicals as part of their overall erosion, runoff, and sedimentation control strategy.

The U.S. Environmental Protection Agency has conducted research into the relative toxicity of chemicals commonly used for the treatment of construction stormwater discharges. The research conducted by the EPA focused on different formulations of chitosan, a cationic compound, and both cationic and anionic polyacrylamide (PAM). In summary, the studies found significant toxicity resulting from the use of chitosan and cationic PAM in laboratory conditions, and significantly less toxicity associated with using anionic PAM. EPA's research has led to the conclusion that the use of treatment chemicals for erosion, runoff, and sedimentation control requires proper operator training and appropriate usage to avoid risk to aquatic species. In the case of cationic treatment chemicals additional safeguards may be necessary.

Application/Installation Minimum Requirements

If a site operator plans to use polymers, flocculants, or other treatment chemicals during construction the SESC plan must address the following:

1. Treatment chemicals shall not be applied directly to or within 100 feet of any surface water body, wetland, or storm drain inlet.
2. Use conventional erosion, runoff, and sedimentation controls prior to and after the application of treatment chemicals. Use conventional erosion, runoff, and sedimentation controls prior to chemical addition to ensure effective treatment. Chemicals may only be applied where treated stormwater is directed to a sediment control (e.g. temporary sediment basin, temporary sediment trap or sediment barrier) prior to discharge.
3. Sites shall be stabilized as soon as possible using conventional measures to minimize the need to use chemical treatment.
4. Select appropriate treatment chemicals. Chemicals must be selected that are appropriately suited to the types of soils likely to be exposed during construction and to the expected turbidity, pH, and flow rate of stormwater flowing into the chemical treatment system or treatment area. **Soil testing is essential. Using the wrong form of chemical treatment will result in some form of performance failure and unnecessary environmental risk.**
5. Minimize discharge risk from stored chemicals. Store all treatment chemicals in leak-proof containers that are kept under storm-resistant cover and surrounded by secondary containment structures (e.g., spill berms, decks, spill containment pallets), or provide equivalent measures, designed and maintained to minimize the potential discharge of treatment chemicals in stormwater or by any other means (e.g., storing chemicals in covered areas or having a spill kit available on site).
6. Use chemicals in accordance with good engineering practices and specifications of the chemical provider/supplier. You must also use treatment chemicals and chemical treatment systems in accordance with good engineering practices, and with dosing specifications and sediment removal design specifications provided by the supplier of the applicable chemicals, or document specific departures from these practices or specifications and how they reflect good engineering practice.

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Will chemical stabilizers, polymers, flocculants or other treatment chemicals be utilized on the proposed construction project?

Yes No

No, to the best of Pare's knowledge.

Treatment Chemical SESC Plan Weekly Inspection Report Documentation Requirements

1. Document the type and quantity of treatment chemicals applied.
2. List the date, duration of discharge, and estimated discharge rate.
3. Provide an estimate of the volume of water treated.
4. Provide an estimate of the concentration of treatment chemicals in the discharge, with supporting calculations.

3.12 Construction Activity Pollution Prevention Control Measure List

It is expected that this table will be amended as needed throughout the construction project.

Phase No. #		
Location/Station	Control Measure Description/Reference	Maintenance Requirement
Concrete Washout Area (See Sheet C2.1&C2.2)	Concrete washout area. Section Three: Pollution Prevention and Good Housekeeping, Concrete Washout, <i>RI SESC Handbook</i> .	Verify that concrete washout container(s) are in place prior to pouring concrete. Inspect daily to verify continued proper performance. Check remaining capacity during pouring operations. Check for leaks periodically.
Street Sweeping	Street Sweeping. Section Three: Pollution Prevention and Good Housekeeping, Street Sweeping, <i>RI SESC Handbook</i> .	Public roads adjacent to the construction site shall be swept at the end of each day. Construction site shall be swept when sediment is visible.
Dust Control	Dust Control. Section Three: Pollution Prevention and Good Housekeeping, Dust Control, <i>RI SESC Handbook</i> .	Exposed areas shall be limited during construction. All exposed areas shall be inspected daily.
Waste Management	Waste Management. Section Three: Pollution Prevention and Good Housekeeping, Waste	All loose trash and debris must be disposed of properly at the end of each working day.

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	Management, <i>RI SESC Handbook</i> .	
Spill Prevention and Control	Spill Prevention and Control. Section Three: Pollution Prevention and Good Housekeeping, Spill Prevention and Control Plans, <i>RI SESC Handbook</i> .	All construction vehicles shall be regularly inspected for leaks and repaired as necessary. Spills shall be cleaned in accordance with <i>RI SESC Handbook</i> .

SECTION 4: CONTROL MEASURE INSTALLATION, INSPECTION, and MAINTENANCE

4.1 Installation

Complete the installation of temporary erosion, runoff, sediment, and pollution prevention control measures by the time each phase of earth-disturbance has begun. All stormwater control measures must be installed in accordance with good judgment, including applicable design and manufacturer specifications. Installation techniques and maintenance requirements may be found in manufacturer specifications and/or the *RI SESC Handbook*.

Installation requirements of temporary erosion, runoff, sediment, and pollution prevention control measures are shown in the plan Sheet C1.1 and are described in the project specifications.

4.2 Monitoring Weather Conditions

Anticipating Weather Events - Care will be taken to the best of the operator's ability to avoid disturbing large areas prior to anticipated precipitation events. Weather forecasts must be routinely checked, and in the case of an expected precipitation event of over 0.25-inches over a 24-hour period, it is highly recommended that all control measures should be evaluated and maintained as necessary, prior to the weather event. In the case of an extreme weather forecast (greater than one-inch of rain over a 24-hour period), additional erosion/sediment controls may need to be installed.

Storm Event Monitoring For Inspections - At a minimum, storm events must be monitored and tracked in order to determine when post-storm event inspections must be conducted. Inspections must be conducted and documented at least once every seven (7) calendar days and within twenty-four (24) hours after any storm event, which generates at least 0.25 inches of rainfall per twenty-four (24) hour period and/or after a significant amount of runoff or snowmelt.

The weather gauge station and website that will be utilized to monitor weather conditions on the construction site is as follows:

Kesson Farm - KRIMDDL12 gauge station located in Middletown, RI shall be used to monitor weather conditions at the site and can be found on www.wunderground.com

4.3 Inspections

Minimum Frequency - Each of the following areas must be inspected by or under the supervision of the owner and operator at least once every seven (7) calendar days and within twenty-four (24) hours after any storm event, which generates at least 0.25 inches of rainfall per twenty-four (24) hour period and/or after a significant amount of runoff or snowmelt:

- a. All areas that have been cleared, graded, or excavated and where permanent stabilization has not been achieved;
- b. All stormwater erosion, runoff, and sediment control measures (including pollution prevention control measures) installed at the site;

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- c. Construction material, unstabilized soil stockpiles, waste, borrow, or equipment storage, and maintenance areas that are covered by this permit and are exposed to precipitation;
- d. All areas where stormwater typically flows within the site, including temporary drainage ways designed to divert, convey, and/or treat stormwater;
- e. All points of discharge from the site;
- f. All locations where temporary soil stabilization measures have been implemented;
- g. All locations where vehicles enter or exit the site.

Reductions in Inspection Frequency - If earth disturbing activities are suspended due to frozen conditions, inspections may be reduced to a frequency of once per month. The owner and operator must document the beginning and ending dates of these periods in an inspection report.

Qualified Personnel – The site owner and operator are responsible for designating personnel to conduct inspections and for ensuring that the personnel who are responsible for conducting the inspections are “qualified” to do so. A “qualified person” is a person knowledgeable in the principles and practices of erosion, runoff, sediment, and pollution prevention controls, who possesses the skills to assess conditions at the construction site that could impact stormwater quality, and the skills to assess the effectiveness of any stormwater controls selected and installed to meet the requirements of the permit.

Recordkeeping Requirements - All records of inspections, including records of maintenance and corrective actions must be maintained with the SESC Plan. Inspection records must include the date and time of the inspection, and the inspector’s name, signature, and contact information.

General Notes

- A separate inspection report will be prepared for each inspection.
- The Inspection Reference Number shall be a combination of the RIPDES Construction General Permit No - consecutively numbered inspections. ex/ Inspection reference number for the 4th inspection of a project would be: RIR10####-4
- Each report will be signed and dated by the Inspector and must be kept onsite.
- Each report will be signed and dated by the Site Operator.
- The corrective action log contained in each inspection report must be completed, signed, and dated by the site operator once all necessary repairs have been completed.
- It is the responsibility of the site operator to maintain a copy of the SESC Plan, copies of all completed inspection reports, and amendments as part of the SESC Plan documentation at the site during construction.

Failure to make and provide documentation of inspections and corrective actions under this part constitutes a violation of your permit and enforcement actions under 46-12 of R.I. General Laws may result.

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4.4 Maintenance

Maintenance procedures for erosion and sedimentation controls and stormwater management structures/facilities are described on the SESC Site Plans and in the *RI SESC Handbook*.

Site owners and operators must ensure that all erosion, runoff, sediment, and pollution prevention controls remain in effective operating condition and are protected from activities that would reduce their effectiveness. Erosion, runoff, sedimentation, and pollution prevention control measures must be maintained throughout the course of the project.

Note: It is recommended that the site operator designates a full-time, on-site contact person responsible for working with the site owner to resolve SESC Plan-related issues.

4.5 Corrective Actions

If, in the opinion of the designated site inspector, corrective action is required, the inspector shall note it on the inspection report and shall inform the site operator that corrective action is necessary. The site operator must make all necessary repairs whenever maintenance of any of the control measures instituted at the site is required.

In accordance with the *RI SESC Handbook*, the site operator shall initiate work to fix the problem immediately after its discovery, and complete such work by the close of the next work day, if the problem does not require significant repair or replacement, or if the problem can be corrected through routine maintenance.

When installation of a new control or a significant repair is needed, site owners and operators must ensure that the new or modified control measure is installed and made operational by no later than seven (7) calendar days from the time of discovery where feasible. If it is infeasible to complete the installation or repair within seven (7) calendar days, the reasons why it is infeasible must be documented in the SESC Plan along with the schedule for installing the control measures and making it operational as soon as practicable after the 7-day timeframe. Such documentation of these maintenance procedures and timeframes should be described in the inspection report in which the issue was first documented. If these actions result in changes to any of the control measures outlined in the SESC Plan, site owners and operators must also modify the SESC Plan accordingly within seven (7) calendar days of completing this work.

SECTION 5: AMENDMENTS

This SESC Plan is intended to be a working document. It is expected that amendments will be required throughout the active construction phase of the project. **Even if practices are installed on a site according to the approved plan, the site is only in compliance when erosion, runoff, and sedimentation are effectively controlled throughout the entire site for the entire duration of the project.**

The SESC Plan shall be amended within seven (7) days whenever there is a change in design, construction, operation, maintenance or other procedure which has a significant effect on the potential for the discharge of pollutants, or if the SESC Plan proves to be ineffective in achieving its objectives (i.e. the selected control measures are not effective in controlling erosion or sedimentation).

In addition, the SESC Plan shall be amended to identify any new operator that will implement a component of the SESC Plan.

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All revisions must be recorded in the Record of Amendments Log Sheet, which is contained in Attachment G of this SESC Plan, and dated red-lined drawings and/or a detailed written description must be appended to the SESC Plan. Inspection Forms must be revised to reflect all amendments. Update the Revision Date and the Version # in the footer of the Report to reflect amendments made.

All SESC Plan Amendments, except minor non-technical revisions, must be approved by the site owner and operator. Any amendments to control measures that involve the practice of engineering must be reviewed, signed, and stamped by a Professional Engineer registered in the State of RI.

The amended SESC plan must be kept on file at the site while construction is ongoing and any modifications must be documented.

Attach a copy of the Amendment Log.

SECTION 6: RECORDKEEPING

RIPDES Construction General Permit – Parts III.D, III.G, III.J.3.b.iii, & V.O

It is the site owner and site operator's responsibility to have the following documents available at the construction site and immediately available for RIDEM review upon request:

- A copy of the fully signed and dated SESC Plan, which includes:
 - A copy of the General Location Map
INCLUDED AS ATTACHMENT A
 - A copy of all SESC Site Plans
INCLUDED AS ATTACHMENT B
 - A copy of the RIPDES Construction General Permit (*To save paper and file space, do not include in DEM/CRMC submittal, for operator copy only*)
INCLUDED AS ATTACHMENT C
 - A copy of any regulatory permits (RIDEM Freshwater Wetlands Permit, CRMC Assent, RIDEM Water Quality Certification, RIDEM Groundwater Discharge Permit, RIDEM RIPDES Construction General Permit authorization letter, etc.)
INCLUDED AS ATTACHMENT D
 - The signed and certified NOI form or permit application form (*if required as part of the application, see RIPDES Construction General Permit for applicability*)
INCLUDED AS ATTACHMENT E
 - Completed Inspection Reports w/Completed Corrective Action Logs
INCLUDED AS ATTACHMENT F
 - SESC Plan Amendment Log
INCLUDED AS ATTACHMENT G
 - Temporary Sediment Traps
INCLUDED AS ATTACHMENT H

SECTION 7: PARTY CERTIFICATIONS

RIPDES Construction General Permit – Part V.G

All parties working at the project site are required to comply with the Soil Erosion and Sediment Control Plan (SESC Plan including SESC Site Plans) for any work that is performed on-site. The site owner, site operator, contractors and sub-contractors are encouraged to advise all employees working on this project of the requirements of the SESC Plan. A copy of the SESC Plan is available for your review at the following location: Onsite , or may be obtained by contacting the site owner or site operator.

The site owner and site operator and each subcontractor engaged in activities at the construction site that could impact stormwater must be identified and sign the following certification statement.

I acknowledge that I have read and understand the terms and conditions of the Soil Erosion and Sediment Control (SESC) Plan for the above designated project and agree to follow the control measures described in the SESC Plan and SESC Site Plans.

Site Owner:

Mesolella Development Corporation
Derek Mesolella
4 Fox Place
Providence RI 02903
401-751-0460, dmesolella@westxcapital.com

signature/date

Site Operator:

Insert Company or Organization Name
Insert Name & Title
Insert Address
Insert City, State, Zip Code
Insert Telephone Number, Insert Fax/Email

signature/date

Designated Site Inspector:

Insert Company or Organization Name
Insert Name & Title
Insert Address
Insert City, State, Zip Code
Insert Telephone Number, Insert Fax/Email

signature/date

SubContractor SESC Plan Contact:

Insert Company or Organization Name
Insert Name & Title
Insert Address
Insert City, State, Zip Code
Insert Telephone Number, Insert Fax/Email

signature/date

Insert more contact/signature lines as necessary

LIST OF ATTACHMENTS

Attachment A - General Location Map

Attachment B - SESC Site Plans

Attachment C - Copy of RIPDES Construction General Permit and Authorization to Discharge *(To save paper and file space, do not include in DEM/CRMC submittal, for operator copy only)*

Attachment D - Copy of Other Regulatory Permits

Attachment E - Copy of RIPDES NOI *(if required as part of application, see RIPDES Construction General Permit for applicability)*

Attachment F - Inspection Reports w/ Corrective Action Log

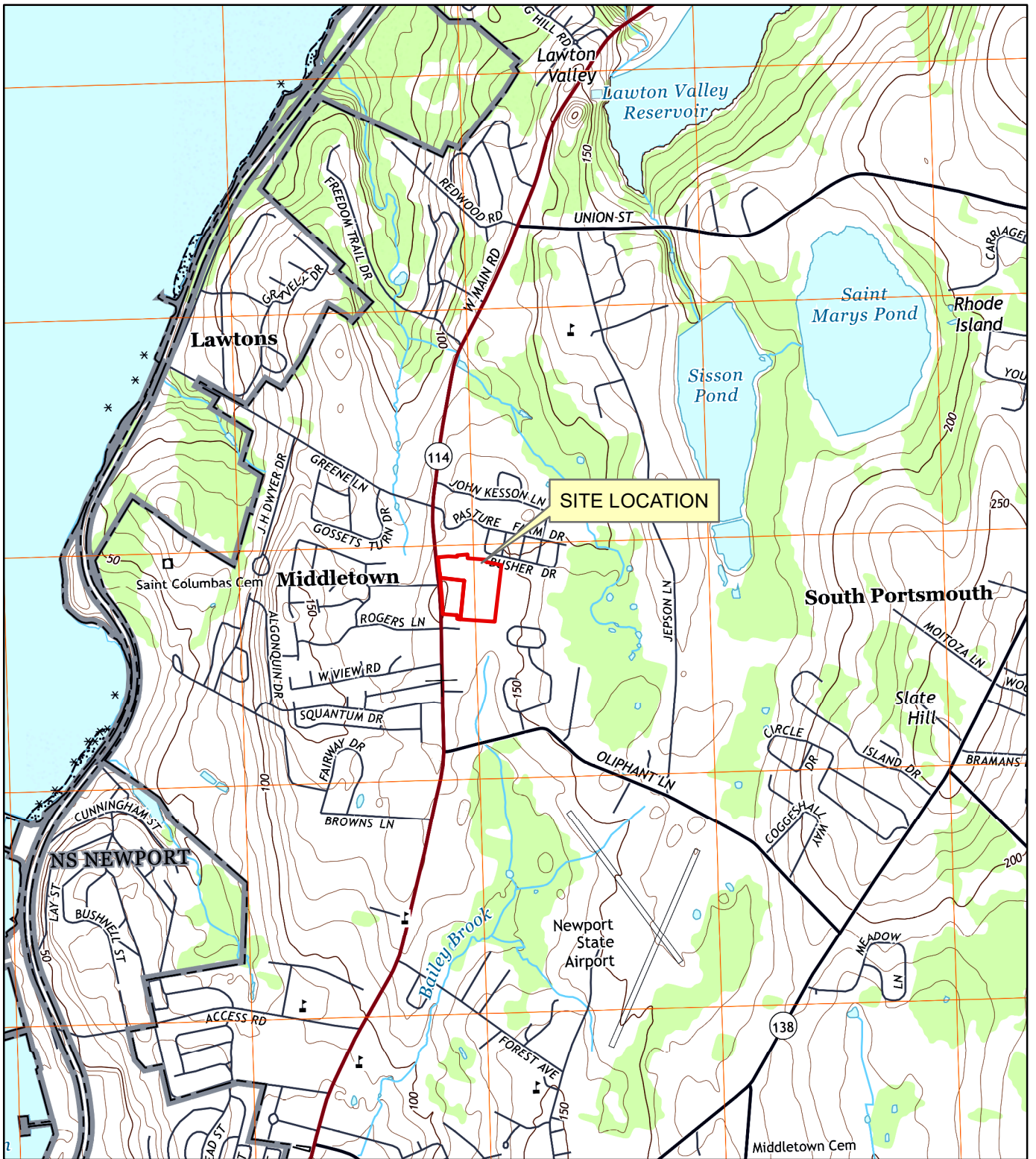
Attachment G - SESC Plan Amendment Log

Attachment H- Temporary Sediment Trap Calculations

APPENDIX A

Location Map





RIGIS

SITE LOCATION MAP

SCALE: 1"=2,000'



8 BLACKSTONE VALLEY PLACE
LINCOLN, RI 02865
(401) 334-4100

10 LINCOLN ROAD, SUITE 210
FOXBORO, MA 02035
(508) 543-1755

PARE PROJECT No. 13018.01

NOVEMBER 2021

FIGURE 1
ROSEBROOK COMMONS
MIDDLETOWN, RI

APPENDIX B

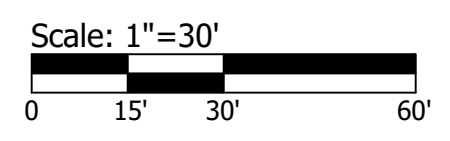
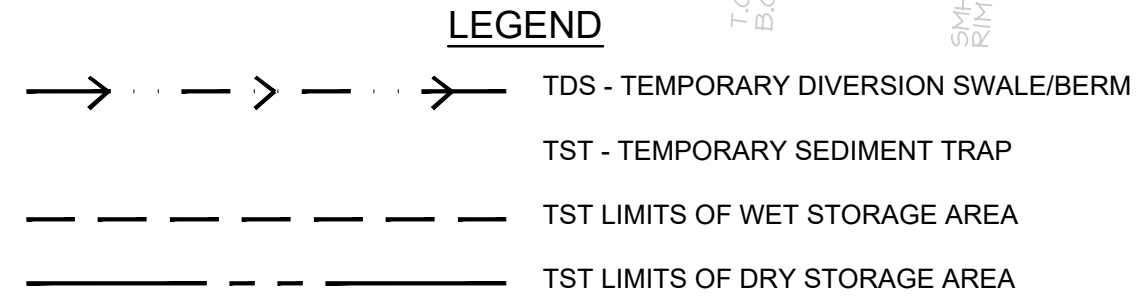
Soil Erosion and Sediment Control Plan





- NOTES:**
1. THE EROSION AND SEDIMENTATION CONTROLS SHOWN ON THE PLANS ARE INTENDED TO REPRESENT THE MINIMUM CONTROLS NECESSARY TO MEET ANTICIPATED SITE CONDITIONS. ADDITIONAL MEASURES SHALL BE IMPLEMENTED AS CONDITIONS WARRANT OR AS DIRECTED BY THE OWNER OR OWNER'S REPRESENTATIVE.
 2. CONTRACTOR SHALL FURNISH, INSTALL, AND MAINTAIN SILT SACKS IN ALL EXISTING AND NEWLY INSTALLED CATCH BASINS UNTIL THE UPSTREAM AREA IS STABILIZED.
 3. CONTRACTOR SHALL INSTALL AND MAINTAIN CONSTRUCTION ENTRANCES AT ALL POINTS OF EGRESS FROM THE SITE THROUGHOUT CONSTRUCTION.
 4. THE CONTRACTOR SHALL MAINTAIN EROSION CONTROLS THROUGHOUT CONSTRUCTION. THE CONTRACTOR SHALL REPLACE DAMAGED EROSION CONTROLS AT THE OWNER AND ENGINEER'S REQUEST AT NO ADDITIONAL EXPENSE TO THE OWNER.
 5. THE CONTRACTOR SHALL NOT LEAVE DISTURBED AREAS UNSTABILIZED FOR PERIODS MORE THAN 14 DAYS. PROVIDE TEMPORARY SEED OR MULCH ON DISTURBED AREAS THAT WILL REMAIN EXPOSED FOR GREATER THAN 14 DAYS.

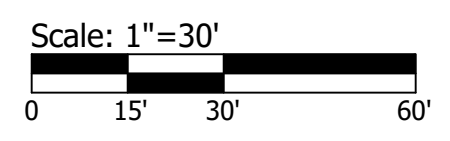
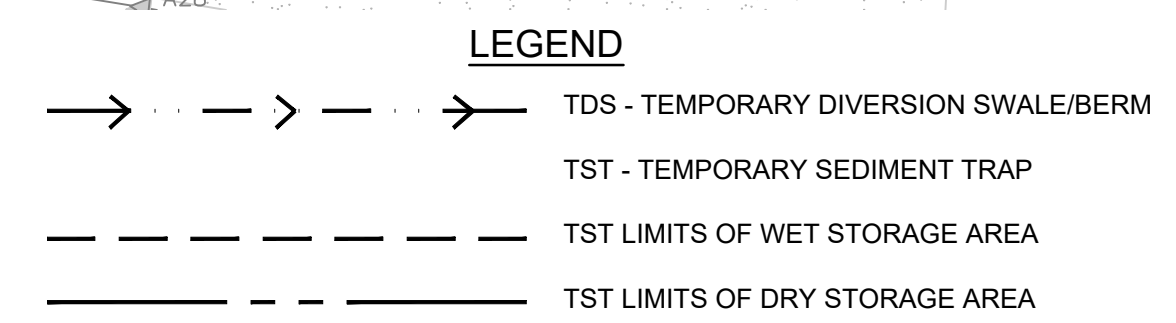
6. INSTALL EROSION CONTROLS DOWNSTREAM OF ANY DISTURBED AREAS TO REDUCE POTENTIAL FOR EROSION. CONTRACTOR SHALL INDICATE LOCATIONS OF EROSION CONTROLS FOR REVIEW WITH GENERAL CONTRACTOR AND OWNER'S REPRESENTATIVE PRIOR TO COMMENCING WORK.
7. PRIOR TO CONSTRUCTION OF THE STORMWATER BMP, THE CONTRACTOR SHALL SCARIFY 12" BELOW THE SUBGRADE. FOLLOWING INSTALLATION OF THE STORMWATER BMP, COMPOST FILTER SOCK SHALL BE INSTALLED AT THE TOP OF THE SLOPE UNTIL THE CONTRIBUTING AREA IS STABILIZED.
8. AT NO TIME SHALL ANY CONSTRUCTION EQUIPMENT OR MATERIAL BE STORED IN THE STORMWATER BMP FOOTPRINT. AVOID THE USE OF HEAVY MACHINERY WITHIN FOOTPRINT TO MINIMIZE THE POTENTIAL FOR COMPACTING EXISTING SOILS. ALL UPSTREAM AREAS SHALL BE STABILIZED PRIOR TO USE OF STORMWATER BMP.
9. REFER TO "CIVIL NOTES AND LEGEND" FOR ADDITIONAL NOTES.





- NOTES:**
1. THE EROSION AND SEDIMENTATION CONTROLS SHOWN ON THE PLANS ARE INTENDED TO REPRESENT THE MINIMUM CONTROLS NECESSARY TO MEET ANTICIPATED SITE CONDITIONS. ADDITIONAL MEASURES SHALL BE IMPLEMENTED AS CONDITIONS WARRANT OR AS DIRECTED BY THE OWNER OR OWNER'S REPRESENTATIVE.
 2. CONTRACTOR SHALL FURNISH, INSTALL, AND MAINTAIN SILT SACKS IN ALL EXISTING AND NEWLY INSTALLED CATCH BASINS UNTIL THE UPSTREAM AREA IS STABILIZED.
 3. CONTRACTOR SHALL INSTALL AND MAINTAIN CONSTRUCTION ENTRANCES AT ALL POINTS OF EGRESS FROM THE SITE THROUGHOUT CONSTRUCTION.
 4. THE CONTRACTOR SHALL MAINTAIN EROSION CONTROLS THROUGHOUT CONSTRUCTION. THE CONTRACTOR SHALL REPLACE DAMAGED EROSION CONTROLS AT THE OWNER AND ENGINEER'S REQUEST AT NO ADDITIONAL EXPENSE TO THE OWNER.
 5. THE CONTRACTOR SHALL NOT LEAVE DISTURBED AREAS UNSTABILIZED FOR PERIODS MORE THAN 14 DAYS. PROVIDE TEMPORARY SEED OR MULCH ON DISTURBED AREAS THAT WILL REMAIN EXPOSED FOR GREATER THAN 14 DAYS.

6. INSTALL EROSION CONTROLS DOWNSTREAM OF ANY DISTURBED AREAS TO REDUCE POTENTIAL FOR EROSION. CONTRACTOR SHALL INDICATE LOCATIONS OF EROSION CONTROLS FOR REVIEW WITH GENERAL CONTRACTOR AND OWNER'S REPRESENTATIVE PRIOR TO COMMENCING WORK.
7. PRIOR TO CONSTRUCTION OF THE STORMWATER BMP, THE CONTRACTOR SHALL SCARIFY 12" BELOW THE SUBGRADE. FOLLOWING INSTALLATION OF THE STORMWATER BMP, COMPOST FILTER SOCK SHALL BE INSTALLED AT THE TOP OF THE SLOPE UNTIL THE CONTRIBUTING AREA IS STABILIZED.
8. AT NO TIME SHALL ANY CONSTRUCTION EQUIPMENT OR MATERIAL BE STORED IN THE STORMWATER BMP FOOTPRINT. AVOID THE USE OF HEAVY MACHINERY WITHIN FOOTPRINT TO MINIMIZE THE POTENTIAL FOR COMPACTING EXISTING SOILS. ALL UPSTREAM AREAS SHALL BE STABILIZED PRIOR TO USE OF STORMWATER BMP.
9. REFER TO "CIVIL NOTES AND LEGEND" FOR ADDITIONAL NOTES.



APPENDIX C

Copy of RIPDES Construction General Permit and Authorization to Discharge

*(To save paper and file space, this is not included in DEM submittal,
a copy will be provided to the operator)*



APPENDIX D

Copy of Regulatory Permits

(Copies will be provided when received)



APPENDIX E

Copy of RIDEM Freshwater Wetlands Application





RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
Office of Water Resources – Groundwater and Freshwater Wetlands
Protection

235 Promenade Street, Providence, RI 02908
 Telephone: 401-222-6820; Rhode Island Relay: 711

Received by RIDEM
 [DATE STAMP HERE]

Application for Stormwater Construction Permit and Water Quality Certification

Use this form to request a Stormwater Construction Permit (RIPDES CGP or GWD/UIC) or Water Quality Certification (WQC). If a Freshwater Wetlands (FWW) Application is required, this form must be submitted in addition to the [FWW Application form](#).

If a WQC is requested as part of a Federal Permit which is not covered under a General Permit and therefore requires 401 certification as described in Section 401 of the Clean Water Act, this form and accompanying materials must be submitted directly to the WQC Program to receive such certification (even if a FWW permit is required).

Please fill out this form electronically. Print the completed form and submit with all required documentation and fee to:

Permit Application Center (PAC)
RIDEM
235 Promenade Street, Room 260
Providence, RI 02908-5767

(Check or money order must be made payable to the Rhode Island General Treasurer.)
 Stormwater Construction Permit Fee will be waived for applications submitted concurrently with a Freshwater Wetlands Application.

Provide all applicable information by completing the shaded areas.

Double-click to select:		<input checked="" type="checkbox"/> New Permit Fee = \$400.	<input type="checkbox"/> Permit Modification		
Site & Project	City/Town: Middletown	Street Address: 1747 West Main Road		<u>Water Body Class:</u> B and AA	
	Plat(s): 111	Lot(s): 8 & 9	Project Name: Rosebrook Commons		
	Location: 100' northeast of intersection of Marshall Ln. and West Main Rd.		Water Body Name(s): Bailey's Brook, Mother of Hope Brook (Water Body Class B)		
	<u>Latitude:</u> 41.545377	<u>Longitude:</u> -71.289477	Utility Pole #: #228	Total Site Area: 15.56 acres	Site Area to be Disturbed: 0.11 acres
	RIDOT PSID #: N/A	RI Contract #: N/A	Was there a Pre-Application Meeting? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Provide Meeting Date: 06/29/21	
	Owner / Applicant		Organization/Company Name: CVDD II, LLC & CENZ CORP Name and Email of Owner's Representative for Questions: Derek Mesoella First Name: N/A Last Name: N/A Owner's Email: dmesoella@westxcapital.com Phone: 401-751-0460 Address: 4 Fox Place City/Town: Providence State: RI Zip: 02903		
I certify under penalty of law that I've requested and authorized the investigation, compilation, and submission of all the information, in whatever form, contained in this Application; I have personally examined and am familiar with the information submitted herein; and based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the information is true, accurate and complete. I'm aware that it's the owner's responsibility to implement or hire a qualified contractor responsible to implement any required Soil Erosion and Sediment Control Plan, so as to effectively control stormwater discharges leaving the site during the construction period. I authorize RIDEM personnel access to the property for purposes of observing conditions pertinent to this application and assessing compliance with any permit or determination resulting from this application.					
Applicant's Signature: 		Title: Principal	Date: 3/5/22		
Professional	Organization/Company Name: Pare Corporation		Professional's License Type(s) and Number(s): P.E. 12076		
	Professional's Name: Victoria Howland		Professional's Email: vhowland@parecorp.com	Phone: 401-334-4100	
	I certify under penalty of law that the project described in this application and associated materials is in compliance with the RI Stormwater Design and Installation Standards Manual (as amended) and the Rhode Island Soil Erosion and Sediment Control Handbook (as amended) [if required] and I believe all information presented in this application and the accompanying materials are true, accurate and complete. All engineering designs, plans and specifications [if required] included in this application were done by me or by someone working directly for me. The Natural Heritage Area Information [if required] and the site specific Soil Erosion and Sediment Control Plan [if required] were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering or developing the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete at the time this application is made. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.				
	Professional's Signature: 		Title: Senior Project Engineer	Date: 3-21-22	

PART E For Application for Permit Transfer (if applicable):

Original Permittee's Name: _____

Application/Permit No.: _____ Permit Expiration Date: _____

Note: A certified copy of the deed of transfer must be enclosed with application.

Applicant's Statement: I hereby certify that I have reviewed the permit letter issued under Application/Permit No. _____ and hereby agree to comply with all conditions of the permit, including any time limitations imposed.

Applicant's Name (print): _____ (signature): _____ Date: _____

PART F For Change in Owner During Application Processing (if applicable):

Original Applicant's Name: _____ Application No. _____

Note: A certified copy of the deed of transfer must be enclosed for Applications to Alter only.

PART G Certification of Professional(s) (if applicable):

Note: Any professional (e.g. engineer, biologist, landscape architect, etc.) who participated in the submission and/or preparation of this Application and supporting documentation must sign below.

I hereby certify that I have been authorized by the applicant to prepare documentation to be submitted in support of this Application; that such documentation is in accordance with the [Rules and Regulations Governing the Administration and Enforcement of the Freshwater Wetlands Act \(250-RICR-150-15-1\)](#); and that such documentation is true, accurate and complete to the best of my knowledge.

Professional's Name (print): Victoria Howland, P.E. Title: Senior Project Engineer

Email (print legibly): vhowland@parecorp.com d/b/a: Pare Corporation

Address: 8 Blackstone Valley Place, Lincoln, RI 02865

Professional's Signature:  Date: 3-21-22

Check this box if the above named is the project manager or project lead for the applicant.

I've completed and attached the [Site Work Affidavit](#).

If more than one professional:

Professional's Name (print): Seaver Anderson Title: Environmental Scientist

Email (print legibly): sanderson@parecorp.com d/b/a: Pare Corporation

Address: 8 Blackstone Valley Place, Lincoln, RI 02865

Professional's Signature:  Date: 3-30-2022

I've completed and attached the [Site Work Affidavit](#).

Professional's Name (print): _____ Title: _____

Email (print legibly): _____ d/b/a: _____

Address: _____

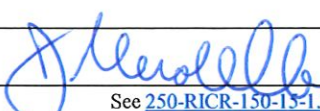
Professional's Signature: _____ Date: _____

I've completed and attached the [Site Work Affidavit](#).

PART H Certification/Authorization of Applicant:

I hereby certify that I have requested and authorized the investigation, compilation, and submission of all the information, in whatever form, contained in this Application; that I have personally examined and am familiar with the information submitted herein; and that such information is true, accurate and complete to the best of my knowledge. I hereby authorize RIDEM personnel access to the property for purposes of observing conditions pertinent to this application and assessing compliance with any permit or determination resulting from this application, including any sampling, monitoring or surveying that may be deemed appropriate, consistent with the RIDEM Administrative Inspection Guidelines. (See DEM website - Office of Compliance and Inspection for copy).

Note any special concerns for access here:

Applicant's Signature:  Title (if applicable): Principal
See [250-RICR-150-13-1.7\(A\)\(2\)](#) regarding Signatures

Print Name Signed Above: Derek Mesolella Date: 3/15/22

APPENDIX F

Inspection Reports w/ Corrective Action Log



SESC Plan Inspection Report

Project Information			
Name	Rosebrook Commons		
Location	1733&1747 West Main Road, Bristol RI		
DEM Permit No.			
Site Owner	Mesolella Development Corporation		
Site Operator			
Inspection Information			
Inspector Name	Name	Phone	Email
Inspection Date		Start/End Time	
Inspection Type <input type="checkbox"/> Weekly <input type="checkbox"/> Pre-storm event <input type="checkbox"/> During storm event <input type="checkbox"/> Post-storm event <input type="checkbox"/> Other			
Weather Information			
Last Rain Event Date: Duration (hrs): Approximate Rainfall (in):			
Rain Gauge Location & Source:			
Weather at time of this inspection:			

Check statement that applies then sign and date below:

I, as the designated Inspector, certify that this site has been inspected as required by regulation and I have determined that maintenance and corrective actions are not required at this time.

I, as the designated Inspector, certify that this site has been inspected as required by regulation and I have made the determination that the site requires corrective actions. The required corrective actions are noted within this inspection report.

	Print Name	Signature	Date
Inspector:			

The Site Operator acknowledges by his/her signature, the receipt of this SESC Plan inspection report and its findings. He/she acknowledges that all recommended corrective actions must be completed and documentation of all such corrective actions must be made in this inspection report per applicable regulations.

	Print Name	Signature	Date
Operator:			

Site-specific Control Measures

Number the structural and non-structural stormwater control measures identified in the SESC Plan and on the SESC Site Plans and list them below (add as necessary). Bring a copy of this inspection form and any applicable SESC Site Plans with you during your inspections. This list will assist you to inspect all control measures at your site.

FILL THIS TABLE USING THE SESC PLAN TABLES 2.11 & 3.12.

	Location/Station	Control Measure Description	Installed & Operating Properly?	Assoc. Photo/ Figure #	Corrective Action Needed (Yes or No; if 'Yes', please detail action required)
1	See C2.1&C2.2	Compost Filter Sock	<input type="checkbox"/> Yes <input type="checkbox"/> No		
2	See C2.1&C2.2	Construction Entrances	<input type="checkbox"/> Yes <input type="checkbox"/> No		
3	As required	Soil Erosion Management	<input type="checkbox"/> Yes <input type="checkbox"/> No		
4	See C2.1&C2.2	Stockpile Management	<input type="checkbox"/> Yes <input type="checkbox"/> No		
5	See C2.1&C2.2	Concrete Washout	<input type="checkbox"/> Yes <input type="checkbox"/> No		
6	See C2.1&C2.2	Designated Fueling Area	<input type="checkbox"/> Yes <input type="checkbox"/> No		
7			<input type="checkbox"/> Yes <input type="checkbox"/> No		
8			<input type="checkbox"/> Yes <input type="checkbox"/> No		
			<input type="checkbox"/> Yes <input type="checkbox"/> No		
	Attention Operator:	You must modify this inspection form as the project progresses, control measure locations change, and amendments to the SESC Plan are instituted in the field.	<input type="checkbox"/> Yes <input type="checkbox"/> No		
10			<input type="checkbox"/> Yes <input type="checkbox"/> No		
11			<input type="checkbox"/> Yes <input type="checkbox"/> No		
12			<input type="checkbox"/> Yes <input type="checkbox"/> No		

	Location/Station	Control Measure Description	Installed & Operating Properly?	Assoc. Photo/ Figure #	Corrective Action Needed (Yes or No; if 'Yes', please detail action required)
13			<input type="checkbox"/> Yes <input type="checkbox"/> No		
14			<input type="checkbox"/> Yes <input type="checkbox"/> No		
15			<input type="checkbox"/> Yes <input type="checkbox"/> No		
16			<input type="checkbox"/> Yes <input type="checkbox"/> No		
17			<input type="checkbox"/> Yes <input type="checkbox"/> No		
18			<input type="checkbox"/> Yes <input type="checkbox"/> No		
19			<input type="checkbox"/> Yes <input type="checkbox"/> No		
20			<input type="checkbox"/> Yes <input type="checkbox"/> No		
21			<input type="checkbox"/> Yes <input type="checkbox"/> No		
22			<input type="checkbox"/> Yes <input type="checkbox"/> No		
23			<input type="checkbox"/> Yes <input type="checkbox"/> No		
24			<input type="checkbox"/> Yes <input type="checkbox"/> No		
25			<input type="checkbox"/> Yes <input type="checkbox"/> No		

General Site Issues

Below are some general site issues that should be assessed during inspections. Please **customize** this list as needed for conditions at the site.

	Compliance Question		Assoc. Photo/ Figure #	Corrective Action Needed (If 'Yes', please detail action required and include location/station)
1	Have all control measures been installed as specified in the RISESC Handbook and prior to any earth disturbing activities?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
2	Are appropriate limits of disturbance (LOD) established?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
3	Are controls that limit runoff from exposed soils by diverting, retaining, or detaining flows (such as check dams, sediment basins, etc.) in place?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
4	Are all temporary conveyance practices installed correctly and functioning as designed?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
5	Has maintenance been performed as required to ensure continued proper function of all temporary conveyances practices?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
6	Were all exposed soils seeded by October 15 th ?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
7	Have soils been stabilized where earth disturbance activities have permanently or temporarily ceased on any portion of the site and will not resume for more than 14 days?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
8	In instances where adequate vegetative stabilization was not established by November 15 th , have non-vegetative erosion control measures must be employed?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
9	If work is to continue from October 15 th through April 15 th , are steps taken to ensure that only the day's work area will be exposed and all erodible soil is stabilized within 5 working days?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
10	Have inlet protection measures (such as fabric drop inlet protection, curb drop inlet protection, etc.) been properly installed?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
11	Has the operator cleaned and maintained inlet protection measures when needed?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
12	Has the operator removed accumulated sediment adjacent to inlet protection measures within 24 hours of detection?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		

	Compliance Question		Assoc. Photo/ Figure #	Corrective Action Needed (If 'Yes', please detail action required and include location/station)
13	Has the operator properly installed outlet protection (such as riprap, turf mats, etc.) at all temporary and permanent discharge points?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
14	Are all outlet protection measures functioning properly in order to reduce discharge velocity, promote infiltration, and eliminate scour?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
15	Have all discharge points been inspected to ensure the prevention of scouring and channel erosion?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
16	Have sediment controls been installed along perimeter areas that will receive stormwater from earth disturbing activities?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
17	Is the operator maintaining sediment controls in accordance with the requirements in the <i>RI SESC Handbook</i> ?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
18	Have temporary sediment barriers been installed around permanent infiltration areas (such as bioretention areas, infiltration basins, etc.)?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
19	Have staging areas and equipment routing been implemented to avoid compaction where permanent infiltration areas will be located?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
20	Are surface outlet structures (such as skimmers, siphons, etc.) installed for each temporary sediment basin? [Exception: frozen conditions]	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
21	Have all temporary sediment basins or traps been inspected and maintained as required to ensure proper function?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
22	Does the project include the use of polymers, flocculants, or other chemicals to control erosion, sedimentation, or runoff from the site?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
23	Are all chemicals being managed in accordance with Appendix J of the <i>RI SESC Handbook</i> and current best management practices?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
24	Has the site operator taken steps to prohibit the following pollutant discharges on the site?			
a	Contaminated groundwater.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		

	Compliance Question		Assoc. Photo/ Figure #	Corrective Action Needed (If 'Yes', please detail action required and include location/station)
b	Wastewater from washout of concrete; unless properly contained, managed, and disposed of.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
c	Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds, and other construction products.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
d	Fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
e	Soaps or solvents used in vehicle and equipment washing.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
f	Toxic or hazardous substances from a spill or other release.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
25	Is the operator using properly constructed entrances/exits to the site so sediment removal occurs prior to vehicles exiting?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
26	If needed, are additional controls (such as rumble strips, rattle plates, etc.) in place to remove sediment from tires prior to exiting?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
27	Is sediment track-out being removed by the end of the same workday in which it occurs (via sweeping, shoveling, or vacuuming)?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
28	Are all wastes generated at the site being managed and properly disposed of by the end of each workday?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
29	Are all chemicals and hazardous waste materials stored properly in covered areas and surrounded by containment control systems?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
30	Has the operator established highly visible locations for the storage of spill prevention and control equipment on the construction site?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
31	Are allowable non-stormwater discharges being managed properly with adequate controls?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
32	Is the site operator properly managing groundwater or stormwater that is removed from excavations, trenches, or similar points of accumulation?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
33	Are proper procedures and controls in place for the storage of materials that may discharge pollutants if	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		

	Compliance Question		Assoc. Photo/ Figure #	Corrective Action Needed (If 'Yes', please detail action required and include location/station)
	exposed to stormwater?			
	Are stockpiles located within the limits of disturbance?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
	Are stockpiles being protected from contact with stormwater using a temporary sediment barrier?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
	Where needed, has cover or appropriate temporary vegetative or structural stabilization been utilized for stockpiles?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
	Is the operator effectively managing the generation of dust through the use of water, chemicals, or minimization of exposed soil?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
	Are designated washout areas (such as wheel washing stations, washout for concrete, paint, stucco, etc.) clearly marked on the site?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
	Are vehicle fueling and maintenance areas properly located to prevent pollutants from impacting stormwater and sensitive receptors?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
	(Other)			

(add more as necessary)

General Field Comments:

Photos:

(Associated photos – each photo should be dated and have a unique identification # and written description indicating where it is located within the project area. If a close up photo is required, it should be preceded with a photo including both the detail area and some type of visible fixed reference point. Photos should be annotated with Station numbers and other identifying information where needed.)

Photo #: (insert Photo here)	Station:
	Description:

Photo #: (insert Photo here)	Station:
	Description:

Photo #: (insert Photo here)	Station:
	Description:

Photo #: (insert Photo here)	Station:
	Description:

Photo #: (insert Photo here)	Station:
	Description:

Photo #: (insert Photo here)	Station:
	Description:

(add more as necessary)

Corrective Action Log

TO BE FILLED OUT BY SITE OPERATOR

Describe repair, replacement, and maintenance of control measures, actions taken, date completed, and note the person that completed the work.

	Location/Station	Corrective Action	Date Completed	Person Responsible
Operator Signature:				Date:

APPENDIX G

SESC Amendment Log



Amendment Log

TO BE FILLED OUT BY SITE OPERATOR

Describe amendment(s) to be made to the SESC Plan, the date, and the person/title making the amendment. ALL amendments must be approved by the Site Owner.

#	Date	Description of Amendment	Amended by: Person/Title	Site Owner Must Initial
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

Add more lines/pages as necessary

APPENDIX H

Temporary Sediment Trap Calculations





PROJECT	Rosebrook Commons	PROJECT NUMBER	13018.01
SUBJECT	Temporary Sediment Trap - 1		
COMPUTATIONS BY	UG	DATE	3/11/2022
CHECK BY		DATE	3/11/2022

TEMPORARY SEDIMENTATION TRAP - 1

REQUIRED TRAP VOLUME

Required Basin Volume taken from RI Soil Erosion and Sediment Control Handbook (RISESCH), revised August 2014 Section 6 Temporary Sediment Traps.

TEMPORARY SEDIMENT TRAP

MAXIMUM AREA CONTRIBUTING TO TST = 78,250 sf
1.80 acres

Required Trap storage volume is the greater of A, B, and C.

A. Initial Storage Volume of 134 cubic yards per acre of drainage area (Per RISESCH Temporary Sediment Trap- Trap Capacity)

**Required Volume A = 241 cy
6,499 cf**

Wet Storage Volume - Half of Initial Storage Volume

Required Volume = 120 cy
3,250 cf

Dry Storage Volume - Remaining portion of Initial Storage Volume

Required Volume = 120 cy
3,250 cf

Temporary sediment trapping measures must be sized to store 1 inch of runoff from the contributing area or per the sediment volume method, whichever is greater.

B.

V (1" of Rainfall) = 6521 cf

C.

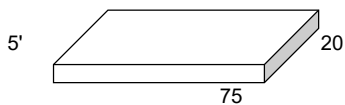
$V = (DA) (A) (DR) (TE) (1/Y) (2000\text{lbs/ton})$

$V = (0.69) (50) (.38) (.80) (1/85) (2000)$

V = 642 cf/year

Required total storage volume = 6521 cf

PROVIDED TRAP VOLUME



Dimensions

Length = 75 ft (at surface of flooded area or base of stone outlet)

Width = 20 ft (at surface of flooded area or base of stone outlet)

Aw = 1500 sf

Ad = 1896 sf (computed using 2:1 sideslopes)

Dw = 3 ft (wet storage)

Dd = 2 ft (dry storage)

WET STORAGE VOLUME

$V = 0.85 \times Aw \times Dw$

$V = 3825 \text{ cf} > 3,260 \text{ cf required}$

DRY STORAGE VOLUME

$V = ((Aw + Ad)/2) \times Dd$

$V = 3396 \text{ cf} > 3,260 \text{ cf required}$

TOTAL STORAGE VOLUME

Total Storage Volume = Dry Storage Volume + Wet Storage Volume

Total Storage Volume = 7221 cf > 6521 cf required

-Contractor shall provide wet storage volume calculated below crushed stone outlet.



PROJECT	Rosebrook Commons	PROJECT NUMBER	13018.01
SUBJECT	Temporary Sediment Trap - 2		
COMPUTATIONS BY UG		DATE	3/11/2022
CHECK BY		DATE	3/11/2022

TEMPORARY SEDIMENTATION TRAP - 2

REQUIRED TRAP VOLUME

Required Basin Volume taken from RI Soil Erosion and Sediment Control Handbook (RISESCH), revised August 2014 Section 6 Temporary Sediment Traps.

TEMPORARY SEDIMENT TRAP

MAXIMUM AREA CONTRIBUTING TO TST = 34,500 sf
0.79 acres

Required Trap storage volume is the greater of A, B, and C.

A. Initial Storage Volume of 134 cubic yards per acre of drainage area (Per RISESCH Temporary Sediment Trap- Trap Capacity)

**Required Volume A = 106 cy
2,865 cf**

Wet Storage Volume - Half of Initial Storage Volume

Required Volume = 53 cy
1,433 cf

Dry Storage Volume - Remaining portion of Initial Storage Volume

Required Volume = 53 cy
1,433 cf

Temporary sediment trapping measures must be sized to store 1 inch of runoff from the contributing area or per the sediment volume method, whichever is greater.

B.

V (1" of Rainfall) = 2875 cf

C.

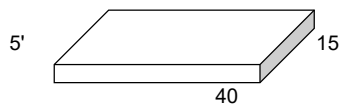
V= (DA) (A) (DR) (TE) (1/Y) (2000lbs/ton)

V= (1.08) (50) (.38) (.80) (1/85) (2000)

V= 283 cf/year

Required total storage volume = 2875 cf

PROVIDED TRAP VOLUME



Dimensions

Length = 40 ft (at surface of flooded area or base of stone outlet)

Width = 15 ft (at surface of flooded area or base of stone outlet)

Aw = 600 sf

Ad = 836 sf (computed using 2:1 sideslopes)

Dw = 3 ft (wet storage)

Dd = 2 ft (dry storage)

WET STORAGE VOLUME

V = 0.85 X Aw X Dw

V = 1530 cf > 1,438 cf required

DRY STORAGE VOLUME

V = ((Aw + Ad)/2) * Dd

V = 1436 cf > 1,438 cf required

TOTAL STORAGE VOLUME

Total Storage Volume = Dry Storage Volume + Wet Storage Volume

Total Storage Volume = 2966 cf > 2875 cf required

-Contractor shall provide wet storage volume calculated below crushed stone outlet.



PROJECT	Rosebrook Commons	PROJECT NUMBER	13018.01
SUBJECT	Temporary Sediment Trap - 3		
COMPUTATIONS BY UG		DATE	3/11/2022
CHECK BY		DATE	3/11/2022

TEMPORARY SEDIMENTATION TRAP - 3

REQUIRED TRAP VOLUME

Required Basin Volume taken from RI Soil Erosion and Sediment Control Handbook (RISESCH), revised August 2014 Section 6 Temporary Sediment Traps.

TEMPORARY SEDIMENT TRAP

MAXIMUM AREA CONTRIBUTING TO TST = 81,600 sf
1.87 acres

Required Trap storage volume is the greater of A, B, and C.

A. Initial Storage Volume of 134 cubic yards per acre of drainage area (Per RISESCH Temporary Sediment Trap- Trap Capacity)

**Required Volume A = 251 cy
6,778 cf**

Wet Storage Volume - Half of Initial Storage Volume

Required Volume = 126 cy
3,389 cf

Dry Storage Volume - Remaining portion of Initial Storage Volume

Required Volume = 126 cy
3,389 cf

Temporary sediment trapping measures must be sized to store 1 inch of runoff from the contributing area or per the sediment volume method, whichever is greater.

B.

V (1" of Rainfall) = 6800 cf

C.

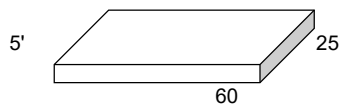
V= (DA) (A) (DR) (TE) (1/Y) (2000lbs/ton)

V= (1.08) (50) (.38) (.80) (1/85) (2000)

V= 670 cf/year

Required total storage volume = 6800 cf

PROVIDED TRAP VOLUME



Dimensions

Length = 60 ft (at surface of flooded area or base of stone outlet)

Width = 25 ft (at surface of flooded area or base of stone outlet)

Aw = 1500 sf

Ad = 1856 sf (computed using 2:1 sideslopes)

Dw = 3 ft (wet storage)

Dd = 2 ft (dry storage)

WET STORAGE VOLUME

V = 0.85 X Aw X Dw

V = 3825 cf > 3,400 cf required

DRY STORAGE VOLUME

V = ((Aw + Ad)/2) * Dd

V = 3356 cf > 3,400 cf required

TOTAL STORAGE VOLUME

Total Storage Volume = Dry Storage Volume + Wet Storage Volume

Total Storage Volume = 7181 cf > 6800 cf required

-Contractor shall provide wet storage volume calculated below crushed stone outlet.



PROJECT	Rosebrook Commons	PROJECT NUMBER	13018.01
SUBJECT	Temporary Sediment Trap - 4		
COMPUTATIONS BY UG		DATE	3/11/2022
CHECK BY		DATE	3/11/2022

TEMPORARY SEDIMENTATION TRAP - 4

REQUIRED TRAP VOLUME

Required Basin Volume taken from RI Soil Erosion and Sediment Control Handbook (RISESCH), revised August 2014 Section 6 Temporary Sediment Traps.

TEMPORARY SEDIMENT TRAP

MAXIMUM AREA CONTRIBUTING TO TST = 88,700 sf
2.04 acres

Required Trap storage volume is the greater of A, B, and C.

A. Initial Storage Volume of 134 cubic yards per acre of drainage area (Per RISESCH Temporary Sediment Trap- Trap Capacity)

**Required Volume A = 273 cy
7,367 cf**

Wet Storage Volume - Half of Initial Storage Volume

Required Volume = 136 cy
3,684 cf

Dry Storage Volume - Remaining portion of Initial Storage Volume

Required Volume = 136 cy
3,684 cf

Temporary sediment trapping measures must be sized to store 1 inch of runoff from the contributing area or per the sediment volume method, whichever is greater.

B.

V (1" of Rainfall) = 7392 cf

C.

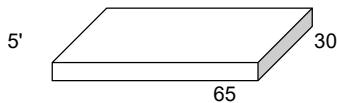
V= (DA) (A) (DR) (TE) (1/Y) (2000lbs/ton)

V= (1.08) (50) (.38) (.80) (1/85) (2000)

V= 728 cf/year

Required total storage volume = 7392 cf

PROVIDED TRAP VOLUME



Dimensions

Length = 65 ft (at surface of flooded area or base of stone outlet)

Width = 30 ft (at surface of flooded area or base of stone outlet)

Aw = 1950 sf

Ad = 2346 sf (computed using 2:1 sideslopes)

Dw = 3 ft (wet storage)

Dd = 2 ft (dry storage)

WET STORAGE VOLUME

V = 0.85 X Aw X Dw

V = 4972.5 cf > 3,696 cf required

DRY STORAGE VOLUME

V = ((Aw + Ad)/2) * Dd

V = 4296 cf > 3,696 cf required

TOTAL STORAGE VOLUME

Total Storage Volume = Dry Storage Volume + Wet Storage Volume

Total Storage Volume = 9269 cf > 7392 cf required

-Contractor shall provide wet storage volume calculated below crushed stone outlet.



PROJECT	Rosebrook Commons	PROJECT NUMBER	13018.01
SUBJECT	Temporary Sediment Trap - 5		
COMPUTATIONS BY UG		DATE	3/11/2022
CHECK BY		DATE	3/11/2022

TEMPORARY SEDIMENTATION TRAP - 5

REQUIRED TRAP VOLUME

Required Basin Volume taken from RI Soil Erosion and Sediment Control Handbook (RISESCH), revised August 2014 Section 6 Temporary Sediment Traps.

TEMPORARY SEDIMENT TRAP

MAXIMUM AREA CONTRIBUTING TO TST = 125,000 sf
2.87 acres

Required Trap storage volume is the greater of A, B, and C.

A. Initial Storage Volume of 134 cubic yards per acre of drainage area (Per RISESCH Temporary Sediment Trap- Trap Capacity)

**Required Volume A = 385 cy
10,382 cf**

Wet Storage Volume - Half of Initial Storage Volume

Required Volume = 192 cy
5,191 cf

Dry Storage Volume - Remaining portion of Initial Storage Volume

Required Volume = 192 cy
5,191 cf

Temporary sediment trapping measures must be sized to store 1 inch of runoff from the contributing area or per the sediment volume method, whichever is greater.

B.

V (1" of Rainfall) = 10417 cf

C.

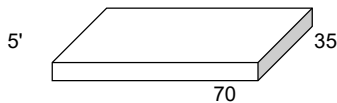
V= (DA) (A) (DR) (TE) (1/Y) (2000lbs/ton)

V= (1.08) (50) (.38) (.80) (1/85) (2000)

V= 1026 cf/year

Required total storage volume = 10417 cf

PROVIDED TRAP VOLUME



Dimensions

Length = 70 ft (at surface of flooded area or base of stone outlet)

Width = 35 ft (at surface of flooded area or base of stone outlet)

Aw = 2450 sf

Ad = 2886 sf (computed using 2:1 sideslopes)

Dw = 3 ft (wet storage)

Dd = 2 ft (dry storage)

WET STORAGE VOLUME

V = 0.85 X Aw X Dw

V = 6247.5 cf > 5,208 cf required

DRY STORAGE VOLUME

V = ((Aw + Ad)/2) * Dd

V = 5336 cf > 5,208 cf required

TOTAL STORAGE VOLUME

Total Storage Volume = Dry Storage Volume + Wet Storage Volume

Total Storage Volume = 11584 cf > 10417 cf required

-Contractor shall provide wet storage volume calculated below crushed stone outlet.