APPENDIX E

SOIL EROSION AND SEDIMENT CONTROL (SESC) PLAN

(Provided on CD)

Soil Erosion and Sediment Control Plan

For:

Phase II, III, and Parcel C Cap

FORMER GORHAM MANUFACTURING SITE
333 Adelaide Avenue, Providence, Rhode Island

Owner:	Textron, Inc. Gregory Simpson 40 Westminster Street Providence, Rhode Island 02903 (401) 457-2635 gsimpson@textron.com
Operator:	Charter Contracting Company LLC Paul Leofanti Jr. 500 Harrison Ave Boston, Massachusetts 02118 (857) 246-6812 pleofanti@charter.us
Estimated Project Dates:	Start Date: July 13, 2015
	Completion Date: November 24, 2015
SESC Plan Prepared By:	Amec Foster Wheeler Environment & Infrastructure, Inc. Robert J. Bukowski, P.E. (P.E. No. 9217) 271 Mill Road Chelmsford, MA 01824 (978) 692-9090 rob.bukowski@amecfw.com
SESC Plan Preparation Date:	July 8, 2015
SESC Plan Revision Date:	

OWNER CERTIFICATION

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 there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. I am aware that it is the responsibility of the site owner and 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.

Owner Signature: _____ Date 7/8/15

Owner Name: Gregory Simpson

Owner Title: Project Manager, Site Remediation

Company Name: Textron, Inc.

Address: 40 Westminster Street, Providence RI 02903

Phone Number: (401) 457-2635

Email Address: gsimpson@textron.com

OPERATOR CERTIFICATION

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 there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. 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 7/7/15

Contractor Representative: Paul Leofanti

Contractor Title: Project Manager

Contractor Company Name: Charter Contracting Company LLC

Address: 500 Harrison Ave

Phone Number: (857) 246-6812

Email Address: pleofanti@charter.us

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INTRODUCTION

This Construction Site Soil Erosion and Sediment Control Plan (SESC Plan) has been prepared for Textron, Inc. for the Phase II, II and Parcel C Cap. In accordance with the RIDEM Rhode Island Pollutant Discharge Elimination System (RIPDES) General Permit for Stormwater Discharge Associated with Construction Activity (RIPDES Construction General Permit ("CGP")), projects that disturb one (1) or more acres require the preparation of a SESC Plan. This SESC Plan provides guidance for complying with the terms and conditions of the RIPDES Construction General Permit and Minimum Standard 10 of the RI Stormwater Design and Installation Standards Manual. In addition, this SESC Plan is also consistent with Part D of the *RI SESC Handbook* entitled "Soil Erosion and Sediment Control Plans". This document does not negate or eliminate the need to understand and adhere to all applicable RIPDES regulations.

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.

ADDITIONAL RESOURCES

Rhode Island Department of Environmental Management
Office of Water Resources
235 Promenade Street
Providence, RI 02908-5767
phone: 401-222-4700
email: water@dem.ri.gov

RIDEM *RI Stormwater Design and Installation Standards Manual* (RISDISM) (as amended)
http://www.dem.state.ri.us/programs/benviron/water/permits/ripdes/stwater/t4guide/desman.htm

RI Soil Erosion and Sediment Control Handbook
http://www.dem.state.ri.us/soilerosion2014final.pdf

RIDEM 2013 RIPDES Construction General Permit
http://www.dem.ri.gov/pubs/regs/regs/water/ripdesca.pdf

Rhode Island Department of Transportation *Standard Specifications for Road and Bridge Design and Other Specifications* and *Standard Details*
http://www.dot.ri.gov/business/bluebook.php

RIDEM Office of Water Resources Coordinated Stormwater Permitting website
http://www.dem.state.ri.us/programs/benviron/water/permits/swcoord/index.htm

RIDEM RIPDES Stormwater website
http://www.dem.state.ri.us/programs/benviron/water/permits/ripdes/stwater/index.htm

RIDEM Water Quality website (for 303(d) and TMDL listings)
http://www.dem.ri.gov/programs/benviron/water/quality/index.htm

RIDEM Rhode Island Natural Heritage Program
http://www.dem.ri.gov/programs/bpoladm/plandev/heritage/index.htm

RIDEM Geographic Data Viewer – Environmental Resource Map
http://www.dem.ri.gov/maps/index.htm

Natural Resources Conservation Service - Rhode Island Soil Survey Program
http://www.ri.nrcs.usda.gov/technical/soils.html

EPA NPDES – Stormwater Discharges from Construction Activities webpage:
http://water.epa.gov/polwaste/npdes/stormwater/Stormwater-Discharges-From-Construction-Activities.cfm

EPA Construction Site Stormwater Runoff Control BMP Menu
http://water.epa.gov/polwaste/npdes/swbmp/Construction-Site-Stormwater-Run-Off-Control.cfm

SECTION 1: SITE DESCRIPTION

1.1 PROJECT/SITE INFORMATION

Project/Site Name:

Phase II, II and Parcel C Cap

The remediation work proposed for the areas listed above includes capping the area of Parcel C west of Alvarez High School and the Parcel C-1 Phase III Area, and removal of one to two feet of sediment from the Inner Cove (Phase II Area), and then placing and capping the dewatered sediment within a defined location of the Phase III Area. The Inner Cove and the delineated wetlands located along the downgradient edge of the Phase I and Phase III Areas will then be restored. This restoration will provide a smooth transition from the perimeter wetland (50 feet above the delineated fringe wetland) into the water. The placed sediment and the soils in the Phase III Area will be capped.

The Scope of work includes, but is not limited to the following activities:

1. Installation of erosion and sedimentation controls
2. Clear and grub
3. Prepare the Mashapaug Inner Cove for dewatering and dredging activities including dam and dewatering system installation, water treatment system installation, and construction dewatering
4. Grade and cap Parcel C
5. Dredge sediments from within the Mashapaug Inner Cove (Phase II)
6. Process dredged sediments, place and cap within identified area
7. Restore fringe wetlands and cap inner cove
8. Remove dewatering treatment system, grade and cap Phase III
9. Restore the site

Project Street/Location:

- 333 Adelaide Avenue, Providence, RI
- See Attachment A for Site Location Map

The following are estimates of the construction site area:

- Total Project Area 14.5 acres
- Total Project Area to be Disturbed 14.5 acres

1.2 RECEIVING WATERS

RIPDES CGP - Parts IV.A.7 & IV.A.8

List/description of separate storm sewer systems or drainage systems that may be impacted during construction and the water bodies that receive discharges from each storm sewer or drainage system:

- Stormwater Detention Basin – the outlet from the on-site existing storm water detention basin will be temporarily plugged during the Mashapaug Inner Cove damming, dewatering, dredging, cap installation and wetland restoration activities. Contractor will manage stormwater within detention basin using temporary submersible pumps as directed by Engineer. Discharge will be within proposed

turbidity curtain (Mashapaug Outer Cove) and dispersed to avoid disturbance of pond sediment. (see contract drawing sheet C-003)

List/description of receiving waters that may be impacted during construction:

- Mashapaug Pond

Are any of the receiving waters in the vicinity of the proposed construction project listed as being impaired or subject to a TMDL?

☒ Yes ☐ No

If yes, List/provide description of 303(d)/TMDL waters and applicable TMDL requirements that must be addressed during construction:

- Excess algal growth
- Fecal coliform
- Dissolved oxygen
- Total phosphorus

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

If yes, describe or refer to documentation which determines the likelihood of an impact on this area and the steps that will be taken to address any impacts.

- The habitat and wetlands surrounding the Mashapaug Inner and Outer Cove are recognized Natural Heritage Areas. The remediation of the upland area, wetlands and Mashapaug Inner Cove sediments within the Natural Heritage Area is being conducted under the RIDEM Remediation Regulations.
- The perimeter wetland consists of variably steep forested uplands with mature trees, a thin mixed herbaceous and woody understory, and patches of woody invasive species. The plant community includes oak species (white, red, black), gray birch, black birch, black cherry, mountain laurel, low-bush blueberry, huckleberry, ailanthus, oriental bittersweet, Japanese knotweed, and honeysuckle. The crowns of many of the mature trees are damaged, indicating that the trees are more susceptible to other injury and likely have shortened expected life spans.
- Grading for slope stabilization (maximum 3:1 slope) will be implemented within the perimeter wetland where needed. To facilitate soil placement within this wetland, damaged trees will be removed prior to grading. A permeable fabric barrier and a one-foot thick soil cover (six inches cover soil and six inches clean, imported topsoil meeting RDEC) will be placed to serve as a physical barrier to underlying impacted soils. Some trees and shrubs may require removal to allow equipment access and soil cover placement; however, viable trees and shrubs will be saved where possible. All invasive species will be eradicated by cutting and treating with an herbicide prior to placement of the soil cover. An invasive species plan has been included within the 404 General Permit.
- A Wetland Plan has been incorporated into the Technical Specifications and Drawing C-103 requiring the planting and restoration of the fringe and perimeter wetlands

within the Inner and Outer Cove. This plan has been reviewed and approved by the RIDEM Freshwater Wetlands and is covered by the USACE General Permit issued for this project.

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:

- Amec Foster Wheeler filed a notification letter with the Rhode Island Historic and Preservation/Cultural Resources on June 3, 2015.

1.5 SITE FEATURES AND CONSTRAINTS

List All Site Constraints and Sensitive Areas that require avoidance and protection through the implementation of control measures:

- Wetland Areas: wetland areas exist within the project area along Mashapaug Outer Cove. A buffer has been established to keep construction activity 10-feet from a portion of the wetlands. Augmented silt fence has been proposed within the wetland setback areas to provide adequate protection for the sensitive areas. Wetlands within the Inner Cove will be remediated and restored in accordance with the Issued for Construction set of construction drawings and technical specifications dated June 2015.
- Mashapaug Pond: surface waters exist within the project area, in particular in the vicinity of Mashapaug Inner Cove. The Mashapaug Inner Cove will be dammed, dredged and dewatered during construction. The existing turbidity curtain installed during a previous construction activity will be removed. A new turbidity curtain will be installed at the south end of the Mashapaug Outer Cove to protect the pond from sedimentation during construction.
- Steep Slopes: there are steep slopes within the project area. A portion of the proposed earthwork activities have been proposed to lessen the severity of the steep slopes, in particular to the north of Phase III. All disturbed slopes at 3:1 or greater are proposed to have erosion matting installed as a restoration BMP.
- City Sewer Easement: portions of the work may require access and use of the Narragansett Bay Sewer Commission (NBC) Easement. The NBC is aware of the project. No soil disturbance, material staging or alterations of the land within the easement will be allowed.
- Amtrak Access Road Easement: portions of the work are within the vicinity of the national railroad passenger corporation (Amtrak) easement of an electric booster station and high speed railroad. Amtrak is aware of the project. No access within the fence line or within the vicinity of the overhead electric lines of Amtrak property is allowed. No soil disturbance, material staging or alteration of the land within the easement will be allowed.
- Existing Phase I Cap Areas: soil capped during the previous Phase I construction activities are not to be disturbed during construction. The limit of disturbance borders the outside edge of this area

SECTION 2: EROSION, RUNOFF, AND SEDIMENT CONTROL

RIPDES Construction General Permit – Part III.J.1

The purpose of erosion controls is to prevent sediment from being detached and moved by wind or the action of raindrop, sheet, rill, gully, and channel erosion. Properly installed and maintained erosion controls are the primary defense against sediment pollution.

Runoff controls are used to slow the velocity of concentrated water flows. By intercepting and diverting stormwater runoff to a stabilized outlet or treatment practice or by converting concentrated flows to sheet flow erosion and sedimentation are reduced.

Sediment controls are the last line of defense against moving sediment. The purpose is to prevent sediment from leaving the construction site and entering environmentally sensitive areas.

This section describes the set of control measures that will be installed before and during the construction project to avoid, mitigate, and reduce impacts associated with construction activity. Specific control measures and their applicability are contained in Section Four: Erosion Control Measures, Section Five: Runoff Control Measures, and Section Six: Sediment Control Measures of the *RI SESC Handbook*. The *RI SESC Handbook* can be found at the following address:

http://www.dem.ri.gov/soilerosion2014final.pdf.

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 1.5 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 #
Wetland Protection	Inner Cove, Parcel C-1	Augmented Silt Fence	C-501
Mashapaug Pond	Inner Cove	Turbidity Curtain	C-501
Steep Slopes	Parcel C-1	Erosion Control Matting	C-501
City Sewer Easement	All Phases		C-104
Amtrak Access Road Easement	All Phases	Temporary Fencing	C-104
Existing Phase I Cap Area	All Phases	Augmented Silt Fence	C-501

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

- Construction phasing is required for this project due to the need of excavated sediment from the Inner Cove to be dewatered, placed and capped prior to the Phase III Area is graded and capped.

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

☒ Yes ☐ No

PHASING PLAN

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

Phase No. or Identifier	**Parcel C**
Total Area of Phase	5.7 acres
Area to be Disturbed	5.7 acres

Description of Construction Sequencing for Phase **Parcel C**

1. Install erosion and sedimentation control devises as shown and as required prior to site disturbance.
2. Clear and grub to the limits shown on the plans as depicted by the “Limit of Disturbance” line.
3. Regrade existing soils to prepare the subgrade elevations as shown.
4. Install capping materials for completion of the Parcel C upland soil cap.
5. Seed and stabilize the Parcel C Cap.

Phase No. or Identifier	**Inner Cove**
Total Area of Phase	3 acres
Area to be Disturbed	3 acres

Description of Construction Sequencing for Phase **Inner Cove**

1. Prepare Parcel C-1 upland area for dewatering treatment system and sediment processing. Implement wild life management plan then install turbidity curtain.
2. Install shoring and dewatering system
3. Install temporary gravel access road to Mashapaug Inner Cove
4. Complete Inner Cove removal of impacted sediments
5. Complete processing/dewatering/stabilization of dredged sediment
6. Consolidate processed sediment within proposed limits as shown in contract drawings
7. Install capping materials for completion of the Inner Cove sediment soil cap.
8. Remove shoring per approved method for Mashapaug Inner Cove restoration
9. Install capping materials for completion of the consolidated sediment soil cap and restore the fringe and perimeter wetlands
10. Seed and stabilize the consolidated sediment cap

Phase No. or Identifier	**Parcel C-1**
Total Area of Phase	5.8 acres
Area to be Disturbed	5.8 acres

Description of Construction Sequencing for Phase **Parcel C-1**

1. Remove all Inner Cove sediment and dewatering and processing materials
2. Regrade existing soils to prepare the subgrade elevations
3. Install capping materials for completion of the Parcel C-1 Phase III Area cap
4. Site restoration and clean-up.

2.3 MINIMIZE THE DISTURBANCE OF STEEP SLOPES

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

☒ Yes ☐ No

- Erosion Control Matting: will be installed at areas of the site were slopes exceed a 3H:1V slope. A tackifier is proposed during all site restoration activities to prevent erosion and promote vegetation.

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

- Existing soils are impacted and will be capped in place. Topsoil will be imported in accordance with the contract construction specification 02921 Seeding and Soil Supplements

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 established in the *RI Stormwater Design and Installation Standards Manual*.

- Seed and stabilization activities will be implemented at the end of each phase and prior to completion of the project in accordance with Contract Specification Section 02921 Planting, Seeding and Soil Supplements

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.

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

- Temporary Seeding: Temporary seeding will be placed on soils exposed for a period greater than one month but less than 12 months in accordance with contract specifications 02300 Earthwork and 02921 Seeding and Soil Supplements.

Temporary Non-Vegetative Control Measures

- Construction Exit: will be installed at both Site exits (Parcel C and C-1).
- Turbidity Curtain: will be installed between the inner and outer coves of the Mashapaug Cove to prevent migration of silt from the construction area.
- Augmented Silt Fence: a silt fence and straw bale barrier (Drawing C-501) will be installed along the Sites Limit of Disturbance in the fringe wetlands during mobilization activities. Silt Fence will be installed at the Limit of Disturbance where work is being conducted outside of the fringe and perimeter wetland.
- Dust Control: will be implemented to prevent sedimentation during dry conditions

Permanent Vegetative Control Measures

- Seeding: long term stabilization will be established by placing seeding and mulching at sediment cap areas in accordance with Contract Specifications 02370 Erosion and Sedimentation Control and 02921 Seeding and Soil Supplements.

Permanent Non-Vegetative Control Measures

- Vegetated Waterway: will be constructed at specified locations along the perimeter of the Parcel C cap documented on the Contract Construction Drawing C-104 Sheet 7 of 14
- Channel (Swale): will be constructed along the western edge of the Parcel C Cap to divert water flow to the vegetated waterways. The channel will be installed in accordance will Contract Construction Drawing C-104 sheet 7 of 14
- Erosion Control Matting: for slopes 33% and steeper.

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 *RI 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

- NA; no stormwater outlets within the project area

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

- Silt Fencing: shall be installed at the site as specified on the contract drawings and in accordance with Specification 02370
- Fence Screen: to be provided along the existing fence line to prevent wind born dust and sedimentation.
- Mulch: to be used for protection of newly seeded areas where erosion control blanket is not used (Specification 02370)
- Straw Bales: shall consist of rectangular-shaped bales of hay or straw weighing approximately 40 pounds per bale and shall be free from primary noxious weed seeds and rough woody materials
- Temporary Protective Sheeting: shall consist of minimum 6-mil polyethylene sheeting or a suitable approved alternative and of sufficient size to minimize seams.
- Seeding: annual or perennial ryegrass or winter rye (cereal rye). Use winter rye if seeding in October or later
- Erosion Control Matting: for protection of slopes equal to and greater than 33%. Rolled erosion control product shall be 100 percent biodegradable manufactured from long lasting natural fibers mechanically attached to or woven into two continuous biodegradable netting structures.
- Construction Exit: to be provided at all ingress and egress points within the work area per Detail 4 of Sheet C-501 of the Construction Drawings.

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

Pre-Construction and Construction sub-watershed maps are included for each phase in this SESC Plan submittal.

Structural control measures will be used to limit stormwater flow from coming onto the project area, and to divert and slow on-site stormwater flow that is expected to impact exposed soils for the purpose of minimizing erosion, runoff, and the discharge of pollutants from the site.

Control measures shall be installed as depicted on the approved plan set and in accordance with the *RI SESC Handbook* or the *RI Department of Transportation Standard Specifications for Road and Bridge Construction*. **Run-on and Run-off Management**				
Construction Phase #	On-site or Off-site Run-on?	Control measure	Identified on Sheet #	Detail(s) is/are on Sheet #
1	Off - Site	Augmented Silt Fence Barrier	C-102	C-501 12 of 14

- There is minimal storm water entering the site from Parcel A and Parcel B into the detention basin where it infiltrates or discharges into the Inner Cove. The detention basin will continue to infiltrate into the groundwater, but will be temporarily blocked from discharging into the Inner Cove. Excess water will be pumped and discharged between the dam and turbidity curtain in the Outer Cove. In addition there will be a construction dewatering system proposed to pump the water from the Inner Cove and into infiltration galleries in Phase III.
- Augmented Silt fence barrier (Drawing C-501) will restrict sediment laden stormwater flow from entering into Mashapaug Cove and Pond. Material build up along this barrier will be distributed on the upland surface, capped and grassed.

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

SEDIMENT BARRIERS			
Construction Phase #	Sediment Barrier Type	Sediment Barrier is Labeled on Sheet #	Detail is on Sheet #
1	Augmented Silt Fence Barrier	C-004 (5 of 14)	C-501 (12 of 14)
2	Augmented Silt Fence Barrier	(C-004 6 of 14)	C-501 (12 of 14)

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

- NA; no stormwater inlets within the project area

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:

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 (Parcel C)	Construction Exit	C-002 (3 of 14)	C-501 (12 of 14)
2 (Inner Cove)	Gravel Access Road	C-101 (6 of 14)	C-501 (12 of 14)
3 (Parcel C-1)	Construction Exit	C-004 (5 of 14)	C-501 (12 of 14)

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 of straw bales (Drawing C-501).
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.

STOCKPILE CONTAINMENT				
Construction Phase #	Run-on measures necessary? (yes/no)	Stabilization or Cover Type	Stockpile Containment Measure	Sheet #
1 (Parcel C)	no	Imported topsoil	Seed and Erosion Control Matting	C-501 (12 of 14), Detail 1
2 (Inner Cove)	no	Dredged Material	Capping	C-104 (9 of 14)
3 (Parcel C-1 Cap)	no	Imported topsoil and seed, erosion control matting	Dust Control, Capping	C-501 (12 of 14), Detail 1

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

- Channels will be constructed along the perimeter of the Parcel C Cap in accordance with contract construction drawing C-102 and contract specification 02300 Earthwork

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. # 1 (Parcel C)		
Location/Station	**Control Measure Description/Reference**	**Maintenance Requirement**
Perimeter	Augmented Silt Fence RI Soil Erosion and Sediment Control Handbook, Chapter 5, Section 6	Inspection should be made after each storm event or 1/week and repair or replacement should be made promptly as needed. Cleanout of accumulated sediment behind the wattle if sediment accumulates to at least ½ the distance between the top of wattle and ground surface.
Perimeter	Augmented Silt Fence RI Soil Erosion and Sediment Control Handbook, Chapter 5, Section 6	Inspection should be made after each storm event or 1/week and repair or replacement should be made promptly as needed. Cleanout of accumulated sediment behind the wattle if sediment accumulates to at least ½ the distance between the top of wattle and ground surface.
Cap	Erosion Control Matting RI Soil erosion and Sediment Control Handbook, Chapter 5, Section 4	Inspect permanent turf reinforcement mats at least once a week and within 24 hours of the end of a storm with a rainfall amount of 0.5 inch or greater for failures until the turf has become established. When repetitive failures occur at the same location, review conditions and limitations of turf reinforcement mats and determine if additional controls (e.g. diversions, stone barriers) are needed to ensure success. Repair mat failures within one work day. After the turf has become established, inspect annually or after major storm events.
Phase No. # 2 (Inner Cove)		
Perimeter	Augmented Silt Fence RI Soil Erosion and Sediment Control Handbook, Section F	Inspection should be made after each storm event or 1/week and repair or replacement should be made promptly as needed. Cleanout of accumulated sediment behind the wattle if sediment accumulates to at least ½ the distance between the top of wattle and ground surface.
Perimeter	Augmented Silt Fence RI Soil Erosion and Sediment Control Handbook, Section F	Inspection should be made after each storm event or 1/week and repair or replacement should be made promptly as needed. Cleanout of accumulated sediment behind the wattle if sediment accumulates to at least ½ the distance between the top of wattle and ground surface.

Outer Mashapaug Cove	Turbidity Curtain RI Soil Erosion and Sediment Control Handbook, Section 6	Turbidity Curtain shall be inspected daily and repaired or replaced immediately.
Phase No. # 3 (Parcel C-1 Cap)		
Perimeter	Augmented Silt Fence RI Soil Erosion and Sediment Control Handbook, Chapter 5, Section F	Inspection should be made after each storm event or 1/week and repair or replacement should be made promptly as needed. Cleanout of accumulated sediment behind the wattle if sediment accumulates to at least ½ the distance between the top of wattle and ground surface.
Perimeter	Augmented Silt Fence RI Soil Erosion and Sediment Control Handbook, Chapter 5, Section F	Inspection should be made after each storm event or 1/week and repair or replacement should be made promptly as needed. Cleanout of accumulated sediment behind the wattle if sediment accumulates to at least ½ the distance between the top of wattle and ground surface.
Cap	Erosion Control Matting RI Soil erosion and Sediment Control Handbook, Chapter 5, Section 4	Inspect permanent turf reinforcement mats at least once a week and within 24 hours of the end of a storm with a rainfall amount of 0.5 inch or greater for failures until the turf has become established. When repetitive failures occur at the same location, review conditions and limitations of turf reinforcement mats and determine if additional controls (e.g. diversions, stone barriers) are needed to ensure success. Repair mat failures within one work day. After the turf has become established, inspect annually or after major storm events.

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.

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:

- Project History
- Visual observation for construction drawings

If yes, list discharges and locations:

- Stormwater detention basin discharge into Mashapaug Inner Cove

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

☒ Yes ☐ No

- Treated effluent from the groundwater treatment system currently meets RIPDES permit criteria for surface water discharge.

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

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.

- 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 overfilling.
- 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

- General Trash
- Clearing and Grubbing Material

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

- Chemicals and/or hazardous waste material are not anticipated to be used during construction activities.

3.5 CONTROL OF ALLOWABLE NON-STORMWATER DISCHARGES

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

☐ Yes ☒ No

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

☒ Yes ☐ No

If yes, list the discharge types and the RIPDES individual permit number(s) or RIPDES Remediation General Permit Authorization number(s) associated with these discharges.

- Discharge Type and RIPDES Individual Permit Number: Mashapaug Pond, RIPDES# RIG85E004

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

- Mashapaug Inner Cove: Dewatering of the Inner Cove is required to implement the Remedial Action Plan approved approach for excavation of the Inner Cove Sediments and installation of the Inner Cove Cap for the locations indicated on the Drawings. A temporary dam system shall be used to reduce the volume of pond water entering the Inner Cove from Mashapaug Pond and allow complete dewatering of the Inner Cove. Divert surface water within work areas into sumps and pump the storm and pond water back into the pond within the limits of the dam and proposed turbidity curtains. Dewatering shall be performed in accordance with Contract Specification 02236 Dewatering.

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).

- Temporary stockpiling of soils, clearing and grubbing debris and cap materials shall be conducted within the designated areas as shown on the drawings. All stockpiles shall be placed within roll-off containers or on poly sheeting and covered at the end of each working day to prevent wind and/or stormwater erosion. All stockpile staging areas shall be protected with perimeter controls such as silt fence or straw bales (Drawing C-501) and temporarily seeded as required.

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.

- Dust from the site shall be controlled by using a mobile pressure-type distributor truck to apply potable water to disturbed areas. The mobile unit shall apply water at a rate of 300 gallons per acre and minimized as necessary to prevent runoff and ponding

- Dust monitoring will be conducted from fixed stations and using hand held monitors at any time soil disturbance activities are being conducted. Monitoring will identify sources of dust and engineering controls will be implemented to reduce the generation of dust from the site.

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

- NA; concrete work is not anticipated

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.

Only routine maintenance and emergency repair of on-site equipment is allowed with proper safeguards and clean-up. Refueling shall be conducted only on an impervious surface with proper spill containment and outside of any environmentally sensitive buffer zones. A spill kit shall be provided by the contractor and maintained on-site.

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.

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

☐ Yes ☒ No

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. # All Phases		
Location/Station	**Control Measure Description/Reference**	**Maintenance Requirement**
Construction Site Entrance/Exit	Stone Stabilization Pad RI Soil Erosion and Sediment Control Handbook, Section	The entrance shall be maintained in a condition which will prevent tracking or flowing of sediment onto public right of ways. This will require periodic top dressing with additional stone or additional length as conditions demand and repair and/or cleanout of any measures used to trap sediment. All sediment spilled, dropped, washed, or tracked onto public right-of-ways must be removed immediately.
Adjacent Roads	Public roads adjacent to a construction site shall be clean at the end of each day	Street Sweep if construction site sediment is visible
Site Wide	Pick up construction trash and debris	All loose trash and debris must be disposed of properly at the end of each working day
Site Wide	Dust control by water truck/sprinkling	Sprinkle the site as necessary to keep dust to a minimum

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*.

- Erosion control details are depicted on detail sheets C-501 – C-503 and shall be installed and maintained in accordance with Specification 02370 Erosion and Sedimentation Control

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:

- wunderground.com/weather-forecast
- Ladd Observatory

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;
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 **4**th 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.

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.

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

SECTION 7: PARTY CERTIFICATIONS

RIPDES Construction General Permit – Part V.G

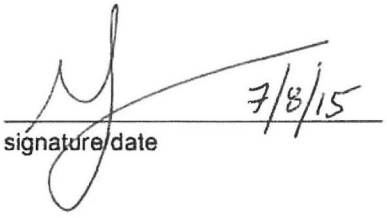
All parties working at the project site are required to comply with the Soil Erosion and Sediment Control Plan (SESC Plan including SESC Site Plans) for any work that is performed on-site. The site owner, site operator, contractors and sub-contractors are encouraged to advise all employees working on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

Textron, Inc
Gregory Simpson, Project Manager
40 Westminster Street
Providence, RI 02903
(401) 457-2635



signature/date

Site Operator:

Charter Construction Company LLC
Paul Leofanti Jr.
500 Harrison Ave.
Boston, MA 02118
(857) 246-6812

signature/date

Designated Site Inspector:

Amec Foster Wheeler Environment & Infrastructure, Inc.
Melinda Ferullo, EIT
271 Mill Road
Chelmsford, MA 01824
978-692-9090, 978-692-6633

signature/date

SubContractor SESC Plan Contact:

Amec Foster Wheeler Environment & Infrastructure, Inc.
Robert Bukowski, PE
271 Mill Road
Chelmsford, MA 01824
978-692-9090, 978-692-6633

signature/date

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

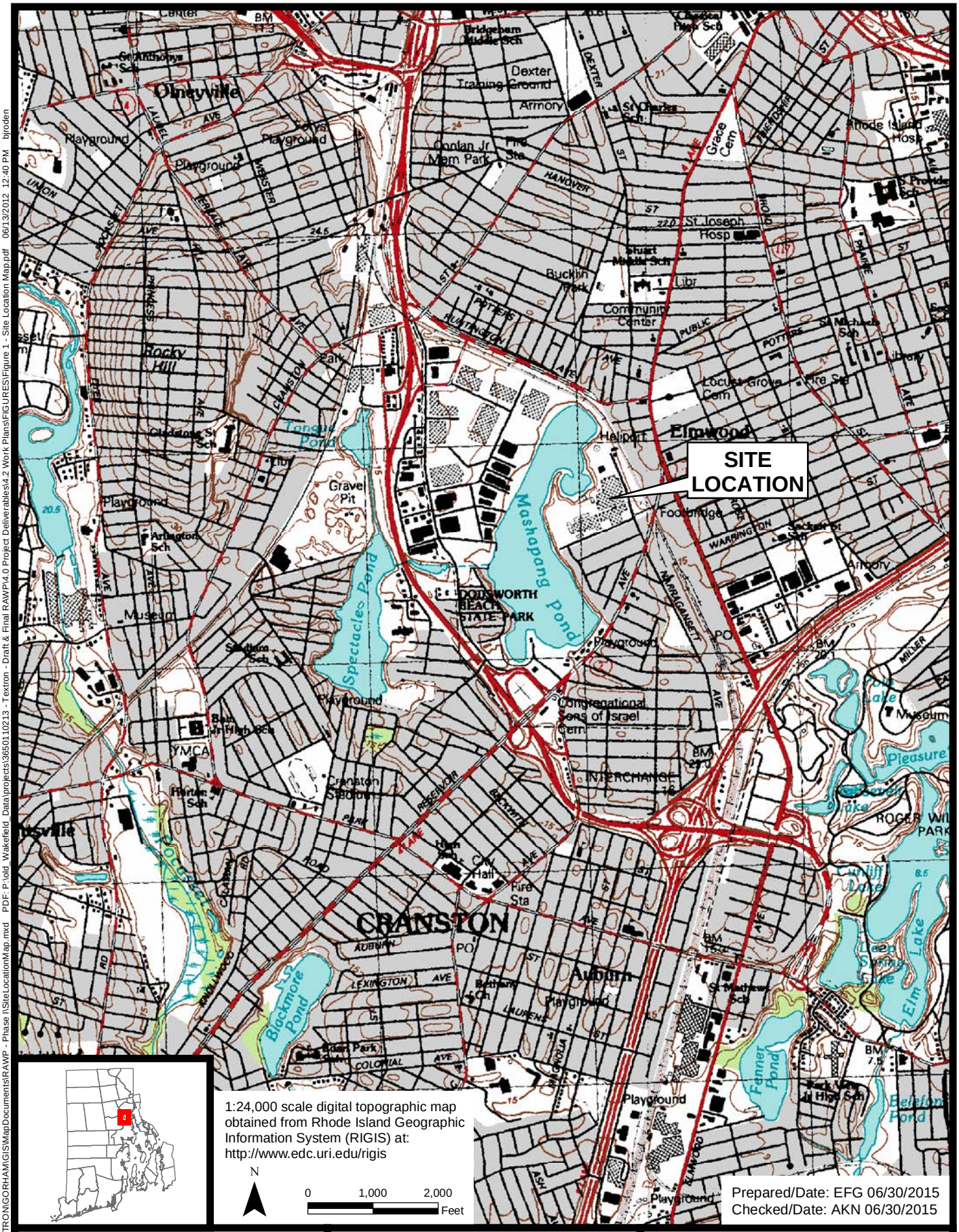
Attachment E - Copy of RIPDES NOI *(if required as part of application, see RIPDES Construction General Permit for applicability)*

Attachment F - Inspection Reports w/ Corrective Action Log

Attachment G - SESC Plan Amendment Log

ATTACHMENT A

General Location Map



Soil Erosion and Sediment Control Plan
Phase II, III and Parcel C Cap
333 Adelaide Avenue
Providence, RI

amec foster wheeler

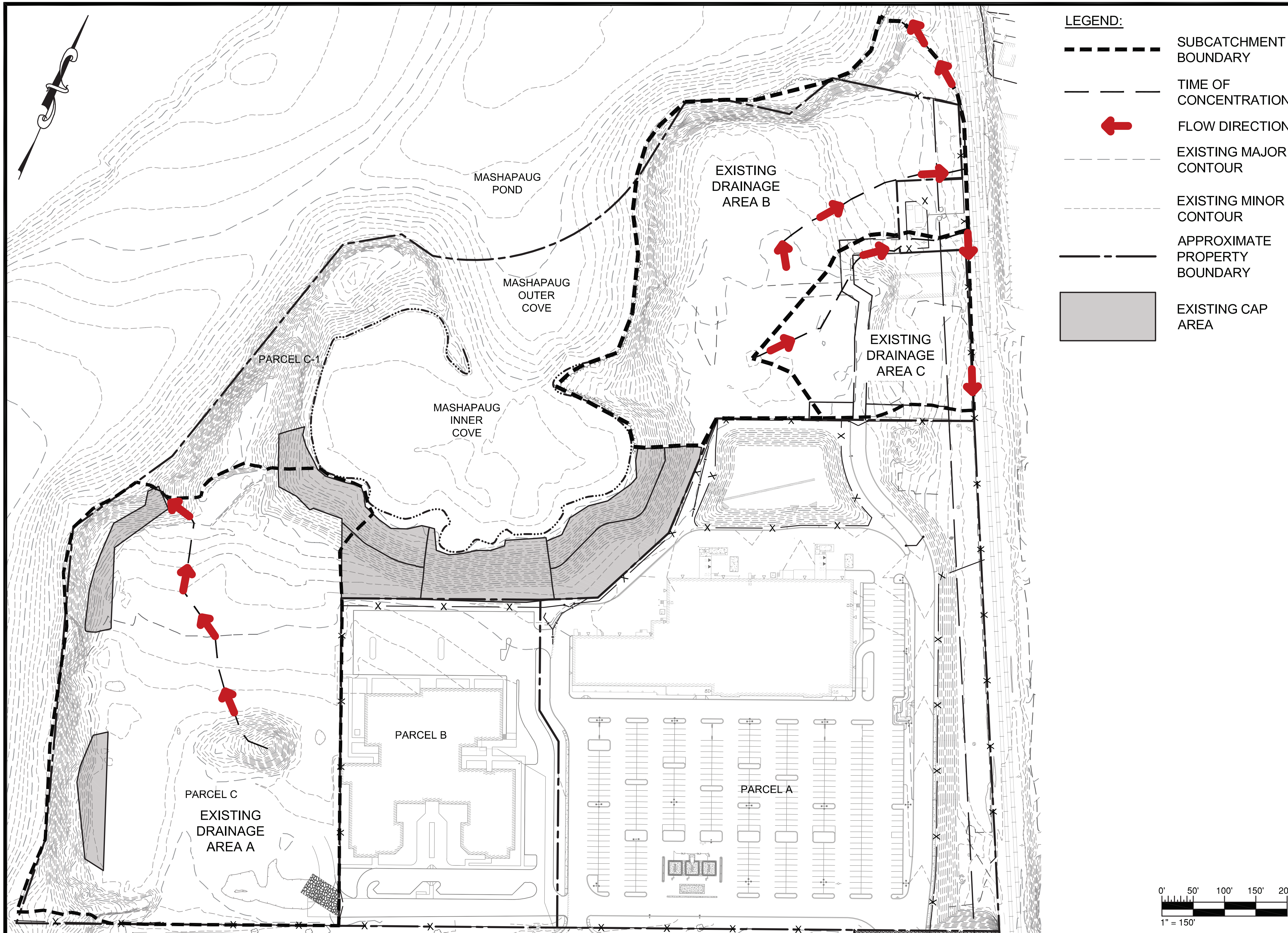
Site Location Map
Former Gorham Manufacturing Site

Project 3650-11-0213 Figure 1

Document: P:\TEXTRON\GORHAM\GIS\MapDocuments\RAWP - Phase II\SiteLocationMap.mxd PDF: P:\old_Wakefield_Data\projects\3650110213 - Textron - Draft & Final RAWP\4.0 Project Deliverables\4.2 Work Plans\FIGURES\Figure 1 - Site Location Map.pdf 06/13/2012 12:40 PM bjroden

ATTACHMENT B

SESC Site Plans



LEGEND:

- SUBCATCHMENT BOUNDARY
- TIME OF CONCENTRATION
- FLOW DIRECTION
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- APPROXIMATE PROPERTY BOUNDARY
- EXISTING CAP AREA

amec foster wheeler
AMEC FOSTER WHEELER
ENVIRONMENT & INFRASTRUCTURE, INC.
271 MILL ROAD
CHELMSFORD MASSACHUSETTS 01824
TELEPHONE: (978) 692-9090
FAX: (978) 692-6633
WEB: WWW.AMECFW.COM

CLIENT:

TEXTRON

PROJECT:

TEXTRON, INC.
PHASE II, III, AND
PARCEL C CAP
FORMER GORHAM
MANUFACTURING SITE
PROVIDENCE, RI

REV	DATE	DESCRIPTION

ISSUE / REVISION:

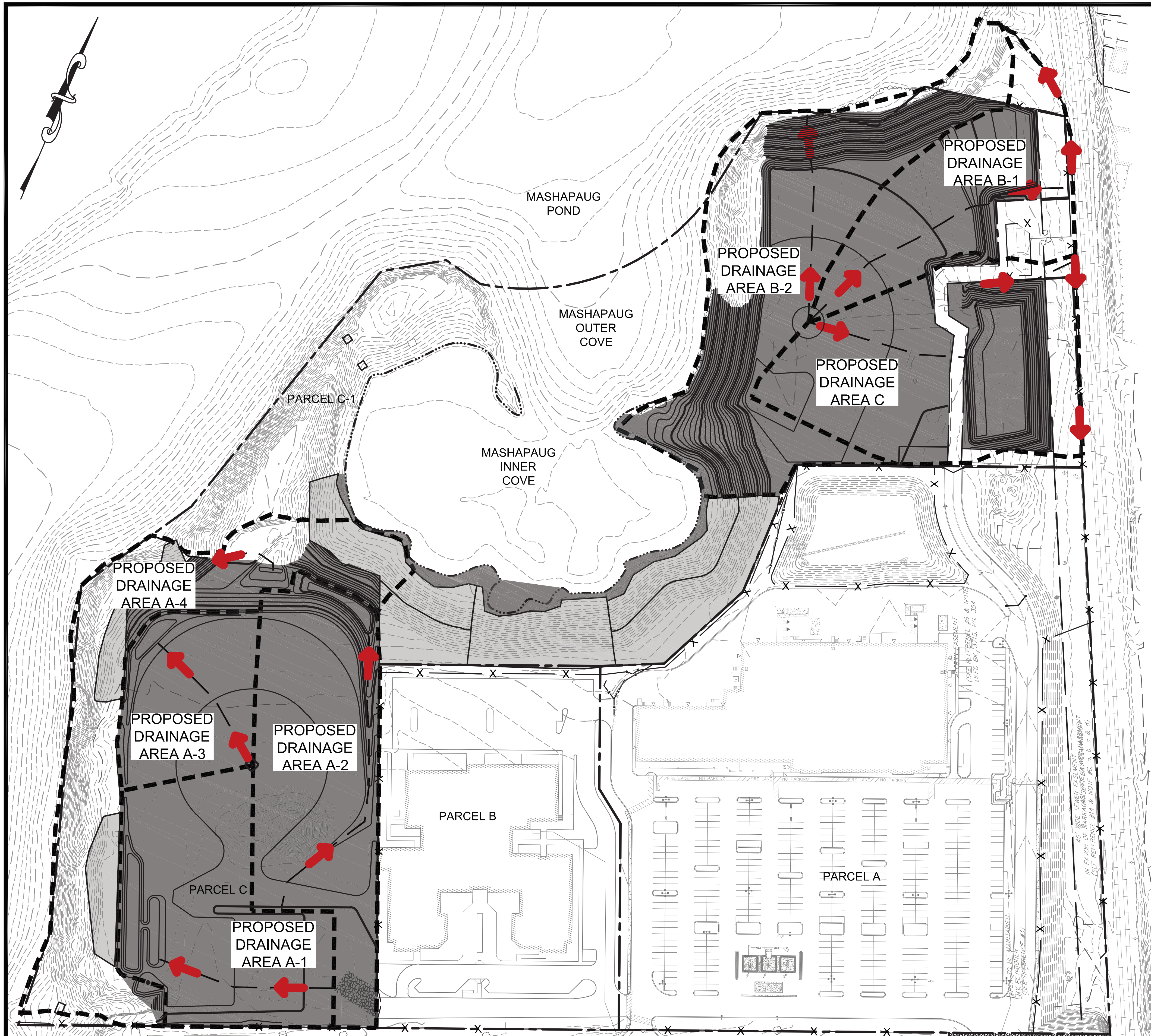
DESIGNED BY: OAP	DRAWN BY: DED
CHECKED BY: DMP	DATE: JUNE 2015
SCALE: AS SHOWN	ISSUE / REVISION: 0
PROJECT NUMBER: 3652140032	

TITLE:

PRE-REMEDIATION
DRAINAGE
SUBCATCHMENT
DELINEATION

FIGURE NUMBER:

1



LEGEND:

- SUBCATCHMENT BOUNDARY
- TIME OF CONCENTRATION
- FLOW DIRECTION
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- APPROXIMATE PROPERTY BOUNDARY
- EXISTING CAP AREA
- PROPOSED CAP AREA

0' 50' 100' 150' 200'
1" = 150'

AMEC FOSTER WHEELER
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TELEPHONE: (978) 692-9090
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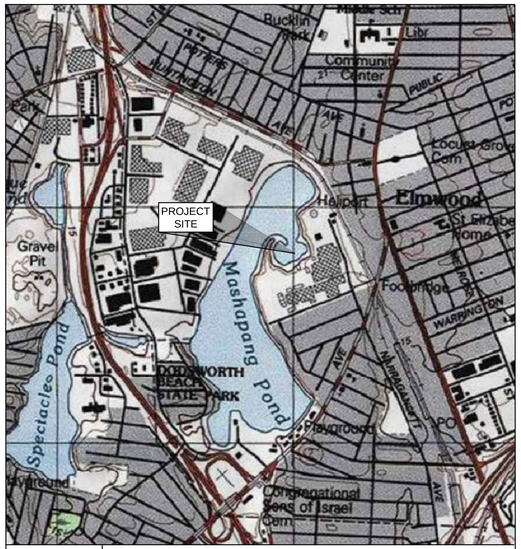
TITLE:

POST-REMEDIATION DRAINAGE SUBCATCHMENT DELINEATION

FIGURE NUMBER:

2

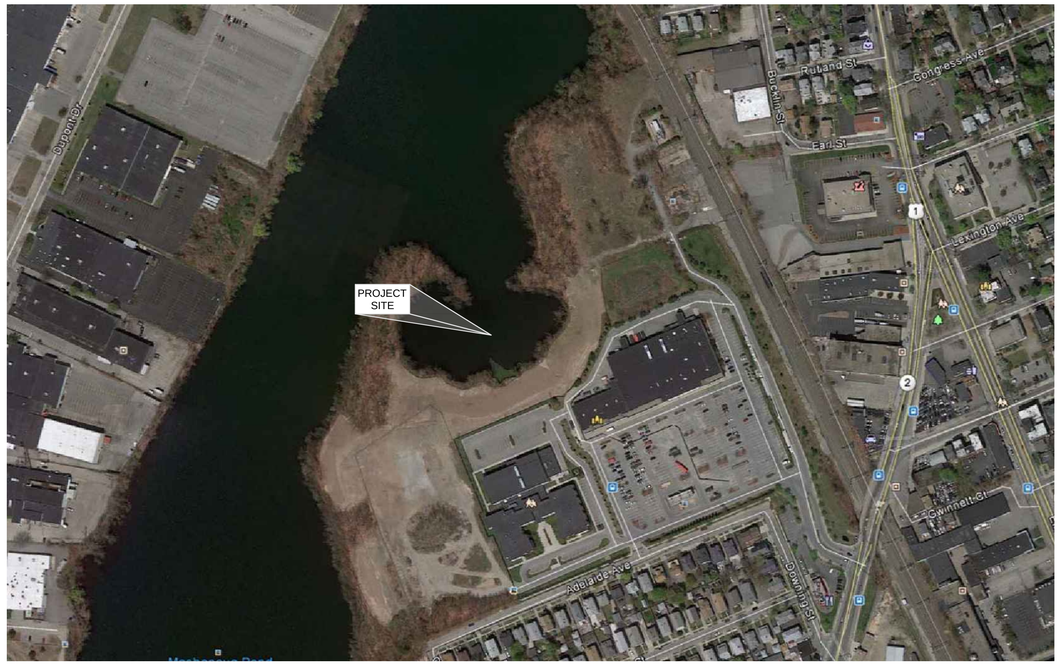
TEXTRON, INC.
PHASE II, III, AND PARCEL C CAP
FORMER GORHAM MANUFACTURING SITE
PROVIDENCE, RHODE ISLAND
JUNE, 2015



LOCUS MAP

0 500 1000 2000

SCALE IN FEET



MAP SOURCE: GOOGLE EARTH PRO

KEY

0 100 200 400

SCALE IN FEET

DRAWING INDEX

SHEET NUMBER	DRAWING TITLE	DISCIPLINE NUMBER
	COVER SHEET	
1	GENERAL NOTES, ABBREVIATIONS, AND LEGEND	G-001
2	EXISTING CONDITIONS SITE PLAN	C-001
3	DEMOLITION, EROSION AND SEDIMENTATION CONTROL PLAN, SHEET 1 OF 3	C-002
4	DEMOLITION, EROSION AND SEDIMENTATION CONTROL PLAN, SHEET 2 OF 3	C-003
5	DEMOLITION, EROSION AND SEDIMENTATION CONTROL PLAN, SHEET 3 OF 3	C-004
6	TEMPORARY DEWATERING, EXCAVATION AND MATERIAL STAGING PLAN	C-101
7	PROPOSED SITE PLAN, SHEET 1 OF 3	C-102
8	PROPOSED SITE PLAN, SHEET 2 OF 3	C-103
9	PROPOSED SITE PLAN, SHEET 3 OF 3	C-104
10	PLAN AND PROFILE A-A'	C-301
11	PLAN AND PROFILE B-B'	C-302
12	DETAILS, SHEET 1 OF 3	C-501
13	DETAILS, SHEET 2 OF 3	C-502
14	DETAILS, SHEET 3 OF 3	C-503

PREPARED FOR:

TEXTRON

PREPARED BY:

amec foster wheeler

ISSUED FOR CONSTRUCTION

GENERAL NOTES:

1. PLANS HAVE BEEN COMPILED FROM ON-SITE INVESTIGATIONS, GIS, LiDAR, AND SURVEY. SEE PLAN REFERENCES FOR FURTHER INFORMATION.
2. ELEVATIONS BASED UPON THE CONTROL DATUM SHOWN ON V-101.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REVIEW OF ALL DRAWINGS AND SPECIFICATIONS PRIOR TO CONSTRUCTION. ANY DISCREPANCY SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER, INCLUDING DISCREPANCIES TO ANY CODE/REGULATORY REQUIREMENTS. IF ANY DISCREPANCIES ARE ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE ENGINEER BEFORE PROCEEDING WITH THE WORK.
4. ALL ACTIVITIES SHALL BE CONDUCTED IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS. THE CONTRACTOR SHALL GIVE ALL NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY, MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS, AND LOCAL, STATE, AND FEDERAL JURISDICTIONAL CODES BEARING ON THE PERFORMANCE OF THE WORK. THE WORK PERFORMED ON THE PROJECT AND THE MATERIALS INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. THE WORK SHALL ALSO CONFORM TO ALL APPLICABLE TEXTRON REQUIREMENTS.
5. THE CONTRACTOR SHALL OBTAIN AUTHORIZATION FROM OWNER AND/OR ENGINEER TO PROCEED WITH CONSTRUCTION PRIOR TO STARTING WORK ON ANY ITEM NOT CLEARLY DEFINED BY THE CONTRACT DOCUMENTS.
6. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS WHICH MAY BE REQUIRED BY THE OWNER, ENGINEER, THE STATE, COUNTY OR LOCAL GOVERNMENT AUTHORITY.
8. THE CONTRACTOR SHALL KEEP THE GENERAL WORK AREA CLEAN AND HAZARD FREE DURING CONSTRUCTION AND DISPOSE OF ALL DIRT, DEBRIS, RUBBISH, AND EQUIPMENT AS SPECIFIED, CONTRACTOR SHALL CLEAN AND SUPPLY A ROLL-OFF CONTAINER OR DUMPSTER TO BE EMPTIED AS NEEDED. CLEANING SHALL BE IN COMPLIANCE WITH ALL FEDERAL, STATE, AND LOCAL REGULATIONS. PREMISES SHALL BE LEFT IN CLEAN CONDITION AND FREE FROM TRASH, DEBRIS, DUST, OR OTHER HAZARDS OF ANY NATURE AT PROJECT COMPLETION.
9. DISPOSAL OF ALL MATERIALS SHALL BE COMPLETED IN ACCORDANCE WITH APPLICABLE LOCAL, STATE, AND FEDERAL REGULATIONS AND SHALL BE THE CONTRACTOR'S RESPONSIBILITY. CONTRACTOR SHALL STORE ON SITE AND LOAD IN CLIENT PROVIDED CONTAINERS ALL STUMPS AND HAZARDOUS MATERIALS, FOR DISPOSAL BY CLIENT.
10. THE CONTRACTOR SHALL COMPLY WITH ALL OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) REQUIREMENTS AS THEY APPLY TO THIS PROJECT. ANY PERSONNEL THAT HAVE THE POTENTIAL TO BE EXPOSED TO HAZARDOUS OR POTENTIALLY HAZARDOUS MATERIALS, SHALL BE TRAINED AND PERFORM ALL WORK IN COMPLIANCE WITH 29 CFR 1910.120, HAZARDOUS WASTE OPERATIONS AND EMERGENCY RESPONSE (HAZWOPER).
11. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS, AND EXISTING FEATURES PRIOR TO THE START OF ANY WORK. ANY DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER. CONTRACTOR SHALL VERIFY ACTUAL FIELD CONDITIONS PRIOR TO CONSTRUCTION.
12. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL UTILITIES AND SERVICES THROUGHOUT THE DURATION OF THE PROJECT. THE CONTRACTOR SHALL PROTECT ALL UTILITY LINES THROUGHOUT ALL PHASES OF WORK.
13. UTILITY LOCATIONS SHOWN ARE APPROXIMATE AND MAY NOT INCLUDE ALL UTILITIES WITHIN THE PROJECT SITE.
14. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL UNDERGROUND PIPING AND STRUCTURES PRIOR TO ANY EXCAVATION ACTIVITIES BY CONTACTING THE CITY OF PROVIDENCE FOR WATER LOCATION AND RHODE ISLAND DIG-SAFE (1-800-DIG-SAFE) (72) HOURS BEFORE STARTING CONSTRUCTION ACTIVITIES FOR FIELD MARKING UNDERGROUND UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING UNDERGROUND UTILITIES THAT MAY NOT BE MARKED BY THE UTILITY COMPANIES. SUBSURFACE CONDITIONS ARE NOT GUARANTEED. THE CONTRACTOR SHALL REPAIR CONTRACTOR-CAUSED DAMAGE ACCORDING TO LOCAL STANDARDS AT CONTRACTOR'S EXPENSE.
15. UNLESS OTHERWISE NOTED, ALL EXISTING FEATURES DESIGNATED ON THE PLANS ARE TO REMAIN. INCLUDING, BUT NOT LIMITED TO, TREES, SIGNS, FENCING/GATES, AND SIGN POSTS. FEATURES SHALL BE VERIFIED, LOCATED AND PROTECTED DURING ALL PHASES OF CONSTRUCTION.
16. THE SITE IS ADJACENT TO AN ACTIVE NEIGHBORHOOD, HIGH SCHOOL, AND RETAIL CENTER WHICH WILL BE OPERATIONAL DURING CONSTRUCTION. ALL CONSTRUCTION ACTIVITIES MUST BE COMPLETED WITH RESPECT TO THE ONGOING ACTIVITIES OF THE SURROUNDING AREAS. ACCESS ROADWAYS SHALL REMAIN OPEN AND FREE OF DEBRIS AT ALL TIMES.
17. PORTIONS OF THE WORK MAY REQUIRE ACCESS AND USE OF THE NARRAGANSETT BAY SEWER COMMISSION (NBC) EASEMENT. THE NBC IS AWARE OF THE PROJECT. NO SOIL DISTURBANCE, MATERIAL STAGING OR ALTERATION OF THE LAND WITHIN THE EASEMENT WILL BE ALLOWED.
18. PORTIONS OF THE WORK ARE WITHIN THE VICINITY OF THE NATIONAL RAILROAD PASSENGER CORPORATION (AMTRAK) EASEMENT OF AN ELECTRIC BOOSTER STATION AND HIGH SPEED RAILROAD. AMTRAK IS AWARE OF THE PROJECT, NO ACCESS TO AMTRAK PROPERTY IS ALLOWED. NO SOIL DISTURBANCE, MATERIAL STAGING OR ALTERATION OF THE LAND WITHIN THE EASEMENT WILL BE ALLOWED.
19. ALL ACTIVITIES SHALL BE CONDUCTED IN ACCORDANCE WITH THE RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT SOIL EROSION AND SEDIMENT CONTROL PLAN, RHODE ISLAND STORMWATER DESIGN AND INSTALLATION STANDARDS MANUAL, THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP), AND THE RHODE ISLAND POLLUTION DISCHARGE ELIMINATION SYSTEM (RIPDES) CONSTRUCTION GENERAL PERMIT.
20. CONTRACTOR SHALL LIMIT ALL CONSTRUCTION ACTIVITIES TO THE LIMITS OF DISTURBANCE.
21. PLACING OF TOPSOIL AND HYDROSEEDING SHALL NOT OCCUR UNTIL AUTHORIZED BY THE ENGINEER.
22. DISTURBED AREAS SHALL BE PLANTED AND SEEDED AS SPECIFIED IN THE CONTRACT DOCUMENTS.
23. THE CONTRACTOR SHALL REPORT TO THE OWNER OR THE ENGINEER ALL SPILLS AND LEAKS OF OIL OR OTHER HAZARDOUS SUBSTANCES (E.G., OIL, ANTIFREEZE, CHEMICALS, ETC.) OCCURRING DURING THE PERFORMANCE OF THIS CONTRACT IMMEDIATELY UPON DISCOVERY, REGARDLESS OF THE QUANTITY.
24. THE CONTRACTOR SHALL PREVENT DEBRIS FROM ENTERING ALL SWALES, INLETS, AND BASINS, PROVIDE AND MAINTAIN INLET PROTECTION FOR THE DURATION OF THE WORK AND CLEAN ALL STRUCTURES AT THE COMPLETION OF THE WORK.
25. CONTRACTOR SHALL PROVIDE A FULL SET OF AS-BUILT DRAWINGS TO THE OWNER AT THE COMPLETION OF THE PROJECT IN CONFORMANCE WITH THE CONTRACT DOCUMENTS.
26. ELEVATED CONCENTRATIONS OF PAHs, METALS, AND DIOXINS EXIST IN SURFACE SOILS WITHIN THE PROPOSED CONSTRUCTION LAYDOWN/STAGING/DECONTAMINATION AREAS. CONTRACTOR SHALL PERFORM DECONTAMINATION ACTIVITIES IN ACCORDANCE WITH THE SPECIFICATIONS. ALL MATERIAL STAGED WITHIN THESE AREAS MUST BE SEGREGATED SUCH THAT THERE IS NO CROSS CONTAMINATION.
27. CONTRACTOR TO PROVIDE DEWATERING AND TEMPORARY DAM DESIGN TO THE ENGINEER FOR APPROVAL FOR THE REMEDIATION ON THE INNER COVE.
28. CONTRACTOR SHALL REMOVE ORGANIC SEDIMENT FROM THE INNER COVE DOWN TO THE SANDY/GRAVEL MATERIAL TO A MAXIMUM DEPTH OF 2 FEET.
29. CONTRACTOR TO DISABLE AND SECURE ALL EQUIPMENT PRIOR TO DAILY SHUTDOWN. CLIENT IS NOT RESPONSIBLE FOR VANDALISM, OR LOSS DUE TO TRESPASSING.
30. ENGINEER TO PROVIDE CADD FILES AND ASCII (.XYZ) FILES OF THE EXISTING BATHYMETRY, POST-DREDGE SEDIMENT ELEVATIONS, AND RESTORED CAP ELEVATIONS. THE CONTRACTOR SHALL PROVIDE ESTIMATES FOR REMOVAL AND PLACEMENT VOLUMES, AND ACCOUNT FOR BULKING OR DENSIFICATION OF MATERIALS DUE TO HANDLING AND PLACEMENT.
31. JOBSITE OR NEIGHBORHOOD COMPLAINTS OF EXCESSIVE NOISE, VIBRATION, OR ODORS MUST BE COMMUNICATED WITH ENGINEER AS SOON AS POSSIBLE UPON RECEIPT OF FIRST COMPLAINT EACH PROJECT DAY. CONTRACTOR MUST HAVE CONTINGENCY PLANS FOR EXCESSIVE NOISE AND ODORS AS SUPPLIED IN THE WORK PLAN.
32. CONTRACTOR MAY USE PUBLIC BOAT LAUNCH ACCESS RAMP LOCATED ALONG WEST SHORE OF MASHAPAUG POND NEAR PARK LANE AND ACCESS ROAD FOR MOBILIZATION OF EQUIPMENT TO THE SITE.

GRADING, DRAINAGE, AND EROSION CONTROL NOTES:

1. NO VEGETATION SHALL BE DISTURBED EXCEPT AS DESCRIBED IN THE CONTRACT DOCUMENTS OR AS NECESSARY FOR GRADING PURPOSES AND ONLY AS APPROVED BY THE ENGINEER. NO HEAVY EQUIPMENT SHALL BE OPERATED OR STORED AND NO MATERIALS SHALL BE HANDLED OR STORED WITHIN THE DRIP LINES OF UNDISTURBED TREES OR WITHIN 50 FEET FROM THE LIMIT OF WETLANDS AND/OR MASHAPAUG POND.
2. PERMANENT CONTROLS OR SURFACE STABILIZATION SHALL COMMENCE AS SOON AS PRACTICABLE BUT IN NO CASE MORE THAN 14 DAYS AFTER COMPLETION OF FILLING AND GRADING ACTIVITIES. AREAS WHICH ARE NOT TO FINAL GRADE BUT WILL NOT BE REWORKED FOR 14 CALENDAR DAYS SHALL BE TEMPORARILY SEEDED AND MULCHED AS SOON AS IT IS KNOWN WITH REASONABLE CERTAINTY THAT WORK WILL BE STOPPED FOR AT LEAST 14 CALENDAR DAYS.
3. CONSTRUCT TEMPORARY EROSION CONTROLS AS SHOWN ON THE DRAWINGS PRIOR TO STARTING WORK. THE SMALLEST PRACTICAL AREA OF LAND SHOULD BE EXPOSED AT ANY ONE TIME DURING CONSTRUCTION. WHEN LAND IS EXPOSED DURING CONSTRUCTION, THE EXPOSURE SHOULD BE KEPT TO THE SHORTEST PRACTICAL PERIOD OF TIME. LAND SHOULD NOT BE LEFT EXPOSED DURING THE WINTER MONTHS.
4. ALL DRAINAGE STRUCTURES (INCLUDING SWALES) IMPACTED BY THE CONTRACTOR'S ACTIVITIES SHALL BE INSPECTED WEEKLY AND DAILY DURING STORM EVENTS. INLET PROTECTION DEVICES SHOULD BE CLEANED OR REMOVED AND REPLACED BEFORE SIX INCHES OF SEDIMENT CAN ACCUMULATE.
5. SILT FENCE AND AUGMENTED SILT FENCE SHALL BE INSTALLED AND MAINTAINED WHERE SHOWN. ADDITIONAL PERIMETER CONTROLS SHALL BE ADDED AS REQUIRED BY THE ENGINEER PRIOR TO ANY ON SITE DISTURBANCE OF EXISTING SURFACE MATERIAL. SILT FENCE SHALL BE MAINTAINED DURING AND AFTER CONSTRUCTION TO REMOVE SEDIMENT FROM RUNOFF WATER AND FROM LAND UNDERGOING CONSTRUCTION. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN ITS DEPTH REACHES 50% OF THE HEIGHT OF THE FENCE. REPLACE DAMAGED SILT BARRIERS AS REQUIRED BY THE ENGINEER AND IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. WHERE POSSIBLE, NATURAL DRAINAGE WAYS SHOULD BE UTILIZED AND LEFT OPEN TO REMOVE CLEAN EXCESS SURFACE WATER.
6. ALL LOCATIONS OF TEMPORARY EROSION CONTROL DEVICES SHALL BE SUBJECT TO ADJUSTMENT AS DIRECTED BY THE ENGINEER, AND SHALL BE REPLACED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
7. TEMPORARY EROSION AND SEDIMENT CONTROL BMPS (INCLUDING ALL CONSTRUCTION ENTRANCES) SHALL BE REMOVED WITHIN 30 CALENDAR DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED OR AFTER THE TEMPORARY BMPS ARE NO LONGER NEEDED AS DETERMINED BY THE ENGINEER. TRAPPED SEDIMENT SHALL BE REMOVED OR STABILIZED ON SITE. DISTURBED SOIL RESULTING FROM REMOVAL OF BMPS OR VEGETATION SHALL BE PERMANENTLY STABILIZED (80% VEGETATION DENSITY).
8. CONTRACTOR SHALL VERIFY EXISTING ELEVATIONS AND INVERTS PRIOR TO BEGINNING WORK. ALL SLOPES SHALL HAVE A 3:1 MAXIMUM SLOPE AND A 20:1 MINIMUM SLOPE AS SHOWN ON THE DRAWINGS OR AS DIRECTED BY THE ENGINEER.
9. EXISTING CONTOUR LINES AND SPOT ELEVATIONS ARE THE RESULT OF FIELD SURVEY, GIS AND LiDAR DATA. SHOULD THE CONTRACTOR HAVE ANY QUESTIONS OF THEIR INTENT OR ANY PROBLEMS WITH CONTINUITY OF GRADES, THE ENGINEER SHALL BE CONTACTED PRIOR TO BEGINNING WORK.
10. STABILIZE ALL STOCKPILES AND ALL OTHER AREAS OF THE SITE THAT SHALL REMAIN UNDISTURBED FOR 14 CALENDAR DAYS OR MORE. TO ENSURE NO TARPS BECOME WIND BORNE AND ENTER AMTRAK AREAS (TRACKS OR SUBSTATION) ALL TARPS USED ON SITE MUST BE SECURED PROPERLY.
11. CONTRACTOR SHALL NOT LEAVE ANY OPEN HOLES WITH A DROP GREATER THAN 12" OVERNIGHT.
12. STORMWATER DRAINAGE SHALL BE CONTROLLED ONSITE, SUCH THAT THERE IS NO CHANNELIZED FLOW OF RUNOFF TOWARDS THE POND.
13. STABILIZED CONSTRUCTION EXITS SHALL BE INSTALLED AS SHOWN ON THE DRAWINGS AND WHEREVER CONSTRUCTION TRAFFIC ENTERS AND LEAVES THE SITE. EXISTING CONSTRUCTION EXITS SHALL BE INSPECTED AND MAINTAINED TO REFLECT REQUIREMENTS AS STATED IN THE CONTRACT DOCUMENTS.
14. THE EROSION CONTROL DEVICES SHOWN ON THE DRAWINGS AND AS SPECIFIED IN THE CONTRACT DOCUMENTS REPRESENT THE MINIMUM REQUIRED FOR EROSION CONTROL. THE CONTRACTOR SHALL ADD TO THESE DEVICES ANY AND ALL MEASURES AS REQUIRED BY THE ENGINEER TO EFFECTIVELY PREVENT EROSION AND MIGRATION OF SEDIMENT FROM THE WORK AREA.
15. ALL SURFICIAL FILL MATERIALS AND COVE SEDIMENTS TO BE CONSOLIDATED SHALL BE MANAGED AND STOCKPILED ONLY WITHIN THE PROPOSED LIMITS OF CAPPING. NO IMPACTED MATERIALS SHALL BE STOCKPILED OUTSIDE THE PROPOSED LIMITS OF THE CAP.
16. ALL INTERNAL HAUL TRUCKS CONSOLIDATING IMPACTED MATERIAL SHALL BE DECONTAMINATED PRIOR TO ACCESSING AREAS OUTSIDE OF THE LIMITS OF DISTURBANCE.
17. PRIVACY PANELS SHALL BE INSTALLED AND MAINTAINED ALONG THE PERIMETER CHAIN LINK FENCE AS SHOWN IN THE CONTRACT DOCUMENTS TO MINIMIZE DUST AND DISTURBANCE TO THE SURROUNDING COMMUNITY.
18. EROSION CONTROL MATTING SHALL BE INSTALLED ON ALL SLOPES 3:1 OR GREATER AND BELOW ALL PROPOSED STORMWATER MANAGEMENT DISCHARGES.

INNER COVE:

1. MATERIALS USED FOR ACCESS ROAD AND SEDIMENT COVER MUST BE IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS. ANY SEDIMENT OR SOIL REMOVAL REQUIRED TO CONSTRUCT OR MAINTAIN THE ACCESS ROAD SHALL BE MANAGED IN THE SAME MANNER AS INNER COVE SEDIMENT OR PHASE III SOILS.
2. TEMPORARY ACCESS ROAD SHALL BE REMOVED AFTER SEDIMENT REMOVAL AND INNER COVE CAP INSTALLATION IS COMPLETE. ALL SEDIMENT, WETLAND, AND SOIL AREAS IMPACTED BY THE ACCESS ROAD SHALL BE RESTORED ACCORDING TO SPECIFICATIONS FOR THE AREAS. CONTRACTOR MAY REUSE MATERIALS FROM ACCESS ROAD WITH ENGINEER'S APPROVAL AND IF MATERIALS MEET SPECIFICATIONS FOR THE SPECIFIC USE.
3. DEBRIS AND TRASH ENCOUNTERED IN INNER COVE SHALL BE REMOVED AND MANAGED ACCORDING TO THE WASTE MANAGEMENT SPECIFICATION. DEBRIS SHOULD BE CONSIDERED AS NON-SEDIMENT MATERIALS SUCH AS BROKEN CONCRETE, TIMBERS, AND TRASH. VEGETATION, ROOTS, AND TREE LIMBS MAY BE HANDLED SEPARATELY.
4. INNER COVE SEDIMENTS INCLUDE PARTICULATES FROM FORMER METALS MANUFACTURING, WITH PARTICLE DIAMETERS LESS THAN 3 INCHES. IF ENCOUNTERED, METALLIC OR STONE PARTICLES LARGER THAN 3 INCHES DIAMETER MAY BE CONSIDERED AS DEBRIS.
5. USE OF A TEMPORARY DAM AND SILT CURTAIN IS REQUIRED TO GREATLY REDUCE LOSSES OF SUSPENDED SOLIDS FROM THE INNER COVE DURING OR AFTER SEDIMENT REMOVAL TO THE OUTER COVE. ALTERNATIVE METHODS MUST DEMONSTRATE A SIMILAR DEGREE OF ACCESS TO THE INNER COVE AND TURBIDITY CONTROL IN THE OUTER COVE.
6. DEWATERING SHALL BE PERFORMED IN A MANNER THAT DOES NOT SIGNIFICANTLY DELAY REMOVAL OR PLACEMENT IN THE CONSOLIDATION CELL. HOLDING TIME OF SEDIMENTS IN THE DEWATERING AREA SHALL NOT EXCEED 14 DAYS. ANY USAGE OF ADMIXTURES OR COAGULANTS/FLOCCULANTS MUST MEET LOCAL, STATE, AND FEDERAL REQUIREMENTS.
7. CONTRACTOR SHALL MONITOR PROGRESS OF SEDIMENT REMOVAL, DEWATERING, AND PLACEMENT IN CONSOLIDATION CELL. CONTRACTOR SHALL REPORT CUMULATIVE VOLUMES REMOVED AND PLACED IN EACH UNIT AT A MINIMUM FREQUENCY OF ONCE PER WEEK AFTER SEDIMENT REMOVAL, OVER THE PERIOD IN WHICH REMOVAL HAS BEGUN, AND PRIOR TO THE PLACEMENT OF THE FINAL LOAD TO THE CONSOLIDATION CELL.
8. WATER MANAGEMENT IN THE DEWATERING AREA ALLOWS FOR INFILTRATION, BUT NOT RUNOFF OF WATER FROM SEDIMENT DEWATERING. EROSION CONTROL MEASURES MUST BE USED TO PREVENT EROSION OF PLACED SEDIMENTS TO AREAS OUTSIDE OF THE DEWATERING AREA. IF THE RATE OF INFILTRATION IS NOT ADEQUATE TO MEET THE WATER LOADINGS FROM DEWATERING, THE RATE OF DREDGING SHALL BE DECREASED UNTIL THE RATE OF INFILTRATION IS ACCEPTABLE. FRAC TANK STORAGE MAY ALSO BE USED TO BUFFER FLOW RATES AS NECESSARY DURING PERIODS OF HEAVIER DEWATERING OR RAINFALL EVENTS.
9. SEDIMENT REMOVAL IS EXPECTED TO BE PERFORMED WITH MECHANICAL DREDGING. ALTERNATIVE METHODS FOR REMOVAL MUST MEET APPROVAL OF ENGINEER. ACCESS ROAD MAY PROVIDE ONLY PARTIAL ACCESS TO INNER COVE AND CONTRACTOR IS RESPONSIBLE FOR DEVELOPING MEANS AND METHODS TO COMPLETE REMOVAL AND GAIN ACCESS TO ALL AREAS OF DREDGING. ALTHOUGH THE POND WILL BE LOWERED OVER A SIGNIFICANT PORTION OF THE INNER COVE AREA, SOME SEDIMENT AREAS ARE EXPECTED TO BE SOFT AND MAY BE UNABLE TO SUPPORT EXCAVATORS OR GRADERS. USE OF TIMBER MATS OR SPUDS ARE ACCEPTABLE, PROVIDED MATERIALS AND EQUIPMENT USED ARE CLEAN AND ARE REMOVED PRIOR TO COMPLETION OF INNER COVE PHASE OF WORK.

SUGGESTED CONSTRUCTION SEQUENCE:

1. ESTABLISH VERTICAL AND HORIZONTAL CONTROL.
2. INSTALL EROSION AND SEDIMENTATION CONTROL DEVISES AS SHOWN AND AS REQUIRED PRIOR TO SITE DISTURBANCE.
3. CLEAR AND GRUB TO THE LIMITS SHOWN ON THE PLANS AS DEPICTED BY THE 'LIMIT OF DISTURBANCE' LINE.

PARCEL C

1. REGRADE EXISTING SOILS TO PREPARE THE SUBGRADE ELEVATIONS AS SHOWN.
2. INSTALL CAPPING MATERIALS FOR COMPLETION OF THE PARCEL C UPLAND SOIL CAP.
3. SEED AND STABILIZE THE PARCEL C CAP.

INNER COVE

1. PREPARE PARCEL C-1 UPLAND AREA FOR DEWATERING TREATMENT SYSTEM AND SEDIMENT PROCESSING. IMPLEMENT WILD LIFE MANAGEMENT PLAN THEN INSTALL TURBIDITY CURTAIN.
2. INSTALL SHORING AND DEWATERING SYSTEM (PER CONTRACTOR SUBMITTED AND ENGINEER APPROVED METHOD).
3. INSTALL TEMPORARY GRAVEL ACCESS ROAD TO INNER COVE.
4. COMPLETE INNER COVE REMOVAL OF IMPACTED SEDIMENTS.
5. COMPLETE PROCESSING/DEWATERING/STABILIZATION OF DREDGED SEDIMENT.
6. CONSOLIDATE PROCESSED SEDIMENT WITHIN PROPOSED LIMITS AS SHOWN.
7. INSTALL CAPPING MATERIALS FOR COMPLETION OF THE INNER COVE SEDIMENT SOIL CAP.
8. REMOVE SHORING PER APPROVED METHOD FOR INNER COVE RESTORATION AND REMOVE TURBIDITY CURTAIN.
9. INSTALL CAPPING MATERIALS FOR COMPLETION OF THE CONSOLIDATED SEDIMENT SOIL CAP.
10. SEED AND STABILIZE THE CONSOLIDATED SEDIMENT CAP.

PARCEL C-1

1. REMOVE ALL INNER COVE SEDIMENT DEWATERING AND PROCESSING MATERIALS.
2. REGRADE EXISTING SOILS TO PREPARE THE SUBGRADE ELEVATIONS.
3. INSTALL CAPPING MATERIALS FOR COMPLETION OF THE PARCEL C-1 SOIL CAP.
4. SEED AND STABILIZE THE PARCEL C-1 CAP.
5. SITE RESTORATION AND CLEAN-UP.

PLAN REFERENCES:

1. PLAN PREPARED BY THE U.S. ARMY CORPS OF ENGINEERS, ENTITLED 'SEWER SYSTEM' DATED SEPTEMBER 1943 AND REVISED OCTOBER 1943 (AS-BUILT) ORIGINAL SCALE: 1" = 100'
2. SELECTED SITE FEATURES DIGITIZED FROM DIVERSIFIED TECHNOLOGY CONSULTANTS' FIGURE 7 TITLED 'BATTERY HAMILTON AND BORING/SAMPLING LOCATIONS' DATED AUGUST 8, 1999 FROM THE 'RESEARCH AND ASSESSMENT STUDY' DATED OCTOBER 2000.
3. WETLAND DELINEATION COMPLETED BY VANASSE HANGEN BRUSTLIN, INC. (VHB) DATED MAY 2004.
4. WETLAND DELINEATION REVIEWED IN THE FIELD BY RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT, DATED AUGUST 2011.
5. TOPOGRAPHIC (1-FOOT CONTOURS) AND LOCATION SURVEY COMPLETED BY CABCO CONSULT, INC.. PLAN TITLED 'TOPOGRAPHIC PLAN OF LAND' DATED MAY 24, 2007.
6. PARCEL B TOPOGRAPHY AND FIELD SURVEY COMPLETED BY EDWARD ROWSE ARCHITECTS. PLAN TITLED 'PROVIDENCE HIGH SCHOOL, GORHAM MILLS, PROVIDENCE RHODE ISLAND, SITE PLAN DATED 2007.
7. PARCEL A TOPOGRAPHY AND FIELD SURVEY COMPLETED BY VANASSE HANGEN BRUSTLIN, INC. (VHB). PLAN TITLED 'RETAIL DEVELOPMENT SITE PLAN' DATED 2001.
8. BATHYMETRIC CONTOURS OF MASHAPAUG COVE AND MASHAPAUG POND COMPLETED BY TG&B MARINE DATED DECEMBER, 2011.
9. AS-BUILT SURVEY OF PHASE I WORK COMPLETED BY E.T.&L. DATED NOVEMBER 2012.

ABBREVIATIONS:

AMTRAK	NATIONAL RAILROAD PASSENGER CORPORATION
APPROX	APPROXIMATELY
BMPs	BEST MANAGEMENT PRACTICES
CB	CATCH BASIN
℄	CENTER LINE
CONC	CONCRETE
DIA	DIAMETER
Ø	DIAMETER
E	EASTING, EAST
ELEV	ELEVATION
'	FEET
GPM	GALLONS PER MINUTE
LLDPE	LINEAR LOW DENSITY POLYETHYLENE
ID	IDENTIFICATION, INSIDE DIAMETER
"	INCHES
LF	LINEAR FEET
MAX	MAXIMUM
MH	MANHOLE
MIN	MINIMUM
MW	MONITORING WELL
N	NORTHING, NORTH
NBC	NARRAGANSETT BAY COMMISSION
NTS	NOT TO SCALE
OD	OUTSIDE DIAMETER
OZ	OUNCE
PPM	PARTS PER MILLION
PVC	POLYVINYL CHLORIDE
SB	SOIL BORING
SF	SQUARE FEET
TYP	TYPICAL

GENERAL LEGEND:

- 5 FT EXISTING CONTOUR
- 1 FT EXISTING CONTOUR
- EXISTING TREE LINE
- LARGE DIAMETER TREE (24"TREE)
- LIMIT OF WETLAND
- EDGE OF WATER
- 50' PERIMETER WETLAND LINE
- PROPERTY LINE
- EXISTING PAVEMENT
- EXISTING LIMIT OF SURFICIAL FILL
- EXISTING TURBIDITY CURTAIN (TC)
- EXISTING DRAIN LINE (D)
- EXISTING STRUCTURE
- EXISTING MONITORING WELL
- EXISTING SURFACE WATER AND SEDIMENT SAMPLE LOCATION
- EXISTING WELLS TO BE SAMPLED (BY OTHERS)
- EXISTING WELL TO BE ABANDONED
- EXISTING FENCE TO BE REMOVED
- EXISTING FENCE
- WETLAND FLAG (WF-199)
- EXISTING SOIL CAP
- EXISTING GEOMEMBRANE CAP
- PROPOSED 1FT CONTOUR (37)
- PROPOSED 5FT CONTOUR (35)
- PROPOSED TURBIDITY CURTAIN (TC)
- PROPOSED LIMIT OF DISTURBANCE (LOD)
- PROPOSED LIMIT OF WORK (LOW)
- PROPOSED SILT FENCE (SF)
- PROPOSED AUGMENTED SILT FENCE (ASF)
- PROPOSED GRAVEL ACCESS
- PROPOSED EDGE OF GRAVEL
- PROPOSED MONITORING WELL
- PROPOSED TREE LINE
- PROPOSED FRINGE WETLAND CAP
- PROPOSED PERIMETER WETLAND CAP
- PROPOSED UPLAND CAP
- PROPOSED INNER COVE CAP
- PROPOSED EROSION CONTROL MATTING FOR SLOPES 3:1
- DETAIL NUMBER (8) / SHEET NUMBER (C-502)

ISSUED FOR CONSTRUCTION

amec foster wheeler
AMEC FOSTER WHEELER ENVIRONMENT & INFRASTRUCTURE, INC.
271 MILL ROAD
CHELMSFORD MASSACHUSETTS 01824
TELEPHONE: (978) 692-9090
FAX: (978) 692-6633
WEB: WWW.AMECFW.COM

REVISION	DATE	ISSUE / REVISION DESCRIPTION	ISSUED BY	APPROVED
1	06/24/2015	ISSUED FOR CONSTRUCTION	DAA	RJB
0	05/11/2015	ISSUED FOR BID	DAA	RJB
A	04/24/2015	ISSUED FOR CLIENT REVIEW	DAA	RJB

PROJECT: TEXTRON, INC.
PHASE II, III, AND PARCEL C CAP
FORMER GORHAM MANUFACTURING SITE
PROVIDENCE, RI

TITLE: GENERAL NOTES, ABBREVIATIONS, AND LEGEND

CLIENT: TEXTRON

SEAL: ROBERT J. BUKOWSKI, No. 9217, REGISTERED PROFESSIONAL ENGINEER, 6/24/15

DESIGNED BY: DAA	DRAWN BY: DED
CHECKED BY: TD	SCALE: NONE

PROJECT NUMBER: 3652140032
DRAWING NUMBER: G-001
SHEET NUMBER: 1 OF 14

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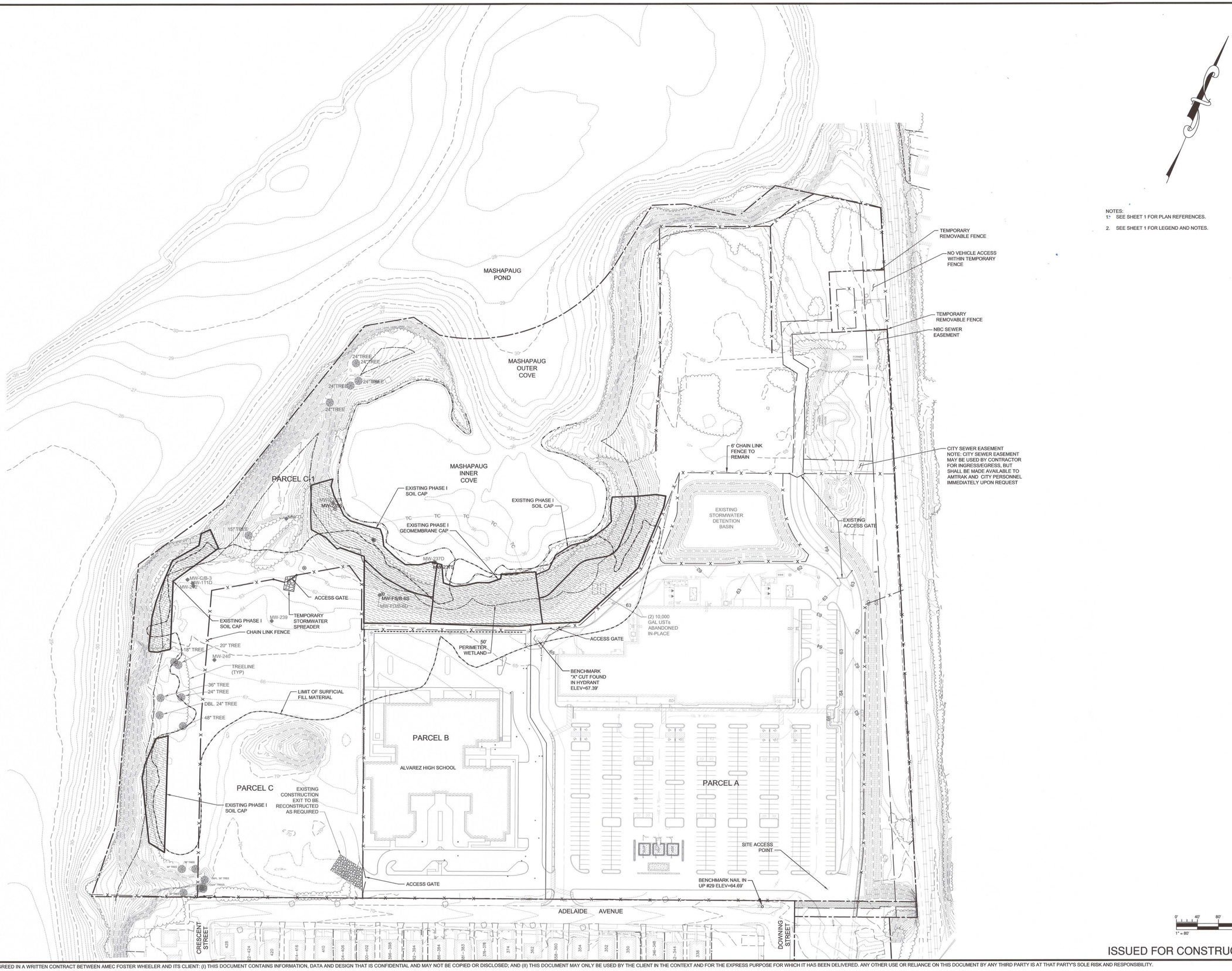

NOTES:
1. SEE SHEET 1 FOR PLAN REFERENCES.
2. SEE SHEET 1 FOR LEGEND AND NOTES.

ISSUED FOR CONSTRUCTION

amec foster wheeler
AMEC FOSTER WHEELER
ENVIRONMENT & INFRASTRUCTURE, INC.
271 MILL ROAD
CHELMSFORD MASSACHUSETTS 01824
TELEPHONE: (978) 692-9090
FAX: (978) 692-6633
WEB: WWW.AMECFW.COM

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A	04/24/2015	ISSUED FOR CLIENT REVIEW	DAA	RJB

PROJECT:
TEXTRON, INC.
PHASE II, III, AND PARCEL C CAP
FORMER GORHAM MANUFACTURING SITE
PROVIDENCE, RI

TITLE:
EXISTING CONDITIONS SITE PLAN

CLIENT:
TEXTRON

SEAL
ROBERT J. BUKOWSKI
No. 9217
REGISTERED PROFESSIONAL ENGINEER
CIVIL
6/24/15

DESIGNED BY:	DRAWN BY:
DAA	DED
CHECKED BY:	SCALE:
TD	AS SHOWN

PROJECT NUMBER: 3652140032
DRAWING NUMBER: C-001
SHEET NUMBER: 2 OF 14

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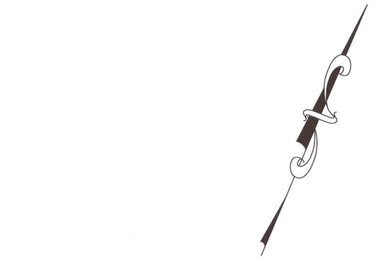

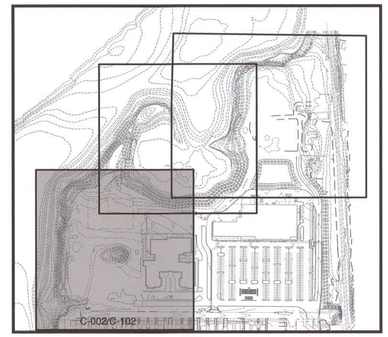

KEY
NOT TO SCALE

NOTES:
1. SEE SHEET 1 FOR PLAN REFERENCES.
2. SEE SHEET 1 FOR LEGEND AND NOTES.

0' 20' 40' 60'
1" = 40'

ISSUED FOR CONSTRUCTION

amec foster wheeler
AMEC FOSTER WHEELER
ENVIRONMENT & INFRASTRUCTURE, INC.
271 MILL ROAD
CHELMSFORD MASSACHUSETTS 01824
TELEPHONE: (978) 692-9090
FAX: (978) 692-6633
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PROJECT:
TEXTRON, INC.
PHASE II, III, AND PARCEL C CAP
FORMER GORHAM MANUFACTURING SITE
PROVIDENCE, RI

TITLE:
DEMOLITION, EROSION AND SEDIMENTATION CONTROL PLAN
SHEET 1 OF 3

CLIENT:
TEXTRON

SEAL:
ROBERT J. BUKOWSKI
No. 9217
REGISTERED PROFESSIONAL ENGINEER
CIVIL
6/24/15

DESIGNED BY: DAA	DRAWN BY: DED
CHECKED BY: TD	SCALE: AS SHOWN
PROJECT NUMBER: 3652140032	
DRAWING NUMBER: C-002	
SHEET NUMBER: 3 OF 14	

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MASHAPAUG POND

MASHAPAUG OUTER COVE

MASHAPAUG INNER COVE

PARCEL C-1

PARCEL C-1 (PHASE II AREA)

PARCEL C-1 (PHASE III AREA)

WF-124 WF-125 WF-126 WF-127 WF-128 WF-129 WF-130 WF-131 WF-132 WF-133 WF-134 WF-135 WF-136 WF-137 WF-138 WF-139 WF-140 WF-141 WF-142 WF-143 WF-144 WF-145 WF-146 WF-147 WF-148 WF-149 WF-150 WF-151 WF-152 WF-153 WF-154 WF-155 WF-156 WF-157 WF-158 WF-159 WF-160 WF-161 WF-162 WF-163 WF-164 WF-165 WF-166 WF-167 WF-168 WF-169 WF-170 WF-171 WF-172 WF-173 WF-174 WF-175 WF-176 WF-177 WF-178 WF-179 WF-180 WF-181 WF-182 WF-183 WF-184 WF-185 WF-186 WF-187 WF-188 WF-189 WF-190 WF-191 WF-192 WF-193 WF-194 WF-195 WF-196

MW-235D MW-235S MW-236D MW-236S MW-237D MW-237S MW-231D MW-231S MW-232D MW-232D MW-233 MW-241 MW-239 MW-D MW-FS/B-6S MW-FD/B-6D MW-GZA3 MW-1090 MW-GZA6/CW-4 GZ-4

SED/SW33 SED/SW34

24"TREE 24"TREE 24"TREE 24"TREE

2 C-501 SILT FENCE

5 C-501 AUGMENTED SILT FENCE

7 C-501 PROPOSED TURBIDITY CURTAIN

EXISTING TURBIDITY CURTAIN TO BE REMOVED AND DISPOSED OF BY CONTRACTOR

50' PERIMETER WETLAND

EDGE OF WATER

CHAIN LINK FENCE TO BE REMOVED

TEMPORARY STORMWATER SPREADER

CHAIN LINK GATE TO BE REMOVED

3' WOOD GUARDRAIL (TYP)

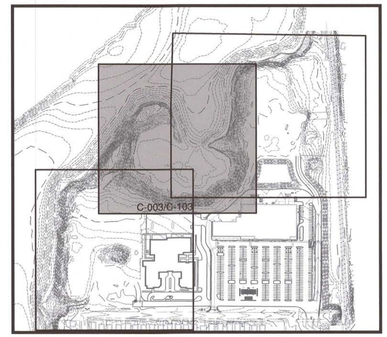
CHAIN LINK FENCE TO REMAIN

CHAIN LINK FENCE TO REMAIN AND INSTALL PRIVACY FABRIC

EXISTING STORMWATER DETENTION BASIN DISCHARGE TO BE PLUGGED DURING COVE DEWATERING, DREDGING, AND CAP INSTALLATION ACTIVITIES. CONTRACTOR TO MANAGE STORMWATER WITHIN DETENTION BASIN USING TEMPORARY SUBMERSIBLE PUMPS AS DIRECTED BY ENGINEER. DISCHARGE SHALL BE WITHIN PROPOSED TURBIDITY CURTAIN AND DISPERSED TO AVOID DISTURBANCE OF POND SEDIMENT.

(2) 10,000 GAL USTs ABANDONED IN-PLACE

LIMIT OF SURFICIAL FILL MATERIAL



KEY
NOT TO SCALE

NOTES:
1. SEE SHEET 1 FOR PLAN REFERENCES.
2. SEE SHEET 1 FOR LEGEND AND NOTES.

0' 20' 40' 60'
1" = 40'

ISSUED FOR CONSTRUCTION

amec foster wheeler
AMEC FOSTER WHEELER
ENVIRONMENT & INFRASTRUCTURE, INC.
271 MILL ROAD
CHELMSFORD MASSACHUSETTS 01824
TELEPHONE: (978) 692-9090
FAX: (978) 692-6633
WEB: WWW.AMECFW.COM

REVISION	DATE	ISSUE / REVISION DESCRIPTION	ISSUED BY	APPROVED
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A	04/24/2015	ISSUED FOR CLIENT REVIEW	DAA	RJB

PROJECT:
TEXTRON, INC.
PHASE II, III, AND PARCEL C CAP
FORMER GORHAM MANUFACTURING SITE
PROVIDENCE, RI

TITLE:
DEMOLITION, EROSION AND SEDIMENTATION CONTROL PLAN
SHEET 2 OF 3

CLIENT:
TEXTRON

SEAL:
ROBERT J. BUKOWSKI
No. 9217
REGISTERED PROFESSIONAL ENGINEER
CIVIL
6/24/15

DESIGNED BY: DAA	DRAWN BY: DED
CHECKED BY: TD	SCALE: AS SHOWN

PROJECT NUMBER: 3652140032
DRAWING NUMBER: C-003
SHEET NUMBER: 4 OF 14

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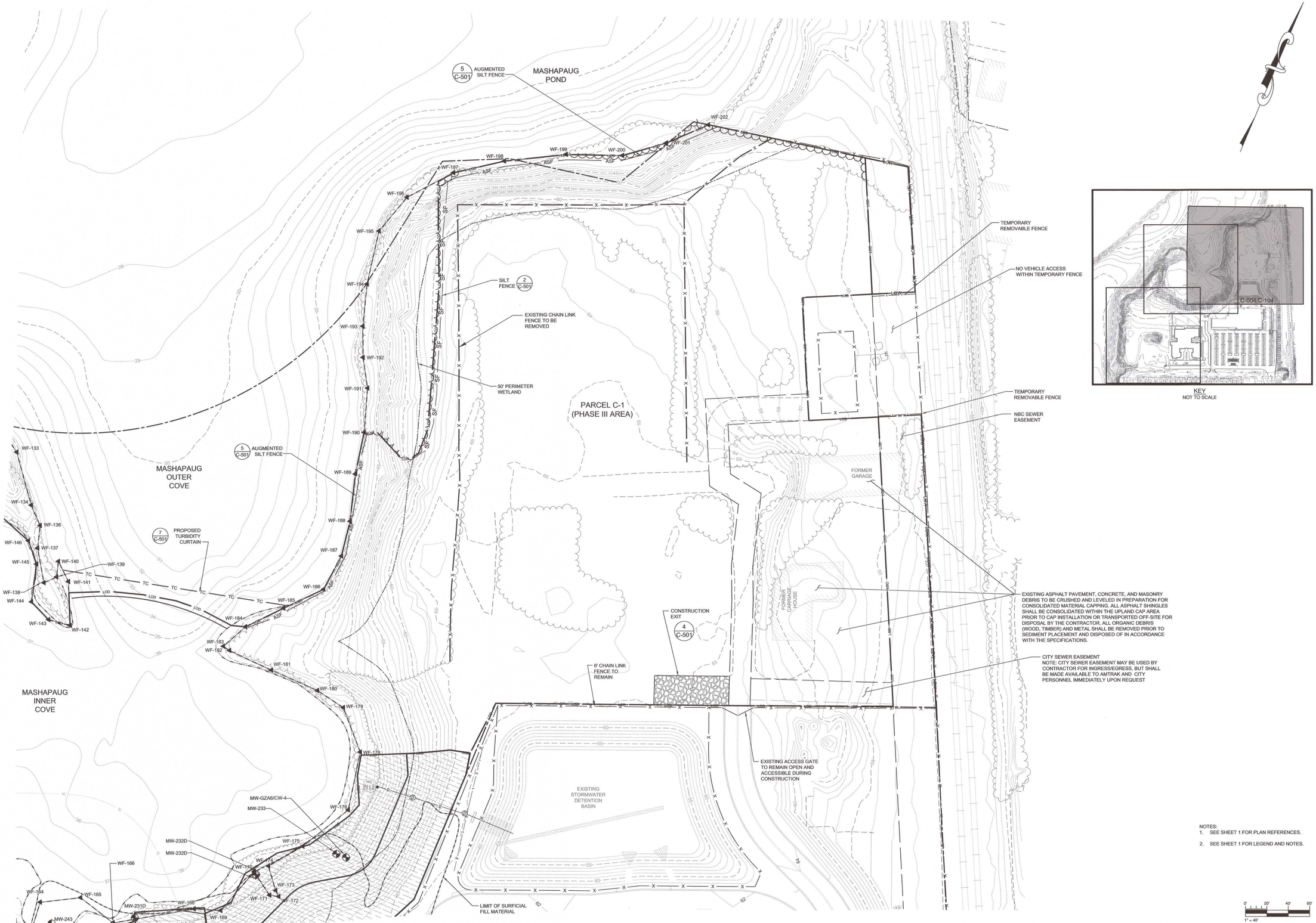

NOTES:
1. SEE SHEET 1 FOR PLAN REFERENCES.
2. SEE SHEET 1 FOR LEGEND AND NOTES.

ISSUED FOR CONSTRUCTION

amec foster wheeler

AMEC FOSTER WHEELER
ENVIRONMENT & INFRASTRUCTURE, INC.
271 MILL ROAD
CHELMSFORD MASSACHUSETTS 01824
TELEPHONE: (978) 692-9090
FAX: (978) 692-6633
WEB: WWW.AMECFW.COM

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1	05/21/2015		DAA	RJB
0	05/11/2015	ISSUED FOR BID	DAA	RJB
A	04/24/2015	ISSUED FOR CLIENT REVIEW	DAA	RJB

PROJECT:
TEXTRON, INC.
PHASE II, III, AND PARCEL C CAP
FORMER GORHAM MANUFACTURING SITE
PROVIDENCE, RI

TITLE:
DEMOLITION, EROSION AND SEDIMENTATION CONTROL PLAN
SHEET 3 OF 3

CLIENT:
TEXTRON

SEAL:
ROBERT J. BUKOWSKI
No. 9217
REGISTERED PROFESSIONAL ENGINEER
CIVIL
6/24/15

DESIGNED BY: DAA	DRAWN BY: DED
CHECKED BY: TD	SCALE: AS SHOWN
PROJECT NUMBER: 3652140032	
DRAWING NUMBER: C-004	
SHEET NUMBER: 5 OF 14	

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INSET
NOT TO SCALE

MASHAPAUG
OUTER
COVE

MASHAPAUG
INNER COVE

PROPOSED
TEMPORARY DAM
DESIGN BY OTHERS

SED/SW33

SED/SW34

LIMIT OF SEDIMENT DREDGING TO BE
PRE-REMEDIATION EDGE OF WATER AS
SHOWN OR 39' ELEVATION WHERE INFERRED

CONTOURS SHOWN ARE BOTTOM
OF SEDIMENT REMOVAL

TEMPORARY DREDGE MATERIAL
STAGING AND LOADING

TEMPORARY DEWATERING
AND INFILTRATION GALLERIES

CONTRACTOR
STAGING

TEMPORARY
FRAC TANK
STAGING

FORMER
GARAGE

FORMER
CARRIAGE
HOUSE

DREDGE MATERIAL
CONSOLIDATION
AND CAPPING AREA

TEMPORARY DREDGE
MATERIAL STAGING AND
PROCESSING

TEMPORARY GRAVEL
ACCESS ROAD
6
C-501

CONSTRUCTION EXIT

EXISTING
STORMWATER
DETENTION
BASIN

(2) 10,000
GAL USTs
ABANDONED
IN-PLACE

EXISTING PHASE I CAP AREAS ARE NOT TO
BE DISTURBED DURING CONSTRUCTION

EXISTING STORMWATER DETENTION BASIN DISCHARGE TO
BE PLUGGED DURING COVE DEWATERING, DREDGING, AND
CAP INSTALLATION ACTIVITIES. CONTRACTOR TO MANAGE
STORMWATER WITHIN DETENTION BASIN USING TEMPORARY
SUBMERSIBLE PUMPS AS DIRECTED BY ENGINEER.
DISCHARGE SHALL BE WITHIN PROPOSED TURBIDITY
CURTAIN AND DISPERSED TO AVOID DISTURBANCE OF POND
SEDIMENT.

NOTES:

1. CONTRACTOR MUST MANAGE DEWATERING RATES WITH AVAILABLE INFILTRATION AREA TO PREVENT EXCESSIVE PONDING OR OVERFLOW.
2. FRAC TANKS MAY BE USED TO PROVIDE ADDITIONAL STORAGE TO BALANCE INFILTRATION RATES DURING TIMES OF PEAK WATER GENERATION.
3. DURING CONSTRUCTION, ADDITIONAL DEWATERING TREATMENT MAY BE REQUIRED TO MEET TOTAL SUSPENDED SOLIDS AND TOTAL PETROLEUM HYDROCARBON LIMITATIONS UNDER TEMPORARY DISCHARGE PERMIT.
4. CONFIGURATION OF INFILTRATION GALLERIES, FRAC TANKS AND MATERIAL PROCESSING AREA MAY BE ADJUSTED BASED UPON ENGINEER APPROVED CONTRACTOR PLANS.
5. SEE SHEET 1 FOR PLAN REFERENCES.
6. SEE SHEET 1 FOR LEGEND AND NOTES.

TABLE 1: KEY SEDIMENT ELEVATIONS AND FINISH GRADES

Point #	Description	Northing	Easting	Existing Elev.[2]	Bottom Elev. of Removal	Finish Grade Elev. of Sand Cap	Bottom Elev. of Organic Material[1]
520	SED29	259774	347006	36.6	34.6	35.6	<32.6
515	SED/SW26	259807	347125	36.8	35.3	36.3	35.27
523	SED32	259763	347053	37.3	35.5	36.5	34.8
518	SED/SW34	260010	347029	34.9	33.9	34.9	33.9
513	SED/SW24	259794	346957	36.5	34.5	35.5	32.5
521	SED30	259754	347002	37.6	35.6	36.6	31.1
516	SED/SW27	259918	347010	35.8	33.8	34.8	33.5
519	SED28	259814	347040	36.6	34.6	35.6	<31.1
514	SED/SW25	259780	347048	36.5	34.5	35.5	<31.45
522	SED31	259754	347024	37.5	35.5	36.5	34.6
517	SED/SW33	259999	346987	34.6	33.6	34.6	33.6
505	SED/SW16	259929	346906	36.8	34.8	35.8	34.7
506	SED/SW17	259964	347082	36.6	35.6	36.6	36.1
507	SED/SW18	259867	346811	36.5	34.5	35.5	32.3
508	SED/SW19	259866	347056	35.9	33.9	34.9	31.3
509	SED/SW20	259930	347182	36.7	34.7	35.7	<34.2
510	SED/SW21	259876	346733	36.9	35.6	36.6	35.6
511	SED/SW22	259790	346785	36.8	34.8	35.8	33.8
512	SED/SW23	259763	346878	36.8	34.8	35.8	34.8

NOTES:
1. BOTTOM ELEVATION OF ORGANIC MATERIAL IS BASED ON THE EXISTING SEDIMENT BORING LOGS PROVIDED IN THE CONTRACT DOCUMENTS.
2. EXISTING ELEVATIONS ARE INTERPOLATED BASED UPON THE 2011 BATHYMETRIC SURVEY COMPLETED BY TG&B MARINE. ACTUAL ELEVATIONS AT THESE LOCATIONS WILL VARY FROM THOSE PROVIDED ON THIS TABLE AND THE CONTRACTOR SHALL VERIFY ALL ELEVATIONS, AND SUBMIT TO ENGINEER, PRIOR TO CONDUCTING THE WORK.

0' 20' 40' 60'
1" = 40'

ISSUED FOR CONSTRUCTION

amec foster wheeler
AMEC FOSTER WHEELER
ENVIRONMENT & INFRASTRUCTURE, INC.
271 MILL ROAD
CHELMSFORD MASSACHUSETTS 01824
TELEPHONE: (978) 692-9090
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0	05/11/2015	ISSUED FOR BID	DAA	RJB
A	04/24/2015	ISSUED FOR CLIENT REVIEW	DAA	RJB

PROJECT:
TEXTRON, INC.
PHASE II, III, AND PARCEL C CAP
FORMER GORHAM MANUFACTURING SITE
PROVIDENCE, RI

TITLE:
TEMPORARY DEWATERING, EXCAVATION AND MATERIAL STAGING PLAN

CLIENT:
TEXTRON

SEAL:
ROBERT J. BUKOWSKI
No. 9217
REGISTERED
PROFESSIONAL ENGINEER
CIVIL
6/24/15

DESIGNED BY: DAA	DRAWN BY: DED
CHECKED BY: TD	SCALE: AS SHOWN
PROJECT NUMBER: 3652140032	
DRAWING NUMBER: C-101	
SHEET NUMBER: 6 OF 14	

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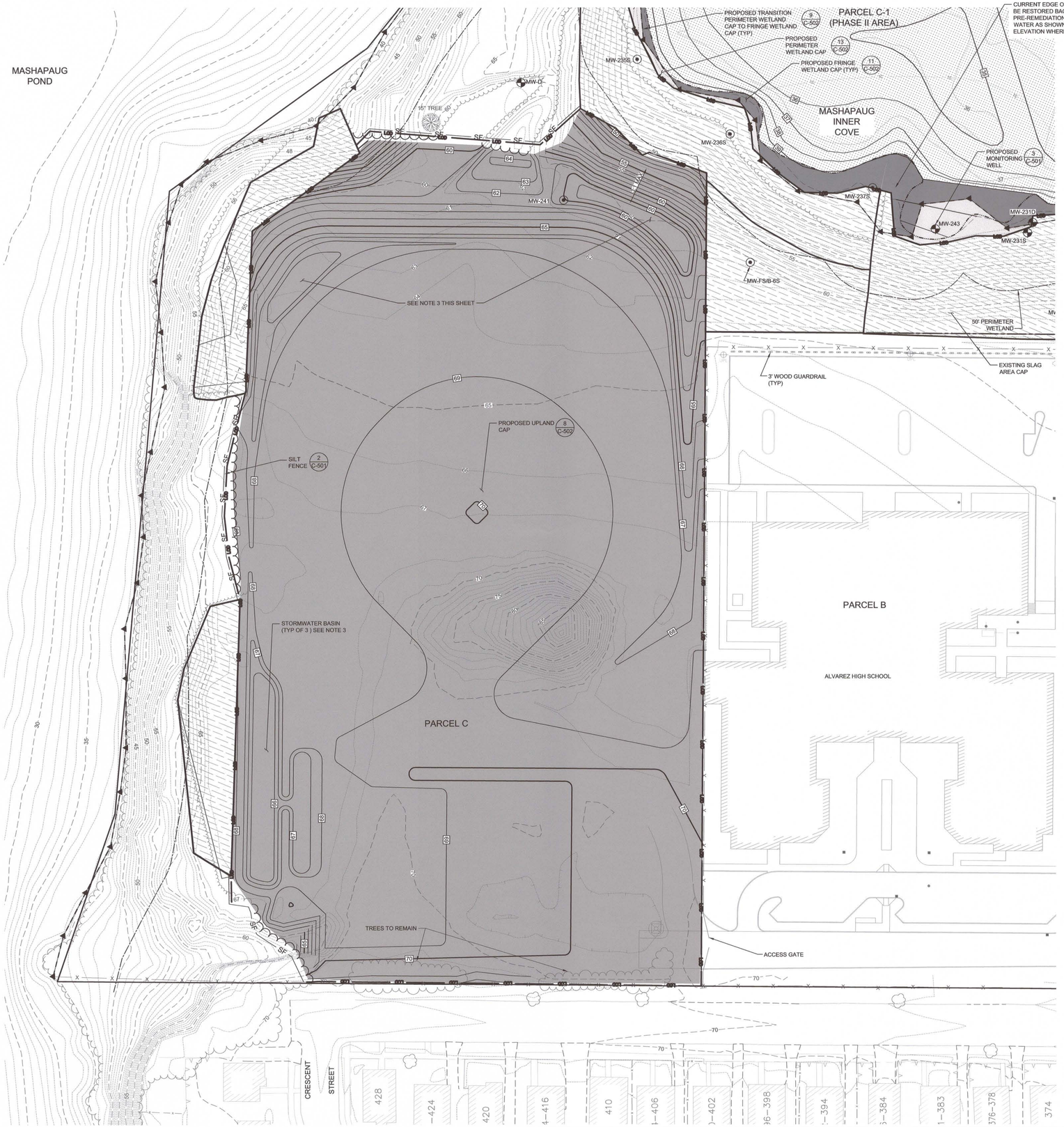

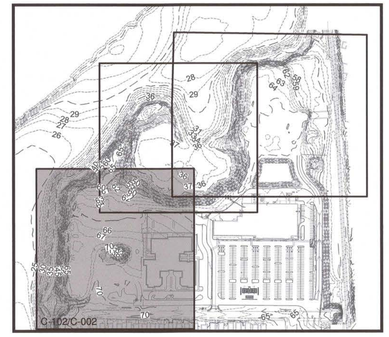

INSET
NOT TO SCALE

NOTES:
1. SEE SHEET 1 FOR PLAN REFERENCES.
2. SEE SHEET 1 FOR LEGEND AND NOTES.
3. MINIMUM OF 5 FEET OF CLEAN MATERIAL REQUIRED BELOW FINAL SURFACE ELEVATION IN STORMWATER BASINS (INCLUDING SIDEWALL BERMS).

0' 20' 40' 60'
1" = 40'

ISSUED FOR CONSTRUCTION

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AMEC FOSTER WHEELER
ENVIRONMENT & INFRASTRUCTURE, INC.
271 MILL ROAD
CHELMSFORD MASSACHUSETTS 01824
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0	05/11/2015	ISSUED FOR BID	DAA	RJB
A	04/24/2015	ISSUED FOR CLIENT REVIEW	DAA	RJB

PROJECT:
TEXTRON, INC.
PHASE II, III, AND PARCEL C CAP
FORMER GORHAM MANUFACTURING SITE
PROVIDENCE, RI

TITLE:
PROPOSED SITE PLAN
SHEET 1 OF 3

CLIENT:
TEXTRON

SEAL:
ROBERT J. BUKOWSKI
No. 9217
REGISTERED PROFESSIONAL ENGINEER
CIVIL
6/24/15

DESIGNED BY:	DRAWN BY:
DAA	DED
CHECKED BY:	SCALE:
TD	AS SHOWN

PROJECT NUMBER: 3652140032
DRAWING NUMBER: C-102
SHEET NUMBER: 7 OF 14

NOTES:
1. SEE SHEET 1 FOR PLAN REFERENCES.
2. SEE SHEET 1 FOR LEGEND AND NOTES.

ISSUED FOR CONSTRUCTION

amec foster wheeler
AMEC FOSTER WHEELER
ENVIRONMENT & INFRASTRUCTURE, INC.
271 MILL ROAD
CHELMSFORD MASSACHUSETTS 01824
TELEPHONE: (978) 692-9090
FAX: (978) 692-6633
WEB: WWW.AMECFW.COM

REVISION	DATE	ISSUE / REVISION DESCRIPTION	ISSUED BY	APPROVED
1	06/24/2015	ISSUED FOR CONSTRUCTION	DAA	RJB
0	05/21/2015	ADDENDUM 1	DAA	RJB
A	05/11/2015	ISSUED FOR BID	DAA	RJB
	04/24/2015	ISSUED FOR CLIENT REVIEW	DAA	RJB

PROJECT: TEXTRON, INC.
PHASE II, III, AND PARCEL C CAP
FORMER GORHAM MANUFACTURING SITE
PROVIDENCE, RI

TITLE: PROPOSED SITE PLAN
SHEET 2 OF 3

CLIENT: TEXTRON

SEAL: ROBERT J. BUKOWSKI No. 9217 REGISTERED PROFESSIONAL ENGINEER CIVIL 6/24/15

DESIGNED BY: DAA	DRAWN BY: DED
CHECKED BY: TD	SCALE: AS SHOWN

PROJECT NUMBER: 3652140032

DRAWING NUMBER: C-103

SHEET NUMBER: 8 OF 14

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MASHAPAUG POND

MASHAPAUG OUTER COVE

MASHAPAUG INNER COVE

PARCEL C-1 (PHASE III AREA)

PARCEL C-1 (PHASE III AREA)

13 C-502 PROPOSED PERIMETER WETLAND CAP (TYP)

12 C-502 PROPOSED PERIMETER WETLAND CAP TOE (TYP)

PROPOSED UPLAND CAP (TYP) 8 C-502

10 C-502 UPLAND SOIL CAP TO PERIMETER WETLAND CAP (TYP)

5 C-501 AUGMENTED SILT FENCE

PROPOSED TURBIDITY CURTAIN 7 C-501

PROPOSED MONITORING WELL 3 C-501

10 C-502 PROPOSED TRANSITION UPLAND SOIL CAP TO PERIMETER WETLAND CAP

11 C-502 PROPOSED FRINGE WETLAND CAP

PROPOSED TRANSITION PERIMETER WETLAND CAP TO FRINGE CAP 19 C-502

MW-GZA6/CW-4

MW-233

MW-232D

MW-232D

MW-231D

MW-243

6' CHAIN LINK FENCE TO REMAIN

EXISTING STORMWATER DETENTION BASIN

EXISTING STORMWATER DETENTION BASIN DISCHARGE TO BE RESTORED

TEMPORARY REMOVABLE FENCE

NO VEHICLE ACCESS WITHIN TEMPORARY FENCE

AMTRAK MAINTENANCE FACILITY

AMTRAK OVERHEAD ELECTRIC (APPROXIMATE LOCATION)

TEMPORARY REMOVABLE FENCE

NBC SEWER EASEMENT

PLACE OVERSIZED BOULDERS/ROCKS FROM PARCEL C AND PHASE III AREA ALONG EDGE OF ACCESS ROAD AS BARRIER TO VEHICLES.

AMTRAK ACCESS ROAD EASEMENT TO REMAIN OPEN AND ACCESSIBLE DURING CONSTRUCTION

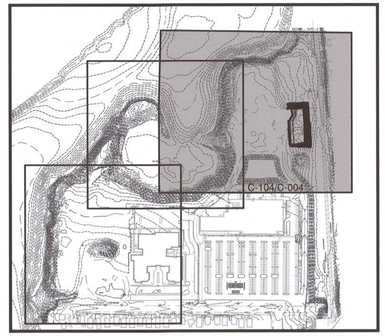
PROPOSED UPLAND SOIL CAP 8 C-502

INNER COVE SEDIMENT PLACEMENT AREA. DEWATERING AND AMENDED SEDIMENTS MEETING TESTING REQUIREMENTS SHALL BE PLACED AND COMPACTED IN LIFTS ABOVE PREPARED SUBGRADE. FINAL SIDE SLOPE OF AREA TO BE 3H:1V MAX.

PLACE OVERSIZED BOULDERS/ROCKS FROM PARCEL C AND PHASE III AREA ALONG EDGE OF ACCESS ROAD AS BARRIER TO VEHICLES.

CITY SEWER EASEMENT
NOTE: CITY SEWER EASEMENT MAY BE USED BY CONTRACTOR FOR INGRESS/EGRESS, BUT SHALL BE MADE AVAILABLE TO AMTRAK AND CITY PERSONNEL IMMEDIATELY UPON REQUEST

EXISTING ACCESS GATE TO REMAIN OPEN AND ACCESSIBLE DURING CONSTRUCTION



INSET
NOT TO SCALE

NOTES:
1. SEE SHEET 1 FOR PLAN REFERENCES.
2. SEE SHEET 1 FOR LEGEND AND NOTES.

0' 20' 40' 60'
1" = 40'

ISSUED FOR CONSTRUCTION

amec foster wheeler
AMEC FOSTER WHEELER
ENVIRONMENT & INFRASTRUCTURE, INC.
271 MILL ROAD
CHELMSFORD MASSACHUSETTS 01824
TELEPHONE: (978) 692-9090
FAX: (978) 692-6633
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A	04/24/2015	ISSUED FOR CLIENT REVIEW	DAA	RJB

PROJECT:
TEXTRON, INC.
PHASE II, III, AND PARCEL C CAP
FORMER GORHAM MANUFACTURING SITE
PROVIDENCE, RI

TITLE:
PROPOSED SITE PLAN
SHEET 3 OF 3

CLIENT:
TEXTRON

SEAL:
ROBERT J. BUKOWSKI
No. 9217
REGISTERED PROFESSIONAL ENGINEER
CIVIL
6/24/15

DESIGNED BY: DAA	DRAWN BY: DED
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PROJECT NUMBER: 3652140032	
DRAWING NUMBER: C-104	
SHEET NUMBER: 9 OF 14	

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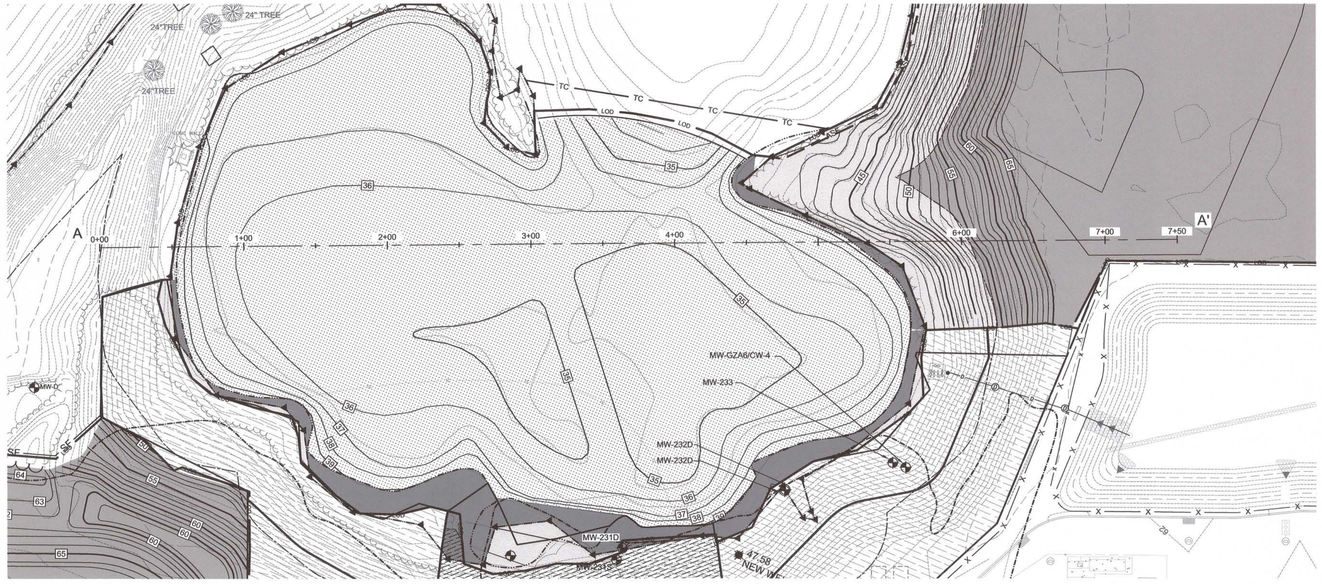
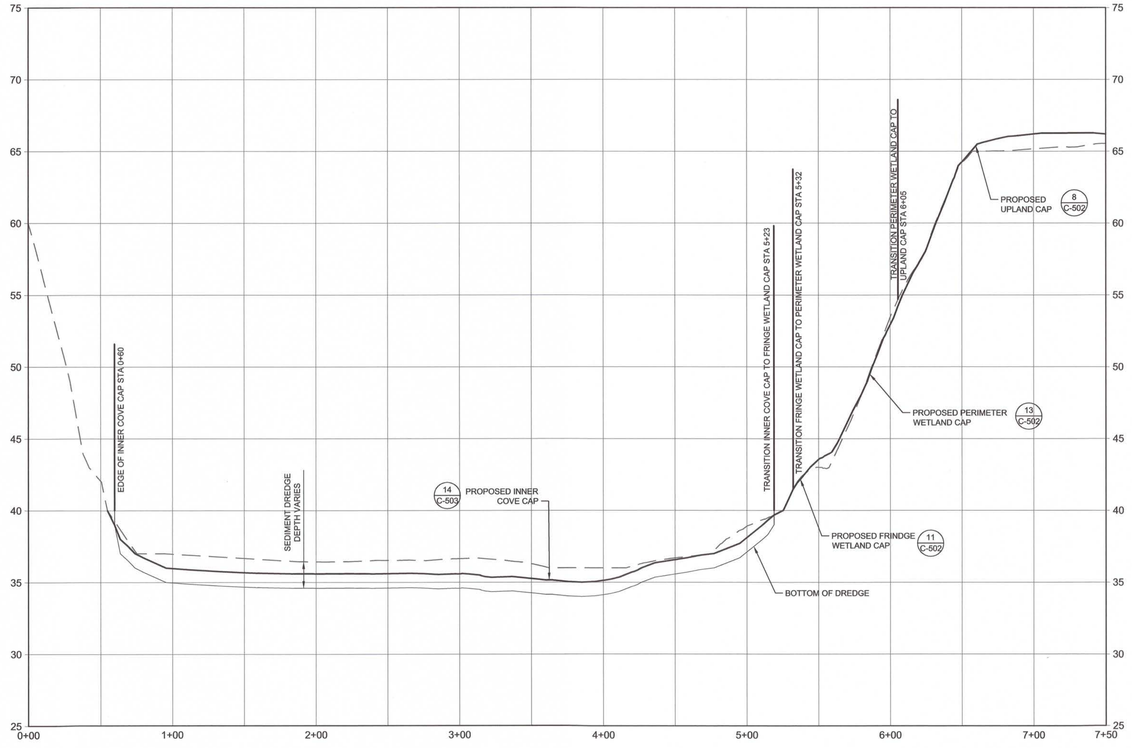


PLAN VIEW PROFILE A-A'

SCALE: 1" = 50'



PROFILE A-A'

HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 5'

0' 2.5' 5.0' 7.5'
VERTICAL SCALE: 1" = 5'

0' 25' 50' 75'
HORIZONTAL SCALE: 1" = 50'

ISSUED FOR CONSTRUCTION

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AMEC FOSTER WHEELER
ENVIRONMENT & INFRASTRUCTURE, INC.
271 MILL ROAD
CHELMSFORD MASSACHUSETTS 01824
TELEPHONE: (978) 692-9090
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PROJECT:
TEXTRON, INC.
PHASE II, III, AND PARCEL C CAP
FORMER GORHAM MANUFACTURING SITE
PROVIDENCE, RI

TITLE:
PLAN AND PROFILE A-A'

CLIENT:
TEXTRON

SEAL:
ROBERT J. BUKOWSKI
No. 9217
REGISTERED
PROFESSIONAL ENGINEER
CIVIL
6/24/15

DESIGNED BY:	DRAWN BY:
DAA	DED
CHECKED BY:	SCALE:
TD	AS SHOWN

PROJECT NUMBER: 3652140032

DRAWING NUMBER: C-301

SHEET NUMBER: 10 OF 14

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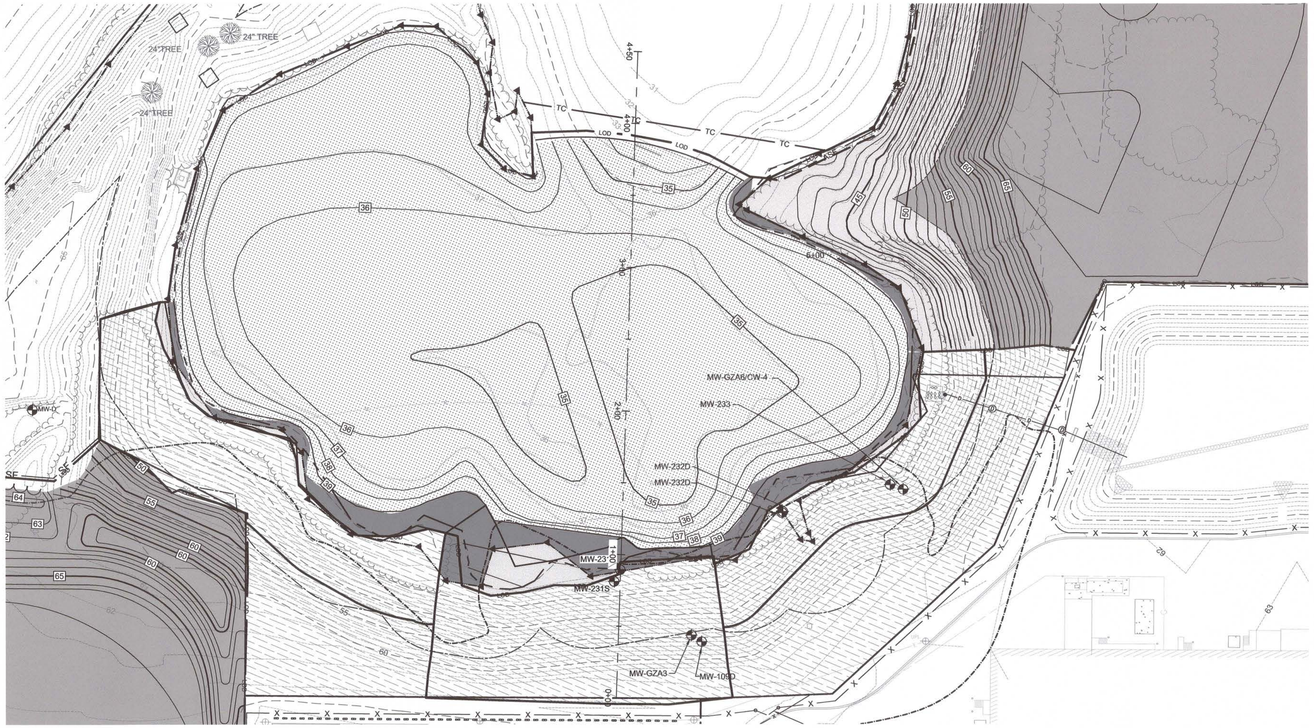
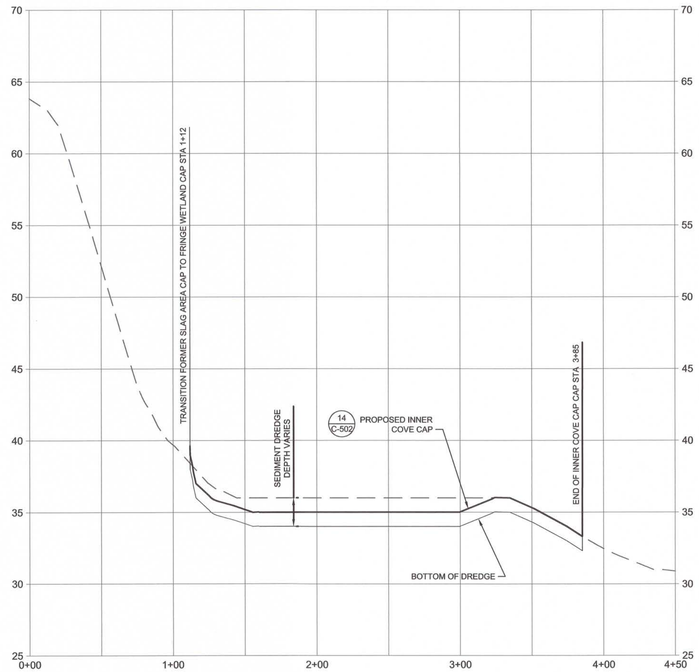


PLAN VIEW PROFILE B-B'
SCALE: 1" = 50'



PROFILE B-B'
HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 5'

0' 2.5' 5.0' 7.5'
VERTICAL SCALE: 1" = 5'

0' 25' 50' 75'
HORIZONTAL SCALE: 1" = 50'

ISSUED FOR CONSTRUCTION

amec foster wheeler
AMEC FOSTER WHEELER
ENVIRONMENT & INFRASTRUCTURE, INC.
271 MILL ROAD
CHELMSFORD MASSACHUSETTS 01824
TELEPHONE: (978) 692-9090
FAX: (978) 692-6633
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PROJECT:
TEXTRON, INC.
PHASE II, III, AND PARCEL C CAP
FORMER GORHAM MANUFACTURING SITE
PROVIDENCE, RI

TITLE:
PLAN AND PROFILE B-B'

CLIENT:
TEXTRON

SEAL:
ROBERT J. BUKOWSKI
No. 9217
REGISTERED PROFESSIONAL ENGINEER
CIVIL
6/24/15

DESIGNED BY: DAA	DRAWN BY: DED
CHECKED BY: TD	SCALE: AS SHOWN
PROJECT NUMBER: 3652140032	
DRAWING NUMBER: C-302	
SHEET NUMBER: 11 OF 14	

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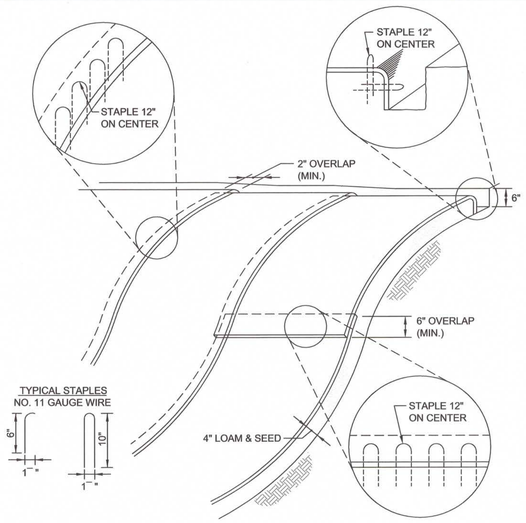
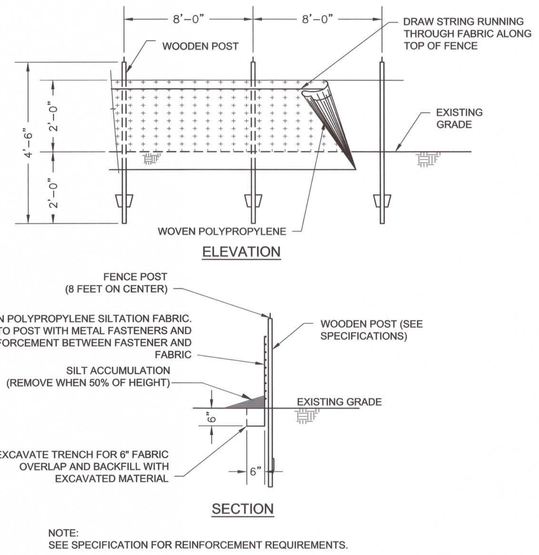


NOTES:

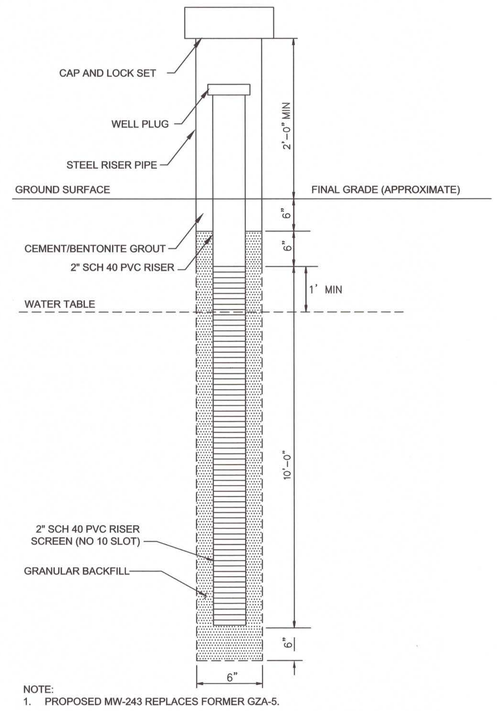
1. BEGIN AT THE TOP OF MATTING INSTALLATION AREA BY ANCHORING MATTING IN A 6" DEEP TRENCH BACKFILL AND COMPACT TRENCH AFTER STAPLING.
2. ROLL THE MATTING DOWN THE SWALE IN THE DIRECTION OF THE WATER FLOW.
3. THE EDGES OF MATTINGS MUST BE STAPLED WITH A MINIMUM OF 4 INCH OVERLAP WHERE 2 OR MORE STRIP WIDTHS ARE REQUIRED.
4. WHEN MATTINGS MUST BE SPLICED DOWN THE SWALE, PLACE MATTING END OVER END WITH 6 INCH (MIN) OVERLAP AND ANCHOR DOWN SLOPE MATTING IN A 6 INCH DEEP TRENCH.

EROSION CONTROL MATTING SLOPE INSTALLATION (1)
NTS



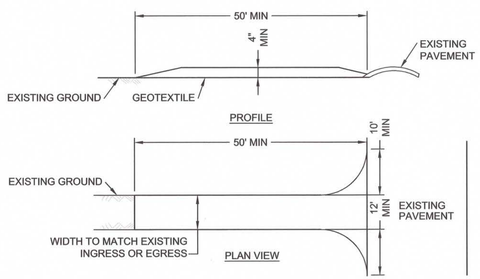
NOTE:
SEE SPECIFICATION FOR REINFORCEMENT REQUIREMENTS.

SILT FENCE (2)
NTS



NOTE:
1. PROPOSED MW-243 REPLACES FORMER GZA-5.

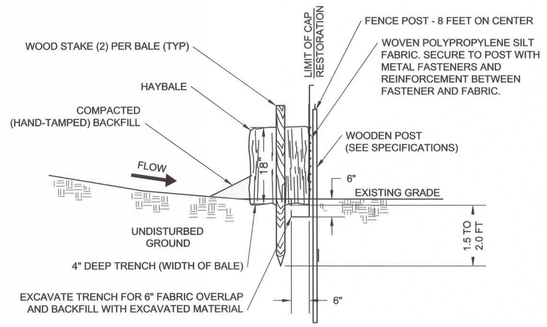
TYPICAL MONITORING WELL INSTALLATION (3)
NTS



CONSTRUCTION SPECIFICATIONS:

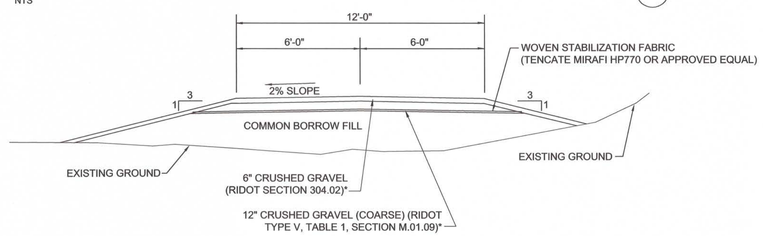
1. STONE SIZE - USE 2 INCH CRUSHED STONE OR GRAVEL.
2. LENGTH - NOT LESS THAN 50 FEET.
3. THICKNESS - NOT LESS THAN FOUR (4) INCHES.
4. WIDTH - TWELVE (12) FEET MINIMUM, BUT NOT LESS THAN THE THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. TWENTY-FOUR (24) FEET IF SINGLE ENTRANCE TO SITE.
5. GEOTEXTILE - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
6. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY, ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
8. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND REQUIRED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN EVENT.

STABILIZED CONSTRUCTION EXIT (5)
NTS



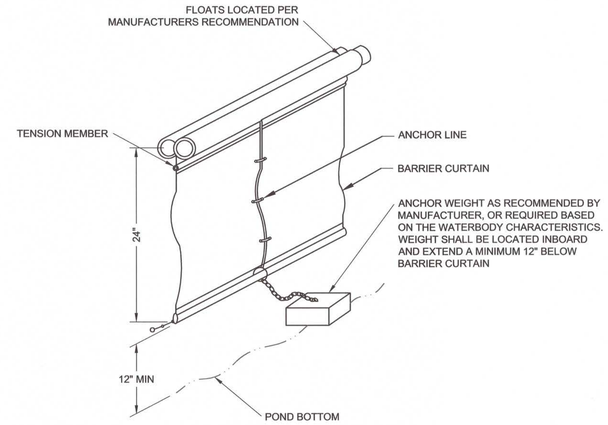
NOTE:
AUGMENTED SILT FENCE SHALL BE USED AT LOCATIONS AS SHOWN ON THE DRAWINGS.

AUGMENTED SILT FENCE (4)
NTS



* CRUSHED GRAVEL MATERIAL SHALL MEET THE REQUIREMENTS OF RIDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, SECTION 3.03.02.

TEMPORARY GRAVEL ACCESS ROAD (6)
NTS



NOTES:

1. THE TURBIDY CURTAIN SHALL BE DEPLOYED PRIOR TO DISTURBING THE WATERBODY BANK SOILS.
2. THE TURBIDITY CURTAIN SHALL WITHSTAND THE WATERBODY FLOW CHARACTERISTICS.

TURBIDITY CURTAIN DETAIL (7)
NTS

ISSUED FOR CONSTRUCTION

amec foster wheeler
AMEC FOSTER WHEELER
ENVIRONMENT & INFRASTRUCTURE, INC.
271 MILL ROAD
CHELMSFORD MASSACHUSETTS 01824
TELEPHONE: (978) 692-9090
FAX: (978) 692-6923
WEB: WWW.AMECFW.COM

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PROJECT:
TEXTRON, INC.
PHASE II, III, AND PARCEL C CAP
FORMER GORHAM MANUFACTURING SITE
PROVIDENCE, RI

TITLE:
DETAILS
SHEET 1 OF 3

CLIENT:
TEXTRON

SEAL:
ROBERT J. BUKOWSKI
No. 9217
REGISTERED PROFESSIONAL ENGINEER
CIVIL
6/24/15

DESIGNED BY:	DRAWN BY:
DAA	DED
CHECKED BY:	SCALE:
TD	NOT TO SCALE

PROJECT NUMBER: 3652140032
DRAWING NUMBER: C-501
SHEET NUMBER: 12 OF 14

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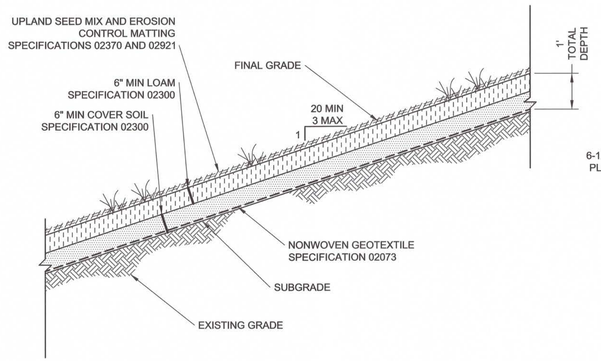
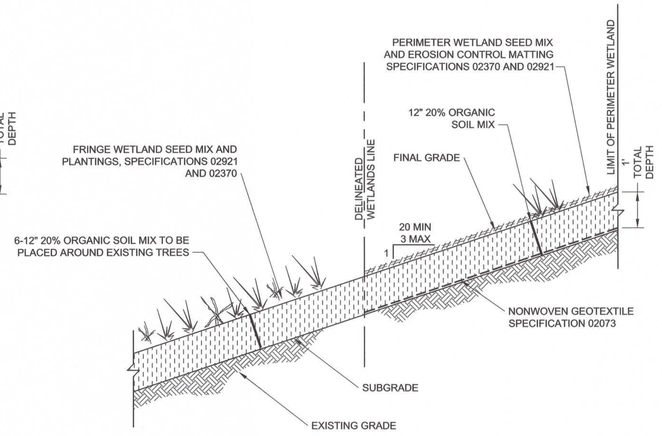


TYPICAL UPLAND CAP

NTS

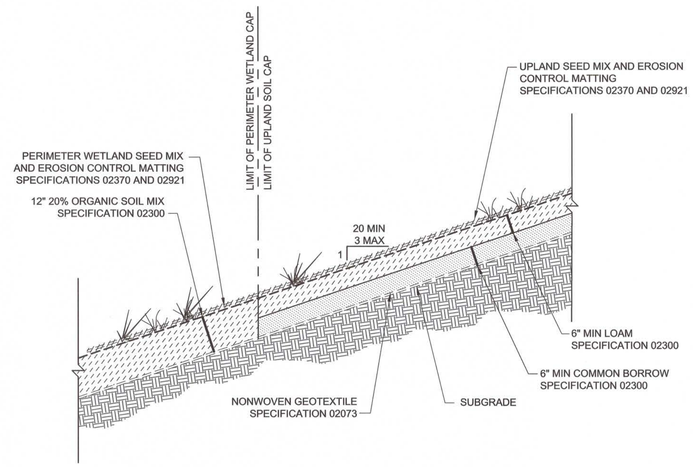
8



TYPICAL TRANSITION DETAIL:
PERIMETER WETLAND CAP TO FRINGE WETLAND CAP

NTS

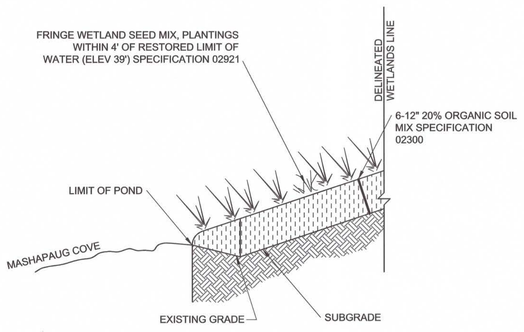
9



TYPICAL TRANSITION DETAIL:
UPLAND CAP TO PERIMETER WETLAND CAP

NTS

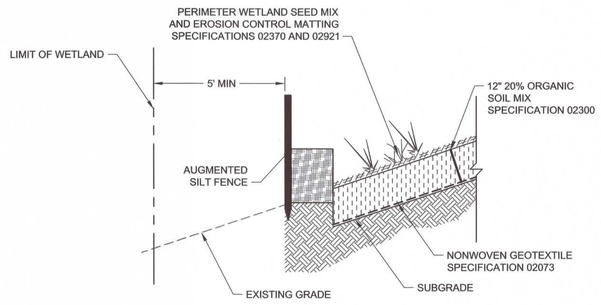
10



TYPICAL FRINGE WETLAND CAP

NTS

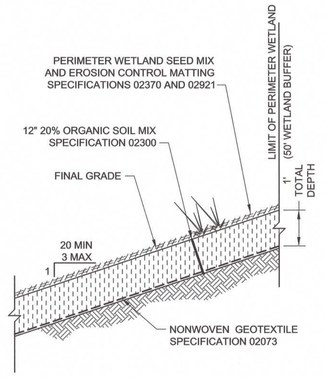
11



TYPICAL PERIMETER WETLAND CAP TOE DETAIL

NTS

12



TYPICAL PERIMETER WETLAND CAP

NTS

13

ISSUED FOR CONSTRUCTION

amec foster wheeler
AMEC FOSTER WHEELER
ENVIRONMENT & INFRASTRUCTURE, INC.
271 MILL ROAD
CHELMSFORD MASSACHUSETTS 01824
TELEPHONE: (978) 692-9090
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PROJECT:
TEXTRON, INC.
PHASE II, III, AND PARCEL C CAP
FORMER GORHAM MANUFACTURING SITE
PROVIDENCE, RI

TITLE:
DETAILS
SHEET 2 OF 3

CLIENT:
TEXTRON

SEAL:
ROBERT J. BUKOWSKI
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CIVIL
6/24/15

DESIGNED BY: DAA	DRAWN BY: DED
CHECKED BY: TD	SCALE: NOT TO SCALE
PROJECT NUMBER: 3852140032	
DRAWING NUMBER: C-502	
SHEET NUMBER: 13 OF 14	

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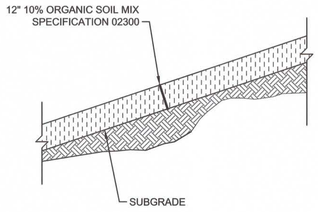
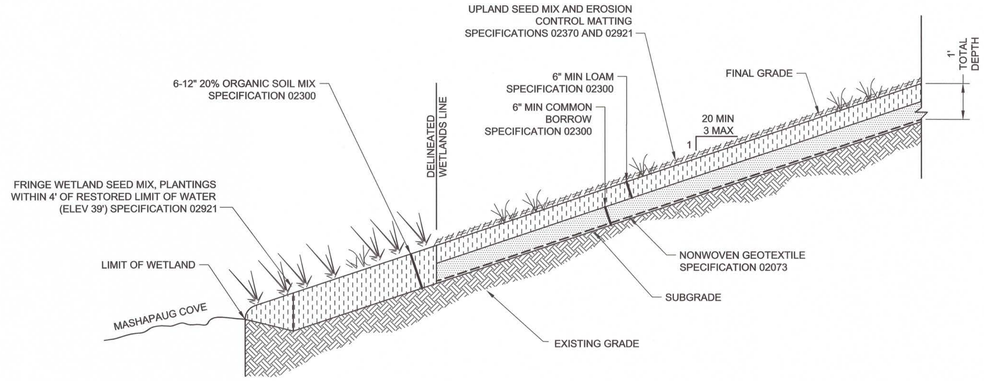


TYPICAL INNER COVE CAP

NTS

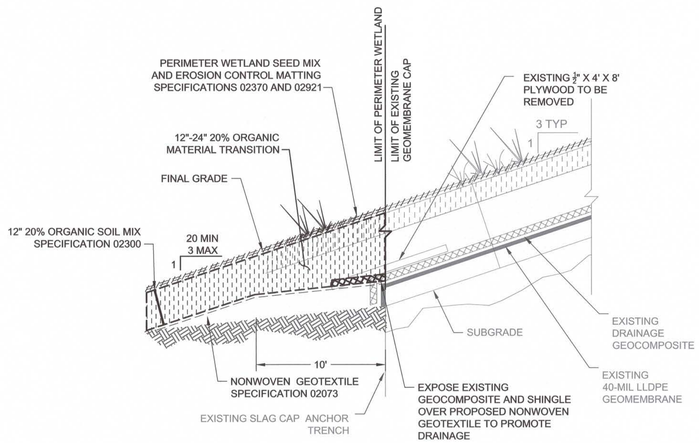
14



TYPICAL TRANSITION DETAIL:
UPLAND SOIL CAP TO FRINGE WETLAND CAP

NTS

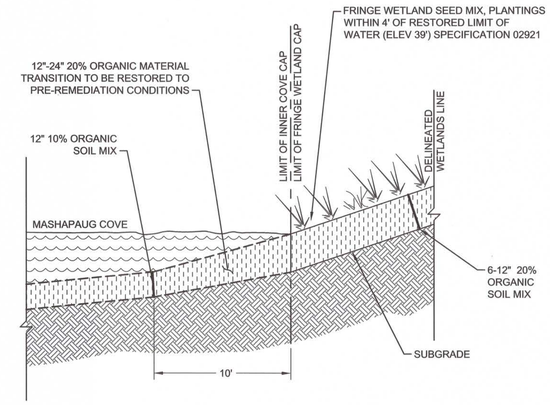
15



TYPICAL TRANSITION DETAIL:
FORMER SLAG AREA CAP TO PERIMETER WETLAND CAP

NTS

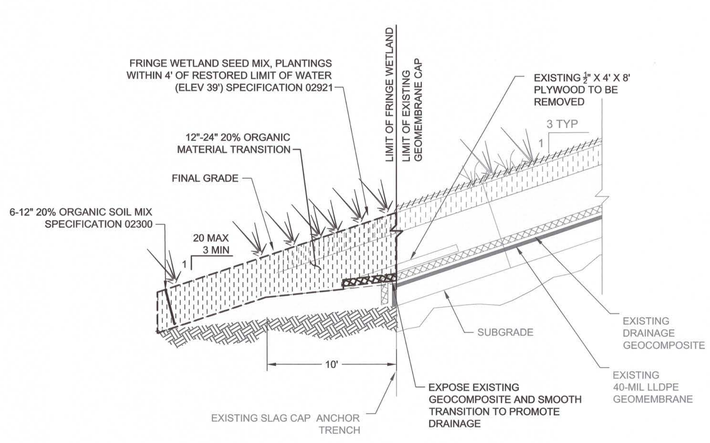
16



TYPICAL TRANSITION DETAIL:
INNER COVE CAP TO FRINGE WETLAND CAP

NTS

17



TYPICAL TRANSITION DETAIL:
FORMER SLAG AREA CAP TO FRINGE WETLAND CAP

NTS

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ISSUED FOR CONSTRUCTION

amec foster wheeler

AMEC FOSTER WHEELER
ENVIRONMENT & INFRASTRUCTURE, INC.
271 MILL ROAD
CHELMSFORD MASSACHUSETTS 01824
TELEPHONE: (978) 692-9090
FAX: (978) 692-6633
WEB: WWW.AMECFW.COM

REVISION	DATE	ISSUE / REVISION DESCRIPTION	ISSUED BY	APPROVED
1	06/24/2015	ISSUED FOR CONSTRUCTION	DAA	RJB
0	05/11/2015	ISSUED FOR BID	DAA	RJB
A	04/24/2015	ISSUED FOR CLIENT REVIEW	DAA	RJB

PROJECT:
TEXTRON, INC.
PHASE II, III, AND PARCEL C CAP
FORMER GORHAM MANUFACTURING SITE
PROVIDENCE, RI

TITLE:
DETAILS
SHEET 3 OF 3

CLIENT:
TEXTRON

SEAL:
ROBERT J. BUKOWSKI
No. 9217
REGISTERED
PROFESSIONAL ENGINEER
CIVIL
6/24/15

DESIGNED BY: DAA	DRAWN BY: DED
CHECKED BY: TD	SCALE: NOT TO SCALE
PROJECT NUMBER: 3652140032	
DRAWING NUMBER: C-503	
SHEET NUMBER: 14 OF 14	

U:\- CAD Projects\Textron\Textron RAWP and 404 Permit 3652140032.01\7.0 CAD\7.2 Construction Drawings\Sheets\14 - 3652140032.01 - C-503.DWG - 3652140032.01 - C-503 - Jun. 23, 2015 2:16pm - dana.dempsey

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)

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES

REGULATIONS FOR THE RHODE ISLAND POLLUTANT DISCHARGE ELIMINATION SYSTEM

DATE

Promulgated: June 26, 1984

Amended: February 5, 2003
Effective: February 25, 2003

AUTHORITY:

Chapter 46-12,42-17.1 & 42-35 of the
General Laws of Rhode Island, as amended

TABLE OF CONTENTS

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RULE 1 - PURPOSE

It is the purpose of these regulations to restore, preserve, and enhance the quality of the surface waters and to protect the waters from discharges of pollutants so that the waters shall be available for all beneficial uses and thus protect the public health, welfare and the environment.

RULE 2 - AUTHORITY

These regulations are adopted pursuant to Chapters 46-12, 42-17.1 and 42-35 of the General Laws of Rhode Island as amended.

RULE 3 - DEFINITIONS

Whenever used in these regulations, the following terms shall have the following meaning:

"Administration" means the administrator of the United States Environmental Protection Agency (EPA) or an authorized representative.

"Affected person" means a person who has asserted (and not waived or withdrawn) a confidentiality claim covering information submitted to the Department.

"Animal feeding operation" means a lot or facility (other than an aquatic animal production facility) where: 1) animals (other than aquatic animals) have been, or will be stabled or confined and fed or maintained for a total of 45 days or more in any 12-month period, and 2) crops, vegetation, forage, growth or post harvest residues are not sustained in the normal growing season over any portion of the lot or facility. Two or more animal feeding operations under common ownership are considered, for the purposes of these regulations, to be a single animal feeding operation if they adjoin each other or if they use a common area or system for the disposal of pollutants.

"Applicable standards and limitations" means all state, interstate, and federal standards and limitations to which a "discharge" or a related activity is subject under the Federal or State Acts including effluent limitations, water quality standards, standards of performance, toxic effluent standards or prohibitions, "best management practices," and pretreatment standards under Sections 301, 302, 303, 304, 306, 307, 308, 403 and 405 of the Clean Water Act.

"Applicant" means a person who applies for a RIPDES permit, or a Departmental approval pursuant to these regulations.

"Application" means the EPA standard national forms for applying for a permit, including any additions, revisions or modifications to the forms, or forms approved by EPA for use in "approved States," including any approved modifications of revisions.

"Approved program or approved State" means a State or interstate program, which has been approved or authorized by EPA under 40 CFR Part 123.

"Aquaculture project" means a defined managed water area, which uses discharges of pollutants into that designated area for the maintenance or production of harvestable freshwater, estuarine or marine plants and animals. Designated area", as used in this definition, means the portions of the waters of the State within which the permittee or permit applicant plans to confine the cultivated species, using a method or plan of operation (including but not limited to, physical confinement), which on the basis of reliable scientific evidence, is

expected to ensure that specific individual organisms comprising an aquaculture crop will enjoy increased growth attributable to the discharge of pollutants, and be harvestable within a defined geographic area.

"Areawide plan" means any water quality management plan adopted pursuant to Section 208 of the Federal Clean Water Act.

"Average monthly discharge limitation" means the highest allowable average of "daily discharges" over a calendar month or any 30 consecutive days, calculated as the sum of all daily discharges measured during a calendar month or any 30 consecutive days, divided by the number of daily discharges measured during that month.

"Average weekly discharge limitation" means the highest allowable average of "daily discharges" over a calendar week or any seven consecutive days, calculated as the sum of all daily discharges measured during a calendar week or seven consecutive days, divided by the number of daily discharges measured during that week.

"Best Professional Judgment (BPJ)" means a limitation determined on a case-by-case basis on any pollutant, combination of pollutants or practice(s) which is determined necessary to carry out the provisions of the Clean Water Act and Title 46, Chapter 12 of the General Laws of Rhode Island.

"Best Professional Judgment" limitations can be used to set Best Available Technology Economically Achievable, Best Conventional Pollutant Control Technology, Best Practicable Control Current Available, or "Best Management Practices" limitations as defined in Clean Water Act either in the absence of an applicable promulgated effluent guideline or where promulgated effluent limitation guidelines only apply to certain aspects of the discharger's operation or to certain pollutants.

"Best Management Practices (BMPs)" means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the State. BMPs also include treatment requirements, operating procedures, and practices to control site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

"Biological monitoring method" means a testing method which utilizes any biological system or any of its parts for assessing the presence or effects of one or more pollutants and/or environmental factors, either alone or in combination. Biomonitoring refers to acute toxic bioassays.

"Bypass" means the intentional diversion of wastes from any portion of a wastewater treatment facility.

"Census Designated Places (CPDs)." See Rule 31(b)(22).

"CFR" means the Code of Federal Regulations.

"Clean Water Act" means the Federal law enacted under 33 U.S.C. §125 et seq. and any amendments thereto.

"Concentrated animal feeding operation" means an animal feeding operation which meets the criteria in Appendix B, or which the Department designates under Rule 27.

"Concentrated aquatic animal production facility" means a hatchery, fish farm, or other facility which meets the criteria in Appendix C or which the Department designates under Rule 28.

"Confidentiality claim" means a claim or allegation that information is entitled to confidential treatment because such information constitutes a trade secret.

"Construction" means any placement, assembly or installation of facilities, equipment or treatment works, site preparation work, including clearing, excavation removal, or modification of existing buildings, structures or facilities which is necessary for the placement, assembly or installation of new source facilities, equipment or treatment works, or entering into a binding contractual obligation for the purchase of facilities or equipment which are intended to be used in it operation within a reasonable time. Options to purchase or contracts which can be terminated or modified without substantial loss and contracts for feasibility, engineering and design studies do not constitute a contractual obligation for the purpose of this definition.

"Contiguous zone" means the entire zone established by the United States under Article 24 of the Convention on the Territorial Sea and the Contiguous Zone.

"Continuous discharge" means a "discharge" which occurs without interruption throughout the operating hours of the facility, except for infrequent shutdowns for maintenance, process changes, or other similar activities.

"Conventional pollutant" means those pollutants designated under the authority of Section 304(a)(4) of the Clean Water Act.

"Co-permittee" means a permittee to a RIPDES permit that is only responsible for permit conditions relating to the discharge for which it is operator.

"Daily discharge" means the "discharge of a pollutant" measured during a calendar day or any 24-hour period that reasonable represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the "daily discharge" is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the "daily discharge" is calculated as the average measurement of the pollutant over the day.

"Densely Populated Area (DPA)." See Rule 31(b)(21).

"Department" means the Rhode Island Department of Environmental Management (DEM).

"Director" means the director of the Department of Environmental Management or any subordinate or subordinates to whom he delegated the powers and duties vested in him by these regulations.

"Direct discharge" means the "discharge of a pollutant."

"Discharge" means the addition of any pollutant to waters from any point source.

"Discharge of a pollutant" means any addition of any "pollutant" or combination of pollutants to "waters of the State" from any "point sources".

"Discharge Monitoring Report (DMR)" means the EPA uniform national form, including any subsequent additions, revisions or modifications, for the reporting of self-monitoring results by permittees.

"Discharger" means any person, corporation, municipality, sewerage authority or legal entity, who causes, knows of or should have reason to know of, or allows, any discharge. "District Engineer" means the chief administrative official of the New England Division, Corps of Engineers or an authorized representative.

"Draft permit" means a document prepared under Rule 37 indicating the Department's tentative decision to issue or deny, modify, revoke and reissue, terminate, or reissue a "permit." A notice of intent to terminate a permit and a notice of intent to deny a permit as discussed in Rule 36 are types of "draft permits." A denial of a request for modification, revocation and reissuance, or termination, as discussed in Rule 36 is not a "draft permit." A "proposed permit" is not a "draft permit".

"Effluent data" means, with reference to any source of discharge of any pollutant:

1) Information necessary to determine the identity, amount, frequency, concentration, temperature, or other characteristics (to the extent related to water quality) of any pollutant which has been discharged by the source (or of any pollutant resulting from any discharge from the source), or any combination of the foregoing;

2) Information necessary to determine the identity, amount, frequency, concentration, temperature, or other characteristics (to the extent related to water quality) of the pollutant which, under an applicable standard or limitation, the source was authorized to discharge (including to the extent necessary for such purpose, a description of the manner or rate of operation of the source); and

3) A general description of the locations and/or nature of the source to the extent necessary to identify the source and to distinguish it from other sources (including, to the extent necessary for such purposes, a description of the device, installation, or operation constituting the source).

Notwithstanding the above, the following information shall be considered to be "effluent data" only to the extent necessary to allow the Department to disclose publicly that a source is (or is not) in compliance with an applicable standard or limitation, or to allow the Department to demonstrate the feasibility, practicability, or attainability (or lack thereof) of an existing or proposed standard or limitation:

1) Information concerning research, or the results of research, on any product, method, device, or installation (or any component thereof) which was produced, developed, installed, and used only for research purposes; and

2) Information concerning any product, method, device, or installation (or any component thereof) designed and intended to be marketed or used commercially but not yet so marketed or used.

"Effluent limitations" means any restriction imposed by the Director on quantities, discharge rates and concentrations of pollutants which are discharged from point sources into waters of Rhode Island, the United States, the contiguous zone or the ocean.

"Effluent limitation guidelines" means a regulation published by the Administrator under Section 304(b) of the Clean Water Act to adopt or revise "effluent limitations."

"EPA" means the United States Environmental Protection Agency.

"Facility" means any point source or any other activity (including land or appurtenances thereto) that is subject to regulation under the RIPDES permit program.

"General permit" means a RIPDES permit issued under Rule 32 authorizing a category of discharges within a geographic area.

"Groundwater" means water below the land surface in a zone of saturation.

"Hazardous substance" means any substance designated under 40 CFR Part 116 pursuant to Section 311 of the CWA (see Appendix A, Table V).

"Illicit discharge" means any discharge to a municipal separate storm sewer that is not composed entirely of storm water except discharges pursuant to a RIPDES permit (other than the RIPDES permit for discharges from the municipal separate storm sewer) and discharges resulting from fire fighting activities.

"Impaired Waters." See Rule 31(b)(25).

"Incorporated place" means a city, town or other definable place that is incorporated under the laws of the State in which it is located.

"Indirect Discharge" means the introduction of pollutants into a POTW from any non-domestic source regulated under section 307(b), (c) or (d) of the Clean Water Act.

"Interference" means (a) inhibiting or disrupting the operation of a publicly owned treatment works or its treatment process so as to contribute to, or cause a violation of any condition of a State or Federal permit under which the publicly owned treatment works operates; or (b) discharging industrial process wastewater which, in combination with existing domestic flows are of such volume and/or strength as to exceed the domestic treatment process design capacity; or (c) preventing the use or disposal of sludge produced by the publicly owned treatment works in accordance with Section 405 of the Clean Water Act, and regulations, criteria or guidelines developed pursuant to the Federal Resource Conservation and Recovery Act of 1976, (42 U.S.C. §3251 et seq.) the Federal Clean Air Act (15 U.S.C. §7401 et seq.) and the Federal Toxic Substances Control Act (15 U.S.C. §2601 et seq.) and to the extent practicable, the Rhode Island Rules and Regulations Pertaining to the Disposal and Utilization of Wastewater Treatment Facility Sludge.

"Interstate agency" means an agency of two or more states established by or under an agreement or compact approved by the Congress, or any other agency of two or more states having substantial powers or duties pertaining to the control of pollution as determined and approved by the Administrator under the appropriate Act and regulations.

"Large municipal separate storm sewer system." See Rule 31(b)(4).

"Log sorting and log storage facilities" means facilities whose discharges result from the holding of unprocessed wood; for example, logs or round-wood with bark or after removal of bark held in self-contained bodies of water

(mill ponds or log ponds) or stored on land where water is applied intentionally on the logs (wet decking). (See 40 CFR Part 429, Subpart J including the effluent limitations guidelines).

"Major facility" means any facility or activity classified as such by the Regional Administrator in conjunction with the Director.

"Major municipal separate storm sewer outfall (or "major outfall")" means a municipal separate storm sewer outfall that discharges from a single pipe with an inside diameter of 36 inches or more or its equivalent (discharge from a single conveyance other than circular pipe which is associated with a drainage area of more than 50 acres); or for municipal separate storm sewers that receive storm water from lands zoned for industrial activity (based on comprehensive zoning plans or the equivalent), an outfall that discharges from a single pipe with an inside diameter of 12 inches or more or from its equivalent (discharge from other than a circular pipe associated with a drainage area of 2 acres or more).

"Major outfall" means a "major municipal separate storm sewer outfall."

"Maximum daily discharge limitation" means the highest allowable "daily discharge."

"Medium municipal separate storm sewer system." See Rule 31(b)(7).

"Memorandum of Agreement" means the agreement entered into under the Clean Water Act between the Administrator and the Director, governing the relationship, duties, and rights of the parties in operating a State NPDES program (RIPDES).

"MGD" means million gallons per day.

"Minor facility" means any facility or activity not classified a "major facility" by the Regional Administrator or the Department.

"Monitoring report form" means the DEM standard form, including any subsequent additions, revisions or modifications for the reporting of self-monitoring results by permittees.

"Municipal separate storm sewer" means a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains):

(i) Owned or operated by a city or town or the State, district association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, storm water, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to waters of the State;

(ii) Designed or used for collecting or conveying storm water;

(iii) Which is not a combined sewer; and

(iv) Which is not part of a Publicly Owned Treatment Works (POTW) as defined in Rule 3.

"Municipal separate storm sewer system (MS4)." See Rule 31(b)(19).

"Municipality" means a city, town, borough, county, parish, district, quasi-governmental corporation, association or other public body created by or under State law and having jurisdiction over disposal of sewage, industrial wastes, or other wastes, or a designated and approved management agency under Section 208 of the Clean Water Act.

"National Pollutant Discharge Elimination System (NPDES)" means the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under Sections 307, 402, 318, and 405 of the Clean Water Act. The term includes any State program which has been approved by the Administrator.

"New discharger" means any building, structure, facility, or installation:

a) From which there is or may be a "discharge of pollutants"; and

b) That did not commence the "discharge of pollutants" at a particular "site" prior to August 13, 1979; and

c) Which is not a "new source"; and

d) Which has never received a finally effective NPDES permit for discharges at that "site". This definition includes an "indirect discharger" which commences discharging into waters of the State after August 13, 1979. It also includes any existing mobile point source (other than an offshore or coastal oil and gas exploratory drilling rig or a coastal oil and gas development drilling rig) such as a seafood processing rig, seafood processing vessel, or aggregate plant, that begins discharging at a "site" for which it does not have a permit, and any offshore or coastal mobile oil and gas exploratory drilling rig or coastal mobile oil and gas developmental drilling rig that commences the discharge of pollutants after August 13, 1979 at a "site" under EPA's permitting jurisdiction for which it is not covered by an individual or general permit and which is located in an area determined by the Director in the issuance of a final permit to be an area or biological concern. In determining whether an area is an area of biological concern, the Director shall consider the factors specified in 40 CFR 125.122(a)(1) through (10).

An offshore or coastal mobile exploratory drilling rig or coastal mobile developmental drilling rig will be considered a "new discharger" only for the duration of its discharge in an area of biological concern.

"New source" means any building, structure, facility, site or installation from which there is or may be a "discharge of pollutants," the construction of which commenced:

a) after promulgation of standards of performance under Section 306 of the Clean Water Act which are applicable to such sources, or

b) after proposal of standards of performance in accordance with Section 306 of the Clean Water Act which are applicable to such sources, but only if the standards are promulgated in accordance with Section 306 within 120 days of their proposal.

"Non-contract cooling water" means water used to reduce temperature for the purpose of cooling. Such waters do not come into direct contact with any raw material, intermediate product (other than heat) or finished product.

"Non-conventional pollutant" means any pollutant not defined as a conventional pollutant or a toxic pollutant (see Appendix A, Table IV).

"Outstanding National Resource Waters (ONRWs)." See Rule 31(b)(24).

"Outfall" means a point source as defined by Rule 3 at the point where a municipal separate storm sewer discharges to waters of the State and does not include open conveyances connecting two municipal separate storm sewers, or pipes, tunnels or other conveyances which connect segments of the same stream or other waters of the State and are used to convey waters of the State.

"Overburden" means any material of any nature, consolidated or unconsolidated, that overlies a mineral deposit, excluding topsoil or similar naturally-occurring surface materials that are not disturbed by mining operations.

"Owner or operator" means the owner or operator of any facility or activity subject to these regulations.

"Permit" means an authorization, license or equivalent control document issued by the Department to implement the requirements of these regulations and the Clean Water Act, or previously issued by the EPA prior to delegation of the NPDES program to the State of Rhode Island. "Permit" includes a general permit, but does not include any document which has not yet been the subject of final Department action, such as a "draft permit" or "proposed permit."

"Person" means an individual, trust, firm, joint stock company, corporation (including a quasi-governmental corporation) partnership, association, syndicate, municipality, municipal or state agency, fire district, club, non-profit agency or any subdivision, commission, department, bureau, agency or department of state or federal government (including quasi-governmental corporation) or of any interstate body and any agent or employee thereof.

"Point source" means any discernible, confined, and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel, or other floating craft, from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture.

"Pollutant" means any dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal or agricultural waste.

"Pretreatment requirements" means any limitation or prohibition on quantities, quality, rates, and/or concentrations of pollutants directly or indirectly discharged into or transported by truck or rail or otherwise introduced into a

publicly owned treatment works that are imposed by federal or state regulation or by publicly owned treatment works.

"Primary industry category" means any industry category listed in Appendix D. Industries may be added to Appendix D by the Director, as he deems appropriate.

"Priority pollutant" means those pollutants listed pursuant to Section 307(a)(1) of the Clean Water Act (see Appendix E).

"Privately owned treatment works" means any device or system which is (a) used to treat wastes from any facility whose operator is not the operator of the treatment works and (b) not a "POTW".

"Process wastewater" means any water which, during manufacturing or processing, comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, by-product, or waste product.

"Proposed permit" means a RIPDES "permit" which is sent to EPA for review before final issuance by the State. A "proposed permit" is not a "draft permit".

"Propriety information" means commercial or financial information which is used in one's business and is of a type of customarily held in strict confidence or regarded as privileged and not disclosed to any member of the public by the person to whom it belongs.

"Publicly owned treatment works (POTWs)" means any facility for the treatment of pollutants owned by the state or any political subdivision thereof, municipality, or other public entity, including quasi-governmental corporation. This definition includes sewers, pipes if they convey wastewater to a POTW as well as any equipment buildings or machinery used in the treatment operation.

"Recommencing discharger" means a source which recommences discharge after terminating operations.

"Regional Administrator" means the Regional Administrator of the appropriate Regional Office of the Environmental Protection Agency or an authorized representative of the Regional Administrator.

"Regulated small municipal separate storm sewer system (Small MS4)." See Rule 31(b)(18).

"Rhode Island Pollutant Discharge Elimination System (RIPDES)" means the Rhode Island system for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing discharge permits and imposing and enforcing pretreatment requirements pursuant to Title 46, Chapter 12 of the General Laws of Rhode Island and the Clean Water Act.

"Rock crushing and gravel washing facilities" means facilities which process crushed and broken stone, gravel, and riprap (see 40 CFR Part 436, Subpart B, including the effluent limitation guidelines).

"Runoff coefficient" means the fraction of total rainfall that will appear at a conveyance as runoff.

"Schedule of compliance" means a schedule of remedial measures included in a permit, including an enforceable sequence of interim requirements (for example, actions, operations, or milestone events) leading to compliance with all applicable State and Federal law and regulations.

"Secondary industry category" means any industry category which is not a "primary industry category."

"Secretary" means the Secretary of the Army, acting through the Chief of Engineers.

"Section 313 Water Priority Chemical." See Rule 31(b)(12).

"Separate storm sewer" means a conveyance or system of conveyances (including pipes, conduits, ditches, and channels) primarily used for collecting storm water runoff and which is either:

a) Located in an urbanized area as designated by the Bureau of the Census according to the criteria in 39 FR 15202 (May 1, 1974); or

b) Not located in an urbanized area but designated by the Director pursuant to Rule 31 of these regulations.

"Sewage from vessels" means human body wastes and the wastes from toilets and other receptacles intended to receive or retain body wastes that are discharged from vessels, and regulated under Section 312 of the Clean Water Act or under Rhode Island law.

"Sewage sludge" means the solids, residues, and precipitate separated from or created in sewage by the processes or a "publicly owned treatment works." "Sewage" as used in this definition means any wastes, including wastes from human households, commercial establishments, industries and storm water runoff, that are discharged to or otherwise enter a publicly owned treatment works.

"Significant materials" includes, but is not limited to: raw materials; fuels; materials such as solvents, detergents, and plastic pellets; finished materials such as metallic products; raw materials used in food processing or production; hazardous substances designated under Section 101(14) of CERCLA; any chemical the facility is required to report pursuant to Section 313 of Title III of SARA; fertilizers; pesticides; and waste products such as ashes, slag and sludge that have the potential to be released with storm water discharges.

"Significant spills" includes, but is not limited to: releases of oil or hazardous substances in excess of reportable quantities under Section 311 of the Clean Water Act (40 CFR 110.10 and 40 CFR 117.21) or Section 102 of CERCLA (40 CFR 302.4).

"Site" means the land or water area where any water pollution control facility or activity is physically located or conducted, including adjacent land used in connection with the facility or activity.

"Silvicultural point source" means any discernible, confined, and discrete conveyance related to rock crushing, gravel washing, log sorting, or log storage facilities which are operated in connection with silvicultural activities and from which pollutants are discharged into waters of the State. The term does not include non-point source silvicultural activities such as nursery operations, site preparation, reforestation and subsequent cultural treatment, thinning, prescribed burning, pest and fire control, harvesting operations, surface drainage, or road construction and

maintenance from which there is natural runoff. However, some of these activities (such as stream crossing for roads) may involve point source discharges of dredged or fill material which may require a 404 permit pursuant to the Clean Water Act (see 33 CFR Section 209.120 and Part 123, Subpart E).

"Small Municipal Separate Storm Sewer System (Small MS4)." See Rule 31(b)(17).

"Special Resource Protection Waters (SRPWs)." See Rule 31(b)(23).

"State" means the State of Rhode Island.

"State/EPA Agreement" means an agreement between the Regional Administrator and the State which integrates and coordinates EPA and State activities, responsibilities and programs under the Clean Water Act.

"Storm sewer" means a sewer intended to carry only storm water.

"Storm water" means storm water runoff, snow melt runoff, and surface runoff and drainage.

"Storm water discharge associated with industrial activity." See Rule 31(b)(15).

"Storm water discharge associated with small construction activity." See Rule 31(b)(16).

"Surface water" means any "waters of the State" which are not "groundwater."

"Thermal discharge" means that component of any discharge which is comprised of heat, and which shall be limited in accordance with Sections 301, 306, 316 of the Clean Water Act or when determined necessary by the Department.

"Total dissolved solids" means the total dissolved (filterable) solids as determined by use of the method specified in 40 CFR Part 136.

"Total maximum daily load (TMDL)" means the maximum amount of a particular pollutant that may be discharged into a particular stream segment in one day. TMDLs are required for all water quality limited segments but only for those pollutants which limit water uses.

"Toxic pollutant" means those pollutants, or combinations of pollutants, including disease causing agents, which after discharge and upon exposure, ingestion, inhalation, or assimilation into any organism, either directly or indirectly but ingestion through food chains, may, on the basis of information available to the Director cause death, disease, behavioral, abnormalities, cancer, genetic mutations, physiological malfunctions including malfunctions in reproduction, or physical deformation, in such organisms or their offspring. Toxic pollutants shall include but not be limited to those pollutants identified pursuant to Section 307 of the Clean Water Act (see Appendix A. Tables II and III).

"Trade secret" means the whole or any portion or phase of any scientific, technical or otherwise "proprietary information," design, process, procedure, formula, or improvement which is used in one's business and is secret when the owner takes measures to prevent it from becoming available to person other than those selected by the

owner to have access thereto for limited purposes. A "Trade Secret" shall not apply to "effluent data" "permits" or "permit application forms".

"Uncontrolled sanitary landfill" means a landfill or open dump, whether in operation or closed, that does not meet the requirements for run-on or run-off controls established pursuant to subtitle D of the Solid Waste Disposal Act.

"Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by the operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

"Urbanized Areas (UAs)." See Rule 31(b)(20).

"Variance" means any mechanism or provision under Sections 301 or 316 of the Clean Water Act or under 40 CFR Part 125, or in the applicable "effluent limitation guidelines" which allows modification to or waiver of the generally applicable effluent limitation requirements or time deadlines of the Clean Water Act. This includes provisions which allow the establishment of alternative limitations based on fundamentally different factors or on Section 301(c), 301(g), 301(h), 301(i) or 316(a) of the Clean Water Act.

"Waste load" means the amount of chemical, physical, or biological matter contained within a waste discharge.

"Waste load allocation" means the assignment of maximum waste loads to point-source discharges so as to maintain water quality standards.

"Water quality criteria" means a designated concentration of a constituent that, when not exceeded, will protect an organism, an organismic community or a prescribed water use or quality.

"Water quality standards" means the physical, chemical, biological and esthetic characteristics of a water body as described by State water quality criteria or the water quality which would result from existing discharges under design conditions, whichever is more stringent as determined by the Department.

"Waters of the State" or "Water" means all surface water and groundwater of the State of Rhode Island, including all tidewaters, territorial seas, wetlands, land masses partially or wholly submerged in water, and both inter-and intrastate bodies of water which are, have been or will be used in commerce, by industry, for the harvesting of fish and shellfish or for recreational purposes.

"Wetlands" means those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

RULE 4 - SEVERABILITY

If any provision of these rules and regulations or the application thereof to any person or circumstances is held invalid by a court of competent jurisdiction, the remainder of the rules and regulations shall not be affected thereby. The invalidity of any section or sections or parts of any section or sections shall not affect the validity of the remainder of these rules and regulations.

RULE 5 – APPLICATION OF THESE REGULATIONS

(a) These regulations shall be liberally constructed to permit the Department to effectuate the purpose of the State law.

(b) The Department may require an applicant to provide additional information where such information is necessary, in the opinion of the Department, to fully disclose all relevant facts concerning the permit application or permit, including propriety data. The applicant may assert a claim of confidentiality but claims of confidentiality regarding the name and address of any permit applicant or permittee or claims related to effluent data, permits, and permit application forms, including attachments to the forms, will be denied. Any failure to submit such information shall constitute valid cause for denial of the permit or other remedy as provided by law.

(c) Nothing in these rules and regulations shall be deemed to interfere with the Director's power and duty to issue an immediate order pursuant to Section 46-12-10 of the General Laws of Rhode Island.

(d) These regulations and the State continuing planning process, as approved by EPA under 40 CFR 35.1500, shall at all times be construed so as to assure consistency with the Clean Water Act.

RULE 6 - GENERAL PROHIBITIONS

A RIPDES permit shall not be issued:

(a) When the conditions of the permit do not provide for compliance with the applicable requirements of the State and Federal Acts or regulations;

(b) For the discharge of any radiological, chemical, or biological warfare agent or high-level radioactive waste;

(c) When the imposition of conditions cannot ensure compliance with the applicable water quality requirements of all affected states;

(d) When the Regional Administrator has objected to the issue of the permit in accordance with the Memorandum of Agreement;

(e) When, in the judgement of the Untied States Secretary of the Army, anchorage and navigation in or on any of the waters of the United States could be substantially impaired by the discharge;

(f) For any discharge inconsistent with a plan or plan amendment approved under Section 208(b) of the Clean Water Act;

(g) For any discharge to the territorial sea, the waters of the contiguous zone, or the oceans in the following circumstances:

(1) Before the promulgation of guidelines under Section 403(c) of the Clean Water Act (for determining degradation of the waters of the territorial seas, the contiguous zone, and the oceans) unless the Director determines permit issuance to be in the public interest; or

(2) After promulgation of guidelines under Section 403(c) of the Clean Water Act, when insufficient information exists to make a reasonable judgement whether the discharge complies with them.

(h) To a new source or a new discharger, if the discharge from its construction or operation will cause or contribute to the violation of water quality standards. The owner or operator of a new source or new discharger proposing to discharge into a water segment which does not meet applicable water quality standards or is not expected to meet those standards even after the application of the effluent limitations required by Section 301(b)(1)(A) and 301(b)(1)(B) of the Clean Water Act, and for which the State or interstate agency has performed a pollutant load allocation for the pollutants to be discharged, must demonstrate, before the close of the public comment period, that:

(1) There are sufficient remaining pollutant load allocations to allow for the discharge; and

(2) The existing dischargers into that segment are subject to compliance schedules designed to bring the segment into compliance with applicable water quality standards.

RULE 7 - CONFLICT OF INTEREST

(a) Any board or body which approves all or portions of a permit shall not include as a member any person who receives, or has during the previous two years received, a significant portion of income directly or indirectly from permit holders or applicants for a permit.

(b) For the purposes of this section:

(1) "Board of body" includes any individual, including the Director, who has or shares authority to approve all or portions of permits either in the first instance, as modified or reissued, or on appeal.

(2) "Significant portion of income" means 10 percent or more of gross personal income for a calendar year.

(3) "Permit holders or applicants for a permit" does not include any department or agency of state government.

(4) "Income" includes retirement benefits, consultant fees, interest, and stock dividends.

(c) For the purposes of this section, income is not received "directly or indirectly from permit holders or applicants for a permit" when it is derived from mutual fund payments, or from other diversified investments for which the recipient does not know the primary sources of income.

RULE 8 - PERSONS REQUIRED TO APPLY FOR A RIPDES PERMIT

(a) Any person who discharges or proposes to discharge pollutants into the waters and who does not have an effective permit, shall, except as provided in Rule 9, submit a complete application to the Department.

(b) Any person who had a NPDES permit prior to the effective date of these regulations shall be notified in writing by the Department that the NPDES permit is continued in full force pursuant to Rule 13 of these regulations and that the person must apply for a RIPDES permit in accordance with the schedule for submission of applications in Rule 10(a).

(c) When a facility or activity is owned by one person but is operated by another person, it is the operator's duty to obtain a permit.

RULE 9 - ACTIVITIES WHICH DO NOT REQUIRE A RIPDES PERMIT

(a) Any discharge of sewage from vessels, effluent from properly functioning marine engines, laundry, shower, and galley sink wastes, or any other discharge incidental to the normal operation of a vessel. This exclusion does not apply to rubbish, trash, garbage, or other such materials discharged overboard, nor to other discharges when the vessel is operating in a capacity other than as a means of transportation such as when used as an energy or mining facility, or when secured to a storage facility or a seafood processing facility, or when secured to the bed of the ocean, contiguous zone or waters of the United States for the purpose of mineral or oil exploration or development.

(b) Any discharge of dredged or fill material into waters of the United States which are regulated under Section 404 of the Clean Water Act.

(c) Any discharge in compliance with the instruction of an On-Scene Coordinator pursuant to 40 CFR 300 (The National Oil and Hazardous Substances Pollution Plan) or 33 CFR 153.305 (Pollution by Oil and Hazardous Substances).

(d) Any introduction of pollutants from nonpoint source agricultural and silvicultural activities, including storm water runoff from orchards, cultivated crops, pastures, range lands, and forest lands but not discharges from concentrated animal feeding operations, discharges from concentrated aquatic animal production facilities, discharges to aquaculture projects, and discharges from silvicultural point sources.

(e) Return flows from irrigated agriculture.

(f) Discharges of pollutants into a privately-owned treatment works, except as the Director may otherwise require to ensure compliance with applicable state and federal law and regulations.

(g) Discharges covered by a general permit pursuant to Rule 32 except that the Director may, pursuant to Rule 54, require a person authorized by a general permit to apply for and obtain an individual RIPDES permit.

(h) The introduction of sewage, industrial wastes, or other pollutants into publicly owned treatment works by indirect discharge. Plans or agreements to switch to this method of disposal in the future do not relieve a discharger of the obligation to have and comply with permits until all discharges of pollutants into waters of the United States are eliminated. This exclusion does not apply to the introduction of pollutants to privately owned treatment works or to other discharges through pipes, sewers, or other conveyances owned by a State, municipality or other party not leading to treatment works.

(i) Discharges or disposal of pollutants into an underground or subsurface disposal well except that such activity must be approved by the Director pursuant to the Rhode Island Underground Injection Control Regulations.

RULE 10 - SCHEDULE FOR SUBMISSION OF APPLICATIONS

(a) Any person who had an NPDES permit prior to the effective date of these regulations shall either apply for a RIPDES permit at least 180 days prior to the scheduled expiration date of the NPDES permit or if the schedule expiration date has already passed then within 60 days of receiving written notification from the Department that a RIPDES permit application is due.

(b) Any person planning to continue discharging after the expiration date of an existing RIPDES permit must file an application for renewal at least 180 days prior to expiration of the existing permit.

(c) All other new applicants for a RIPDES permit(s) shall in accordance with these regulations submit an application to the Department at least 180 days before the date on which the discharge is to commence except as otherwise provided in (d) below.

(d) Facilities proposing a new discharge of storm water associated with industrial activity shall submit an application/notice of intent 180 days before that facility commences industrial activity which may reasonably be expected to result in a discharge of storm water associated with that industrial activity. Facilities described under Rule 31(b)(15)(x) or (b)(16)(i) shall submit applications at least ninety (90) days before the date on which construction is to commence. Different submittal dates may be required under the terms of applicable general permits.

RULE 11 - INFORMATION TO BE INCLUDED IN THE APPLICATION

11.01 All applications for a RIPDES permit shall be submitted to: Department of Environmental Management, Office of Water Resources, 235 Promenade Street, Providence, Rhode Island 02908-5767.

11.02 Any person who discharges or intends to discharge pollutants into the waters of the state must apply for a RIPDES permit except as otherwise provided in Rule 9. Any person required to have a RIPDES or NPDES permit by these regulations and who is currently discharging pollutants into the waters of the state without such permit, may be subject to immediate enforcement action and shall apply for a RIPDES permit within 60 days of the effective date of these regulations. Any person who has a valid NPDES permit shall apply for a RIPDES permit in accordance with the schedule in Rule 10. Pre-application conferences with the Department are strongly recommended. The following information, where applicable, shall be submitted:

(a) Information required for a RIPDES Permit:

(1) State name, mailing address and location of facility, type of waste to be discharged, and the activities conducted by the applicant which require a RIPDES permit.

(2) Provide a brief description of the nature of the business including the Standard Industrial Classification (SIC) codes which best reflect the principal products or services provided by the facility.

(3) The operator's name, address, telephone number, ownership status, and status as Federal, State, private, public, or other entity, and whether the facility is located on Indian lands.

(4) Name of applicant's parent corporation.

(5) A listing of all permits, or orders of approval received or applied for by the applicant or its parent corporation at the site.

(6) The expiration date of existing permit or proposed start up date for new source. Applications must be received at least 180 days before proposed start up for new sources.

(7) A topographic map (or other if a topographic map is unavailable) extending one mile beyond the property boundaries of the source, depicting the facility and each of its intake and discharge structures; each of its hazardous waste treatment, storage, or disposal facilities, each well where fluids from the facility are injected underground; and those wells, springs, other surface water bodies, and drinking water wells listed in public records or otherwise known to the applicant in the map area.

(8) Outfall location. Show the location of the discharge(s), treatment facilities and receiving stream on a plot plan prepared by a Licensed Professional Engineer or Land Surveyor, and on a U.S. Geological Survey (Quadrangle) map. The latitude and longitude for each discharge must be given to the nearest 15 seconds and the name and classification of the receiving water must be provided.

(9) Line Drawing. A line drawing of the water flow through the facility with a water balance, showing operations contributing wastewater to the effluent and treatment units. The water balance must show approximate average flows at intake and discharge points and between units, including treatment units.

(10) Average flows and treatment. A narrative identification of each type of process, operation, or production area which contributes wastewater to the effluent for each outfall, including process wastewater, cooling water, and storm water runoff, the average flow which each process contributes, and a description of the treatment the wastewater receives, including the ultimate disposal of any solid or fluid wastes other than by discharge. Processes, operations, or production areas may be described in general terms (for example, "dye-making reactor", "distillation tower"). For a privately owned treatment works, this information shall include

the identity of each user of the treatment works. If discharge is due to rain runoff, state acres of land drained, give runoff coefficient, and calculate flow based on a 10 year, 24-hour, storm frequency.

(11) Intermittent flows. If any of the discharges described in paragraph (a)10 of this section are intermittent or seasonal, a description of the frequency, approximate time of day where practicable, duration and flow rate of each discharge occurrence.

(12) Maximum production. If an effluent guidelines promulgated under Section 304 of the Clean Water Act applies to the applicant and is expressed in terms of production (or other measure of operation), a reasonable measure of the applicant's actual production reported in the units used in the applicable effluent guideline. The reported measure must reflect the actual production of the facility as required by Rule 17.

(13) Improvements. If the applicant is subject to any present requirements or compliance schedules for construction, upgrading or operations of waste treatment equipment, an identification of the abatement requirement, a description of the abatement project, and a listing of the required and projected final compliance dates.

(14) Effluent characteristics. Information on the discharge of pollutants specified in this subparagraph (except information on storm water discharges associated with industrial activity which are to be provided as specified in Rule 31). When "quantitative data" for a pollutant is required, the applicant must collect a sample of effluent, analyze it for the pollutant in accordance with analytical methods approved under 40 CFR Part 136 and provide a description of the method. When no analytical method is approved, the applicant must comply with Rule 14.11(d). The requirements in paragraphs (a)(14)(iii) and (iv) of this section that an applicant must provide quantitative data for certain pollutants known or believed to be present does not apply to pollutants present in a discharge solely as the result of their presence in intake water; however, an applicant must report such pollutants as present and will be required to establish the presence of pollutants in intake water by the appropriate testing or submission of an evaluation of intake water. Grab samples must be used for pH, temperature, cyanide, total phenols, residual chlorine, oil and grease, and fecal coliform and all volatile organics. For all other pollutants, 24-hour composite samples must be used unless otherwise specified by the Department. However, a minimum of one grab sample may be taken for effluents from holding ponds or other impoundments with a retention period greater than 24 hours. In addition, for discharges other than storm water discharges, the Director may waive composite sampling for any outfall for which the applicant demonstrates that the use of an automatic sampler is infeasible and that the minimum of four (4) grab samples will be a representative sample of the effluent being discharged. For storm water discharges, all samples shall be collected from the discharge resulting from a storm event that is greater than 0.1 inch in a 24 hour period and at least 72 hours from the previously measurable (greater than 0.1 in a 24 hour period inch rainfall) storm event. Where feasible, the variance in the duration of the event and the total rainfall of the event should not exceed 50 percent from the average or median rainfall event in that area. For all applicants, a flow-weighted composite shall be taken for either the entire discharge or for the first

three hours of the discharge. The flow-weighted composite sample for a storm water discharge may be taken with a continuous sampler or as a combination of a minimum of three sample aliquots taken in each hour of discharge for the entire discharge or for the first three hours of the discharge, with each aliquot being separated by a minimum period of fifteen minutes (applicants submitting permit applications for storm water discharges under Rule 31(d) (40 CFR 122.26(d)) may collect flow weighted composite samples using different protocols with respect to the time duration between the collection of sample aliquots, subject to the approval of the Director). However, a minimum of one grab sample may be taken for storm water discharges from holding ponds or other impoundments with a retention period greater than 24 hours. For a flow-weighted composite sample, only one analysis of the composite of aliquots is required. For storm water discharge samples taken from discharges associated with industrial activities, quantitative data must be reported for the grab sample taken during the first thirty minutes (or as soon thereafter as practicable) of the discharge for all pollutants specified in Rule 31(c)(1) (40 CFR 122.26(c)(1)). For all storm water permit applicants taking flow-weighted composites, quantitative data must be reported for all pollutants specified in Rule 31 (40 CFR 122.26) except pH, temperature, cyanide, total phenols, residual chlorine, oil and grease, fecal coliform, and fecal streptococcus. The Director may allow or establish appropriate site-specific sampling procedures or requirements, including sampling locations, the season in which the sampling takes place, the minimum duration between the previous measurable storm event and the storm event sampled, the minimum or maximum level of precipitation required for an appropriate storm event, the form of precipitation sampled (snow melt or rain fall), protocols for collecting samples under 40 CFR Part 136, and additional time for submitting data on a case-by-case basis. An applicant is expected to "know or have reason to believe" that a pollutant is present in an effluent based on an evaluation of the expected use, production, or storage of the pollutant, or on any previous analyses for the pollutant. (For example, any pesticide manufactured by a facility may be expected to be present in contaminated storm water runoff from the facility.)

(i) (A) Every applicant must report quantitative data for every outfall for the following pollutants:

(1) Biochemical Oxygen Demand (BOD);

(2) Chemical Oxygen Demand;

(3) Total Organic Carbon;

(4) Total Suspended Solids and Total Dissolved Solids;

(5) Ammonia (as N);

(6) Temperature (both winter and summer); and

(7) pH

(B) At the applicant's request, the Department may waive the reporting requirements for one or more of the pollutants listed in paragraph (a)(14)(i)(A) of this section.

(i) Each applicant with processes in one or more primary industry category (see Appendix D) contributing to a discharge must report quantitative data for the following pollutants in each outfall containing process wastewater:

(A) The organic toxic pollutants in the fractions designated in Table I of Appendix A for the applicant's industrial category or categories unless the applicant qualifies as a small business under paragraph (a)(15) of this section. Table II of Appendix A lists the organic toxic pollutants in each fraction. The fractions resulted from the sample preparation required by the analytical procedures which uses gas chromatography/mass spectrometry. A determination that an applicant falls within a particular industrial category for the purposes of selecting fractions for testing is not conclusive as to the applicant's inclusion in that category for any other purposes.

(B) The pollutants listed in Table III of Appendix A (the toxic metals, cyanide, and total phenols).

(ii) Each applicant must report for each outfall quantitative data for the following pollutants, if the applicant knows or has reason to believe that the pollutant is discharged from the outfall:

(A) All pollutants listed in Table II or Table III of Appendix A (the toxic pollutants) for which quantitative data is not otherwise required under paragraph (a)(14)(ii) of this section except that an applicant qualifying as a small business under paragraph (a) (15) of this section is not required to analyze for the pollutants listed in Table II of Appendix A (the organic toxic pollutants).

(B) All pollutants in Table IV of Appendix A (certain conventional and nonconventional pollutants).

(iii) Each applicant must indicate whether it knows or has reason to believe that any of the pollutants in Appendix A, Table V (certain hazardous substances and asbestos) are discharged from each outfall. For every pollutant expected to be discharged, the applicant must briefly describe the reasons the pollutant is expected to be discharged, and report any quantitative data it has for any pollutant.

(iv) Each applicant must report qualitative data, generated using a screening procedure not calibrated with analytical standards, for 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) if it:

(A) Uses or manufactures 2,4,5-tichlorophenoxy acetic acid (2,4,5-T); 2-(2,4,5-trichlorophenoxy) propanoic acid (Silvex, 2,4,5, TP); 2-(2,4,5-trichlorophenoxy) ethyl 2,2-dichloropropionate (Erbon); O,O-dimethyl O-(2,4,5-trichlorophenyl) phosphorothionate (Ronnel); 2,4,5-trichlorophenol (TCP); or hexachlorophene (HCP); or

(B) Knows or has reason to believe that TCDD is or may be present in an effluent.

(15) Small business exemption. An applicant which qualifies as a small business may be exempt from the requirements in paragraphs (a)(14)(ii)(A) or (a)(14)(iii)(A) of this section to submit quantitative data for the pollutants listed in Table II of Appendix B (the organic toxic pollutants); An applicant may qualify if its gross total annual sales averages less than $100,000 per year (in second quarter 1980 dollars). Applicants who feel they qualify should submit a request for exemption to the Department. The Department shall consider the toxicity of the pollutant in making a decision to exempt an applicant pursuant to this paragraph.

(16) Toxics used or manufactured. A listing of any toxic pollutant which the applicant does or expects that it will, during the next 5 years, use or manufacture as an intermediate or final product or byproduct.

(17) Potential discharges. A description of the expected levels of and the reasons for any discharges of pollutants which the applicant knows or has reason to believe will exceed two times the values reported in paragraph (a)(14) of this section over the next 5 years.

(18) Biological toxicity tests. An identification of biological toxicity tests which the applicant knows or has reason to believe have been made within the last 3 years on any of the applicant's discharges or on a receiving water in relation to a discharge.

(19) Contract analyses. If a contract laboratory or consulting firm performed any of the analyses required by paragraph (a)(14) of this section, the identity of each laboratory or firm and the analyses performed.

(20) Additional information. In addition to the information reported on the application form, applicants shall provide to the Department upon the Department's request, such other information as the Department may reasonably require to assess the discharges of the facility and to determine whether to issue a RIPDES permit. The additional information may include additional quantitative data and bioassays to assess the relative toxicity of discharges to aquatic life and requirements to determine the causes of the toxicity.

11.03 Application requirements for new and existing concentrated animal feeding operations and aquatic animal production facilities. New and existing concentrated animal feeding operations and concentrated aquatic animal production facilities shall provide the following information:

(a) For concentrated animal feeding operations:

(1) The type and number of animals in open confinement and housed under roof.

(2) The number of acres used for confinement feeding.

(3) The designs basis for the runoff diversion and control system, if one exists, including the number of acres of contributing drainage, the storage capacity, and the design safety factor.

(b) For concentrated aquatic animal production facilities:

(1) The maximum daily and average monthly flows from each outfall.

(2) The number of ponds, raceways, and similar structures.

(3) The name of the receiving water and the source of intake water.

(4) For each species of aquatic animals, the total yearly and maximum harvestable weight.

(5) The calendar month of maximum feeding and the total mass of food fed during that month.

11.04 The Department may require that an applicant for a RIPDES permit provide additional data, reports, specifications, plans or other information concerning the existing or proposed pollution control program.

11.05 Recordkeeping. Applicants shall keep records of all data used to complete permit applications and any supplemental information submitted to the Department under these regulations for a period of at least 5 years from the date the application is signed.

11.06 Special provisions for applications for new sources.

(a) The owner or operator of any facility which may be a new source (as defined in Rule 3) must comply with the provisions of this paragraph.

(b)

(1) Before beginning any on-site construction as defined in 40 CFR 122.29, the owner or operator or any facility which may be a new source must submit information to the Director so that he or she can determine if the facility is a new source. The Director may request any additional information needed to determine whether the facility is a new source.

(2) The Director shall make an initial determination whether the facility is a new source within 30 days of receiving all necessary information under paragraph (b)(1) of this section.

(c) The Director shall issue a public notice in accordance with Rule 41 of the new source determination under paragraph (b) of this section.

(d) Any interested person may challenge the Director's initial new source determination by requesting an evidentiary hearing under Rule 49 within 30 days of issuance of the public notice of the initial determination. The Director may defer the evidentiary hearing in the determination until after a final permit decision is made, and consolidate the hearing on the determination with any hearing on the permit.

RULE 12 - SIGNATORIES TO PERMIT APPLICATIONS AND REPORTS

(a) Applications. All permit applications shall be signed as follows:

(1) For a corporation: by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:

(i) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or

(ii) The manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding $25 million (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

(2) For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or

(3) For a municipality, State, Federal, or other public agency: by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes:

(i) The chief executive officer of the agency, or

(ii) A senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of EPA).

(b) Reports. All reports required by permits and other information requested by the Director shall be signed by a person described in paragraph (a) of this section, or by a duly authorized representative of that person. A person is a duly authorized representative only if:

(1) The authorization is made in writing by a person described in paragraph (a) of this section;

(2) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field, superintendent, or position of equivalent responsibility. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.) and

(3) The written authorization is submitted to the Director.

(c) Changes to authorization. If an authorization under paragraph (b) of this section is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of paragraph (b) of this section must be submitted to the Director prior to or together with any reports, information, or applications to be signed by an authorized representative.

(d) Certification. Any person signing a document under paragraphs (a) or (b) of this section shall make the following certification:

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 there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

RULE 13 - CONTINUATION OF NPDES PERMITS AND EXPIRED RIPDES PERMITS

(a) The conditions of an NPDES permit or an expired RIPDES permit are continued in force until the effective date of a new RIPDES permit if: the permittee has submitted a timely and complete application for a RIPDES permit or an application for a renewal of the permit, and the Department through no fault of the permittee, does not issue a new permit with an effective date under Rule 46 on or before the expiration date of the previous permit (e.g. when issuance is impracticable due to time or resource constraints).

(b) Permits continued under this section remain fully effective and enforceable.

(c) Enforcement. When the permittee is not in compliance with the conditions of the expiring or expired permit the Department may choose to do any or all of the following:

(1) Initiate enforcement action based upon the permit which has been continued;

(2) Issue a notice of intent to deny the new permit, under Rule 41. If the permit is denied, the owner or operator would then be required to cease the activities authorized by the continued permit or be subject to enforcement action for operating without a permit;

(3) Issue a new permit with appropriate conditions; or

(4) Take other actions authorized by these regulations or the General Laws of Rhode Island.

RULE 14 - CONDITIONS APPLICABLE TO ALL PERMITS

14.01 All conditions applicable to all permits shall be incorporated into the permit either expressly or by reference. A specific citation to these or other regulations shall be given in the permit. The following conditions apply to all permits:

14.02 Duty to comply

(a) The permittee shall comply with all conditions of this permit. No pollutant shall be discharged more frequently than authorized or at a level in excess of that which is authorized by the permit. The discharge of any pollutant not specifically authorized in the RIPDES permit or listed and quantified in the RIPDES application shall constitute a violation of the permit. Any permit noncompliance constitutes a violation of the State Act or other authority of these regulations and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

(b) A permittee shall not achieve any effluent concentration by dilution. Nor shall a permittee increase the use of process water or cooling water or otherwise attempt to dilute a discharge as a partial or complete substitute for adequate treatment to achieve permit limitations or water quality standards.

(c) The permittee shall comply with applicable effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

14.03 Duty to reapply. If the permittee wishes to continue an activity regulated by a RIPDES permit after the expiration date of the permit, the permittee shall apply for and obtain a new permit.

14.04 Need to halt or reduce not a defense.

(a) It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

14.05 Duty to mitigate. The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

14.06 Proper operation, maintenance, and operator licensing. The permittee shall at all times maintain in good working order and operate as efficiently as possible all treatment works, facilities, and systems of treatment and control (and related appurtenances) for collection and treatment which are installed or used by the permittee for water pollution control and abatement to achieve compliance with the terms and conditions of the permit.

Proper operation and maintenance includes but is not limited to effective performance based on designed facility removals, adequate funding, effective management, adequate operator staffing and training and adequate laboratory and process controls including quality assurance procedures as determined to be appropriate by the Director. This provision requires the filing of an Operation and Maintenance Plan which describes backup or auxiliary facilities or similar systems to assure compliance with permit conditions.

14.07 Permit actions. This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

14.08 Property rights. This permit does not convey any property rights of any sort, or any exclusive privilege.

14.09 Duty to provide information. The permittee shall furnish to the Department within a reasonable time, any information which the Department may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Department upon request, copies of records required to be kept by this permit.

14.10 Inspection and entry. The permittee shall allow the Department or an authorized representative, upon the presentation of credentials and other documents as may be required by law to:

(a) Enter upon the permittee's premises where a discharge source is or might be located or in which monitoring equipment or records required by a permit are kept for purposes of inspection, sampling or copying;

(b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

(c) Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and

(d) Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the State Act, any substances or parameters at any location.

14.11 Monitoring and Records

(a) All permits shall specify:

(1) Requirements concerning the proper use, maintenance, and installation, when appropriate, of monitoring equipment or methods (including biological monitoring methods when appropriate);

(2) Required monitoring including type, intervals, and frequency sufficient to yield data which are representative of the monitored activity, when appropriate, continuous monitoring;

(3) Applicable reporting requirements based upon the impact of the regulated activity and as specified in these regulations but in no case less than once a year.

(b) The permittee shall monitor:

(1) The mass (or other measurement specified in the permit) for each pollutant limited in the permit;

(2) The volume of effluent discharged from each outfall;

(3) Other measurements as appropriate; including pollutants in internal waste streams, pollutants in intake water for net limitations; frequency, rate of discharge, etc. for noncontinuous discharges; and pollutants subject to notification requirements under Rule 16.01.

(c) Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

(d) All analyses shall be performed in accordance with the analytical test procedures approved under 40 CFR Part 136 or subsequently established by EPA. Where no approved test procedure is available, the applicant must indicate a suitable analytical procedure and must provide the Department with literature references or a detailed description of the procedure. The Department may consider such method as appropriate procedure and may require its use in the RIPDES permit.

14.12 The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 5 years from the date of the sample, measurement, report or application. This period may be extended by request of the Department at any time.

14.13 Records of monitoring information shall include:

(a) The date, exact place, and time of sampling of measurements;

(b) The individual(s) who performed the sampling of measurements;

(c) The date(s) analyses were performed;

(d) The individual(s) who performed the analyses;

(e) The analytical techniques or methods used;

(f) The results of such analyses; and

(g) The volume of effluent discharged at the time of sampling or measurement.

14.14 Monitoring results shall be reported on a Discharge Monitoring Report (DMR) and on the Department's Monitoring Report Form (MRF).

14.15 If the permittee monitors any pollutant more frequently than required by the permit, using test procedures approved under 40 CFR 136 or as specified in the permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR and MRF.

14.16 Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the Department in the permit.

14.17 Reporting requirements.

(a) Planned changes. The permittee shall give notice to the Department as soon as possible of any planned physical alterations or additions to the permitted facility.

(b) Anticipated noncompliance. The permittee shall give reasonable advance notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

(c) Transfers. The permit is not transferable to any person except after notice to the Department. The Department may require modification, revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary.

(d) Monitoring reports. Monitoring results shall be reported at the intervals specified in the permit.

(e) Compliance schedules. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.

14.18 Reporting.

(a) The permittee shall immediately report any noncompliance which may endanger health or the environment. Any information shall be provided orally when the permittee becomes aware of the circumstances by calling DEM, Operations & Maintenance Section at 222-4700 or 222-3070 during non-business hours. A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

(b) The following shall be included as information which must be reported immediately.

(1) Any unanticipated bypass which exceeds any effluent limitation in the permit.

(2) Any upset which exceeds any effluent limitation on the permit.

(3) Violation of a maximum daily discharge limitation for any of the pollutants listed by the Director in the permit.

(c) The Director may waive the written report in a case-by-case basis for reports under paragraph (b) of this section if the oral report has been received within 24 hours.

14.19 Other noncompliance. The permittee shall report all instances of noncompliance, not otherwise reported under subsections 14.17 and 14.18 at the time monitoring reports are submitted. The reports shall contain the information required in subsection 14.18.

14.20 Bypass

(a) Bypass not exceeding limitations. The permittee may allow any bypass to occur which does not cause effluent limitation to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs (b) and (c) of this section.

(b) Notice.

(1) Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten days before the date of the bypass.

(2) Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in Rule 14.18 (24-hour notice).

(c) Prohibition of bypass.

(1) Bypass is prohibited, and the Director may take enforcement action against a permittee for bypass, unless:

(i) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage; for purposes of this section "severe property damage" means:

(A) Substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

(ii) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if the permittee could have installed adequate backup equipment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and

(iii) The permittee submitted notices as required under paragraph (b) of this section.

(2) The Director may approve an anticipated bypass, after considering its adverse effects, if the Director determines that it will meet the three conditions listed above in paragraph (c)(1)(i) of this section.

14.21 Upset.

(a) Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of paragraph (b) of this section are met. No determination made during administrative review of claims that noncompliance was caused by upset and before an action for noncompliance, is final administrative action subject to judicial review.

(b) Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate through properly signed, contemporaneous operating logs, or other relevant evidence that:

(1) An upset occurred and that the permittee can identify the specific cause(s) of the upset;

(2) The permitted facility was at the time being properly operated;

(3) The permittee submitted notice of the upset as required in Rule 14.18 of this section (24-hour notice); and

(4) The permittee complied with any remedial measures required under Rule 14.05 of this section.

(c) Burden of proof. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

14.22 Other information. Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Department, the permittee shall promptly submit such facts or information.

RULE 15 - ESTABLISHING LIMITATIONS, STANDARDS & OTHER PERMIT CONDITIONS

15.01 Each permit shall include conditions meeting the following requirements when applicable:

(a) Technology-based effluent limitations and standards based on effluent limitations and standards promulgated under Section 301 of the Clean Water Act or new source performance standards promulgated under Section 306 of the Clean Water Act; or case-by-case effluent limitations determined under Section 402(a)(1) of the Clean Water Act, or on a combination of the two, in accordance with 40 CFR Section 125.3.

(b) Other effluent limitations and standards under Sections 301, 302, 303, 307, 318 and 405 of the Clean Water Act, and 40 CFR Parts 125, 129, 133, and subchapter N. If any applicable toxic effluent

standard or prohibition (including any schedule of compliance specified in such effluent standards or prohibition) is promulgated under Section 307(a) of the Clean Water Act for a toxic pollutant and that standard or prohibition is more stringent that any limitation on the pollutant in the permit, the Department shall institute proceedings under these regulations to modify or revoke and reissue the permit to conform to the toxic effluent standard or prohibition.

(c) Reopener clause: for any discharge within a primary industry category (see Appendix D), requirements under Section 307(a)(2) of the Clean Water Act as follows:

(1) Any permit issued shall include effluent limitations and a compliance schedule to meet the requirements of Sections 301(b)(2)(A),(C),(D),(E) and (F) of the Clean Water Act whether or not applicable effluent limitation guidelines have been promulgated or approved. Such permits shall contain a provision that, if an applicable standard limitation is promulgated under Section 301(b)(2)(C) and (D), 304(b)(2), and 307(a)(2) of the Clean Water Act and that effluent standard or limitations is more stringent than any effluent limitation in the permit, or controls a pollutant not limited in the permit, the permit shall be promptly modified or revoked and reissued to conform to the effluent standard or limitation.

(2) The Department shall promptly modify or revoke and reissue any permit to incorporate an applicable effluent standard or limitation under Sections 301(b)(2)(C) and (D), 304(b)(2) and 307(a)(2) of the Clean Water Act which is promulgated or approved after the permit is issued if that effluent standard or limitation is more stringent than any effluent limitation in the permit, or controls a pollutant not limited in the permit.

(d) Water quality standards and State requirements: any requirements in addition to or more stringent than promulgated effluent limitations guidelines or standards under Sections 301, 304, 306, 307, 318, and 405 of the Clean Water Act necessary to:

(1) Achieve water quality standards; established under Section 303 of the Clean Water Act;

(2) Attain or maintain a specified water quality through water quality-related effluent limits established under Section 302 of the Clean Water Act;

(3) Conform to applicable water quality requirements under Section 401(a)(2) of the Clean Water Act when the discharge affects a state other than the certifying State;

(4) Incorporate any more stringent limitations, treatment standards, or schedule of compliance requirements established under Federal or State law or regulations in accordance with Section 301(b)(1)(C) of the Clean Water Act or Chapter 46-12 of the General Laws of Rhode Island;

(5) Ensure consistency with the requirements of a Water Quality Management plan approved by EPA and the Governor of Rhode Island under Section 208(b) of the Clean Water Act;

(6) Incorporate Section 403(c) criteria under 40 CFR Part 125, Subpart M, for ocean discharges;

(7) Incorporate alternative effluent limitations or standards where warranted by "fundamentally different factors", under 40 CFR Part 125, Subpart D.

(e) Toxic pollutants: limitations established under paragraphs (a), (b), or (d) of this section, to control pollutants meeting the criteria listed in paragraph (e)(1) of this section, shall be established in accordance with paragraph (e)(2) of this section. An explanation of the development of these limitations shall be included in the fact sheet under Rule 39.

(1) Limitations must control all toxic pollutants which:

(i) The Department determines (based on information reported in a permit application under Rule 11 or in a notification under subsection 16.01 or on other information) are or may be discharged at a level greater than the level which can be achieved by the technology-based treatment requirements appropriate to the permittee under 40 CFR Section 125.3(c); or

(ii) The discharger does or may use or manufacture as an intermediate or final product or byproduct.

(2) The requirement that the limitations control the pollutants meeting the criteria of paragraph (e)(1) of this section will be satisfied by:

(i) Limitations on those pollutants; or

(ii) Limitations on other pollutants which, in the judgement of the Department, will provide treatment of the pollutants under paragraph (e)(1) of this section to the levels required by 40 CFR Section 125.3(c).

(f) Maximum Daily Discharge Limitations. The requirement that the permit contain a list of all pollutants for which a permittee must report violations of maximum daily discharge limitations. This list shall include any toxic pollutant or hazardous substance, or any pollutant specifically identified as the method to control a toxic pollutant or hazardous substance.

(g) Best Management Practices: Adopt best management practices to control or abate the discharge of pollutants when:

(1) Authorized under Section 304(e) of the Clean Water Act for the control of toxic pollutants and hazardous substances from ancillary activities;

(2) Authorized under Section 402(p) of CWA for the control of storm water discharges;

(3) Numeric effluent limitations are infeasible, or

(4) The practices are reasonably necessary to achieve effluent limitations and standards or to carry out the purposes and intent of the State and Federal Acts.

(h) Notification Level: The requirement that the permit contain a "notification level" which may not exceed those levels provided in Rule 16.01 (a) or the level which can be achieved by the technology-based treatment requirements appropriate to the permittee under 40 CFR Section 125.3(c).

(i) Qualifying State, or local programs. A qualifying local program is a local or State storm water management program that the Director determines, at a minimum, the relevant requirements in Rule 31(e)(3)(ii) are imposed. Where a qualifying State, or local program does not include one or more of the elements as conditions in the permit, the operator of the MS4 is required to include the missing elements in the storm water management program.

(1) For storm water discharges associated with small construction activity identified in Rule 31(b)(16), the Director may include permit conditions that incorporate qualifying State, or local erosion and sediment control program requirements by reference. A qualifying State, or local erosion and sediment control program is one that includes:

(i) Requirements for construction site operators to implement appropriate erosion and sediment control best management practices;

(ii) Requirements for construction site operators to control waste, such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste at the construction site that may cause adverse impacts to water quality;

(iii) Requirements for construction site operators to develop and implement a storm water pollution prevention plan. (A storm water pollution prevention plan includes site descriptions, description of appropriate control measures, copies of approved State or local requirements, maintenance procedures, inspection procedures, and identification of non-storm water discharges); and

(iv) Requirements to submit a site plan for review that incorporates consideration of potential water quality impacts.

(2) For storm water discharges from construction activity identified in Rule 31(b)(15)(x), the Director may include permit conditions that incorporate qualifying State, or local erosion and sediment control program requirements by reference. A qualifying State, or local erosion and sediment control program is one that includes the elements listed in paragraph (i)(1) of this section and any additional requirements necessary to achieve the applicable technology-based standards of “best available technology” and “best conventional technology” based on the best professional judgement of the permit writer.

RULE 16 - CONDITIONS APPLICABLE TO SPECIFIC TYPES OF PERMITS

The following conditions, in addition to those set forth in Rules 14 and 15, apply to all RIPDES permits within the categories specified below:

16.01 Existing manufacturing, commercial, mining, and silvicultural dischargers and research facilities. All existing manufacturing, commercial, mining, and silvicultural dischargers and research facilities must notify the Department as soon as they know or have reason to believe:

(a) That any activity has occurred or will occur which would result in the discharge of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification level".

(1) One hundred micrograms per liter (100 ug/l);

(2) Two hundred micrograms per liter (200 ug/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/l) for 2, 4 - dinitrophenol and for 2 - methyl-4, 6-dinitrophenol, and one milligram per liter (1 mg/l) for antimony:

(3) Five (5) times the maximum concentration value reported for the pollutant on the permit application;

(4) The level established by the Department in accordance with Rule 17.

(b) That they have begun or expect to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant which was not reported in the permit application.

16.02 POTWs.

(a) All POTWs must provide adequate notice to the Department of the following:

(1) Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to Sections 301 or 306 of the Clean Water Act, if it were directly discharging those pollutants; and

(2) Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.

(3) For purposes of this paragraph, adequate notice shall include information in (i) the quality and quantity of effluent introduced into the POTW, and (ii) any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

16.03 Grants to POTWs. Any conditions imposed in grants made by the Administrator to POTWs under Sections 201 and 204 of the Clean Water Act or by the Department which are reasonably necessary for the achievement of effluent limitations under Section 301 of the Clean Water Act or Chapter 46-12 of the General Laws of Rhode Island.

16.04 Pretreatment Requirements for POTWs

(a) Identify, in terms of character and volume of pollutants, any significant indirect dischargers into the POTW subject to pretreatment standards under Section 307(b) of the Clean Water Act, 40 CFR Part 403, and the Rhode Island Pretreatment Regulations;

(b) Notify the Department in advance of the quality and quantity of all new introduction of pollutants into a facility and of any substantial change in the pollutants introduced into a facility by an existing user of the facility, except for such introductions of nonindustrial pollutants as the Department may exempt from this notification requirement when ample capacity remains in the facility to accommodate new inflows. Such notifications shall estimate the effects of such changes on the effluents to be discharged from the facility;

(c) To establish an effective regulatory program, alone or in conjunction with the operators of sewage collection systems, that will assure compliance and monitor progress toward compliance by industrial users of the facilities with toxicity standards and pretreatment standards;

(d) As actual flows to the facility approach design flow or design loading limits, to submit to the Department for approval, a program which the permittee and the persons responsible for building and maintaining the contributory system shall pursue in order to prevent overload of the facilities;

(e) Submit a local program when required by and in accordance with 40 CFR Part 403 and the Rhode Island Pretreatment Regulations to assure compliance with pretreatment standards to the extent applicable under Section 307(b). The local program shall be incorporated into the permit as described in 40 CFR Part 403 and the Rhode Island Pretreatment Regulations. This program shall require all indirect dischargers to the POTW to comply with the reporting requirements of 40 CFR Part 403 and the Rhode Island Pretreatment Regulations.

16.05 Privately Owned Treatment Works. A permit for a privately owned treatment works may contain any conditions expressly applicable to any user, as a limited co-permittee, that may be necessary in the permit issued to the treatment works to ensure compliance with applicable regulations parts. Alternatively, the Director may issue separate permits to the treatment works and to its users, or may require a separate permit application from any user. The Director's decision to issue a permit with no conditions applicable to any user, to impose conditions on one or more users, to issue separate permits, or to require separate applications, and the basis for that decision, shall be stated in the fact sheet for the draft permit for the treatment works.

16.06 Reissued Permits

(a) Except as provided in paragraph (b) of this subsection, when a permit is renewed or reissued, interim limitations, standards, or conditions which are at least as stringent as the final limitations, standards, or conditions in the previous permit (unless the circumstances on which the previous permit was based have materially and substantially changed since the time the permit was issued and would constitute causes for permit modification or revocation and reissuance) shall be included in such permit.

(b) When effluent limitations were imposed under Section 402(a)(1) of the Clean Water Act in a previously issued permit and these limitations are more stringent than the subsequently promulgated effluent guidelines, this paragraph shall apply unless:

(1) The discharger has installed the treatment facilities required to meet the effluent limitations in the previous permit and has properly operated and maintained the facilities but has nevertheless been unable to achieve the previous limitations. In this case the limitations in the renewed or reissued permit may reflect the level of pollutant control actually achieved (but shall not be less stringent than required by the subsequently promulgated effluent limitation guidelines);

(2) The subsequently promulgated effluent guidelines are based in best conventional pollutant control technology (Section 301(b)(2)(E) of the Clean Water Act);

(3) The circumstances on which the previous permit was based have materially and substantially changed since the time the permit was issued and would constitute cause for permit modification or revocation and reissuance; or

(4) There is increased production at the facility which results in significant reduction in treatment efficiency, in which case the permit limitations will be adjusted to reflect any decreased efficiency resulting from increased production and raw waste loads; but in no event shall permit limitations be less stringent than those required by subsequently promulgated standards and limitations.

16.07 Coast Guard. When a permit is issued to a facility that may operate at certain times as a means of transportation over water, a condition that the discharge shall comply with any applicable regulations promulgated by the Secretary of the Department in which the Coast Guard is operating, that establish specifications for safe transportation, handling, carriage, and storage of pollutants.

16.08 Navigation. Any conditions that the Secretary of the Army considers necessary to ensure that navigation and anchorage will not be substantially impaired, in accordance with Rule 55.

16.09 Sewage Sludge. A permit may contain conditions governing the disposal of sewage sludge from publicly owned treatment works in accordance with Section 405 of the Clean Water Act and any applicable regulations.

16.10 Municipal Separate Storm Sewer Systems.

(a) The operator of a large or medium municipal separate storm sewer system or a municipal separate storm sewer that has been designated by the Director under Rule 31(a)(1)(v) must submit an annual report by the anniversary of the date of the issuance of the permit for such system. The report shall include:

(1) The status of implementing the components of the storm water management program that are established as permit conditions;

(2) Proposed changes to the storm water management programs that are established as permit condition. Such proposed changes shall be consistent with Rule 31(d)(2)(iv); and

(3) Revisions, if necessary, to the assessment of controls and the fiscal analysis reported in the permit application under Rule 31(d)(2)(v) and (d)(2)(vi);

(4) A summary of data, including monitoring data, that is accumulated throughout the reporting year;

(5) Projected annual expenditures and budget for year following each annual report;

(6) A summary describing the number and nature of enforcement actions, inspections, and public education programs; and

(7) Identification of water quality improvements or degradation.

(b) The operator of a regulated small MS4 must evaluate program compliance, the appropriateness of the identified best management practices, and progress towards achieving the identified measurable goals. The Department may develop specific monitoring requirements in accordance with State monitoring plans appropriate to the watershed.

(1) The operator of a regulated small MS4 must keep records required by the RIPDES permit for at least three (3) years. The operator must submit the records to the Department only when specifically asked to do so. The operator must make the records, including a copy of the storm water management program plan, available to the public at reasonable times during regular business hours.

(2) Unless the operator is relying on another entity to satisfy the RIPDES permit obligation in accordance to Rule 31(a)(5)(ii)(D), the operator must submit annual reports to the Department for the first permit term. For subsequent permit terms, the operator must submit reports in year two (2) and four (4) unless the Department requires more frequent reports. The report must include:

(i) The status of compliance with permit conditions, an assessment of the appropriateness of the identified best management practices and progress towards achieving the identified measurable goals for each of the minimum control measures;

(ii) Results of information collected and analyzed, including monitoring data, if any, during the reporting period;

(iii) A summary of the storm water activities the operator plans to undertake durng the next reporting cycle;

(iv) A change in any identified best management practices or measurable goals for any of the minimum control measures; and

(v) Notice that the operator is relying on another government entity to satisfy some of the permit obligations (if applicable).

RULE 17 - CALCULATING RIPDES PERMIT CONDITIONS

17.01 Outfalls and discharge points. All permit effluent limitations, standards, and prohibitions shall be established for each outfall or discharge point of the permitted facility, except as otherwise provided under Rule 15.01(g) (BMPs where limitations are infeasible) and paragraph 17.09 of this section (limitations on internal waste streams).

17.02 Production-based limitations.

(a) In the case of POTWs, permit limitations, standards or prohibitions shall be calculated based on design flow.

(b) Except in the case of POTWs, calculation of any permit limitations, standards, or prohibitions which are based on production (or other measure of operation) shall be based not upon the designed production capacity but rather upon a reasonable measure of actual production of the facility, such as the production during the high month of previous year, or the monthly average for the highest of the previous five years. For new sources actual production shall be estimated using projected production. The time period for calculating permit limitations, for example, monthly production, shall be used to calculate average monthly discharge limitations.

17.03 Metals. All permit effluent limitations, standards, or prohibitions for a metal shall be expressed in terms of the total metal (that is, the sum of the dissolved and suspended fractions of the metal) unless:

(a) An applicable effluent standard or limitation has been promulgated under the Federal or State Acts and specified the limitation for the metal in the dissolved or valent forms; or

(b) In establishing permit limitations on a case-by-case basis under 40 CFR Section 125.3, it is necessary to express the limitation on the metal in dissolved or valent form in order to carry out the provisions of the State and Federal Acts.

17.04 Continuous discharges. For continuous discharges all permit effluent limitations, standards, and prohibitions, including those necessary to achieve water quality standards, shall unless impracticable be stated as:

(a) Maximum daily and average monthly discharge limitations for all dischargers other than publicly owned treatment works; and

(b) Maximum daily, average weekly and average monthly discharge limitations for POTWs.

17.05 Non-continuous discharges. Discharges which are not continuous shall be particularly described and limited, considering the following factors, as appropriate:

(a) Frequency (for example, a batch discharge shall not occur more than once every 3 weeks);

(b) Total mass (for example, not to exceed 100 pounds of zinc and 200 pounds of chromium per batch discharge);

(c) Maximum rate of discharge of pollutants during the discharge (for example, not to exceed 2 pounds of zinc per minute); and

(d) Prohibition or limitation of specified pollutants by mass, concentration, or other appropriate measure (for example, shall not contain at any time more than 0.1 mg/l zinc or more than .25 pounds of zinc in any discharge).

17.06 Mass limitations.

(a) All pollutants limited in permits shall have limitations, standards, or prohibitions expressed in terms of mass except:

(1) For pH, temperature, radiation, or other pollutants which cannot appropriately be expressed by mass;

(2) When applicable standards and limitations are expressed in terms of other units of measurement; or

(3) If in establishing permit limitations on a case-by-case basis under 40 CFR Section 125.3, limitations expressed in terms of mass are infeasible because the mass of the pollutant discharged cannot be related to a measure of operations (for example, discharges of TSS from certain mining operations), and permit conditions ensure that dilution will not be used as a substitute for treatment.

(b) Pollutants limited in terms of mass may additionally be limited in terms of other units of measurement, and the permit shall require the permittee to comply with both limitations.

17.07 Pollutants in intake water. Except as provided in Rule 17.08, effluent limitations imposed in permits shall not be adjusted for pollutants in the intake water.

17.08 Net limitations.

(a) Upon request of the discharger, effluent limitations or standards imposed in a permit shall be calculated on a "net" basis; that is, adjusted to reflect credit for pollutants in the discharger's intake water, if the discharger demonstrates that its intake water is drawn from the same body of water into which the discharge is made and if:

(1) (i) The applicable effluent limitations and standards contained in 40 CFR Subchapter N specifically provide that they shall be applied on a net basis; or

(ii) The discharger demonstrates that pollutants present in the intake water will not be entirely removed by the treatment systems operated by the discharger; and

(2) The permit conditions requiring:

(i) The permittee to conduct additional monitoring (for example, for flow and concentration of pollutants) as necessary to determine continued eligibility for and compliance with any such adjustments; and

(ii) The permittee to notify the Department if eligibility for an adjustment under this section has been altered or no longer exists. In that case, the permit may be modified.

(b) Permit effluent limitations or standards adjusted under this paragraph shall be calculated on the basis of the amount of pollutants present after any treatment steps have been performed on the intake water by or for the discharger. Adjustments under this paragraph shall be given only to the extent that pollutants in the intake water which are limited in the permit are not removed by the treatment technology employed by the discharger.

(c) In addition, effluent limitations or standards shall not be adjusted to the extent that the pollutants in the intake water vary physically, chemically, or biologically from the pollutants limited in the permit. Nor shall effluent limitations or standards be adjusted to the extent that the discharger or standards be adjusted to the extent that the discharger significantly increases concentrations of pollutants in the intake water, even though the total amount of pollutants might remain the same.

(d) This subsection shall apply to dischargers to surface or ground water only if the discharger demonstrates to the satisfaction of the Department that the discharger is not responsible for the background pollutants present in the intake water.

17.09 Internal waste streams.

(a) When permit effluent limitations or standards imposed at the point of discharge are impractical or infeasible, effluent limitations or standards for discharges of pollutants may be imposed on internal waste streams before mixing with other waste streams or cooling water streams. In those instances, the monitoring required by Rule 14.11(b) shall also be applied to the internal waste stream.

(b) Limits on internal waste streams will be imposed only when the fact sheet under Rule 39 sets forth the exceptional circumstances which make such limitations necessary, such as when the final discharge point is inaccessible (for example, under 10 meters of water), the wastes at the point of discharge are so diluted as to make monitoring impracticable, or the interferences among pollutants at the point of discharge would make detection or analysis impracticable.

17.10 Disposal of pollutants into wells, into POTWs, or by land applications. Permit limitations and standards shall be calculated as provided in Rule 18.

17.11 Water quality based effluent limitations applicable to discharge into the surface waters of the State shall be developed in accordance with "Rhode Island Water Quality Regulations for Water Pollution Control" as amended.

17.12

(a) The values assigned to the toxic substances listed in Appendix E shall be used in computing limitations of an individual toxic substance being discharged from a source into surface waters. The limitation derived through use of these values shall determine the permissible effluent concentration of an individual toxic substance provided that the effluent standard for toxic discharges, as set forth in 40 CFR Section 125.3, is not exceeded.

(b) In-stream concentrations of discharged pollutants shall be determined by the following formulas, or other methods which may be found to be acceptable.

(1) For effluent discharges into surface waters of the State with essentially one dimensional flow (stream discharge):

$$C_x = \frac{(C_E \times Q_E) + (C_u \times Q_u)}{(Q_E + Q_u)}$$

where, C_x = in-stream concentration of pollutants, downstream of the discharge.

C_E = concentration of the pollutant in the effluent.

Q_E = effluent discharge flow rate.

C_u = concentration of the pollutant in the receiving stream, immediately upstream of the discharge.

Q_u = the seven day, 10 year, low flow of the receiving stream immediately upstream of the discharge.

(2) For effluent discharges into surface waters of the State with essentially multi-dimensional flow:

$$F = \frac{v_j}{\sqrt{(\Delta S/S)\, g\, D}}$$

where, F = Froude number

v_j = jet velocity (ft./sec.)

ΔS = difference in specific gravity between the surrounding seawater.

S = Specific gravity of the waste

g = acceleration due to gravity (ft./sec.^{2})

D = discharge jet diameter (ft.)

The initial dilution, D_1, is a function of the Froude number, F, the depth of the discharge port, Y, and the diameter of the discharge port, d. The dilution factor is determined using the curves shown in Appendix F, Figure 1.

Secondary dispersion of the effluent will be determined using Appendix F, Figure 2 where:

D_2 = dilution due to dispersion after initial dilution

V = current velocity (ft./sec.)

(c) Where a total maximum daily load has been developed for a pollutant in a given stream segment, effluent limitations for that pollutant shall be determined by calculating waste load allocations for individual dischargers within that stream segment, instead of by the methods outlined in paragraph (a) and (b) of this section.

RULE 18 - CALCULATING ADJUSTED RIPDES PERMIT CONDITIONS FOR CERTAIN PRACTICES

(a) When part of a discharger's process wastewater is not being discharged into surface waters of the State or contiguous zone because it is disposed into a well, into a POTW, or by land application thereby reducing the flow or level of pollutants being discharged into surface waters of the State, applicable effluent standards and limitations for the discharge in a RIPDES permit shall be adjusted to reflect the reduced raw waste resulting from such disposal. Effluent limitations and standards in the permit shall be calculated by one of the following methods:

(1) If none of the waste from a particular process is discharged into surface waters of the State, and effluent limitations guidelines provide separate allocation for wastes from that process, all allocations for the process shall be eliminated from calculation of permit effluent limitations or standards.

(2) In all cases other than those described in paragraph (a)(1) of this section, effluent limitations shall be adjusted by multiplying the effluent limitation guidelines to the total waste stream by the amount of wastewater flow to be treated and discharged into surface waters of the State and dividing the result by total wastewater flow. Effluent limitations and standards so calculated may be further adjusted under 40 CFR Part 125, Subpart D or applicable State regulations to make them more stringent if dischargers to wells, POTWs or by land application change the character or treatability of the pollutants being discharged to receiving waters.

This method may be algebraically expressed as:

$$P = E \times N/T$$

Where P is the permit effluent limitation, E is the limitation derived by applying effluent guidelines to the total waste stream, N is the wastewater flow to be treated and discharged to surface waters of the State, and T is the total wastewater flow.

(b) Paragraph (a) of this section shall not apply to the extent that promulgated effluent limitations guidelines:

(1) Control concentrations of pollutants discharged but not mass; or

(2) Specify a different specific technique for adjusting effluent limitations to account for well injection, land application, or disposal into POTWs.

(c) Paragraph (a) of this section does not alter a discharger's obligation to meet any more stringent requirements established under Rule 14, 15 and 16.

RULE 19 - DURATION OF PERMIT

(a) A permit shall be effective for a fixed term not to exceed five (5) years.

(b) A permit may be issued for a full term if the permit includes effluent limitations and a compliance schedule to meet the requirements of Section 301(b)(2)(A), (C), (D), (E), and (F) of the Clean Water Act, whether or not applicable effluent limitations guidelines have been promulgated or approved.

(c) A determination that a particular discharger falls within a given industrial category for purposes of setting a permit expiration date under paragraph (b) of this section is not conclusive in that industrial category for any other purposes, and does not prejudice any rights to challenge or change that inclusion at the time that a permit based on that determination is formulated.

(d) The term of a permit shall not be extended by modification beyond the duration specified in subsection (a) above.

(e) The Director may issue any permit for a duration that is less than the full allowable term under this section.

RULE 20 - SCHEDULE OF COMPLIANCE

20.01 General. The permit may, when appropriate, specify a schedule of compliance leading to compliance with the State and Federal Acts and all other applicable authority for these regulations.

20.02 Time for compliance. Any schedules of compliance under this section shall require compliance as soon as possible.

(a) For discharges to surface water or groundwater, schedules of compliance shall require compliance not later than the applicable statutory deadline under State and Federal law, and shall be subject to State and Federal regulations.

(b) The first RIPDES permit issued to a new source, a new discharger, which commenced discharge after August 13, 1979, or a recommencing discharge, or a recommencing discharger, may not contain a schedule of compliance under this section. Within the shortest feasible time of issuance of the new sources new dischargers recommencing discharge permit (not to exceed 90 days) the owner or operator must meet permit conditions.

20.03 Interim dates. Except as provided in paragraph (a)(2) of Rule 20.04, if a permittee establishes a schedule of compliance which exceeds one year from the date of permit issuance, the schedule shall set forth interim requirements and the dates for their achievement.

(a) The time between interim dates shall not exceed one year.

(b) If the time necessary for completion of any interim requirement (such as the construction of a control facility) is more than one year and is not readily divisible into stages for completion, the permit shall specify interim dates for the submission of reports of progress toward completion of the interim requirements and indicate a projected completion date. Examples of interim requirements include: (1) submit a complete step I construction grant (for POTWs); (2) get a contract for construction of required facilities; (3) commence construction of required facilities; and (4) complete construction of required facilities.

(c) Reporting. The permit shall be written to require that no later than 14 days following each interim date and the final date of compliance, the permittee shall notify the Department in writing of its compliance or noncompliance with the interim of final requirements.

20.04 Alternative schedules of compliance. A RIPDES permit application or permittee may cease conducting activities regulated by the State Act rather than continue to operate and meet permit requirements as follows:

(a) If the permittee decides to cease conducting regulated activities at a given time within the term of a permit which has already been issued:

(1) The permit may be modified to contain a new or additional schedule leading to timely cessation of activities; or

(2) The permittee shall cease conducting permitted activities before noncompliance with any interim or final compliance schedule requirement already specified in the permit.

(b) If the decision to cease conducting regulated activities is made before issuance of a permit whose term will include the termination date, the permit shall contain a schedule leading to termination which will ensure compliance no later than the statutory deadline in the Clean Water Act.

(c) If the permittee is undecided whether to cease conducting regulated activities, the Department may issue or modify a permit to contain two schedules as follows:

(1) Both schedules shall contain an identical interim deadline requiring a final decision on whether to cease conducting regulated activities no later than a date which ensures sufficient

time to comply with applicable requirements in a timely manner if the decision is to continue conducting regulated activities;

(2) One schedule shall lead to timely compliance with applicable requirements and shall be no later than the statutory deadline in the Clean Water Act;

(3) The second schedule shall lead to cessation of regulated activities by a date which will ensure timely compliance with applicable requirements, and shall be no later than the statutory deadline in the Clean Water Act;

(4) Each permit containing two schedules shall include a requirement that after the permittee has made final decision under paragraph (c)(1) of this section it shall follow the schedule leading to compliance if the decision is to continue conducting regulated activities, and follow the schedule leading to termination if the decision is to cease conducting regulated activities.

(d) The applicant's or permittee's decision to cease conducting regulated activities shall be evidenced by a solemn public commitment satisfactory to the Department, such as a resolution of the board of directors of a corporation.

20.05 A publicly owned treatment works (POTW) required to develop a pretreatment program shall have a pretreatment program compliance schedule incorporated into the RIPDES permit at the time of issuance, reissuance, or modification of the permit. The compliance schedule shall require the development of an approvable POTW pretreatment program no later than the time prescribed by 40 CFR Part 403.8 and Rule 10 of the Rhode Island Pretreatment regulations, whichever is more stringent.

20.06 New sources or new dischargers or sources which recommence discharging after terminating operations and those sources which had been indirect dischargers which commence discharging into surface waters of the State do not qualify for compliance schedules under this section.

20.07 All permittees shall provide a report indicating the status of compliance in accordance with Rule 14.

RULE 21 - EFFECT OF A PERMIT

(a) Except for any toxic effluent standards and prohibitions imposed under Section 307 of the Clean Water Act, compliance with a permit during its term constitutes compliance for purposes of enforcement under the Clean Water Act and Chapter 46-12 of the General Laws of Rhode Island. A permit, however, may be modified, revoked and reissued, or terminated during its term for cause as set forth in these regulations.

(b) The issuance of a permit does not convey any property rights of any sort, or any exclusive privilege.

(c) The issuance of a permit does not authorize any injury to persons or property or invasion of other private rights, or any infringement of Federal, State or local law or regulations.

RULE 22 - TRANSFER OF PERMITS

(a) Transfer by modification. Except as provided in paragraph (b) of this section, a permit may be transferred by the permittee to a new owner or operator only if the permit has been modified or revoked and reissued or a minor modification made to identify the new permittee and incorporate such other requirements as may be necessary under the State and Federal Acts.

(b) Automatic transfers. As an alternative to transfers under paragraph (a) of this section, any RIPDES permit may be automatically transferred to a new permittee if:

(1) The current permittee notifies the Department in writing by certified mail of the proposed transfer as follows:

(i) Where production levels, products produced, rates of discharge, and wastewater characteristics will remain unchanged, the following information shall be submitted at least 90 days prior to a proposed "transfer date":

(A) Name and address of current facility;

(B) Name and address of new owner;

(C) RIPDES permit number;

(D) Names of the new principal persons responsible;

(E) Names of persons upon whom legal process can be served; and

(F) A notarized statement signed by the new principal officer stating that he has read the RIPDES permit and agrees to abide by all the conditions of the permit and that the production levels, products produced, rates of discharge, and wastewater characteristics will remain unchanged.

(ii) Where there will be a change in production levels, products produced, rates of discharge, or wastewater characteristics, the information required in paragraph (b)(1)(i) shall be submitted at least 180 days prior to a proposed transfer date.

(2) The current permittee shall include in the notice of proposed transfer a written agreement between the existing and new permittee which includes a specific date for transfer of permit responsibility, coverage and liability between the parties.

(3) The Department does not notify the existing permittee and the proposed new permittee, within thirty (30) days of receipt of notice or proposed transfer, of an intent to modify, revoke or revoke and reissue the permit. A modification under this paragraph may also be a minor modification under Rule 25. If such notice is not received, the transfer is effective on the date specified in the agreement mentioned in paragraph (b)(2) of this section.

(4) Whenever the regulated discharge has ceased prior to the proposed permit transfer, any compliance schedule shall not be automatically reinstated but shall be subject to revision or complete withdrawal if circumstances leading to its imposition have been changed.

RULE 23 - MODIFICATION, OR REVOCATION AND REISSUANCE OF PERMITS

(a) When the Department receives any information (for example, inspects the facility, receives information submitted by the permittee as required in the permit, receives a request for modification or revocation and reissuance, or conducts a review of the permit file) a determination may be made by the Department as to whether cause exists including but not limited to causes as provided under paragraphs (b) and (c) of this section, for modification, or revocation and reissuance of the permit. If cause exists, the Department may modify, or revoke and reissue the permit accordingly, subject to the limitations of paragraph (c) of this section, and may request an updated application if necessary. When a permit is modified, only the conditions subject to modification are reopened. If a permit is revoked and reissued, the entire permit is reopened and subject to revision. The permit may be reissued for a new term. If a permit modification satisfies the criteria in Rule 25 for "minor modifications" the permit may be modified without a draft permit or public review. Otherwise, a draft permit must be prepared and other procedural steps followed.

(b) The following are causes for modification, but not revocation and reissuance of permits except when the permittee requests or agrees:

(1) Alterations. There are material and substantial alterations or additions to the permitted facility, activity, or discharge which occurred after a permit issuance which justify the application of permit conditions that are different or absent in the existing permit.

(2) Information. The Department has received new information. Permits may be modified, or revoked and reissued during their terms for this cause only if the information (other than revised regulations, guidance, or test methods) was not available at the time of permit issuance and would have justified the application of different permit conditions at the time of issuance. For general permits, this cause shall include any information indicating that the cumulative effects on the environment are unacceptable.

(3) New regulations or judicial decision. A permit or any condition thereof may be modified, or revoked and reissued after promulgation of new or amended water quality standards, effluent limitation guidelines by EPA, or by judicial decision, as follows:

(i) If the permit or permit condition in question was based on a prior water quality standard or effluent limitations guidelines which has been altered or revoked; or

(ii) If a court of competent jurisdiction has remanded and stayed the new standards or regulations.

The procedures provided by Rule 36 for modification, or revocation and reissuance may be initiated by the Department or by any interested person (including the permittee) within 90 days of the new guideline or judicial remand. If such modification or revocation and

reissuance is ordered, the Department may provide for a schedule of compliance in accordance with Rule 20 in order for the permittee to attain the new standards. If conditions of the permit are not contested, they shall go into effect notwithstanding the contesting of other conditions.

(4) Compliance schedules. The Department determines good cause exists for modification of a compliance schedule, such as an act of God, strike, flood, or materials shortage or other events over which the permittee has little or no control and for which there is no reasonably available remedy. However, in no case shall a RIPDES compliance schedule be modified to extend beyond an applicable statutory deadline. This does not preclude the Department from the revocation and reissuance of a compliance schedule for cause.

(5) The Department may also modify a permit:

(i) When the permittee has filed a timely request for a variance, or for "fundamentally different factors" under the Clean Water Act and the Department processes the request under the applicable provision of Rule 57.

(ii) When required to incorporate an applicable toxic effluent standard or prohibition under 307(a) of the Clean Water Act.

(iii) When required by the "reopener" conditions in a permit, which are established in the permit under Rule 15.01 (for toxic effluent limitations) or Rule 12 of the Rhode Island Pretreatment Regulations.

(iv) Upon request of a permittee who qualifies for effluent limitations on a net basis.

(v) When a discharger is no longer eligible for net limitations.

(vi) As necessary under 40 CFR Section 403.8(e) or Rule 10 of the Rhode Island Pretreatment Regulations (compliance schedule for development of pretreatment program).

(vii) Upon failure of the State to notify, as required by Section 402(b)(3) of the Clean Water Act, another state whose waters may be affected by a discharge from the State.

(viii) When the level of discharge of any pollutant which is not limited in the permit exceeds the level which can be achieved by the technology-based treatment requirements appropriate to the permittee under 40 CFR Section 125.3(c).

(ix) When the permittee begins or expects to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant which was not reported in the permit application.

(x) To establish a "notification level" as provided in Rules 15.01 and 16.01.

(xi) To modify a schedule of compliance to reflect the time lost during construction of an innovative or alternative facility, in the case of a POTW which has received a grant under Section 202(a)(3) of the Clean Water Act for 100% of the costs to modify or replace facilities constructed with a grant for innovative and alternative wastewater technology under Section 202(a)(2) of the Clean Water Act. In no case shall the compliance schedule be modified to extend beyond an applicable Clean Water Act statutory deadline for compliance.

(xii) To include a plan or compliance schedule for the disposal of septage or sludge in accordance with "Rhode Island Rules and Regulations Pertaining to the Disposal and Utilization of Wastewater Treatment Facility Sludge."

(xiii) For a small MS4, to include an effluent limitation requiring implementation of a minimum control measure or measures as specified in Rule 31(e)(3) when:

(A) The permit does not include such measure(s) based upon the determination that another entity was responsible for implementation of the requirement(s); and

(B) The other entity fails to implement the measure(s) that satisfy the requirement(s).

(c) Cause for modification, or revocation and reissuance. The following are causes to modify or revoke and reissue a permit:

(1) Cause exists for termination under Rule 24 and the Department determines that modification, or revocation and reissuance is appropriate.

(2) The Department has received notification of a proposed transfer of the permit. A permit also may be modified to reflect a transfer after the effective date of an automatic transfer but will not be revoked and reissued after the effective date of the transfer except upon the request of the new permittee.

RULE 24 - TERMINATION OF PERMITS

(a) The following are causes for terminating a permit during its term, or for denying a permit renewal application:

(1) Noncompliance by the permittee with any condition of the permit;

(2) Failure to pay applicable fees;

(3) The permittee's failure in the application or during the issuance of a NPDES or RIPDES permit, a treatment works approval or Construct and Operate order to disclose fully all relevant facts, or the permittee's misrepresentation of any relevant facts at any time;

(4) A determination that the permitted activity endangers human health or the environment and can only be regulated to acceptable levels by permit modification or termination;

(5) A change in any condition that requires either a temporary or a permanent reduction or elimination of any discharge controlled by the permit;

(6) The nonconformance of the discharge with any applicable facility, basin or areawide plans; or

(7) Inconsistency with any duly promulgated effluent limitation, permit, regulation, statute, or other applicable State or Federal Law.

RULE 25 - MINOR MODIFICATIONS OF PERMITS

Upon the consent of the permittee, the Department may modify a permit to make the corrections or allowances for changes in the permitted activity listed in this section, without following the procedures of Rule 36. Any permit modification not processed as a minor modification under this section shall be made for cause and with draft permit and public notice.

Minor modifications may only:

(a) Correct typographical errors;

(b) Require more frequent monitoring or reporting by the permittee;

(c) Change an interim compliance date in a schedule of compliance, provided the new date is not more than 120 days after the date specified in the existing permit and does not interfere with attainment of the final compliance date requirement;

(d) Allow for a change in ownership or operational control of a facility where the Department determines that no other change in the permit is necessary, provided that a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new permittees has been submitted to the Department;

(e) Change the construction schedule for a discharger which is a new source. No such change shall affect a discharger's obligation to have all pollution control equipment installed and in operation prior to discharge;

(f) Delete a point source outfall when the discharge from that outfall is terminated and does not result in discharge of pollutants from other outfalls except in accordance with permit limits.

RULE 26 - NONCOMPLIANCE AND PROGRAM REPORTING BY THE DEPARTMENT

The Department shall prepare quarterly and annual reports as detailed below. Any reports required under this section shall be submitted to the Regional Administrator and to any facility listed in the report.

(a) Quarterly reports. The Department shall prepare quarterly narrative reports for major facilities as follows:

(1) Format. The report shall use the following format:

(i) Provide separate lists of each type of discharge and sub-categorize the permittee as non-POTWs, POTWs, and Federal permittees;

(ii) Alphabetize each list by permittee name. When two or more permittees have the same name, the lowest permit number shall be entered first;

(iii) For each entry on a list, include the following information in the following order:

(A) Name, location, and permit number of the non-complying permittee.

(B) A brief description and date of each instance of noncompliance for that permittee. Instances of noncompliance may include one or more of the kinds set forth in paragraph (a)(2) of this section. When a permittee has noncompliance of more than one kind, combine the information into a single entry for each such permittee.

(C) The date(s) and a brief description of the action(s) taken by the Department to ensure compliance.

(D) Status of the instance(s) of noncompliance with the date of the review of the status or the date of resolution.

(E) Any details which tend to explain or mitigate the instance(s) of noncompliance.

(2) Instances of noncompliance to be reported. Any instances of noncompliance within the following categories shall be reported in successive reports until the noncompliance is reported as resolved. Once compliance is reported as resolved, it need not appear in subsequent reports.

(i) Failure to complete construction elements. When the permittee has failed to complete, by the date specified in the permit, an element of a compliance schedule involving either planning for construction (for example, award of a contract, preliminary plans), or a construction step (for example, begin construction, attain operation level), and the permittee has not returned to compliance by accomplishing the required element of the schedule within 30 days from the date a compliance schedule report is due under the permit.

(ii) Modification of schedules of compliance. When a schedule of compliance in the permit has been modified under Rules 23 and 25 because of the permittee's noncompliance.

(iii) Failure to complete or provide compliance schedule or monitoring reports: When the permittee has failed to complete or provide a report required in a permit compliance schedule (for example, progress report or notice of noncompliance or compliance) or a monitoring report, and the permittee has not submitted the complete report within 30 days from the date it is due under the permit for compliance schedules, or from the date specified in the permit for monitoring reports.

(iv) Deficient reports. When the required reports provided by the permittee are so deficient as to cause misunderstanding by the Department and thus impede the review of the status of compliance.

(v) Noncompliance with other permit requirements. Noncompliance shall be reported in the following circumstances:

(A) Whenever the permittee has violated a permit requirement (other than reported under paragraphs (a)(2)(i) or (ii) of this section), and has not returned to compliance within 45 days from the date reporting of noncompliance was due under the permit; or

(B) When the Department determines that a pattern of noncompliance exists for a major facility permittee over the most recent four consecutive reporting periods. This pattern of noncompliance is based on violations of monthly averages and excludes parameters where there is continuous monitoring. This pattern includes any violation of the same requirement in two consecutive reporting periods, and any violation of one or more requirements in each of four consecutive reporting periods; or

(C) When the Department determines significant permit noncompliance or other significant event has occurred, such as a discharge of a toxic or hazardous substance.

(vi) All other. Statistical information shall by reported quarterly on all other instances of noncompliance by major facilities with permit requirements not otherwise reported under paragraph (a) of this section.

(b) Annual reports. The Department shall prepare an annual report as required in this paragraph and shall submit an annual report to EPA.

(1) Statistical reports shall be prepared by the Department on non-major permittees indicating the total number reviewed, the number of noncomplying non-major permittees, the number of enforcement actions, and number of permit modifications extending compliance deadlines. The statistical information shall be organized to follow the types of noncompliance listed in paragraph (a) of this section.

(2) A separate list of non-major discharges which are one or more years behind in construction phases of the compliance schedule shall also be prepared in alphabetical order by name and permit number.

(c) Schedule

(1) Quarterly Reports

(i) On the last working day of May, August, November and February, the Department shall submit to the Regional Administrator information concerning noncompliance with permit requirements by major dischargers in the State in accordance with the schedule below.

(ii) The Department shall make noncompliance reports concerning all RIPDES permits available to the public in accordance with the schedule below.

Quarters Covered by Reports on Noncompliance by All Major Dischargers

January, February, and March	May 31
April, May, and June	Aug. 31
July, August, and September	Nov. 30
October, November, and December	Feb. 28

(2) For all annual reports. The period for annual reports shall be for the calendar year ending December 31, with reports completed and available to the public no more than 60 days later.

RULE 27 - CONCENTRATED ANIMAL FEEDING OPERATIONS

(a) Permit requirement. "Concentrated animal feeding operations" (as defined in Rule 3) are point sources subject to the RIPDES permit program.

(b) Case-by-case designation of concentrated animal feeding operations.

(1) The Department may designate any animal feeding operation as a concentrated animal feeding operation upon determining that it is a significant contributor of pollution to the waters of the State. In making this designation the Department shall consider the following factors:

(i) The size of the animal feeding operation and the amount of wastes reaching the waters of the State;

(ii) The location of the animal feeding operation relative to waters of the State;

(iii) The means of conveyance of animal wastes and process wastewaters into waters of the State;

(iv) The slope, vegetation, rainfall, and other factors affecting the likelihood or frequency of discharge of animal waste and process wastewaters into waters of the State; and

(v) Other relevant factors.

(2) No animal feeding operation with less than the numbers of animals set forth in Appendix B shall be designated as a concentrated animal feeding operation unless:

(i) Pollutants are discharged into waters of the State through a manmade ditch, flushing system, or other similar manmade device; or

(ii) Pollutants are discharged directly into waters of the State which originate outside of the facility and pass over, across, or through the facility or otherwise come into direct contact with the animals confined in the operation.

(3) A permit application shall not be required from a concentrated animal feeding operation designated under this paragraph until the Department has conducted an on-site inspection of the operation and determined that the operation should and could be regulated under the permit program.

RULE 28 - CONCENTRATED AQUATIC ANIMAL PRODUCTION FACILITIES

(a) Permit requirements. "Concentrated aquatic animal production facilities" (as defined in Rule 3) are point sources subject to the RIPDES permit program.

(b) Case-by-case designation of concentrated animal production facilities.

(1) The Department may designate any warm or cold water aquatic animal production facility as a concentrated aquatic animal production facility upon determining that it is a significant contributor of pollution to waters of the State. In making this designation the Department shall consider the following factors:

(i) The location and quality of the receiving waters of the State;

(ii) The holding, feeding, and production capacities of the facility;

(iii) The quantity and nature of the pollutants reaching waters of the State; and

(iv) Other relevant factors.

(2) A permit application shall not be required from a concentrated aquatic animal production facility designated under this paragraph until the Department has conducted an on-site

inspection of the facility and has determined in accordance with the criteria in Appendix C that the facility should and could be regulated under the permit program.

RULE 29 - AQUACULTURE PROJECTS

(a) Permit requirements. Discharges into "aquaculture projects" (as defined in Rule 3) are subject to the RIPDES permit program in accordance with 40 CFR Part 125, Subpart 8 and Chapter 46-12 of the General Laws of Rhode Island.

RULE 30 - SILVICULTURAL ACTIVITIES

(a) Permit requirements. "Silvicultural point sources" (as defined in Rule 3) are point sources subject to RIPDES permit program.

RULE 31 - STORM WATER DISCHARGES

(a) Permit requirement.

(1) The following discharges composed entirely of storm water shall be required to obtain a RIPDES permit:

(i) A discharge with respect to which a permit has been issued prior to February 4, 1987;

(ii) A discharge associated with industrial activity (see Rule 31(b)(15));

(iii) A discharge from a large municipal separate storm sewer system;

(iv) A discharge from a medium municipal separate storm sewer system;

(v) A discharge from a small municipal separate storm sewer system (see Rule 31(a)(5));

(vi) A discharge associated with small construction activity (see Rule 31(b)(16));

(vii) A discharge or a category of discharges within a geographic area which the Director or the EPA Regional Administrator, determines to contribute to a violation of a water quality standard or is a significant contributor of pollutants to waters of the State. This designation may include a discharge from any conveyance or system of conveyances used for collecting and conveying storm water runoff or a system of discharges from municipal separate storm sewers, except for those discharges from conveyances which do not require a permit under paragraph (a)(2) of this section.

The Director may designate discharges from municipal separate storm sewers on a system-wide basis. In making this determination the Director may consider the following factors:

(A) The location of the discharge with respect to waters of the State as defined in Rule 3.

(B) The size of the discharge;

(C) The quantity and nature of the pollutants discharged to waters of the State; and

(D) Other relevant factors.

(viii) A discharge for which the Director or the EPA Regional Administrator determines that storm water controls are necessary to ensure implementation of wasteload allocations that are part of "total maximum daily loads" (TMDLs) that address the pollutant(s) that has been identified as the cause of impairment of the water body.

(2) Mining and oil and gas exploration. The Director may not require a permit for discharges of storm water runoff from mining operations or oil and gas exploration, production, processing or treatment operations or transmission facilities, composed entirely of flows which are from conveyances or systems of conveyances (including but not limited to pipes, conduits, ditches, and channels) used for collecting and conveying precipitation runoff and which are not contaminated by contact with or that has not come into contact with, any overburden, raw material, intermediate products, finished product, byproduct or waste products located on the site of such operations.

(3) Municipally owned or operated discharges of storm water associated with industrial activity. For any storm water discharge associated with industrial activity from a facility that is owned or operated by a municipality with a population of less than 100,000 that does not have an effective RIPDES permit authorizing the discharge other than an airport, power plant, or uncontrolled sanitary landfill, a permit application must be submitted by March 10, 2003.

(4) Large and medium municipal separate storm sewer systems.

(i) Permits must be obtained for all discharges from large and medium municipal separate storm sewer systems. However, the owner or operator of a municipal separate storm sewer system may petition the Director to reduce the Census estimates of the population served by such separate system to account for storm water discharged to combined sewers as defined by 40 CFR 35.2005(b)(11) that is treated in a publicly owned treatment works. In municipalities in which combined sewers are operated, the Census estimates of population may be reduced proportional to the fraction, based on estimated lengths, of the length of combined sewers over the sum of the length of combined sewers and municipal separate storm sewers where an applicant has submitted the RIPDES permit number associated with each discharge point and a map indicating areas served by combined sewers and the location of any combined sewer overflow discharge point.

(ii) The Director may either issue one system-wide permit covering all discharges from municipal separate storm sewers within a large or medium municipal storm sewer system or issue distinct permits for appropriate categories of discharges within a large or medium municipal separate storm sewer system including, but not limited to: all discharges owned or operated by the same municipality; located within the same jurisdiction; all discharges within a system that discharge to the same watershed; discharges within a system that are similar in nature; or for individual discharges from municipal separate storm sewers within the system.

(iii) The operator of a discharge from a municipal separate storm sewer which is part of a large or medium municipal separate storm sewer system must either:

(A) Participate in a permit application (to be a permittee or a co-permittee) with one or more other operators of discharges from the large or medium municipal storm sewer system which covers all, or a portion of all, discharges from the municipal separate storm sewer system;

(B) Submit a distinct permit application which only covers discharges from the municipal separate storm sewers for which the operator is responsible; or

(C) A regional authority may be responsible for submitting a permit application under the following guidelines:

(1) The regional authority together with co-applicants shall have authority over a storm water management program that is in existence, or shall be in existence at the time part 1 of the application is due;

(2) The permit applicant or co-applicants shall establish their ability to make a timely submission of Part 1 and Part 2 of the municipal application;

(3) Each of the operators of municipal separate storm sewers within the systems described in paragraphs (b)(4)(i), (ii), and (iii) or (b)(7) (i), (ii), and (iii) of this section, that are under the purview of the designated regional authority, shall comply with the application requirements of paragraph (d) of this section.

(iv) One permit application may be submitted for all or a portion of all municipal separate storm sewers within adjacent or interconnected large or medium municipal separate storm sewer systems. The Director may issue one system-wide permit covering all, or a portion of all municipal separate storm sewers in adjacent or interconnected large or medium municipal separate storm sewer systems.

(v) Permits for all or a portion of all discharges from large or medium municipal separate storm sewer systems that are issued on a system-wide, jurisdiction-wide,

watershed or other basis may specify different conditions relating to different discharges covered by the permit, including different management programs for different drainage areas which contribute storm water to the system.

(vi) Co-permittees need only comply with permit conditions relating to discharges from the municipal separate storm sewers for which they are operators.

(5) Small municipal storm sewer systems.

(i) The following discharges from small municipal separate storm sewer systems must obtain permits:

(A) The small MS4, excluding systems operated by federal and State government, is located in an urbanized area as defined in Rule 31(b)(20), unless a waiver is granted in accordance to Rule 31(g)(5). If any portion of the small MS4 is not entirely located within an urbanized area, the portion that is within the urbanized area is regulated (see Appendix H).

(B) The small MS4, excluding systems operated by federal and State government, is located in a densely populated area as defined in Rule 31(b)(21), unless a waiver is granted in accordance to Rule 31(g)(5). If any portion of the small MS4 is not entirely located within a densely populated area, the portion that is within the densely populated area is regulated (see Appendix I).

(C) The small MS4, operated by federal or State government serves a facility with an average daily population of equal to or greater than 1,000.

(D) Any portion of the small MS4 operated by the Rhode Island Department of Transportation is located in an urbanized area as defined in Rule 31(b)(20) or a densely populated area, as defined in Rule 31(b)(21), or serves a divided highway regardless of its location, only these portions are regulated (see Appendix J).

(E) The Director has determined that the system is contributing substantially to the pollutant loadings of a physically-interconnected regulated MS4.

(F) The Director has determined that the information required for granting a waiver has substantially changed or upon consideration of a petition to review a waiver when the petitioner provides evidence that the information required for granting the waiver has substantially changed in accordance with Rule 31(g).

(G) On or after March 10, 2008, the small MS4 discharges to any Special Resource Protection Waters (SPRWs), Outstanding National Resource Waters (ONRWs), or impaired water bodies within its jurisdiction and a waiver has not been granted in accordance to Rule 31(g)(5)(iii).

(H) The Director has determined that the small MS4 discharge contributes to a violation of a water quality standard or is a significant contributor of pollutants to waters of the State in accordance with Rule 31(a)(1)(vii).

(I) The Director has determined that storm water controls are needed for the small MS4 discharge based on wasteload allocations that are part of "total maximum daily loads" (TMDLs) that address the pollutant(s) of concern in accordance with Rule 31(a)(1)(viii).

(J) The Director has designated the small MS4 based on a petition pursuant to Rule 31(a)(5)(i)(E) or Rule 31(g).

(ii) The operator of a small MS4 may rely on another entity to satisfy the permit obligations to implement a minimum control measure as follows:

(A) The other entity, in fact, implements the minimum control measure;

(B) The particular control measure, or component thereof, is at least as stringent as the corresponding permit requirements; and

(C) The other entity agrees to implement the control measure on the behalf of the operator of the regulated small MS4;

(D) If the operator of the small MS4 is relying on another governmental entity regulated under Rule 31(a)(5)(i) to satisfy all of the permit obligations, including the obligation to file periodic reports required in Rule 16.10(b), the operator of the small MS4 must note that fact in the Notice of Intent (NOI), but the operator is not required to file the periodic reports.

(E) The operator of the small MS4 remains responsible for compliance with the permit requirements if the entity fails to implement the control measure or component thereof.

(F) The Director may recognize, either in the individual permit or in a general permit, that the Department or another governmental entity is responsible under a RIPDES Permit for implementing one or more of the minimum control measures for the small MS4. In such cases, the operator is not required to include the minimum control measure implemented by that entity as required by Rule 31(e)(3).

(G) If the governmental entity identified in paragraph (F) of this section fails to implement a minimum control measure, the permit issued in accordance with Rule 31(e) may be reopened and modified in accordance with Rule 23 to include the requirement to implement a minimum control measure.

(iii) Operators of regulated small MS4s shall fully implement the Storm Water Management Program Plan as defined in Rule 31(e)(3) within the first permit term of five (5) years.

(iv) The operator of the small MS4 must comply with other applicable permit requirements, standards and conditions established in the individual or general permit, developed consistent with the provisions of Rule 14 through Rule 20, as appropriate.

(v) The operator of the small MS4 must comply with any more stringent effluent limitations of the permit, including permit requirements that modify, or are in addition to the minimum control measures in Rule 31(e)(3)(ii) based on an approved total maximum daily load (TMDL) or equivalent analysis. The Director may include such more stringent limitations based on a TMDL or equivalent analysis that determines such limitations are needed to protect water quality.

(vi) If an existing qualifying local program requires the operator of the small MS4 to implement one or more of the minimum control measures of Rule 31(e)(3)(ii), the Department may include conditions in the RIPDES permit that direct the operator of the small MS4 to follow that qualifying program's requirements rather than the requirements of Rule 31(e)(3). A qualifying local program is a local or State storm water management program that meets the requirements of Rule 15.01(i).

(6) Discharges through large and medium municipal separate storm sewer systems. In addition to meeting the requirements of paragraph (c) of this section, an operator of a storm water discharge associated with industrial activity which discharges through a large or medium municipal separate storm sewer system shall submit, to the operator of the municipal separate storm sewer system receiving the discharge thirty (30) days after the effective date of these Regulations, or for a new discharge, 180 days prior to commencing such discharge: the name of the facility; a contact person and phone number; the location of the discharge; a description, including Standard Industrial Classification, which best reflects the principal products or services provided by each facility; and any existing RIPDES permit number.

(7) Other municipal separate storm sewers. The Director may issue permits for municipal separate storm sewers that are designated under paragraphs (a)(1)(vii) and (viii) of this section on a system-wide basis, jurisdiction-wide basis, watershed basis or other appropriate basis, or may issue permits for individual discharges.

(8) Non-municipal separate storm sewers. For storm water discharges associated with industrial activity from point sources which discharge through a non-municipal or non-publicly owned separate storm sewer system, the Director, in his or her discretion, may issue: a single RIPDES permit to the operator of the portion of the system that discharges into waters of the State, with each contributing discharger listed as a co-permittee or; individual permits to each discharger of storm water associated with industrial activity through the non-municipal conveyance system.

(i) All storm water discharges associated with industrial activity that discharge through a storm water discharge system that is not a municipal separate storm sewer must be covered by an individual permit, or a permit issued to the operator of the portion of the system that discharges to waters of the State, with each discharger to the non-municipal conveyance a co-permittee to that permit.

(ii) Where there is more than one operator of a single system of such conveyances, all operators of storm water discharges associated with industrial activity must submit applications.

(iii) Any permit covering more than one operator shall identify the effluent limitations, or other permit conditions, if any, that apply to each operator.

(9) Combined sewer systems. Conveyances that discharge storm water runoff combined with municipal sewage are point sources that must obtain RIPDES permits in accordance with the procedures of Rule 10 and are not subject to the provisions of this section.

(10) Effect on Eligibility for Federal Funding. Whether a discharge from a municipal separate storm sewer is or is not subject to regulation under this section shall have no bearing on whether the owner or operator of the discharge is eligible for funding under Title II, Title III or Title VI of the Clean Water Act. See 40 CFR Part 35, Subpart I, Appendix A(b)H.2.j.

(b) Definitions.

(1) "Co-permittee" means a permittee to a RIPDES permit that is only responsible for permit conditions relating to the discharge for which it is operator.

(2) "Illicit discharge" means any discharge to a municipal separate storm sewer that is not composed entirely of storm water except discharges pursuant to a RIPDES permit (other than the RIPDES permit for discharges from the municipal separate storm sewer) and discharges resulting from fire fighting activities.

(3) "Incorporated place" means a city, town, or other definable place that is incorporated under the laws of the State.

(4) "Large municipal separate storm sewer system" means all municipal separate storm sewers that are either:

(i) Located in an incorporated place with a population of 250,000 or more as determined by the 1990 Decennial Census by the Bureau of Census (Appendix G); or

(ii) Located in the counties listed in Appendix I, except municipal separate storm sewers that are located in the incorporated places, townships or towns within such counties; or

(iii) Owned or operated by a municipality other than those described in paragraph (b)(4)(i) or (ii) of this section and that are designated by the Director as part of the large or medium municipal separate storm sewer system due to the interrelationship between the discharges of the designated storm sewer and the discharges from municipal separate storm sewers described under paragraph (b)(4) (i) or (ii) of this section. In making this determination the Director may consider the following factors:

(A) Physical interconnections between the municipal separate storm sewers;

(B) The location of discharges from the designated municipal separate storm sewer relative to discharges from municipal separate storm sewers described in paragraph (b)(4)(i) of this section;

(C) The quantity and nature of pollutants discharged to waters of the State;

(D) The nature of the receiving waters; and

(E) Other relevant factors.

(iv) The Director may, upon petition, designate as a large municipal separate storm sewer system, municipal separate storm sewers located within the boundaries of a region defined by a storm water management regional authority based on a jurisdictional, watershed, or other appropriate basis that includes one or more of the systems described in paragraph (b)(4)(i), (ii), (iii) of this section.

(5) "Major municipal separate storm sewer outfall" (or "major outfall") means a municipal separate storm sewer outfall that discharges from a single pipe with an inside diameter of 36 inches or more or its equivalent (discharge from a single conveyance other than circular pipe which is associated with a drainage area of more than 50 acres); or for municipal separate storm sewers that receive storm water from lands zoned for industrial activity (based on comprehensive zoning plans or the equivalent), an outfall that discharges from a single pipe with an inside diameter of 12 inches or more or from its equivalent (discharge from other than a circular pipe associated with a drainage area of 2 acres or more).

(6) "Major outfall" means a major municipal separate storm sewer outfall.

(7) "Medium municipal separate storm sewer system" means all municipal separate storm sewers that are either:

(i) Located in an incorporated place with a population of 100,000 or more but less than 250,000, as determined by the 1990 Decennial Census by the Bureau of Census (Appendix H); or

(ii) Located in the counties listed in Appendix J, except municipal separate storm sewers that are located in the incorporated places, townships or towns within such counties; or

(iii) Owned or operated by a municipality other than those described in paragraph (b)(4)(i) or (ii) of this section and that are designated by the Director as part of the large or medium municipal separate storm sewer system due to the interrelationship between the discharges of the designated storm sewer and the discharges from municipal separate storm sewers described under paragraph (b)(4)(i) or (ii) of this section. In making this determination the Director may consider the following factors:

(A) Physical interconnections between the municipal separate storm sewers;

(B) The location of discharges from the designated municipal separate storm sewer relative to discharges from municipal separate storm sewers described in paragraph (b)(7)(i) of this section;

(C) The quantity and nature of pollutants discharged to waters of the State;

(D) The nature of the receiving waters; or

(E) Other relevant factors.

(iv) The Director may, upon petition, designate as a medium municipal separate storm sewer system, municipal separate storm sewers located within the boundaries of a region defined by a storm water management regional authority based on a jurisdictional, watershed, or other appropriate basis that includes one or more of the systems described in paragraphs (b)(7)(i), (ii), (iii) of this section.

(8) "Municipal separate storm sewer" means a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains):

(i) Owned or operated by a city or town or the State district association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, storm water, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to waters of the State;

(ii) Designed or used for collecting or conveying storm water;

(iii) Which is not a combined sewer; and

(iv) Which is not part of a Publicly Owned Treatment Works (POTW) as defined in Rule 3.

(9) "Outfall" means a point source as defined by Rule 3 at the point where a municipal separate storm sewer discharges to waters of the State and does not include open conveyances connecting two municipal separate storm sewers, or pipes, tunnels or other conveyances which connect segments of the same stream or other waters of the State and are used to convey waters of the State.

(10) "Overburden" means any material of any nature, consolidated or unconsolidated, that overlies a mineral deposit, excluding topsoil or similar naturally-occurring surface materials that are not disturbed by mining operations.

(11) "Runoff coefficient" means the fraction of total rainfall that will appear at a conveyance as runoff.

(12) "Section 313 Water Priority Chemical" means a chemical or chemical categories which are:

(i) Listed at 40 CFR 372.65 pursuant to section 313 of Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986, also entitled the "Emergency Planning and Planning and Community Right-to-Know Act of 1986"; (42 U.S.C. 11001 et seq).

(ii) Present at or above threshold levels at a facility subject to SARA Title III, section 313 reporting requirements; and

(iii) Meet at least one of the following criteria:

(A) Are listed in appendix D of 40 CRF part 122 on either Table II (Organic priority pollutants), Table III (certain metals, cyanides, and phenols), or Table V (certain toxic pollutants and hazardous substances);

(B) Are listed as a hazardous substance pursuant to section 311(b)(2)(A) of the CWA at 40 CFR 116.4; or

(C) Are pollutants for which EPA has published acute or chronic water quality criteria.

(13) "Significant materials" includes, but is not limited to: raw materials; fuels; materials such as solvents, detergents, and plastic pellets; finished materials such as metallic products; raw materials used in food processing or production; hazardous substances designated under Section 101(14) of CERCLA; any chemical the facility is required to report pursuant to Section 313 of Title III of SARA; fertilizers; pesticides; and waste products such as ashes, slag and sludge that have the potential to be released with storm water discharges.

(14) "Storm water" means storm water runoff, snow melt runoff, and surface runoff and drainage.

(15) "Storm water discharge associated with industrial activity" means the discharge from any conveyance which is used for collecting and conveying storm water to separate storm sewers and/or directly to a water body and which is directly related to manufacturing, processing or raw materials storage areas at an industrial plant. The term does not include discharges from facilities or activities excluded from the RIPDES program under 40 CFR Part 122. For the categories of industries identified in this section, the term includes, but is not limited to, storm water discharges from industrial plant yards; immediate access roads and rail lines used or traveled by carriers of raw materials, manufactured products, waste material, or by-products used or created by the facility; material handling sites; refuse sites; sites used for the application or disposal of process waste waters (as defined at 40 CFR part 401); sites used for the storage and maintenance of material handling equipment; sites used for residual treatment, storage, or disposal; shipping and receiving areas; manufacturing buildings; storage areas (including tank farms) for raw materials, and intermediate and finished products; and areas where industrial activity has taken place in the past and significant materials remain and are exposed to storm water. For the purposes of this paragraph, material handling activities include the storage, loading and unloading, transportation, or conveyance of any raw material, intermediate product, finished product, by-product or waste product. The term excludes areas located on plant lands separate from the plant's industrial activities, such as office buildings and accompanying parking lots as long as the drainage from the excluded areas is not mixed with storm water drained from the above described areas. Industrial facilities (including industrial facilities that are Federally, State, or municipally owned or operated that meet the description of the facilities listed in this paragraph (b)(15)(i) through (xi) of this section) include those facilities designated under the provisions of paragraph (a)(1)(vi) of this section. The following categories of facilities are considered to be engaging in "industrial activity" for purposes of this subsection:

(i) Facilities subject to storm water effluent limitations guidelines, new source performance standards, or toxic pollutant effluent standards under 40 CFR subchapter N (except facilities with toxic pollutant effluent standards which are exempted under category (xi) in paragraph (b)(15) of this section);

(ii) Heavy industry. Facilities classified as Standard Industrial Classifications 24 (except 2434), 26 (except 265 and 267), 28 (except 283), 29, 311, 32 (except 323), 33, 344l, 373;

(iii) Mining operations. Facilities classified as Standard Industrial Classifications 10 through 14 (mineral industry) including active or inactive mining operations (except for areas of coal mining operations no longer meeting the definition of a reclamation area under 40 CFR 434.11(1) because the performance bond issued to the facility by the appropriate SMCRA authority has been released, or except for areas of non-coal mining operations which have been released from applicable State or Federal reclamation requirements after December 17, 1990) and oil and gas exploration, production, processing, or treatment operations, or transmission facilities that discharge storm water contaminated by contact with or that has come into contact with, any overburden, raw material, intermediate products, finished products,

byproducts or waste products located on the site of such operations; (inactive mining operations are mining sites that are not being actively mined, but which have an identifiable owner/operator; inactive mining sites do not include sites where mining claims are being maintained prior to disturbances associated with the extraction, beneficiation, or processing of mined materials, nor sites where minimal activities are undertaken for the sole purpose of maintaining a mining claim);

(iv) Hazardous waste treatment, storage, or disposal facilities, including those that are operating under interim status or a permit under subtitle C of RCRA;

(v) Landfills, land application sites, and open dumps that receive or have received any industrial wastes (waste that is received from any of the facilities described under this subsection) including those that are subject to regulation under subtitle D of RCRA;

(vi) Facilities involved in the recycling of materials, including metal scrap yards, battery reclaimers, salvage yards, and automobile junk yards, including but limited to those classified as Standard Industrial Classification 5015 and 5093;

(vii) Steam electric power generating facilities, including coal handling sites;

(viii) Transportation facilities. Transportation facilities classified as Standard Industrial Classifications 40, 41, 42 (except 4221-25), 43, 44, 45, and 5171 which have vehicle maintenance shops, equipment cleaning operations, or airport deicing operations. Only those portions of the facility that are either involved in vehicle maintenance (including vehicle rehabilitation, mechanical repairs, painting, fueling, and lubrication), equipment cleaning operations, airport deicing operations, or which are otherwise identified under paragraphs (b)(15)(i)-(vii) or (ix)-(xi) of this section are associated with industrial activity;

(ix) Treatment works. Treatment works treating domestic sewage or any other sewage sludge or wastewater treatment device or system, used in the storage treatment, recycling, and reclamation of municipal or domestic sewage, including land dedicated to the disposal of sewage sludge that are located within the confines of the facility, with a design flow of 1.0 MGD or more, or required to have an approved pretreatment program under 40 CFR Part 403. Not included are farm lands, domestic gardens or lands used for sludge management where sludge is beneficially reused and which are not physically located in the confines of the facility, or areas that are in compliance with section 405 of the CWA.

(x) Construction activity. Construction activity including clearing, grading and excavations except: operations that result in the disturbance of less than five acres of total land area. Construction activity also includes the disturbance of less than five acres of total land area that is part of a larger common plan of development or sale if the larger common plan will ultimately disturb five acres or more;

(xi) Light industry. Facilities under Standard Industrial Classifications 20, 21, 22, 23, 2434, 25, 265, 267, 27, 283, 285, 30, 31 (except 311), 323, 34 (except 3441), 35, 36, 37 (except 373), 38, 39, 4221-25, (and which are not otherwise included within categories (ii)-(x));

(16) "Storm water discharge associated with small construction activity" means the discharge of storm water from:

(i) Construction activities including clearing, grading, and excavating that result in land disturbance of equal to or greater than one acre and less than five acres. Small construction activity also includes the disturbance of less than one acre of total land area that is part of a larger common plan of development or sale if the larger common plan of development or sale will ultimately disturb equal to or greater than one and less than five acres. Small construction activity does not include routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of the facility.

(ii) Any other construction activity designated by the Director based on the potential for contribution to a violation of a water quality standard or for significant contribution of pollutants to waters of the United States or through a TMDL in accordance with Rule 31(a)(1)(vii) and Rule 31(a)(1)(viii).

(17) "Small municipal separate storm sewer system" (small MS4) means all separate storm sewers that are:

(i) Owned and operated by the United States, state, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, storm water, or other wastes, including special districts under State law, such a sewer district, flood control district or drainage district, or similar entity, or a designated and approved management agency under Section 208 of the CWA that discharges to waters of the United States.

(ii) Not defined as “large” or “medium” municipal separate storm sewer systems pursuant to Rule 31(b)(4) and (b)(7).

(iii) This term includes systems similar to separate storm sewer systems in municipalities, such as systems at military bases, large hospital or prison complexes, and highways and other thoroughfares. The term does not include separate storm sewers in very discrete areas, such as individual buildings.

(18) "Regulated small municipal separate storm sewer system" (regulated small MS4) means a small MS4 that meets the requirements of Rule 31(a)(5)(i). Once a small MS4 is designated into the Phase II storm water program based on an urbanized area (UA) calculation for any given census year, the MS4 will remain regulated regardless of the results of subsequent UA area calculations.

(19) "Municipal separate storm sewer system" (MS4) means all separate storm sewers that are defined as “large” or “medium” or “small” municipal separate storm sewer systems pursuant to Rule 31(b)(4), (b)(7), and (b)(17) of this section, or designated under Rule 31(a)(1)(vii) and (a)(1)(viii).

(20) "Urbanized Areas" (UAs) means those areas that consist of contiguous, densely settled census block groups, and census blocks, that meet minimum population density requirements, along with adjacent densely settled census blocks that together encompass a population of at least 50,000 people. Minimum population density requirements consists of core census block groups or blocks that have a population density of at least 1,000 people per square mile, and, surrounding census blocks that have an overall density of at least 500 people per square mile. The complete criteria are available from the Chief, Geography Division, U.S. Bureau of the Census, Washington, DC 20233. For the purposes of these regulations, any subsequent UA calculated area will be added to any previous UA calculated area as shown in Appendix J.

(21) "Densely Populated Area" (DPA) means a census designated place(s) as defined by the latest Decennial Census that is located outside the urbanized area and meets all of the following criteria:

(i) The population density within the census designated place is equal to or greater than 1,000 people per square mile; and

(ii) The census designated place has or is part of a block of contiguous census designated places with a total population of at least 10,000 people.

(22) "Census Designated Places" (CDPs) means those that are delineated for the decennial census as the statistical counterparts of incorporated places. CDPs are comprised of densely settled concentrations of population that are identifiable by name, but are not legally incorporated places. To qualify as a CDP, an unincorporated community must meet the following criteria:

(i) 1,000 or more persons if outside the boundaries of an urbanized area (UA) delineated for the subsequent special census;

(ii) 2,500 or more persons if inside the boundaries of an urbanized area (UA) delineated for subsequent census;

(iii) 250 or more persons if outside the boundaries of an urbanized area (UA) delineated for the subsequent special census, and within the official boundaries of an American Indian reservation recognized for the 1990 census.

(23) "Special Resource Protection Waters" (SRPWs) means surface waters identified by the Director as having significant ecological or recreational uses, as defined in the State of Rhode Island Water Quality Regulations and listed in Appendix D of those regulations.

(24) "Outstanding National Resource Waters" (ONRWs) means water of National and State Parks, Wildlife Refuges, and other such waters designated as having special recreational or ecological value as defined in the State of Rhode Island Water Quality Regulations.

(25) "Impaired Waters," for the purpose of Rule 31, means those waters within the State, which do not currently meet Rhode Island Water Quality Standards as identified in the latest list of Impaired Waters compiled by the Office of Water Resources (OWR) of the Rhode Island Department of Environmental Management and is referred to as the State of Rhode Island's 303(d) list.

(26) "Uncontrolled sanitary landfill" means a landfill or open dump, whether in operation or closed, that does not meet the requirements for run-on or run-off controls established pursuant to subtitle D of the Solid Waste Disposal Act.

(c) Application requirements for storm water discharges associated with industrial activity and storm water discharges associated with small construction activity. Dischargers of storm water associated with industrial activity and small construction activity are required to apply for an individual permit, apply for a permit through a group application, or seek coverage under a promulgated storm water general permit as follows:

(1) Individual permit application. Facilities that are required to obtain an individual permit, or any discharge of storm water which the Director is evaluating for designation (see 40 CFR 124.52(c)) under paragraph (a)(1)(vii) and (a)(1)(viii) of this Rule and is not a municipal separate storm sewer, and which is not part of a group application described under paragraph (c)(3) of this section, shall submit a RIPDES application in accordance with the requirements of Rule 10 as modified and supplemented by the provisions of the remainder of this paragraph. Applicants for discharges composed entirely of storm water shall submit Form 1 and Form 2F. Applicants for discharges composed of storm water and non-storm water shall submit Form 1, Form 2C, and Form 2F. Applicants for new sources or new discharges (as defined in Rule 3 of these regulations) composed of storm water and non-storm water shall submit Form 1, Form 2D, and Form 2F.

(i) Discharges of storm water associated with industrial activity, excluding construction activity and small construction activity. Except as provided in part (c)(1)(ii)-(iv) of this section, the operator of a storm water discharge associated with industrial activity subject to this section shall provide:

(A) A site map showing topography (or indicating the outline of drainage areas served by the outfall(s) covered in the application if a topographic map is unavailable) of the facility including: each of its drainage and discharge structures; the drainage area of each storm water outfall; paved areas and buildings within the drainage area of each storm water outfall, each past or present area used for outdoor storage or disposal of significant materials, each existing structural control measure to reduce pollutants in storm water runoff, materials loading and access areas, areas where pesticides, herbicides, soil conditioners and fertilizers are applied, each of its hazardous waste

treatment, storage or disposal facilities (including each area not required to have a RCRA permit which is used for accumulating hazardous waste under 40 CFR 262.34); each well where fluids from the facility are injected underground; springs, and other surface water bodies which receive storm water discharges from the facility;

(B) An estimate of the area of impervious surfaces (including paved areas and building roofs) and the total area drained by each outfall (within a mile radius of the facility) and a narrative description of the following: Significant materials that in the three years prior to the submittal of this application have been treated, stored or disposed in a manner to allow exposure to storm water; method of treatment, storage or disposal of such materials; materials management practices employed, in the three years prior to the submittal of this application, to minimize contact by these materials with storm water runoff; materials loading and access areas; the location, manner and frequency in which pesticides, herbicides, soil conditioners and fertilizers are applied; the location and a description of existing structural and non-structural control measures to reduce pollutants in storm water runoff; and a description of the treatment the storm water receives, including the ultimate disposal of any solid or fluid wastes other than by discharge;

(C) A certification that all outfalls that should contain storm water discharges associated with industrial activity have been tested or evaluated for the presence of non-storm water discharges which are not covered by a RIPDES permit; tests for such non-storm water discharges may include smoke tests, fluorometric dye tests, analysis of accurate schematics, as well as other appropriate tests. The certification shall include a description of the method used, the date of any testing, and the on-site drainage points that were directly observed during a test;

(D) Existing information regarding significant leaks or spills of toxic or hazardous pollutants at the facility that have taken place within the three years prior to the submittal of this application;

(E) Quantitative data based on samples collected during storm events and collected in accordance with Rule 11.02(a)(14) from all outfalls containing a storm water discharge associated with industrial activity for the following parameters:

(1) Any pollutant limited in an effluent guideline to which the facility is subject;

(2) Any pollutant listed in the facility's RIPDES permit for its process wastewater (if the facility is operating under an existing RIPDES permit);

(3) Oil and grease, pH, BOD_5, COD, TSS, total phosphorus, total Kjeldahl nitrogen, and nitrate plus nitrite nitrogen;

(4) Any information on the discharge required under Rule 11.02 (a)(14))(iii) and (iv);

(5) Flow measurements or estimates of the flow rate, and the total amount of discharge for the storm event(s) sampled, and the method of flow measurement or estimation; and

(6) The date and duration (in hours) of the storm event(s) sampled, rainfall measurements or estimates of the storm event (in inches) which generated the sampled runoff and the duration between the storm event sampled and the end of the previous measurable (greater than 0.1 inch rainfall) storm event (in hours).

(F) Operators of a discharge which is composed entirely of storm water are exempt from the requirements of Rule 11.02 (a)(9), (a)(10), (a)(11), (a)(12), (a)(14)(i), (a)(14)(ii), and (a)(14)(v); and

(G) Operators of new sources or new discharges (as defined in Rule 3) which are composed in part or entirely of storm water must include estimates for the pollutants or parameters listed in paragraph (c)(1)(i)(E) of this section instead of actual sampling data, along with the source of each estimate. Operators of new sources or new discharges composed in part or entirely of storm water must provide quantitative data for the parameters listed in paragraph (c)(1)(i)(E) of this section within two years after commencement of discharge, unless such data has already been reported under the monitoring requirements of the RIPDES permit for the discharge. Operators of a new source or new discharge which is composed entirely of storm water are exempt from the requirements of Rule 11.02 (a)(9), (a)(11), and (a)(14).

(ii) Discharges of storm water associated with construction activity and small construction activity. The operator of an existing or new storm water discharge that is associated with industrial activity solely under Rule 31(b)(15)(x) (construction sites with five or more acres of land disturbance), associated with small construction activity solely under Rule 31(b)(16), or any discharge of storm water associated with construction activity, which the Director is evaluating for designation under Rule 31(a)(1)(vii) and (a)(1)(viii), is exempt from the requirements of Rule 11 and paragraph (c)(1)(i) of this section. Such operator shall provide a narrative description of:

(A) The location (including a map) and the nature of the construction activity;

(B) The total area of the site and the area of the site that is expected to undergo excavation during the life of the permit;

(C) Proposed measures, including best management practices, to control pollutants in storm water discharges during construction, including a brief description of applicable State and local erosion and sediment control requirements, guidance, ordinances or any related requirements imposed upon the site by the State or local authority.

(D) Proposed measures to control pollutants in storm water discharges that will occur after construction operations have been completed, including a brief description of applicable State or local erosion and sediment control requirements;

(E) An estimate of the runoff coefficient of the site and the increase in impervious area after the construction addressed in the permit application is completed, the nature of fill material and existing data describing the soil or the quality of the discharge; and

(F) The name of the receiving water.

(iii) Discharges of storm water associated with oil or gas exploration. The operator of an existing or new discharge composed entirely of storm water from an oil or gas exploration, production, processing, or treatment operation, or transmission facility is not required to submit a permit application in accordance with paragraph (c)(1)(i) of this section, unless the facility:

(A) Has had a discharge of storm water resulting in the discharge of a reportable quantity for which notification is or was required pursuant to 40 CFR 117.21 or 40 CFR 302.6 at anytime since November 16, 1987; or

(B) Has had a discharge of storm water resulting in the discharge of a reportable quantity for which notification is or was required pursuant to 40 CFR 110.6 at any time since November 16, 1987; or

(C) Contributes to a violation of a water quality standard.

(iv) Discharges of storm water associated with mining activity. The operator of an existing or new discharge composed entirely of storm water from a mining operation is not required to submit a permit application unless the storm water has come into contact with, any overburden, raw material, intermediate products, finished product, byproduct or waste products located on the site of such operations.

(v) Additional information. Applicants shall provide such other information the Director may reasonably require under Rule 11.02 (a)(20) to determine whether to issue a permit and may require any facility subject to paragraph (c)(1)(ii) of this section to comply with paragraph (c)(1)(i) of this section.

(2) General permit application.

(i) Notice of intent requirements. The requirements for the contents of the notice of intent to be covered by a general permit for storm water discharges associated with industrial activity may include the information required in paragraph (c)(1) of this Section. Specific notice of intent requirements shall be specified in the general permit in accordance with Rule 32(b)(2)(ii). Portions of the Notice of Intent requirements may be waived, if the Director determines that this information has been provided to, and will be reviewed by, either the Coastal Resources Management Council, the Division of Freshwater Wetlands, or a local Conservation District, established by Chapter 2-4 of the General Laws of Rhode Island, in accordance with a community Soil Erosion and Sediment Control Ordinance, pursuant to Chapter 45-46 of the General Laws of Rhode Island.

(ii) Granting of authorization. Authorization to discharge under a storm water general permit may be automatic or upon notice of authorization as specified in the general permit in accordance with Rule 32(b)(2)(i). Regardless of the means of authorization, the permittee is still responsible for compliance with all the terms of the permit and any other applicable state or federal regulations and/or requirements. The Department will be held harmless for any failure of the permittee to comply with the terms of the permit.

(3) Group permit application. In lieu of individual applications or notice of intent to be covered by a general permit for storm water discharges associated with industrial activity, a group application may be filed by an entity representing a group of applicants (except facilities that have existing individual RIPDES permits for storm water) that are part of the same subcategory (see 40 CFR subchapter N, part 405 to 471) or, where such grouping is inapplicable, are sufficiently similar as to be appropriate for general permit coverage under Rule 32 (40 CFR 122.28). The Part 1 application shall be submitted to the Office of Water Enforcement and Permits, U.S. EPA, 401 M Street, SW., Washington, DC 20460(EN-336) for approval in accordance with the Federal storm water group application requirements. Once a Part 1 application is approved, group applicants are to submit Part 2 of the group application to the Office of Water Enforcement and Permits in accordance with the Federal storm water group application requirements.

(d) Application requirements for large and medium municipal separate storm sewer discharges. The operator of a discharge from a large or medium municipal separate storm sewer or a municipal separate storm sewer that is designated by the Director under Rule 31(a)(1)(vii) and (viii) if required to apply under this section, may submit a jurisdiction-wide or system-wide permit application. Where more than one public entity owns or operates a municipal separate storm sewer within a geographic area (including adjacent or interconnected municipal separate storm sewer systems), such operators may be a co-applicant to the same application. Permit applications for discharges from large and medium municipal storm sewers or municipal storm sewers designated under Rule 31(a)(1)(vii) and (viii) and required to apply under this section shall include:

(1) Part 1 of the application shall consist of:

(i) General Information. The applicants' name, address, telephone number of contact person, ownership status and status as a state or local government entity.

(ii) Legal Authority. A description of existing legal authority to control discharges to the municipal separate storm sewer system. When existing legal authority is not sufficient to meet the criteria provided in paragraph (d)(2)(i) of this section, the description shall list additional authorities as will be necessary to meet the criteria and shall include a schedule and commitment to seek such additional authority that will be needed to meet the criteria.

(iii) Source Identification.

(A) A description of the historic use of ordinances, guidance or other controls which limited the discharge of non-storm water discharges to any Publicly Owned Treatment Works serving the same area as the municipal separate storm sewer system.

(B) A USGS 7.5 minute topographic map (or equivalent topographic map with a scale between 1:10,000 and 1:24,000 if cost effective) extending one mile beyond the service boundaries of the municipal storm sewer system covered by the permit application. The following information shall be provided:

(1) The location of known municipal storm sewer system outfalls discharging to waters of the State;

(2) A description of the land use activities (e.g., divisions indicating undeveloped, residential, commercial, agricultural and industrial uses) accompanied with estimates of population densities and projected growth for a ten year period within the drainage area served by the separate storm sewer. For each land use type, an estimate of an average runoff coefficient shall be provided;

(3) The location and a description of the activities of the facility of each currently operating or closed municipal landfill or other treatment, storage or disposal facility for municipal waste;

(4) The location and the permit number of any known discharge to the municipal storm sewer that has been issued a RIPDES permit;

(5) The location of major structural controls for storm water discharge (retention basins, detention basins, major infiltration devices, etc.); and

(6) The identification of publicly owned parks, recreational areas, and other open lands.

(iv) Discharge Characterization.

(A) Monthly mean rain and snow fall estimates (or summary of weather bureau data) and the monthly average number of storm events.

(B) Existing quantitative data describing the volume and quality of discharges from the municipal storm sewer, including a description of the outfalls sampled, sampling procedures and analytical methods used.

(C) A list of water bodies that receive discharges from the municipal separate storm sewer system, including downstream segments, lakes and estuaries, where pollutants from the system discharges may accumulate and cause water degradation and a brief description of known water quality impacts. At a minimum, the description of impacts shall include a description of whether the water bodies receiving such discharges have been:

(1) Assessed and reported in the Section 305(b) State of the State's Waters report the basis for the assessment (evaluated or monitored), a summary of designated use support and attainment of Clean Water Act (CWA) goals (fishable and swimmable waters), and causes of nonsupport of designated uses;

(2) Listed under section 304(l)(1)(A)(i), section 304(l)(1)(A)(ii), or section 304(l)(1)(B) of the CWA that is not expected to meet water quality standards or water quality goals;

(3) Listed in State Nonpoint Source Assessments required by Section 319(a) of the CWA that, without additional action to control nonpoint sources of pollution, cannot reasonably be expected to attain or maintain water quality standards due to storm sewers, construction, highway maintenance and runoff from municipal landfills and municipal sludge adding significant pollution (or contributing to a violation of water quality standards);

(4) Identified and classified according to eutrophic condition of publicly owned lakes listed in State reports required under Section 314(a) of the CWA (include the following: A description of those publicly owned lakes for which uses are known to be impaired; a description of procedures, processes and methods to control the discharge of pollutants from municipal separate storm sewers into such lakes; and a description of methods and procedures to restore the quality of such lakes);

(5) Designated estuaries under the National Estuary Program under Section 320 of the CWA;

(6) Recognized by the applicant as highly valued or sensitive waters;

(7) Defined by the State or U.S. Fish and Wildlife Services's National Wetlands Inventory as wetlands; and

(8) Found to have pollutants in bottom sediments, fish tissue or bio-survey data.

(D) Field Screening. Results of a field screening analysis for illicit connections and illegal dumping for either selected field screening points or major outfalls covered in the permit application. At a minimum, a screening analysis shall include a narrative description, for either each field screening point or major outfall, of visual observations made during dry weather periods (at least 72 hours from the previous 0.1 inch, or greater, rainfall event). If any flow is observed, two grab samples shall be collected during a 24 hour period with a minimum period of four hours between samples. For all such samples, a narrative description of the color, odor, turbidity, the presence of an oil sheen or surface scum as well as any other relevant observations regarding the potential presence of non-storm water discharges or illegal dumping shall be provided. In addition, a narrative description of the results of a field analysis using suitable methods to estimate pH, total chlorine, total copper, total phenol, and detergents (or surfactants) shall be provided along with a description of the flow rate. Where the field analysis does not involve analytical methods approved under 40 CFR Part 136, the applicant shall provide a description of the method used including the name of the manufacturer of the test method along with the range and accuracy of the test. Field screening points shall be either major outfalls or other outfall points (or any other point of access such as manholes) randomly located throughout the storm sewer system by placing a grid over a drainage system map and identifying those cells of the grid which contain a segment of the storm sewer system or major outfall. The field screening points shall be established using the following guidelines and criteria:

(1) A grid system consisting of perpendicular north-south and east-west lines spaced 1/4 mile apart shall be overlayed on a map of the municipal storm sewer system, creating a series of cells;

(2) All cells that contain a segment of the storm sewer system shall be identified; one field screening point shall be selected in each cell; major outfalls may be used as field screening points;

(3) Field screening points should be located downstream of any sources of suspected illegal or illicit activity;

(4) Field screening points shall be located to the degree practicable at the farthest manhole or other accessible location downstream in the system, within each cell; however, safety of personnel and accessibility of the location should be considered in making this determination;

(5) Hydrological conditions; total drainage area of the site; population density of the site; traffic density; age of the structures or buildings in the area; history of the area; and land use types;

(6) For medium municipal separate storm sewer systems, no more than 250 cells need to have identified field screening points; in large municipal separate storm sewer systems, no more than 500 cells need to have identified field screening points; cells established by the grid that contain no storm sewer segments will be eliminated from consideration; if fewer than 250 cells in medium municipal sewers are created, and fewer than 500 in large systems are created by the overlay on the municipal sewer map, then all those cells which contain a segment of the sewer system shall be subject to field screening (unless access to the separate storm sewer system is impossible); and

(7) Large or medium municipal separate storm sewer systems which are unable to utilize the procedures described in paragraphs (d)(1)(iv)(D)(1) through (6) of this section, because a sufficiently detailed map of the separate storm sewer systems is unavailable, shall field screen no more than 500 or 250 major outfalls respectively (or all major outfalls in the system, if less); in such circumstances, the applicant shall establish a grid system consisting of north-south and east-west lines spaced 1/4 mile apart as an overlay to the boundaries of the municipal storm sewer system, thereby creating a series of cells; the applicant will then select major outfalls in as many cells as possible until at least 500 major outfalls (large municipalities) or 250 major outfalls (medium municipalities) are selected; a field screening analysis shall be undertaken at these major outfalls.

(E) Characterization Plan. Information and a proposed program to meet the requirements of paragraph (d)(2)(iii) of this section. Such description shall include: the location of outfalls or field screening points appropriate for representative data collection under paragraph (d)(2)(iii)(A) of this section, a description of why the outfall or field screening point is representative, the seasons during which sampling is intended, a description of the sampling equipment. The proposed location of outfalls or field screening points for such sampling should reflect water quality concerns (see paragraph (d)(1)(iv)(C) of this section) to the extent practicable.

(v) Management Programs.

(A) A description of the existing management programs to control pollutants from the municipal separate storm sewer system. The description shall provide information on existing structural and source controls, including operation and maintenance measures for structural controls, that are currently being implemented. Such controls may include, but are not limited to: procedures to control pollution resulting from construction activities; floodplain management controls; wetland protection measures; best management practices for new subdivisions; and emergency spill response programs. The description may address controls established under State law as well as local requirements.

(B) A description of the existing program to identify illicit connections to the municipal storm sewer system. The description should include inspection procedures and methods for detecting and preventing illicit discharges, and describe areas where this program has been implemented.

(vi) Fiscal Resources. A description of the financial resources currently available to the municipality to complete Part 2 of the permit application. A description of the municipality's budget for existing storm water programs, including an overview of the municipality's financial resources and budget, including overall indebtedness and assets, and sources of funds for storm water programs.

(2) Part 2 of the application shall consist of:

(i) Adequate legal authority. A demonstration that the applicant can operate pursuant to legal authority established by statute, ordinance or series of contracts which authorizes or enables the applicant at a minimum to:

(A) Control through ordinance, permit, contract, order or similar means, the contribution of pollutants to the municipal storm sewer by storm water discharges associated with industrial activity and the quality of storm water discharged from sites of industrial activity;

(B) Prohibit through ordinance, order or similar means, illicit discharges to the municipal separate storm sewer;

(C) Control through ordinance, order or similar means the discharge to a municipal separate storm sewer of spills, dumping or disposal of materials other than storm water;

(D) Control through interagency agreements among co-applicants the contribution of pollutants from one portion of the municipal system to another portion of the municipal system;

(E) Require compliance with conditions in ordinances, permits, contracts or orders; and

(F) Carry out all inspection, surveillance and monitoring procedures necessary to determine compliance and noncompliance with permit conditions including the prohibition on illicit discharges to the municipal separate storm sewer.

(ii) Source Identification. The location of any major outfall that discharges to waters of the State that was not reported under paragraph (d)(1)(iii)(B)(1) of this section. Provide an inventory, organized by watershed of the name and address, and a description (such as SIC codes) which best reflects the principal products or services provided by each facility which may discharge, to the municipal separate storm sewer, storm water associated with industrial activity;

(iii) Characterization Data. When "quantitative data" for a pollutant are required under paragraph (d)(2)(iii)(A)(3) of this paragraph, the applicant must collect a sample of effluent in accordance with Rule 11.02 (a)(14) (40 CFR 122.21(g)(7)) and analyze it for the pollutant in accordance with analytical methods approved under 40 CFR Part 136. When no analytical method is approved the applicant may use any suitable method but must provide a description of the method. The applicant must provide information characterizing the quality and quantity of discharges covered in the permit application, including:

(A) Quantitative data from representative outfalls designated by the Director (based on information received in Part 1 of the application, the Director shall designate between five and ten outfalls or field screening points as representative of the commercial, residential and industrial land use activities of the drainage area contributing to the system or, where there are less than five outfalls covered in the application, the Director shall designate all outfalls) developed as follows:

(1) For each outfall or field screening point designated under this subparagraph, samples shall be collected of storm water discharges from three storm events occurring at least one month apart in accordance with the requirements in Rule 11.02 (a)(14) (40 CFR 122.21(g)(7)) (the Director may allow exemptions to sampling three storm events when climatic conditions create good cause for such exemptions);

(2) A narrative description shall be provided of the date and duration of the storm event(s) sampled, rainfall estimates of the storm event which generated the sampled discharge and the duration between the storm event sampled and the end of the previous measurable (greater than 0.1 inch rainfall) storm event;

(3) For samples collected and described under paragraphs (d)(2)(iii)(A)(1) and (A)(2) of this section, quantitative data shall be provided for: the organic pollutants listed in Table II; the pollutants listed in Table III (toxic metals, cyanide, and total phenols) of RIPDES Regulations Appendix A (Appendix D of 40 CFR Part 122), and for the following pollutants:

Total Suspended Solids (TSS)
Total Dissolved Solids (TDS)
Chemical Oxygen Demand (COD)
Biochemical Oxygen Demand, 5-day (BOD_5)
Oil and Grease
Fecal Coliform
Fecal Streptococcus
pH
Total Kjeldahl Nitrogen
Nitrate Plus Nitrite
Dissolved Phosphorus
Total Ammonia Plus Organic Nitrogen
Total Phosphorus

(4) Additional limited quantitative data required by the Director for determining permit conditions (the Director may require that quantitative data shall be provided for additional parameters, and may establish sampling conditions such as the location, season of sample collection, form of precipitation (snow melt, rainfall) and other parameters necessary to insure representativeness);

(B) Estimates of the annual pollutant load of the cumulative discharges to waters of the State from all identified municipal outfalls and the event mean concentration of the cumulative discharges to waters of the State from all identified municipal outfalls during a storm event (as described under 40 CFR 122.21(c)(7)) for BOD_5, COD, TSS, TDS, total nitrogen, total ammonia plus organic nitrogen, total phosphorus, dissolved phosphorus, cadmium, copper, lead, and zinc. Estimates shall be accompanied by a description of the procedures for estimating constituent loads and concentrations, including any modeling, data analysis, and calculation methods;

(C) A proposed schedule to provide estimates for each major outfall identified in either paragraph (d)(1)(iii)(B)(1) or (d)(2)(ii) of this section of the seasonal pollutant load and of the event mean concentration of a representative storm for any constituent detected in any sample required under paragraph (d)(2)(iii)(A) of this section; and

(D) A proposed monitoring program for representative data collection for the term of the permit that describes the location of outfalls or field screening

points to be sampled (or the location of instream stations), why the location is representative, the frequency of sampling, parameters to be sampled, and a description of sampling equipment.

(iv) Proposed Management Program. A proposed management program covers the duration of the permit. It shall include a comprehensive planning process which involves public participation and where necessary intergovernmental coordination, to reduce the discharge of pollutants to the maximum extent practicable using management practices, control techniques and system, design and engineering methods, and such other provisions which are appropriate. The program shall also include a description of staff and equipment available to implement the program. Separate proposed programs may be submitted by each co-applicant. Proposed programs may impose controls on a system-wide basis, a watershed basis, a jurisdiction basis, or on individual outfalls. Proposed programs will be considered by the Director when developing permit conditions to reduce pollutants in discharges to the maximum extent practicable. Proposed management programs shall describe priorities for implementing controls. Such programs shall be based on:

(A) A description of structural and source control measures to reduce pollutants from runoff from commercial and residential areas that are discharged from the municipal storm sewer system that are to be implemented during the life of the permit, accompanied with an estimate of the expected reduction of pollutant loads and a proposed schedule for implementing such controls. At a minimum, the description shall include:

(1) A description of maintenance activities and a maintenance schedule for structural controls to reduce pollutants (including floatables) in discharges from municipal separate storm sewers;

(2) A description of planning procedures including a comprehensive master plan to develop, implement and enforce controls to reduce the discharge of pollutants from municipal separate storm sewers which receive discharges from areas of new development and significant re-development. Such plan shall address controls to reduce pollutants in discharges from municipal separate storm sewers after construction is completed. (Controls to reduce pollutants in discharges from municipal separate storm sewers containing construction site runoff are addressed in paragraph (d)(2)(iv)(D) of this section;

(3) A description of practices for operating and maintaining public streets, roads and highways and procedures for reducing the impact on receiving waters of discharges from municipal storm sewer systems, including pollutants discharged as a result of de-icing activities;

(4) A description of procedures to assure that flood management projects assess the impacts on the water quality of receiving water bodies and that existing structural flood control devices have been evaluated to determine if retrofitting the device to provide additional pollutant removal from storm water is feasible;

(5) A description of a program to monitor pollutants in runoff from operating or closed municipal landfills or other treatment, storage or disposal facilities for municipal waste, which shall identify priorities and procedures for inspections and establishing and implementing control measures for such discharges (this program can be coordinated with the program developed under paragraph (d)(2)(iv)(C) of this section); and

(6) A description of a program to reduce to the maximum extent practicable, pollutants in discharges from municipal separate storm sewers associated with the application of pesticides, herbicides and fertilizer which will include, as appropriate, controls such as educational activities, permits, certifications and other measures for commercial applicators and distributors, and controls for application in public right-of-ways and at municipal facilities.

(B) A description of a program, including a schedule, to detect and remove (or require the discharger to the municipal separate storm sewer to obtain a separate RIPDES permit for) illicit discharges and improper disposal into the storm sewer. The proposed program shall include:

(1) A description of a program, including inspections, to implement and enforce an ordinance, orders or similar means to prevent illicit discharges to the municipal separate storm sewer system; this program description shall address all types of illicit discharges, however, the following category of non-storm water discharges or flows shall be addressed where such discharges are identified by the municipality as sources of pollutants to waters of the State: water line flushing, landscape irrigation, diverted stream flows, rising ground waters, uncontaminated ground water infiltration (as defined at 40 CFR 35.2005(20)) to separate storm sewers, uncontaminated pumped ground water, discharges from potable water sources, foundation drains, air conditioning condensation, irrigation water, springs, water from crawl space pumps, footing drains, lawn watering, individual residential car washing, flows from riparian habitats and wetlands, dechlorinated swimming pool discharges, and street wash water (program descriptions shall address discharges or flows from fire fighting only where such discharges or flows are identified as significant sources of pollutants to waters of the State);

(2) A description of procedures to conduct on-going field screening activities during the life of the permit, including areas or locations that will be evaluated by such field screens;

(3) A description of procedures to be followed to investigate portions of the separate storm sewer system that, based on the results of the field screen, or other appropriate information, indicate a reasonable potential of containing illicit discharges or other sources of non-storm water (such procedures may include: sampling procedures for constituents such as fecal coliform, fecal streptococcus, surfactants (MBAS), residual chlorine, fluorides and potassium; testing with fluorometric dyes; or conducting in storm sewer inspections where safety and other considerations allow. Such description shall include the location of storm sewers that have been identified for such evaluation);

(4) A description of procedures to prevent, contain, and respond to spills that may discharge into the municipal separate storm sewer;

(5) A description of a program to promote, publicize, and facilitate public reporting of the presence of illicit discharges or water quality impacts associated with discharges from municipal separate storm sewers;

(6) A description of educational activities, public information activities, and other appropriate activities to facilitate the proper management and disposal of used oil and toxic materials; and

(7) A description of controls to limit infiltration of seepage from municipal sanitary sewers to municipal separate storm sewer systems where necessary;

(C) A description of a program to monitor and control pollutants in storm water discharges to municipal systems from municipal landfills, hazardous waste treatment, disposal and recovery facilities, industrial facilities that are subject to section 313 of Title III of the Superfund Amendments and Re-Authorization Act of 1986 (SARA), and industrial facilities that the municipal permit applicant determines are contributing a substantial pollutant loading to the municipal storm sewer system. The program shall:

(1) Identify priorities and procedures for inspections and establishing and implementing control measures for such discharges;

(2) Describe a monitoring program for storm water discharges associated with the industrial facilities identified in paragraph (d)(2)(iv)(C) of this section, to be implemented during the term of the permit,

including the submission of quantitative data on the following constituents: any pollutants limited in effluent guidelines subcategories, where applicable; any pollutant listed in an existing RIPDES permit for a facility; oil and grease, COD, pH, BOD_5, TSS, total phosphorus, total Kjeldahl nitrogen, nitrate plus nitrite nitrogen, and any information on discharges required under Rule 11.02 (a)(14) (40 CFR 122.21(g)(7) (iii) and (iv)).

(D) A description of a program to implement and maintain structural and non-structural best management practices to reduce pollutants in storm water runoff from construction sites to the municipal storm sewer system, which shall include:

(1) A description of procedures for site planning which incorporate consideration of potential water quality impacts;

(2) A description of requirements for nonstructural and structural best management practices;

(3) A description of procedures for identifying priorities for inspecting sites and enforcing control measures which consider the nature of the construction activity, topography, and the characteristics of soils and receiving water quality; and

(4) A description of appropriate educational and training measures for construction site operators.

(v) Assessment of Controls. Estimated reductions in loadings of pollutants from discharges of municipal storm sewer constituents from municipal storm sewer systems expected as the result of the municipal storm water quality management program. The assessment shall also identify known impacts of storm water controls on ground water.

(vi) Fiscal Analysis. For each fiscal year to be covered by the permit, a fiscal analysis of the necessary capital and operation and maintenance expenditures necessary to accomplish the activities of the programs under paragraphs (d)(2)(iii) and (iv) of this section. Such analysis shall include a description of the source of funds that are proposed to meet the necessary expenditures, including legal restrictions on the use of such funds.

(vii) Where more than one legal entity submits an application, the application shall contain a description of the roles and responsibilities of each legal entity and procedures to ensure effective coordination.

(viii) Where requirements under paragraph (d)(1)(iv)(E), (d)(2)(ii), (d)(2)(iii)(B) and (d)(2)(iv) of this section are not practicable or are not applicable, the Director may

exclude any operator of a discharge from a municipal separate storm sewer which is designated under paragraph (a)(1)(v), (b)(4)(ii) or (b)(7)(ii) of this section from such requirements. The Director shall not exclude the operator of a discharge from a municipal separate storm sewer identified in the RIPDES Regulations Appendix F, G, H or I, from any of the permit application requirements under this paragraph except where authorized under this section.

(e) Application requirements for small municipal separate storm sewer discharges. The operator of a regulated small MS4 must obtain permit coverage under a General or Individual Permit as follows:

(1) General Permit Application. The operator of a small MS4 seeking coverage under a general permit must submit a Notice of Intent (NOI) and a copy of the Storm Water Management Program Plan that meets the requirements of Rule 31(e)(3). The operator of the small MS4 may file an individual NOI or the operator of the MS4 and other municipalities or governmental entities may jointly submit an NOI. When a joint NOI is filed, it must describe which minimum measures the operator of the MS4 will implement and identify the entities that will implement the other minimum measures within the area served by the MS4.

(i) Notice of Intent requirements. The requirements for the contents of the notice of intent to be covered by a general permit for storm water discharges may include the information required in Rule 31(e)(3). Specific notice of intent requirements shall be specified in the general permit in accordance with Rule 32(b)(2)(ii).

(ii) Granting of authorization. Authorization to discharge under a storm water general permit may be automatic or upon notice of authorization as specified in the general permit in accordance with Rule 32(b)(2)(i). Regardless of the means of authorization, the permittee is still responsible for compliance with all terms of the permit and any other applicable State or federal regulations and/or requirements. The Department will be held harmless for any failure of the permittee to comply with the terms of the permit.

(2) Individual Permit Application. The operator of a regulated small MS4 and another regulated entity may jointly apply under either Rule 31(e)(2)(i) or (ii) to be co-permittees under an individual permit. The Director may require the operator of a small MS4 designated under Rule 31(a)(1)(vii) or (viii) to seek coverage under an individual permit. The operator of a small MS4 seeking or required to obtain authorization to discharge under an individual permit must meet program requirements as follows:

(i) Operators of small MS4s seeking authorization to implement a program under Rule 31(e)(3), must submit an application that includes the following:

(A) Information required under Rule 31(d)(1)(i)-(iii) and Rule 31(e)(3);

(B) An estimate of the square mileage served by the small MS4; and

(C) Any additional information that the Department requests.

(ii) Operators of small MS4s seeking authorization to implement a program that is different from the program under Rule 31(e)(3) must comply with the permit application requirements of Rule 31(d). The operator of the MS4 must submit both Parts of the application requirements in Rule 31(d)(1) and (d)(2) by March 10, 2003. The applicant is exempt from submitting information required by Rule 31(d)(1)(ii) and (d)(2)(i) regarding legal authority unless the applicant intends for the Department to take such information into account when developing other permit conditions. If the operator intends to demonstrate permit coverage for all discharges to Special Resource Protection Waters (SRPWs), Outstanding National Resource Waters (ONRWs), and impaired water bodies as required in Rule 31(a)(5)(i)(G), the application required by Rule 31(d) must document coverage for all such discharges.

(3) Storm Water Management Program Requirements. Unless seeking coverage in accordance to Paragraph (2)(ii) of this section, the operator of a small MS4 must develop, implement and enforce a Storm Water Management Program designed to reduce the discharge of pollutants from the MS4 to the Maximum Extent Practicable (MEP), to protect water quality and to satisfy the appropriate water quality requirements of the Clean Water Act through the implementation of Best Management Practices (BMPs), for each of the minimum control measures. If the operator intends to demonstrate permit coverage to all discharges to Special Resource Protection Waters (SRPWs), Outstanding National Resource Waters (ONRWs), and impaired water bodies as required in Rule 31(a)(5)(i)(G), the Storm Water Management Program Plan required by Rule 31(e)(3)(i) must document coverage for all such discharges.

(i) Storm Water Management Program Plan. At a minimum the storm water management program plan must include all of the following:

(A) Information of the Best Management Practices (BMPs) that will be implemented for each of the minimum control measures identified in paragraph (3)(ii) of this section;

(B) Information of the Measurable Goals for each of the BMPs, including as appropriate:

(1) Months and years in which the operator will undertake required actions,

(2) Interim milestones, and

(3) Frequency of action(s);

(C) The person(s) responsible for implementing or coordinating the storm water management program plan.

(ii) Minimum Control Measures.

(A) Public Education and Outreach: The operator must implement a public education program to distribute educational materials to the community or conduct equivalent outreach activities about the impacts of storm water discharges on water bodies and the steps the public can take to reduce pollutants in storm water runoff.

(B) Public Involvement/Participation: The operator must, at a minimum, comply with State and local public notice requirements when implementing a public involvement/participation program.

(C) Illicit Discharge Detection and Elimination: At a minimum, the operator must develop, implement and enforce a program to detect and eliminate illicit discharges or flows into the Small MS4 that includes the following:

(1) Development of a storm sewer map showing the location of all outfalls and names and locations of all receiving State waters;

(2) To the extent allowable under State or local law, effectively prohibit through ordinance, or other regulatory mechanism, non-storm water discharges to MS4 and implement appropriate enforcement procedures and actions;

(3) Develop and implement a plan to detect and address non-storm water discharges, including illegal dumping, to the MS4;

(4) Inform public employees, businesses, and the general public of hazards associated with illegal discharges and improper disposal of waste to the MS4.

The operator of the small MS4 must address the following categories of non-storm water discharges if these discharges are identified as significant contributors of pollutants to the small MS4: water line flushing, landscape irrigation, diverted stream flows, rising ground waters, uncontaminated ground water infiltration, uncontaminated pumped ground water, discharges from potable water sources, foundation drains, air conditioning condensation, irrigation water, springs, water from crawl space pumps, footing drains, lawn watering, individual residential car washing, flows from riparian habitats and wetlands, dechlorinated swimming pool discharges, and street wash water (discharges or flows from fire fighting activities are excluded from the effective prohibition against non-storm water and need only be addressed where they are identified as significant sources of pollutants to waters of the State).

(D) Construction Site Storm Water Runoff Control: The operator of the regulated small MS4 must develop, implement, and enforce a program to reduce pollutants in any storm water runoff to the small MS4 from construction

activities that result in a land disturbance of greater than or equal to one (1) acre including construction activity disturbing less than one (1) acre if that construction activity is part of a larger common plan of development or sale that would disturb one or more acre. At a minimum, the storm water management program plan must include the development and implementation of the following:

(1) An ordinance or other regulatory mechanism to require erosion and sediment controls, as well as sanctions to ensure compliance, to the extent allowable under State or local law;

(2) Requirements for construction site operators to implement appropriate erosion and sediment control best management practices;

(3) Requirements for construction site operators to control construction wastes, such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste at the construction site that may cause adverse impacts to water quality;

(4) Procedures for site plan review which incorporate consideration of potential water quality impacts;

(5) Procedures for receipt and consideration of information submitted by the public; and

(6) Procedures for site inspection and enforcement of control measures.

(E) Post Construction Storm Water Management in New Development and Redevelopment: The operator of the small MS4 must develop, implement, and enforce a program to address storm water runoff from new development and redevelopment projects that disturb greater or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale, that discharge into the small MS4. The program must ensure that controls are in place that would prevent or minimize water quality impacts. The operator of the small MS4 must:

(1) Develop and implement strategies which include a combination of structural methods such as detention basins, wet basins, infiltration basins and trenches, dry wells, galleys, vegetated swales and vegetated filter strips and/or non-structural best management practices (BMPs) appropriate for the community;

(2) Use an ordinance or other regulatory mechanism to address post-construction runoff from new development and redevelopment projects to the extent allowable under State or local law;

(3) Ensure adequate long-term operation and maintenance of BMPs; and

(4) Develop and implement strategies to reduce runoff volume which may include minimizing impervious surface areas such as roads, parking, paving or other surfaces, encouraging infiltration of non-contaminated runoff, preventing channelization, encouraging sheet flow, and where appropriate, preserving, enhancing, or establishing buffers along surface waterbodies and their tributaries.

(F) Pollution Prevention/Good Housekeeping for Municipal Operations: The operator of the small MS4 must develop and implement an operation and maintenance program that includes an employee training component and has the ultimate goal of preventing or reducing pollutant runoff and runoff volumes from municipal operations such as park and open space maintenance, fleet and building maintenance, new construction and land disturbances, and storm water systems maintenance.

(4) Waiver applications. An operator of a regulated small MS4 seeking a waiver must submit and application, by the deadlines established in Rule 31(f), which meets the following requirements:

(i) An operator of a small MS4 seeking a waiver under Rule 31(g)(5)(i) must submit the following:

(A) A map indicating the location of all outfalls and receiving water bodies within the urbanized area or densely populated area and the drainage area of any areas within the urbanized area or densely populated area physically interconnected to another regulated MS4.

(B) Any other additional information that the Director deems is necessary to make a determination.

(ii) An operator of a small MS4 seeking a waiver under Rule 31(g)(5)(ii) must submit the following:

(A) A map indicating the location of all outfalls and receiving water bodies throughout the jurisdiction, including small streams, tributaries, lakes and ponds, and the drainage area of any areas physically-interconnected to another regulated MS4.

(B) A table which identifies the following information for each outfall:

(1) Any waters designated as impaired on the latest Rhode Island 303(d) list that receive a discharge from the outfall;

(2) Any EPA approved or established TMDLs completed for impaired water bodies that receive a discharge from the outfall;

(3) The pollutant(s) of concern addressed by the EPA approved or established TMDL;

(4) Any storm water controls required by the EPA approved or established TMDL.

(C) For any outfalls that the Department determines discharge to waters that have not been evaluated to determine compliance with water quality standards for all the pollutants of concern, the operator will be required to submit additional information necessary to complete the evaluation.

(D) An analysis, equivalent to a TMDL, for any outfalls which discharge to impaired water bodies, as designated on the latest Rhode Island 303(d) or upon review of the information required in Rule 31(e)(4)(ii)(C), for which TMDLs have not been completed for all pollutants of concern; and

(E) Any other additional information that the Director deems is necessary to make a determination.

(iii) An operator of a small MS4 seeking a waiver under Rule 31(g)(5)(iii) must submit the following:

(A) Documentation of the extent that the Storm Water Management Program Plan required under Rule 31(e)(3) provides permit coverage for all discharges to Special Resource Protection Waters (SRPWs), Outstanding National Resource Waters (ONRWs), and impaired water bodies; or

(B) A map indicating the location of all outfalls to Special Resource Protection Waters (SRPWs), Outstanding National Resource Waters (ONRWs), and impaired water bodies that receive a discharge from the MS4; and

(C) Description of effective programs, which the operator believes are implemented for the protection of Special Resource Protection Waters (SRPWs), Outstanding National Resource Waters (ONRWs), and the control of storm water discharges to impaired water bodies; and

(D) Any other additional information that the Director deems is necessary to make a determination.

(f) Application Deadlines. Any operator of a point source required to obtain a permit under Rule 31, that does not have an effective RIPDES permit authorizing discharges from its storm water outfalls shall submit an application in accordance with the following deadlines:

(1) Storm Water Discharges Associated with Industrial Activity.

(i) Except as provided in Rule 31(f)(1)(ii) and (f)(5), for any storm water discharge associated with industrial activity identified in Rule 31(b)(15)(i) through (xi), that is not part of a group application as described in Rule 31(c)(3) of this section or which is not authorized by a general permit, a permit application made pursuant to paragraph (c) of this section shall be submitted to the Director by April 19, 1993. However, facilities that meet the definition of light industry in accordance to Rule 31(b)(15)(xi), where material handling equipment or activities, raw materials, intermediate products, final products, waste materials, by-products, or industrial machinery, were not exposed to storm water, were not required to obtain a permit for their storm water discharges from April 19, 1993 until 90 (ninety) days after the effective date of these Regulations. Within 90 (ninety) days of the effective date of these regulations, the operators of these facilities must submit to the Department a no exposure certification in accordance to Rule 31(h) or a permit application in accordance to Rule 31(c).

(ii) For any storm water discharge associated with industrial activity from a facility that is owned or operated by a municipality with a population of less than 100,000 that is not authorized by a general or individual permit, other than an airport, power plant, or uncontrolled sanitary landfill, the permit application must be submitted to the Director by March 10, 2003.

(2) Group Permit Applications. Any group application submitted in accordance with paragraph (c)(3) of this section shall comply with all Federal requirements.

(i) Except as provided in paragraph (f)(2)(ii) of this section, facilities that are rejected as members of the group shall submit an individual application (or obtain coverage under an applicable general permit) no later than 12 months after the date of receipt of the notice of rejection or by April 19, 1993, whichever comes first.

(ii) Facilities that are owned or operated by a municipality and that are rejected as members of the part 1 group application shall submit an individual application no later than 180 days after the date of receipt of the notice of rejection or by April 19, 1993, whichever is later.

(3) For any discharge from a medium municipal separate storm sewer system;

(i) Part 1 of the application shall be submitted to the Director by April 19, 1993.

(ii) Based on information received in the Part 1 application the Director will approve or deny a sampling plan under paragraph (d)(1)(iv)(E) of this section within ninety (90) days after receiving the Part 1 application.

(iii) Part 2 of the application shall be submitted to the Director by May 17, 1993.

(4) For the storm water discharges defined below, a permit application shall be submitted to the Director within sixty (60) days of notice for storm water discharges associated with industrial activity and small construction activity, and one hundred eighty (180) days for storm water discharges from a small municipal separate storm sewer system, unless permission for a later date is granted by the Director (see 40 CFR 124.52(c)):

(i) A storm water discharge which the Director, determines that the discharge contributes to a violation of a water quality standard or is a significant contributor of pollutants to waters of the State (see Rule 31(a)(1)(vii) and (b)(16)(ii)) or is designated in accordance with Rule 31(a)(1)(viii);

(ii) A storm water discharge subject to paragraph (c)(1)(v) of this section.

(5) Existing discharges of storm water associated with industrial activity. Facilities with existing RIPDES permits for storm water discharges associated with industrial activity shall maintain existing permits. Re-applications shall be submitted in accordance with the requirements of Rules 10, 11 and 31(c), (40 CFR 122.21 and 40 CFR 122.26(c)) 180 days before the expiration of such permits. Facilities with expired permits or permits due to expire before May 18, 1992, shall submit applications in accordance with the deadline set forth under paragraph (f)(1) of this section.

(6) New discharges of storm water associated with industrial activity. Facilities proposing a new discharge of storm water associated with industrial activity shall submit an application/notice of intent or a no exposure certification in accordance to Rule 31(h), 180 days before that facility commences industrial activity which may reasonably be expected to result in a discharge of storm water associated with that industrial activity. Different submittal dates may be required under the terms of applicable general permits.

(7) Discharges of storm water associated with small construction activity. For any storm water discharge associated with small construction activity identified in Rule 31(b)(16)(i), a permit application must be submitted to the Director by March 10, 2003, unless designated for coverage before then.

(8) Discharges of storm water from small municipal separate storm water sewer systems. For any discharge from a regulated small MS4, the permit application made under Rule 31(e) must be submitted to the Director by:

(i) March 10, 2003 if subject to Rule 31(a)(5)(i)(A-D);

(ii) March 10, 2008 if subject to Rule 31(a)(5)(i)(G);

(iii) Within one hundred eighty (180) days of notice, unless the Department grants a later date, if designated under Rule 31(a)(1)(vii), and (a)(1)(viii), or (a)(5)(E, F, H – J).

(9) Waivers from permit requirement for discharges of storm water from small municipal separate storm sewer systems.

(i) An operator of a small MS4 eligible for a waiver under Rule 31(g)(5)(i) and (ii) must submit an application for a waiver in accordance with Rule 31(e)(4) by June 19, 2002.

(ii) An operator of a small MS4 seeking a waiver under Rule 31(g)(5)(iii) must submit an application for a waiver in accordance with Rule 31(e)(4) by March 10, 2007.

(g) Petitions.

(1) Any operator of a municipal separate storm sewer system may petition the Director to require a separate RIPDES permit for any discharge or category of discharges into the municipal separate storm sewer system.

(2) Any person may petition the Director to require a RIPDES permit for a discharge or category of discharges which are composed entirely of storm water which contributes to a violation of a water quality standard or is a significant contributor of pollutants to waters of the State.

(3) The owner or operator of a municipal separate storm sewer system may petition the Director to reduce the Census estimates of the population served by such separate system to account for storm water discharged to combined sewers as defined by 40 CFR 35.2005(b)(11) that is treated in a publicly owned treatment works. In municipalities in which combined sewers are operated, the Census estimates of population may be reduced proportional to the fraction, based on estimated lengths, of the length of combined sewers over the sum of the length of combined sewers and municipal separate storm sewers where an applicant has submitted the RIPDES permit number associated with each discharge point and a map indicating areas served by combined sewers and the location of any combined sewer overflow discharge point.

(4) Any person may petition the Director for the designation of a large, medium or small municipal separate storm sewer system as defined by paragraphs (b)(4)(iv), (b)(7)(iv) or (b)(17) of this section. Final determination on any petition will be made in accordance to Rule 31(g)(8).

(5) The Department may waive the requirement to obtain a permit for small municipal separate storm sewer systems under the following circumstances:

(i) The small MS4 is located within a jurisdiction with only urbanized areas that contain a total population of less than 1,000 or a jurisdiction with only densely populated areas (See Appendix H – J), and the MS4 meets the following criteria:

(A) The small MS4 is not contributing substantially to the pollutant loadings of a physically interconnected regulated MS4;

(B) The small MS4 does not discharge to an impaired water body, within the urbanized area or densely populated area;

(C) If the small MS4 does discharge to an impaired water body within the urbanized area or densely populated area, the operator of the small MS4 has demonstrated that it does not discharge any pollutants that have been identified as the cause of impairment;

(D) If the small MS4 discharges any pollutant(s) that have been identified as a cause of impairment, to an impaired water body within the urbanized area or densely populated area, then it must be demonstrated that storm water controls are not needed based on wasteload allocations that are part of an EPA approved or established TMDL that addresses the pollutant(s) causing the impairment.

(ii) The small MS4 is located in a jurisdiction with urbanized areas or both urbanized areas and densely populated areas that contain a total population greater than or equal to 1,000 but less than 10,000 (See Appendix H – J), and the MS4 meets all of the following criteria:

(A) The Department has evaluated all waters of the State, including small streams, tributaries, lakes, and ponds, that receive a discharge from the small MS4, throughout the jurisdiction;

(B) For all such waters, the Department has determined that storm water controls are not needed based on wasteload allocations that are part of an EPA approved or established TMDL that addresses the pollutant(s) of concern or, if a TMDL has not been developed or approved, an equivalent analysis that determines sources and allocation for the pollutant(s) of concern;

(C) For the purpose of this paragraph, the pollutant(s) of concern include biochemical oxygen demand (BOD), sediment or a parameter that addresses sediment (such as total suspended solids, turbidity or siltation), pathogens, oil and grease, and any pollutant that has been identified as a cause of impairment of any water body that will receive a discharge from the MS4, throughout the jurisdiction; and

(D) The operator of the MS4 has demonstrated to the satisfaction of the Director that future discharges from the MS4 do not have the potential to result in exceedances of water quality standards, including impairment of designated uses, or other significant water quality impacts, including habitat and biological impacts.

(iii) On or after March 2008, the operator of a small MS4, located outside urbanized areas and densely populated areas (See Appendix H – J), or previously waived in accordance with Rule 31(g)(5)(i) and (ii) that discharges to Special Resource Protection Waters (SRPWs), Outstanding National Resource Waters (ONRWs) or impaired waters, will be required to obtain a permit, unless the operator has

demonstrated effective protection of water quality to the satisfaction of the Director by meeting the following criteria:

(A) The operator has documented that the Storm Water Management Program Plan as defined in Rule 31(e)(3) is applied to all Special Resource Protection Waters (SRPWs), Outstanding National Resource Waters (ONRWs), or impaired water bodies that receive a discharge from the small MS4; or

(B) If the small MS4 discharges to Special Resource Protection Waters (SPRWs), Outstanding National Resource Waters (ONRWs), or impaired water bodies then it must be demonstrated that existing and future discharges from the MS4 do not have the potential to result in water quality impacts including habitat and biological impacts; and

(C) If the small MS4 was previously waived in accordance to Rule 31(g)(5)(i) or (ii) the Director must determine that those criteria for granting the waiver continue to be met.

(6) Any person may petition the Director to review a waiver when the petitioner provides evidence that the information required for granting the waiver have changed.

(7) The Director will periodically review any waivers granted in accordance to Rule 31(g)(5) to determine whether any of the information for granting the waiver has changed. At a minimum such review will be conducted once every five (5) years.

(8) The Director shall make a final determination on any petition received under this section within a reasonable period of time after receiving the petition with the exception of petitions to designate a small MS4 in which case the Director shall make a final determination on the petition within one hundred eighty (180) days after its receipt. Where the Department does not make a determination for a petition in accordance to these deadlines, EPA may make a determination on the petition. For any storm water discharge from a small MS4 that the Director has designated, a permit application shall be submitted to the Director within one hundred eighty (180) days of notice.

(h) Conditional exclusion for "no exposure" of industrial activities and materials to storm water. Discharges composed entirely of storm water are not storm water discharges associated with industrial activity if there is "no exposure" of industrial materials and activities to rain, snow, snowmelt and/or runoff, and the discharger satisfies the conditions in paragraphs (h)(1) through (h)(4) of this section. "No exposure" means that all industrial materials and activities are protected by a storm resistant shelter to prevent exposure to rain, snow, snowmelt and/or runoff. Industrial materials or activities include, but are not limited to, material handling equipment or activities, industrial machinery, raw materials, intermediate products, by-products, final products, or waste products. Material handling activities include the storage, loading and unloading, transportation, or conveyance of any raw material, intermediate product, final product or waste product.

(1) Qualification. To qualify for this exclusion, the operator of the discharge must:

(i) Provide a storm resistant shelter to protect industrial materials and activities from exposure to rain, snow, snowmelt, and runoff;

(ii) Complete and sign (according to Rule 12) a certification, in accordance to Rule 31(h)(4), that there are no discharges of storm water contaminated by exposure to industrial materials and activities from the entire facility, except as provided in paragraph (h)(2) of this section;

(iii) Submit the signed certification to the Department once every five years;

(iv) Allow the Director to inspect the facility to determine compliance with the "no exposure" conditions;

(v) Allow the Director to make any "no exposure" inspection reports available to the public upon request; and

(vi) For facilities that discharge through an MS4, upon request, submit a copy of the certification of "no exposure" to the MS4 operator, as well as allow inspection and public reporting by the MS4 operator.

(2) Industrial materials and activities not requiring storm resistant shelter. To qualify for this exclusion, storm resistant shelter is not required for:

(i) Drums, barrels, tanks, and similar containers that are tightly sealed, provided those containers are not deteriorated and do not leak ("Sealed" means banded or otherwise secured and without operational taps or valves);

(ii) Adequately maintained vehicles used in material handling; and

(iii) Final products, other than products that would be mobilized in storm water discharge (e.g., rock salt).

(3) Limitations.

(i) Storm water discharges from construction activities identified in Rule 31(b)(15)(x) and (b)(16) are not eligible for this conditional exclusion.

(ii) This conditional exclusion from the requirement for a RIPDES permit is available on a facility-wide basis only, not for individual outfalls. If a facility has some discharges of storm water that would otherwise be "no exposure" discharges, individual permit requirements should be adjusted accordingly.

(iii) If circumstances change and industrial materials or activities become exposed to rain, snow, snowmelt, and/or runoff, the conditions for this exclusion no longer apply. In such cases, the discharger becomes subject to enforcement for un-permitted

discharges. Any conditionally exempt discharger who anticipates changes in circumstances should apply for and obtain permit authorization prior to the change of circumstances.

(iv) Notwithstanding the provisions of this paragraph, the Department retains the authority to require permit authorization (and deny this exclusion) upon making a determination that the discharge causes, has a reasonable potential to cause, or contributes to an instream excursion above an applicable water quality standard, including designated uses.

(v) The Director retains the authority to require permit authorization (and deny this exclusion) on a case-by-case basis, based on the information provided in Rule 31(h)(4) or upon making a determination that the materials or activities listed in Rule 31(h)(4)(iii) are or have been exposed to precipitation.

(4) Certification. The operator of a discharge seeking a conditional exclusion must submit to the Department a no exposure certification that contains the following information, at a minimum, to aid the Department in determining if the facility qualifies for the no exposure exclusion:

(i) The legal name, address and phone number of the discharger (see Rule 8(c));

(ii) The facility name and address, the county name and the latitude and longitude where the facility is located;

(iii) The certification must indicate that none of the following materials or activities are, or will be in the foreseeable future, exposed to precipitation:

(A) Using, storing or cleaning industrial machinery or equipment, and areas where residuals from using, storing or cleaning industrial machinery or equipment remain and are exposed to storm water;

(B) Materials or residuals on the ground or in storm water inlets from spills/leaks;

(C) Materials or products from past industrial activity;

(D) Material handling equipment (except adequately maintained vehicles);

(E) Materials or products during loading/unloading or transport activities;

(F) Materials or products stored outdoors (except final products intended for outside use, e.g., new cars, where exposure to storm water does not result in the discharge of pollutant);

(G) Materials contained in open, deteriorated or leaking storage drums, barrels, tanks, and similar containers;

(H) Materials or products handled/stored on roads or railways owned or maintained by the discharger;

(I) Waste material (except waste in covered, non-leaking containers, e.g., dumpsters);

(J) Application or disposal of process wastewater (unless otherwise permitted); and

(K) Particulate matter or visible deposits of residuals from roof stack/vents not otherwise regulated, i.e., under an air quality control permit, and evident in the storm water outflow;

(iv) All "no exposure" certifications must include the following certification statement, and be signed in accordance with the signatory requirements of Rule 12: "I certify under penalty of law that I have read and understand the eligibility requirements for claiming a condition of "no exposure" and obtaining an exclusion from RIPDES storm water permitting; and that there are no discharges of storm water contaminated by exposure to industrial activities or materials from the industrial facility identified in this document (except as allowed under paragraph (g)(2)) of this section. I understand that I am obligated to submit a no exposure certification form once every five (5) years to the Department and, if requested, to the operator of the local MS4 into which this facility discharges (where applicable), I understand that I must allow the Department, or MS4 operator where the discharge is into the local MS4, to perform inspections to confirm the condition of no exposure and to make such inspection reports publicly available upon request. I understand that I must obtain coverage under a RIPDES permit prior to any point source discharge of storm water from the facility. I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based upon my inquiry of the person or persons who manage the system, or those persons directly involved in gathering the information, the information submitted is to the best of my knowledge and belief true, accurate and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

(v) Any other additional information that the Director deems is necessary to make a determination.

RULE 32 - GENERAL PERMITS

(a) Coverage. The Department may issue a general permit in accordance with the following:

(1) Area. The general permit shall be written to cover a category of discharges described in the permit under paragraph (a)(2) of this section, except those covered by individual permits, within a geographic area. The area shall correspond to existing geographic or political boundaries, such as:

(i) Designated planning areas under Sections 208 and 303 of the Clean Water Act;

(ii) Sewer districts or sewer authorities;

(iii) City, county, or state political boundaries;

(iv) State highway systems;

(v) Standard metropolitan statistical areas as defined by the Office of Management and Budget;

(vi) Urbanized areas as designated by the Bureau of Census according to criteria in 39 FR 15202 (May 1, 1974);

(vii) Densely populated area as defined under Rule 31(b)(20); or

(viii) Any other appropriate division or combination of boundaries.

(2) Sources. The general permit shall be written to regulate, within the area described in paragraph (a)(1) of this section, either:

(i) Storm Water discharges; or

(ii) A category of point sources other than storm water discharges if the sources all:

(A) Involve the same or substantially similar types of operations;

(B) Discharge the same type of wastes;

(C) Require the same effluent limitations or operating conditions;

(D) Require the same or similar monitoring;

(E) In the opinion of the Department, are more appropriately controlled under a general permit than under individual permits.

(b) Administration.

(1) In general. General permits may be issued, modified, revoked, and reissued, or terminated in accordance with applicable requirements of these regulations. General

permits shall be subject to review by EPA in accordance with the Memorandum of Agreement and 40 CFR Section 123.44.

(2) Authorization to discharge, or authorization to engage in sludge use and disposal practices.

(i) Except as provided in paragraphs (b)(2)(v) and (b)(2)(vi) of this section, dischargers (or treatment works treating domestic sewage) seeking coverage under a general permit shall submit to the Department of Environmental Management, Office of Water Resources, 235 Promenade Street, Providence, Rhode Island 02908, a standardized notice of intent form to be covered by the general permit at least thirty (30) days prior to commencement of the discharge. A discharger (or treatment works treating domestic sewage) who fails to submit a notice of intent in accordance with the terms of the permit is not authorized to discharge, (or in the case of sludge disposal permit, to engage in a sludge use or disposal practice), under the terms of the general permit unless the general permit, in accordance with paragraph (b)(2)(v) of this section, contains a provision that a notice of intent is not required or the Director notifies a discharger (or treatment works treating domestic sewage) that it is covered by a general permit in accordance with paragraph (b)(2)(vi) of this section. A complete and timely, notice of intent (NOI), to be covered in accordance with general permit requirements, fulfills the requirements for permit applications for purposes of Rules 10, 13 and 31.

(ii) The contents of the notice of intent shall be specified in the general permit and shall require the submission of information necessary for adequate program implementation, including at a minimum, the legal name and address of the owner or operator, the facility name and address, type of facility or discharges, the receiving stream(s), and such other information the Director may reasonably require under Rule 11.02(a)(20). General permits for storm water discharges associated with industrial activity from inactive mining, inactive oil and gas operations, or inactive landfills occurring on Federal lands where an operator cannot be identified may contain alternative notice of intent requirements. All notices of intent shall be signed in accordance with Rule 12 (40 CFR 122.22).

(iii) General permits shall specify the deadlines for submitting notices of intent to be covered and the date(s) when a discharger is authorized to discharge under the permit;

(iv) General permits shall specify whether a discharger (or treatment works treating domestic sewage) that has submitted a complete and timely notice of intent to be covered in accordance with the general permit and that is eligible for coverage under the permit, is authorized to discharge, (or in the case of a sludge disposal permit, to engage in a sludge use or disposal practice), in accordance with the permit either upon receipt of the notice of intent by the Director, after a waiting period specified in the general permit, on a date specified in the general permit, or upon receipt of notification of inclusion by the Director. Coverage may be terminated or revoked in accordance with paragraph (b)(3) of this section.

(v) Discharges other than discharges from publicly owned treatment works, combined sewer overflows, primary industrial facilities, and storm water discharges associated with industrial activity, may, at the discretion of the Director, be authorized to discharge under a general permit without submitting a notice of intent where the Director finds that a notice of intent requirement would be inappropriate. In making such a finding, the Director shall consider: the type of discharge; the expected nature of the discharge; the potential for toxic and conventional pollutants in the discharges; the expected volume of the discharges; other means of identifying discharges covered by the permit; and the estimated number of discharges to be covered by the permit. The Director shall provide in the public notice of the general permit the reasons for not requiring a notice of intent.

(vi) The Director may notify a discharger (or treatment works treating domestic sewage) that it is covered by a general permit, even if the discharger (or treatment works treating domestic sewage) has not submitted a notice of intent to be covered. A discharger (or treatment works treating domestic sewage) so may notified request an individual permit under paragraph (b)(3)(iii) of this section.

(3) Requiring an individual permit.

(i) The Department may require any person authorized by a general permit to apply for and obtain an individual RIPDES permit. Any interested person may petition the Department to take action under this subparagraph. Cases where an individual RIPDES permit may be required include the following:

(A) The discharge(s) is a significant contributor of pollution as determined by the factors set forth in Rule 31;

(B) The discharger is not in compliance with the conditions of the general RIPDES permit;

(C) A change has occurred in the availability of demonstrated technology or practices for the control or abatement of pollutants applicable to the point source;

(D) Effluent limitation guidelines are promulgated for point source covered by the general RIPDES permit;

(E) A Water Quality Management Plan containing requirements applicable to such point sources is approved; or

(F) Circumstances have changed since the time of the request to be covered so that the discharger is no longer appropriately controlled under the general permit, or either a temporary or permanent reduction or elimination of the authorized discharge is necessary;

(G) Standards for sewage sludge use or disposal have been promulgated for the sludge use and disposal practice covered by the general RIPDES permit; or

(H) The discharge(s) is a significant contributor of pollutants. In making this determination, the Director may consider the following factors:

(1) The location of the discharge with respect to waters of the State;

(2) The size of the discharge;

(3) The quantity and nature of the pollutants discharged to waters of the State; and

(4) Other relevant factors;

(ii) The Department may require any owner or operator authorized by a general permit to apply for an individual RIPDES permit as provided in paragraph (b)(3)(i) of this section, only if the owner or operator has been notified in writing that a permit application is required. This notice shall include a brief statement of reasons for this decision, an application form, a statement setting a time for the owner or operator to file the application, and a statement that on the effective date of the individual RIPDES permit the general permit as it applies to the individual permittee shall automatically terminate. The Department may grant additional time upon request of the applicant.

(iii) Any owner or operator authorized by a general permit may request to be excluded from the coverage of the permit by applying for an individual permit. The owner or operator shall submit an application with reasons supporting the request to the Department no later than 90 days after public notice of the general permit. The request shall be granted by issuing of any individual permit if the reasons cited by the owner or operator are adequate to support the request.

(iv) When an individual RIPDES permit is issued to an owner or operator otherwise subject to a general RIPDES permit, the applicability of the general permit to the individual RIPDES permittee is automatically terminated on the effective date of the individual permit.

(v) A source excluded from a general permit solely because it already has an individual permit may request that the individual permit be revoked, and that it be covered by the general permit. Upon revocation of the individual permit, the general permit shall apply to the source.

RULE 33 - CRITERIA AND STANDARDS FOR THE RHODE ISLAND POLLUTANT DISCHARGE ELIMINATION SYSTEM

(a) The criteria and standards for the imposition of technology-based treatment requirements in RIPDES permit shall be as set forth in 40 CFR Part 125, Subpart A.

(b) The criteria for issuance of permit to aquaculture projects shall be as set forth in 40 CFR Part 125, Subpart B.

(c) The criteria for extending compliance dates for facilities installing innovative technology shall be as set forth in 40 CFR Part 125, Subpart C.

(d) The criteria and standards for determining fundamentally different factors shall be as set forth in 40 CFR Part 125, Subpart D.

(e) The criteria for determining alternative effluent limitations for the thermal component of discharge shall be as set forth in 40 CFR Part 125, Subpart H.

(f) The criteria applicable to cooling water intake structures shall be as set forth in 40 CFR Part 125, Subpart I.

(g) Criteria for Extending Compliance Dates.

Extensions of the 1977 deadline in Section 301(i)(1) and (2) of the Clean Water Act for compliance with certain treatment requirements may be granted as described in 40 CFR Part 125, Subpart J.

(h) The criteria and standards for best management practices for ancillary industrial activities shall be as set forth in 40 CFR Part 125, Subpart K.

(i) The criteria and standards for imposing conditions for the disposal of sewage sludge shall be as set forth in 40 CFR Part 125, Subpart L.

(j) The criteria and standards for attaining effluent quality through the application of secondary treatment shall be as set forth in 40 CFR Part 133.

RULE 34 - PROCEDURES FOR ISSUING A RIPDES PERMIT

The permit issuance process involves the following seven major procedural stages:

(a) An application is made in proper form.

(b) The Department prepares a tentative decision to issue or deny a draft RIPDES permit. This decision shall be made available for public comment.

(c) Where the Department issues a draft RIPDES permit after consideration of any comments received during the public comment period the Department shall issue a final permit.

(d) The permittee may request an adjudicatory hearing to contest the final determination of the Department to grant, deny, modify, suspend or revoke a permit. The Department shall determine whether a hearing shall be granted.

(e) DEM shall hold a hearing in accordance with these regulations and the Department's "Administrative Rules of Practice and Procedure".

(f) The Director shall make all final decisions concerning the permit.

(g) A request for permit modification, revocation, reissuance, or termination shall be made in accordance with the procedures applicable to permit issuance, except for minor modifications which shall be made in accordance with Rule 25.

RULE 35 - APPLICATION REVIEW BY THE DEPARTMENT

(a) Permit application.

(1) Any person who requires a RIPDES permit shall complete, sign and submit to the Department an application in accordance with these regulations. Applications are not required for general permits.

(2) The Department shall not begin the processing of a permit until the applicant has fully complied with the application requirements for that permit.

(3) Permit applications must comply with signature and certification requirements of Rule 12.

(b) Completeness.

(1) Upon receipt of a RIPDES application the Department shall have 60 days to review the application for completeness. Upon completing the review, the Department shall notify the applicant in writing whether the application is complete. If the application is incomplete, the Department shall list the information necessary to make the application complete and shall specify in the notice of deficiency a date for submitting the necessary information. Where the Department has deemed an application to be deficient, the processing of the application will be suspended and the applicant given 30 days to correct said deficiencies to the satisfaction of the Department.

(2) If the applicant fails or refuses to correct said deficiencies within the 30 day time period, and if an extension has not been granted by the Department, the permit may be denied and any appropriate enforcement action may be taken under the applicable statutory provisions.

(3) After the application is completed, the Department may request additional information from an applicant but only when necessary to clarify, modify, or supplement previously submitted material. Requests for such additional information will not render an application incomplete,

but if the applicant fails or refuses to submit such information, the permit may be denied and any appropriate enforcement action may be taken under the applicable statutory provision.

(c) The Department shall determine whether a site visit(s) and inspection are necessary requirements and part of the application in order to evaluate the discharge completely and accurately. If the Department decides that a site visit is necessary for any reason in conjunction with the processing of an application, the applicant shall be notified and a site visit shall be scheduled.

(d) Completed RIPDES applications shall be sent to the Regional Administrator by the Department prior to public notice of a draft permit in accordance with the terms of the Memorandum of Agreement.

(e) Draft permits shall be sent to the Regional Administrator prior to public notice in accordance with the terms of the Memorandum of Agreement.

RULE 36 - MODIFICATION, REVOCATION AND REISSUANCE, OR TERMINATION PROCEDURES

(a) Permits may be modified, revoked and reissued, or terminated either at the request of any interested person (including the permittee) or upon the Department's initiative. However, permits may usually only be modified, revoked and reissued, or terminated for the reasons specified in Rule 23 or 24. Other basis for modification may only be found when consistent with the State Act so long as not for causes less stringent than required by the Clean Water Act and implementing regulations. All requests shall be in writing and shall contain facts or reasons supporting the request.

(b) If the Department decides the request is not justified, the Department shall send the requester a brief written response giving a reason for the decision. Denials of requests for modification, revocation and reissuance, or termination are not subject to public notice, comment or hearings.

(c)

(1) If the Department tentatively decides to modify or revoke and reissue a permit under Rule 23, a draft permit shall be prepared under Rule 37 incorporating the proposed changes. The Department may request additional information and, in the case of a modified permit, may require the submission of an updated permit application. In the case of revoked and reissued permits, the Department shall require the submission of a new application.

(2) In a permit modification under this section, only those conditions to be modified shall be reopened when a new draft permit is prepared. All other aspects of the existing permit shall remain in effect for the duration of the unmodified permit. When a permit is revoked and reissued under this section, the entire permit is reopened as if the permit had expired and was being reissued. During any revocation and reissuance proceeding the permittee shall comply with all conditions of the existing permit until a new final permit is reissued.

(3) "Minor modifications" as defined in Rule 25 are not subject to the requirements of this section.

(d) If the Department tentatively decides to terminate a permit under Rule 24, a notice shall be issued of intent to terminate. A notice of intent to terminate is a type of draft permit which follows the same procedures as any draft permit prepared under Rule 37.

(e) All draft permits (including notices of intent to terminate) prepared under this section shall be based on the administrative record as defined in Rule 40.

RULE 37 - DRAFT PERMITS

(a) All draft permits shall be issued in accordance with this section.

(b) Once an application is complete the Department shall tentatively decide whether to prepare a draft permit, or deny the application.

(c) If the Department tentatively decides to deny a permit application, a notice of intent to deny shall be issued. Notice of intent to deny the permit application is a type of draft permit which follows the same procedures as any draft permit prepared under this section. If the Department's final decision is that the tentative decision to deny the permit application was incorrect, the notice of intent to deny shall be withdrawn and the Department shall proceed to prepare a draft permit under paragraph (e) of this section.

(d) If the Department tentatively decides to issue a general permit, the Department shall prepare a draft general permit under paragraph (e) of this section.

(e) If the Department decides to prepare a draft permit, the permit shall contain the following information:

(1) All conditions under 40 CFR 122.41-122.43.

(2) All conditions under Rules 14, 15 and 16.

(3) All monitoring requirements under Rules 14 and 15.

(4) All variances under Rules 56 through 59.

(5) All effluent limitations, standards, prohibitions and conditions under 40 CFR and 122.44 and the Rhode Island Pretreatment Regulations.

(f) All draft permits prepared under this section shall be accompanied by a statement of basis or fact sheet and shall be based on the administrative record publicly noticed and made available for public comment. The Department shall give notice of opportunity for a public hearing, issue a final decision and respond to comments. For RIPDES permits, an appeal may be taken under Rule 49.

RULE 38 - STATEMENT OF BASIS

The Department shall prepare a statement of basis for every draft permit for which a fact sheet under Rule 39 is not prepared. The statement of basis shall briefly describe the derivation of the conditions of the draft permit and the reasons for them or, in the case of notices of intent to deny or terminate, reasons supporting the tentative decision. The statement of basis shall be sent to the applicant and, on request, to any other person.

RULE 39 - FACT SHEET

(a) A fact sheet shall be prepared for every draft permit for a major facility or activity, for every general permit (Rule 32), for every draft permit that incorporates a variance or requires an explanation, and for every draft permit which the Department finds is the subject of widespread public interest or raises major issues. The fact sheet shall briefly set forth the principal facts and the significant factual, legal, methodological and policy questions considered in preparing the draft permit. The Department shall send this fact sheet to the applicant and, on request, to any other person.

(b) The fact sheet shall include, when applicable:

(1) A brief description of the type of facility or activity which is the subject of the draft permit.

(2) The type and quantity of wastes, fluids, or pollutants which are proposed to be or are being treated, stored, disposed of, injected, emitted, or discharged.

(3) A brief summary of the basis for the draft permit conditions including references to applicable statutory or regulatory provisions and appropriate supporting references to the administrative record required by Rule 40.

(4) Reasons why any requested variances or alternatives to required standards do or do not appear justified.

(5) A description of the procedures for reaching a final decision on the draft permit including:

(i) The beginning and ending dates of the comment period under Rule 41 and the address where comments will be received;

(ii) Procedures for requesting a hearing and the nature of that hearing; and

(iii) Any other procedures by which the public may participate in the final decision.

(6) Name and telephone number of a person to contact for additional information.

(7) Any calculations or other necessary explanation of the derivation of specific effluent limitations and conditions, including a citation to the applicable effluent limitation guideline or performance standard provisions as required under Rule 16 and reasons why they are applicable or an explanation of how the alternate effluent limitations were developed.

(8) When the draft permit contains any of the following conditions, an explanation of the reasons why such conditions are applicable:

(i) Limitations to control toxic pollutants;

(ii) Limitations on internal wastestreams; or,

(iii) Limitations on indicator pollutants under 40 CFR Section 125.3(g).

(9) A sketch or detailed description of the location of the discharge(s) described in the application.

(10) For every permit to be issued to a treatment works owned by a person other than a state or municipality, an explanation of the Director's decision on regulation of users under Rule 16.05.

RULE 40 - ADMINISTRATIVE RECORD FOR THE DRAFT PERMITS

(a) The provisions of a draft permit shall be based on the administrative record defined in this section.

(b) For preparing a draft permit under Rule 37, the record shall consist of:

(1) The application, if required, and any supporting data furnished by the applicant;

(2) The draft permit or notice of intent to deny the application or to terminate the permit;

(3) The statement of basis or fact sheet;

(4) All documents cited in the statement of basis or fact sheet; and

(5) Other documents contained in the supporting file for the draft permit.

(c) Material that is readily available in the offices of the Department, or published material that is generally available, and that is included in the administrative record under paragraphs (a) and (b) of this section, need not be physically included with the rest of the record as long as it is specifically referred to in the statement of basis or the fact sheet.

RULE 41 - PUBLIC NOTICE OF PERMIT ACTIONS AND PUBLIC COMMENT PERIOD

(a) Scope.

(1) The Department shall give public notice that the following actions have occurred:

(i) A permit application has been tentatively denied;

(ii) A draft permit (including a notice of intent to terminate a permit and a tentative decision to modify or revoke and reissue a permit) has been prepared;

(iii) A hearing has been scheduled under Rule 43; and

(2) No public notice is required when a request for permit modification, revocations and reissuance or termination is denied under Rule 36. Written notice of that denial shall be given to the requester and to the permittee.

(3) Public notices may describe more than one type of discharge, or permit action.

(b) Timing.

(1) Public notice of the preparation of a draft permit (including a notice of intent to deny a permit application) required under paragraph (a) of this section shall allow at least 30 days for public comment.

(2) Public notice of a permit hearing shall be given at least 30 days before the hearing. (Public notice of the hearing may be given at the same time as public notice of the draft permit and the two notices may be combined.)

(c) Methods. Public notice of activities described in paragraph (a)(1) of this section shall be given by the following methods:

(1) By mailing a copy of a notice to the following persons (any person otherwise entitled to receive notice under this paragraph may waive his or her rights to receive notice for any classes and categories of permits):

(i) The applicant;

(ii) Any other agency which the Department knows has issued or is required to issue an environmental permit for the same facility or activity (including EPA);

(iii) Federal and State agencies with jurisdiction over fish, shellfish, and wildlife resources and over coastal zone management plans, and Advisory Council on Historic Preservation, State Historic Preservation Officers, and other appropriate government authorities, including any affected states;

(iv) Any State agency responsible for plan development under Sections 208(b)(2), 208(b)(4) or 303(e) of the Clean Water Act and the U.S. Army Corps of Engineers, the U.S. Fish and Wildlife Service and the National Marine Fisheries Service;

(v) Any user identified in the permit application of a privately owned treatment works;

(vi) The affected mayor, municipal clerk, planning board, sewerage authority, health officer, and environmental commission;

(vii) Persons on a mailing list developed by:

(A) Including those who request in writing to be on the list;

(B) Soliciting persons for "area lists" from participants in past permit proceedings in that area; and

(C) Notifying the public of the opportunity to be put on the mailing list through periodic publication in the public press and in such publication as State funded newsletters, environmental bulletins, or State law journals. (The Department may update the mailing list from time to time by requesting written indication of continued interest from those listed. The Department may delete from the list the name of any person who fails to respond to such a request.)

(2) For major permits and general permits, publication of a notice in a daily or weekly newspaper within the area affected by the facility or activity;

(3) Such notice shall be published in any manner constituting legal notice to the public under State law for all other actions described in Rule 41(a)(1); and

(4) Any other method reasonably calculated to give actual notice of the action in question to the persons potentially affected by it, including press releases or any other forum or medium to elicit public participation.

(d) Contents.

(1) All public notices issued under this Rule shall contain the following minimum information:

(i) Name and address of the office processing the permit action for which notice is being given;

(ii) Name and address of the permittee or permit applicant and if different, of the facility or activity regulated by the permit, except in the case of draft general permit;

(iii) A brief description of the business conducted at the facility or activity described in the permit application or draft permit;

(iv) Name, address and telephone number of a person from whom interested persons may obtain further information, including copies of the draft permit or draft general permit, as the case may be, statement of basis or fact sheet, and the application;

(v) A brief description of the comment procedures required by Rule 42 and 43 and the time and place of any hearing that will be held, including a statement of procedures to request a hearing (unless a hearing has already been scheduled) and other procedures by which the public may participate in the final permit decision;

(vi) The location of the administrative record required by Rule 40, the times at which the record will be open for public inspection, and a statement that all data submitted by the applicant is available as part of the administrative record;

(vii) A general description of the location of each existing or proposed discharge point and the name of the receiving water. For draft general permits, this requirement will be satisfied by a map or description of the permit area;

(viii) Any additional information considered necessary or proper; and

(ix) Where a request under Section 316(a) of the Clean Water Act has been filed under Rule 59, the public notice shall include:

(A) A statement that the thermal component of the discharge is subject to effluent limitations under Section 301 and 306 of the Clean Water Act and a brief description, including a quantitative statement, of the thermal effluent limitations proposed under Section 301 and 306 of the Clean Water Act;

(B) A statement that a Section 316(a) request has been filed and that alternative less stringent effluent limitations may be imposed on the thermal component of the discharge under Section 316(a) and a brief description, including a quantitative statement, of the alternative effluent limitations, if any, included in the request; and

(C) If the applicant has filed an early screening request pursuant to 40 CFR Section 125.72 for a Section 316(a) variance, a statement that the applicant has submitted such information.

(2) Public notices for hearings. In addition to the general public notice described in paragraph (d)(1) of this section, the public notice of a hearing under Rule 43 shall contain the following information:

(i) Reference to the date of previous public notice relating to the permit;

(ii) Date, time and place of the hearing; and

(iii) A brief description of the nature and purpose of the hearing, including the applicable rules and procedures.

(e) In addition to the general public notice described in paragraph (d)(1) of this section, all persons identified in paragraphs (c)(1)(i), (ii), (iii), (iv), and (v) of this section shall be mailed a copy of the fact sheet or statement of basis, the permit application (if any), and the draft permit (if any).

RULE 42 - PUBLIC COMMENT AND REQUEST FOR PUBLIC HEARINGS

During the public comment period provided under Rule 41, any interested person may submit written comments on the draft permit and may request a public hearing, if no hearing has already been scheduled. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing. All comments shall be considered in making the final decision and shall be answered as provided in Rule 48.

RULE 43 - PUBLIC HEARINGS

(a) Whenever the Department finds on the basis of requests, a significant degree of public interest in a draft permit, the Department shall hold a public hearing. The Department also may hold a public hearing at its discretion, whenever, for instance, such a hearing might clarify one or more issues involved in the permit. Public notice of the hearing shall be given as specified in Rule 41.

(b) Whenever a public hearing will be held, the Department shall designate a hearing officer for the hearing who shall be responsible for its scheduling and orderly conduct.

(c) Any person may submit oral or written statements and data concerning the draft permit. Reasonable limits may be set upon the time allowed for oral statements, and the submission of statements in writing may be required. The public comment period under Rule 41 shall automatically be extended to the close of any public hearing under this section. The hearing officer may also extend the comment period by so stating at the hearing.

(d) A tape recording or written transcript of the hearing shall be made available to the public.

RULE 44 - OBLIGATION TO RAISE ISSUES AND PROVIDE INFORMATION DURING THE PUBLIC COMMENT PERIOD

(a) All persons, including applicants, who believe any condition of a draft permit is inappropriate or that the Department's tentative decision to deny an application, terminate a permit, or prepare a draft permit is inappropriate, must raise all reasonably available arguments and factual grounds supporting their position, including all supporting material, by the close of the public comment period (including any public hearing) under Rule 41. All supporting materials shall be included in full and may not be incorporated by reference, unless they are already part of the administrative record in the same proceeding, or consist of State or Federal statutes and regulations, EPA documents of general applicability, or other generally available reference materials. Commenters shall make supporting material not already included in the administrative record available at the request of the Department. (A comment period longer than 30 days will often be necessary in complicated proceedings to give commenters a reasonable opportunity to comply with the requirements of this section. Commenters may request longer comment periods and these should be freely established under Rule 41 to the extent they appear necessary.)

RULE 45 - REOPENING OF THE PUBLIC COMMENT PERIOD

(a) If any data, information or arguments submitted during the public comment period, including information or arguments required under Rule 44, appear to raise substantial new questions concerning a permit, the Department may take one or more of the following actions:

(1) Prepare a new draft permit appropriately modified under Rule 36;

(2) Prepare a revised statement of basis under Rule 38, a fact sheet or revised fact sheet under Rule 39 and reopen the comment period; or

(3) Reopen or extend the comment period under Rule 41 to give interested persons an opportunity to comment on the information or arguments submitted.

(b) Comments filed during the reopened comment period shall be limited to the substantial new questions that caused its reopening. The public notice under Rule 41 shall define the scope of the reopening.

(c) Public notice of any of the above actions shall be issued under Rule 41.

RULE 46 - ISSUANCE AND EFFECTIVE DATE OF PERMIT

(a) After the close of the public comment period under Rule 41 on a draft permit, the Department shall issue a final permit. The Department shall notify the applicant and each person who has submitted written comments or requested notice of the final permit decision. This notice shall include reference to the procedures for contesting a decision on a permit. For the purposes of this section, a final permit decision means a final decision to issue, deny, modify, revoke and reissue, or terminate a permit.

(b) A final permit decision shall become effective 30 days after the service of notice of the decision under paragraph (a) of this section, unless:

(1) A later effective date is specified in the decision; or

(2) An adjudicatory hearing is requested under Rule 49; or

(3) No comments requested a change in the draft permit, in which case the final permit shall become effective immediately upon issuance.

RULE 47 - RESPONSE TO COMMENTS

(a) At the time that any final permit is issued, pursuant to Rule 46, the Department shall issue a response to comments. This response shall:

(1) Specify which provisions, if any, of the draft permit have been changed in the final permit decision, and the reasons for the change; and

(2) Briefly describe and respond to all significant comments on the draft permit or raised during the public comment period, or during any hearing.

(b) The response to comments shall be available to the public.

RULE 48 - ADMINISTRATIVE RECORD FOR FINAL PERMIT

(a) The Department shall base final draft permit and final permit decisions under Rule 46 on the administrative record defined in this section.

(b) The administrative record for any final draft permit and final permit shall consist of the administrative record for the draft and:

(1) All comments received during the public comment period provided under Rule 41 (including any extension or reopening under Rule 45);

(2) The tape or transcript of any hearing(s) held under Rule 43;

(3) Any written materials submitted at such hearing;

(4) The response to comments required under Rule 47 and any new material placed in the record under that section;

(5) Other documents contained in the supporting file for the permit; and

(6) The final permit.

(c) The additional documents required under paragraph (b) of this section should be added to the record as soon as possible after their receipt or publication by the Department. The record shall be complete on the date the final draft permit or final permit is issued.

(d) Material readily available at the issuing Department office, or published materials which are generally available and which are included in the administrative record under the standards of this section or of Rule 47 ("Response to Comments"), need not be physically included in the same file as the rest of the record as long as it is specifically referred to in the statement of basis or fact sheet or in the response to comments.

RULE 49 - REQUESTS FOR AN ADJUDICATORY HEARING

(a) Within 30 calendar days following the service of notice of the Department's issuance of a final draft permit or final permit (where a final draft permit does not precede the final permit) under Rule 46, any interested person may submit a request to the Department under paragraph (b) of this Rule for an adjudicatory hearing to reconsider or contest the conditions of that permit. If such a request is submitted by a person other than the permittee, that person shall simultaneously serve a copy of the request on the permittee.

(b) Such requests shall state each legal or factual question alleged to be at issue, and their relevance to the permit decision, together with a designation of the specific factual areas to be adjudicated and the hearing time estimated to be necessary for that adjudication. Information supporting the request or other written documents relied upon to support the request shall be submitted unless it is already in the administrative record.

(c) Such request shall also contain:

(1) The name, mailing address or telephone number of the person making such requests;

(2) A clear and concise factual statement of the nature and scope of the interest of the requester;

(3) The names and addresses of the persons who the requester represents; and

(4) A statement by the requester that, upon motion of any party, or upon order of the Administrative Hearing Officer or Officer's own motion and without cost or expense to any other party, the requester shall make available to appear and testify, the following:

(i) The requester;

(ii) All persons represented by the requester; and

(iii) All officers, directors, employees, consultants and agents of the requester and the persons represented by the requester.

(5) Specific references to the contested permit conditions, as well as suggested revised or alternative permit conditions (including permit denial) which, in the judgment of the requester, would be required to implement the purposes and policies of the State and Federal Acts.

(6) In the case of challenges to the application of control or treatment technologies identified in the statement of basis or fact sheet, identification of the basis for the objection, and the alternative technologies or combination of technologies which the requester believes are necessary to meet the requirements of the State and Federal Acts.

(7) Identification of the permit obligations that are contested or are inseparable from contested conditions and should be stayed if the request is granted by reference to the particular contested conditions warranting the stay.

(d) If the Department grants an adjudicatory hearing request in whole or in part, the Department shall identify the permit conditions which have been contested by the requester and for which the adjudicatory hearing has been granted. Permit conditions which are not contested or for which the Department has denied the hearing request shall not be affected by, or considered at, the adjudicatory hearing and the Department shall specify these conditions in writing.

(e) The Department must grant or deny all requests for an adjudicatory hearing on a particular permit. All requests that are granted for a particular permit shall be combined in a single adjudicatory hearing.

(f) The Department may extend the time allowed for submitting hearing requests under this section for good cause.

RULE 50 - STAYS OF CONTESTED PERMIT CONDITIONS

(a) If a request for an adjudicatory hearing of a permit under Rule 49 is granted, an appeal from any effluent limitation, water quality standard or other applicable standard shall not automatically result in staying the conditions challenged. During the duration of such an appeal, the contested condition shall remain in full force and effect unless a stay is granted by the Chief of the Division of Water Resources on formal application by the permittee. In exercising his/her discretion on such stay requests the Chief shall consider the following factors:

(1) Pollution source and impacted ecosystem(s);

(2) Technological impediments to either immediate or phased-in compliance; or

(3) Economic impacts of immediate or phased-in compliance including the benefits of capital purchases and employment increases required for such compliance.

(b) Where the Chief determines that immediate compliance would result in irreparable economic dislocation, while not required to preserve irreplaceable environmental resources, he/she shall direct that compliance with the effluent limitation, water quality standard or other applicable standard be phased into effect, partially stayed or entirely stayed pending resolution of the permittee's appeal.

(c) Any facility or activity holding an existing permit must:

(1) Comply, at minimum, with the conditions of that permit during any modification or revocation and reissuance proceeding under Rule 36; and

(2) To the extent conditions of any permit are stayed under this section, comply with the conditions of the existing permit which correspond to the stayed conditions, unless compliance with the existing conditions would be technologically incompatible with compliance with other conditions of the new permit which have not been stayed, as determined by the Director in accordance with paragraphs (a) and (b) above.

(d) If a request for an adjudicatory hearing of a permit regarding the initial permit issued for a new source, a new discharger, or a recommencing discharger is granted under Rule 49, the applicant shall be without a permit pending final Departmental action. Wherever a source subject to this paragraph has received a final permit which is the subject of a hearing request, the Administrative Hearing Officer, on motion by the source, may issue a temporary order authorizing it to begin operation before final Departmental action if it complies with all conditions of that final permit during the period until final Departmental action. The Administrative Hearing Officer may grant such a motion in any case where:

(1) No party opposes it; or

(2) If a party opposes the motion but the source demonstrates that: (i) it is likely to prevail on the merits; (ii) irreparable harm to the environment will not result pending final agency action if it is allowed to commence operations before final agency action; and (iii) the public interest requires that the source be allowed to commence operations. All the conditions of any permit covered by that order shall be fully effective and enforceable.

RULE 51 - DECISION ON REQUEST FOR HEARING

(a) Following the expiration of the time allowed by Rule 49 for submitting a request for an adjudicatory hearing, the Department shall decide the extent to which the request shall be granted. The Department shall grant a request either in whole or in part ordinarily only when the request conforms to the requirements of Rule 49 and sets forth material issues of fact relevant to the issuance of the permit.

(b) If the Department grants a request for an adjudicatory hearing, the Department shall identify those contested permit conditions for which an adjudicatory hearing has been granted and whether such conditions are stayed. The Department shall specify these conditions in writing and serve notice in accordance with Rule 52. Permit conditions which are not contested or for which the Department has denied the hearing request shall not be affected by or considered at the adjudicatory hearing.

(c) If the Department grants a request for an adjudicatory hearing, in whole or in part, in regard to a particular proposed permit, then any other request for an adjudicatory hearing in regard to that permit shall be treated as a request to be a party and the Department shall grant any such request which meets the requirements of paragraph (a) of this section.

(d) If a request for a hearing is denied in whole or part, the Department shall briefly state the reasons. Such denial shall be considered the final action of the Department.

RULE 52 - NOTICE OF HEARING

Public notice of the grant of an adjudicatory hearing regarding a permit shall be given by mailing a copy to all persons who commented on the draft permit, testified at the public hearing, or submitted a request for a hearing.

RULE 53 - CONDUCT OF ADJUDICATORY HEARING

Adjudicatory hearings on permit conditions (including denial of variance requests) shall be governed by procedures described in "Administrative Rules of Practice and Procedure for the Department of Environmental Management" and in accordance with the Rhode Island Administrative Procedures Act.

RULE 54 - INDIVIDUAL PERMITS REQUIRED ON A CASE-BY-CASE BASIS

Whenever the Department decides that an individual permit should be required for certain Concentrated Animal Feeding Operations (Rule 27), Concentrated Aquatic Animal Production Facilities (Rule 28), Separate Storm Sewers (Rule 31) and certain other facilities covered by a General Permit (Rule 32), the Department shall notify the

discharger in writing of the reasons for that decision and shall include an application form in such notice. The discharger shall apply for a permit within 60 days of such notice. The question whether the initial designation was proper will remain open for consideration during the public comment period and in any subsequent hearing.

RULE 55 - CONDITIONS REQUESTED BY THE CORPS OF ENGINEERS AND OTHER GOVERNMENTAL AGENCIES CONCERNING RIPDES PERMITS

(a) If during the comment period a draft RIPDES permit, the District Engineer advises the Department in writing that anchorage and navigation of any of the waters of the United States would be substantially impaired by the granting of a point source surface water discharge permit, the permit shall be denied and the applicant so notified.

If the District Engineer advises the Department that imposing specified conditions upon the permit is necessary to avoid any substantial impairment of anchorage or navigation, then the Department shall include the specified conditions in the permit. Review of appeal of a denial of a permit or of conditions specified by the District Engineer shall be made through the applicable procedures of the Corps of Engineers, and may not be made through the procedures provided in these regulations. If the conditions are stayed by a court of competent jurisdiction or by applicable procedures of the Corps of Engineers, those conditions shall be considered stayed in the permit for the duration of that stay.

(b) If during the comment period, the U.S. Fish and Wildlife Service, the National Marine Fisheries Service, or any other State or Federal Agency, with jurisdiction over fish, wildlife, or public health advises the Department in writing that the imposition of specified conditions upon the permit is necessary to avoid substantial impairment of fish, shellfish, or wildlife resources, the Department may include the specified conditions in the permit to the extent they are determined necessary to carry out provisions of 40 CFR 122.12 and the State and Federal Acts.

(c) In appropriate cases the Department may consult with one or more of the agencies referred to in this section before issuing a draft permit and may reflect their views in the statement of basis, the fact sheet, or the draft permit.

(d) When affected states make recommendations to draft permits, the Department shall either accept such recommendations or submit a response to the affected states describing in detail the Department's reasons for not accepting the recommendations.

RULE 56 - VARIANCES UNDER THE STATE AND FEDERAL ACTS

An applicant for a renewal of a RIPDES permit may apply for the following variances:

(a) Variance requests by non-POTWs. A discharger which is not a publicly owned treatment works (POTW) may request a variance from otherwise applicable effluent limitations under any of the following statutory or regulatory provisions within the times specified in this paragraph:

(1) Fundamentally different factors. A request for a variance based on the presence of "fundamentally different factors" from those on which the effluent limitations guideline was

based shall be made by the close of the public comment period under Rule 41. The request shall explain how the requirements of Rule 44 and 40 CFR Part 125, Subpart D have been met.

(2) Non-conventional pollutants. A request for a variance from the BAT requirements for the Clean Water Act Section 301(b)(2)(F) pollutants (commonly called "non-conventional" pollutants) pursuant to Section 301(c) of the Clean Water Act because of the economic capability of the owner or operator, or pursuant to Section 301(g) of the Clean Water Act because of certain environmental considerations, when those requirements were based on effluent limitation guidelines, must be made by:

(i) Submitting an initial request to the Regional Administrator, as well as to the Department, stating the name of discharger, the permit number, the outfall number(s), the applicable effluent guideline, and whether the discharger is requesting a Section 301(c) or Section 301(g) modification or both. This request must have been filed not later than:

(A) September 25, 1978, for a pollutant which is controlled by a BAT effluent limitation guideline, promulgated before December 27, 1977; or

(B) 270 days after promulgation of an applicable effluent limitation guideline for guidelines promulgated after December 27, 1977; and

(ii) Submitting a completed request no later than the close of the public comment period under Rule 41 demonstrating that the requirements of Rule 44 and the applicable requirements of Part 125 have been met.

(iii) Requests for variance from effluent limitations not based on effluent limitation guidelines, need only comply with paragraph (a)(2)(ii) of this section and need not be preceded by an initial request under paragraph (a)(2)(i) of this section.

(3) Delay in construction of POTW. An extension under the Clean Water Act Section 301(i)(2) of the statutory deadlines in Sections 301(b)(1)(A) or (b)(1)(C) of the Clean Water Act based on delay in completion of a POTW into which the source is to discharge must have been requested on or before June 26, 1978, or 180 days after the relevant POTW requested an extension under paragraph (b)(2) of this section, whichever is later, but in no event may this date have been later than December 25, 1978. The request shall explain how the requirements of 40 CFR Part 125, Subpart J have been met.

(4) Innovative technology. An extension under the Clean Water Act Section 301(k) from the statutory deadline of Section 301(b)(2)(A) for best available technology based on the use of innovative technology may be required no later than the close of the public comment period under Rule 41 for the discharger's initial permit requiring compliance with Section 301(b)(2)(A). The request shall demonstrate that the requirements of Rule 44 and Part 125, Subpart C have been met.

(5) Water quality related effluent limitations. A modification under Section 302(b)(2) of requirements under Section 302(a) pursuant to the Clean Water Act for achieving water quality related effluent limitations may be requested no later than the close of the public comment under Rule 41 on the permit from which the modification is sought.

(6) Thermal discharges. A variance under the Clean Water Act Section 316(a) for the thermal component of any discharge must be filed with a timely application for a permit under this section, except that if thermal effluent limitations are established under the Clean Water Act Section 402(a)(1) or are based on water quality standards the request for a variance may be filed by the close of the public comment period under Rule 41. A copy of the request as required under 40 CFR Part 125, Subpart H, shall be sent simultaneously to the Department as required under 40 CFR Part 125.

(b) Variance requests by POTWs. A discharger which is a publicly owned treatment works (POTWs) may request a variance from otherwise applicable effluent limitations under any of the following statutory provisions as specified in this paragraph:

(1) Dischargers into marine waters. A preliminary request for a modification under the Clean Water Act Section 301(h) of requirements of the Clean Water Act Section 301(b)(1)(B) for dischargers into marine waters must have been submitted to the EPA no later than December 29, 1982. A final request must be submitted in accordance with the filing requirements of 40 CFR Part 125, Subpart G, and shall demonstrate that all the requirements of 40 CFR Part 125, Subpart G have been met.

(2) Delay in construction. An extension under the Clean Water Act Section 301(i)(1) of the statutory deadlines in the Clean Water Act Sections 301(b)(1)(B) or (b)(1)(C) based on delay in the construction of the POTW must have been requested on or before June 26, 1978.

(3) Water quality based effluent limitation. A modification under the Clean Water Act Section 302(b)(2) of the requirements under Section 302(a) for achieving water quality based effluent limitations shall be requested no later than the close of the public comment period under Rule 41 on the permit from which the modification is sought.

(c) Expedited variance procedures and time extensions.

(1) Notwithstanding the time requirements in paragraphs (a) and (b) of this section, the Department may notify a permit applicant before a draft permit is issued under Rule 37 that the draft permit will likely contain limitations which are eligible for variances. In the notice the Department may require the applicant as a condition of consideration of any potential variance request to submit a request explaining how the requirements of 40 CFR Part 125 applicable to the variance have been met and may require its submission within a specified reasonable time after receipt of the notice. The notice may be sent before the permit application has been submitted. The draft or final permit may contain the alternative limitations which may become effective upon final grant of the variance.

(2) A discharger who cannot file a complete request required under paragraphs (a)(2)(ii) or (a)(2)(iii) of this section may request an extension. The extension may be granted or denied at the discretion of the Department. Extensions shall be no more than 6 months in duration.

(d) Modifications to water quality based effluent limitations for POTWs and Non-POTWs Applications for a modification to a water quality based effluent limitation imposed by EPA under Section 302 of the Clean Water Act shall be made prior to the close of the public comment period under Rule 41.

RULE 57 - DECISIONS ON VARIANCES

(a) The Department may grant or deny request for the following variances (subject to EPA objection under 40 CFR 123.44):

(1) Extensions under Section 301(i) of the Clean Water Act for delay in completion of a publicly owned treatment works;

(2) After consultation with Regional Administrator, extensions under Section 301(k) of the Clean Water Act based on the use of innovative technology; or

(3) Variances under Section 316(a) of the Clean Water Act for thermal pollution.

(b) The Department may deny, or forward to the Regional Administrator with a written concurrence, or submit to EPA without recommendation a completed request for:

(1) A variance based on the presence of "fundamentally different factors" from those on which an effluent limitations guideline was based;

(2) A variance based on the economic capability of the applicant under Section 301(c) of the Clean Water Act.

(3) A variance based upon certain water quality factors under Section 301 (g) of the Clean Water Act; or

(4) A variance based on water quality related effluent limitations under Section 302 (b)(2) of the Clean Water Act.

(c) The Regional Administrator may deny, forward, or submit a request for a variance listed in paragraph (b) which is forwarded by the Department with a recommendation for approval, to the EPA Office Director for Permits and Enforcement.

(d) The EPA Office Director for Permits and Enforcement may approve or deny any variance request submitted under paragraph (c). If the EPA Office Director approves the variance, the Department may prepare a draft permit incorporating the variance. Any public notice of a draft permit for which a variance or modification has been approved or denied shall identify the applicable procedures for appealing that determination under 40 CFR 124.64.

RULE 58 - PROCEDURES FOR VARIANCES

When a request for a variance is filed as required under Rule 56, the request shall be processed as follows:

(a) If at the time that a request for a variance is submitted the Department has received an application for issuance or renewal of that permit but has not yet prepared a draft permit covering the discharge in question, the Department shall, subject to EPA review pursuant to 40 CFR 124.62, give notice of a tentative decision on the request at the time the notice of the draft permit is prepared as specified in Rule 42, unless this would significantly delay the processing of the permit. In that case the processing of the variance request may be separated from the permit in accordance with paragraph (c) of this section, and the processing of the permit shall proceed without delay.

(b) If at the time that a request for a variance is filed the Department has given notice under Rule 41 of the draft permit covering the discharge in question, but that permit has not yet become final, administrative proceedings concerning that permit may be stayed and the Department shall prepare a new draft permit including a tentative decision on the request, and the fact sheet required by Rule 39. However, if this will significantly delay the processing of the existing draft permit or the Department, for other reasons, considers combining the variance request and the existing draft permit inadvisable, the request may be separated from the permit in accordance with paragraph (c) of this section, and the administrative disposition of the existing draft permit shall proceed without delay.

(c) If the permit has become final and no application concern it is pending or if the variance request has been separated from a draft permit as described in paragraphs (a) and (b) of this section, the Department may prepare a new draft permit and give notice of it under Rule 41. This draft permit shall be accompanied by the fact sheet required by Rule 39 except that the only matters considered shall relate to the requested variance.

RULE 59 - SPECIAL PROCEDURES FOR DECISIONS ON THERMAL VARIANCE UNDER SECTION 316(A)

(a) Except as provided in 40 CFR Section 124.65, the only issues connected with issuance of a particular permit on which the Department will make a final decision before the final permit is issued under Rules 46 and 55 are whether alternative effluent limitations would be justified under Section 316(a) of the Clean Water Act and whether cooling water intake structures will use the best available technology under Section 316(b) of the Clean Water Act. Permit applicants who wish an early decision on these issues should request it and furnish supporting reasons at the time their permit applications are filed. The Department will then decide whether or not to make an early decision. If it is granted, the balance of the permit shall be considered permit issuance under these regulations, and shall be subject to the same requirements of public notice and comment and the same opportunity for an adjudicatory hearing.

(b) If the Department, on review of the administrative record, determines that the information necessary to decide whether or not the Clean Water Act Section 316(a) issue is not likely to be available in time for a decision on permit issuance, the Department may issue a permit under Rule 46 for a term up to 5 years. This permit shall require achievement of the effluent limitations initially proposed for

the thermal component of the discharge no later than the date otherwise required by State or Federal law. However, the permit shall also afford the permittee an opportunity to file a demonstration under Section 316(a) of the Clean Water Act after conducting such studies as are required under 40 CFR Part 125, Subpart H. A new discharger may not exceed the thermal effluent limitation which is initially proposed unless and until its Clean Water Act Section 316(a) variance request is finally approved.

(c) Any proceeding held under paragraph (a) of this section shall be publicly noticed as required by Rule 41 and shall be conducted at a time allowing the permittee to take necessary measures to meet the final compliance date in the event its request for modification of thermal limits is denied.

(d) Whenever the Department defers the decision under Section 316(a) of the Clean Water Act any decision under Section 316(b) may be deferred.

RULE 60 - INCORPORATION BY REFERENCE

The following Federal regulations which are cited in whole or in part in these regulations are hereby incorporated by reference. In the event that any of the requirements set forth in Rule 1 through 59 shall conflict with the following Federal regulations, then the more stringent standard shall apply. All future amendments to the following Federal regulations are also hereby incorporated by reference in so far as they may be necessary to assure that Rhode Island maintains an approved RIPDES program and continues to secure to this State the benefits of that program:

33 CFR Part 153

40 CFR Parts 122, 123, 124, 125, 133, 136, 300, 403, and Subchapter N

39 Federal Register 15202 (May 1, 1974)

RULE 61 – SUPERSEDED RULES AND REGULATIONS

On the effective date of these Rules and Regulations, all previous Rules and Regulations, and any policies regarding the administration and enforcement of Chapter 46-12 of the General Laws of Rhode Island of 1956, as amended, shall be superseded. However, any enforcement action taken by, or application submitted to, the Department prior to the effective date of these Rules and Regulations shall be governed by the Rules and Regulations in effect at the time the enforcement action was taken.

RULE 62 – EFFECTIVE DATE

The foregoing Rules and Regulations for the Rhode Island Pollutant Discharge Elimination System, after due notice and hearing, are hereby adopted and filed with the Secretary of State this _____day of _____, 2003, to become effective twenty (20) days thereafter, in accordance with the provisions of Chapter 46-12, 42-35, 46-17.1, 42-17.6 of the General Laws of Rhode Island, 1956, as amended.

_____
Jan Reitsma, Director
Department of Environmental Management

Notice Given on: August 9, 2002

Public Hearing held: N/A

Effective Date: _____, 2003

APPENDIX A - TABLE 1

TESTING REQUIREMENTS FOR ORGANIC TOXIC POLLUTANTS INDUSTRY CATEGORY

INDUSTRY CATEGORY	*GC/MS FRACTION[1]			
	Volatile	Acid	Base/Neutral	Pesticide
Adhesives and Sealants	x	x	x	-
Aluminum Forming	x	x	x	-
Auto and Other Laundries	x	x	x	x
Battery Manufacturing	x	-	x	-
Coal Mining	x	x	x	x
Coil Coating	x	x	x	-
Copper Forming	x	x	x	-
Electric and Electronic Compounds	x	x	x	x
Electroplating	x	x	x	-
Explosives Manufacturing	-	x	x	-
Foundries	x	x	x	-
Gum and Wood Chemicals	x	x	x	x
Inorganic Chemicals Manufacturing	x	x	x	-
Iron and Steel Manufacturing	x	x	x	-
Leather Tanning and Finishing	x	x	x	x
Mechanical Products Manufacturing	x	x	x	-
Nonferrous Metals Manufacturing	x	x	x	x
Ore Mining	x	x	x	x
Organic Chemicals Manufacturing	x	x	x	x
Paint and Ink Formulation	x	x	x	x
Pesticides	x	x	x	x
Petroleum Refining	x	x	x	x
Pharmaceutical Preparations	x	x	x	-
Photographic Equipment and Supplies	x	x	x	x
Plastic & Synthetic Materials Mfg.	x	x	x	x
Plastic Processing	x	-	-	-
Porcelain Enameling	x	-	x	x
Printing and Publishing	x	x	x	x
Pulp and Paperboard Mills	x	x	x	x
Rubber Processing	x	x	x	-
Soap and Detergent Manufacturing	x	x	x	-
Steam Electric Power Plants	x	x	x	-
Textile Mills	x	x	x	x
Timber Products Processing	x	x	x	x

[1]The pollutants in each fraction are listed in Table II.

x = Testing Required

- = Testing Not Required

*Gas Chromatographic/Mass Spectrometric

APPENDIX A - TABLE II

ORGANIC TOXIC POLLUTANTS IN EACH OF FOUR (4) FRACTIONS IN ANALYSIS BY GAS CHROMATOGRAPHY/MASS SPECTROSCOPY (GC/MS)

Volatiles		Base/Neutral		Pesticides	
1V	Acrolein	1B	Acenaphthene	1P	Aldrin
2V	Acrylonitrile	2B	Acenaphthylene	2P	alpha-BHC
3V	Benzene	3B	Anthracene	3P	beta-BHC
4V	Bis(chloromethyl) Ether	4B	Benzidine	4P	gamma-BHC (Lindane)
5V	Bromoform	5B	Benz[n]anthracene	5P	delta-BHC
6V	Carbon Tetrachloride	6B	Benzo[a]pyrene	6P	Chlordane
7V	Chlorobenzene	7B	3,4-Benzofluoranthene	7P	4,4'-DDT
8V	Chlorodibromomethane	8B	Benzo[ghi]perylene	8P	4,4'-DDE
9V	Chloroethane	9B	Benzo[k]fluoranthene	9P	4,4'-DDD
10V	2-Chloroethylvinyl Ether	10B	Bis(2-chloroethoxy)methane	10P	Dieldrin
11V	Chloroform	11B	Bis(2-chloroethyl) Ether	11P	alpha-Endosulfan
12V	Dichlorobromomethane	12B	Bis(2-chloroisopropyl) Ether	12P	beta-Endosulfan
13V	Dichlorodifluoromethane	13B	Bis(2-ethylhexyl) Phthalate	13P	Endosulfan Sulfate
14V	1,1-Dichloroethane	14B	4-Bromophenyl Phenyl Ether	14P	Endrin
15V	1,2-Dichloroethane	15B	Butylbenzyl Phthalate	15P	Endrin Aldehyde
16V	1,1-Dichloroethylene	16B	2-Chloronaphthalene	16P	Heptachlor
17V	1,2-Dichloropropane	17B	4-Chlorophenyl Phenyl Ether	17P	Heptachlor Epoxide
18V	1,3-Dichloropropylene	18B	Chrysene	18P	PCB-1242
19V	Ethylbenzene	19B	Dibenz[a,h]anthracene	19P	PCB-1254
20V	Methyl Bromide	20B	1,2-Dichlorobenzene	20P	PCB-1221
21V	Methyl Chloride	21B	1,3-Dichlorobenzene	21P	PCB-1232
22V	Methylene Chloride	22B	1,4-Dichlorobenzene	22P	PCB-1248
23V	1,1,2,2-Tetrachloroethane	23B	3,3'-Dichlorobenzidine	23P	PCB-1260
24V	Tetrachloroethylene	24B	Diethyl Phthalate	24P	PCB-1016
25V	Toluene	25B	Dimethyl Phthalate	25P	Toxaphane
26V	1,2-Trans-Dichloroethylene	26B	Di-n-butyl Phthalate		
27V	1,1,1-Trichloroethane	27B	2,4-Dinitrotoluene		
28B	1,1,2-Trichloroethane	28B	2,6-Dinitrotoluene		
29V	Trichloroethylene	29B	Di-n-octyl Phthalate		
30V	Trichlorofluoromethane	30B	1,2-Diphenylhydrazine (as azobenzene)		
31V	Vinyl Chloride	31B	Fluoranthene		
Acid Compounds		32B	Fluorene		
1A	2-Chlorophenol	33B	Hexachlorobenzene		
2A	2,4-Dichlorophenol	34B	Hexachlorobutadiene		
3A	2,4-Dimethylphenol	35B	Hexachlorocyclopentadiene		
4A	4,6-Dinitro-o-cresol	36B	Hexachloroethane		
5A	2,4-Dinitrophenol	37B	Indeno[1,2,3-cd]pyrene		
6A	2-Nitrophenol	38B	Isophorone		
7A	4-Nitrophenol	39B	Naphthalene		
8A	p-Chloro-m-cresol	40B	Nitrobenzene		
9A	Pentachlorophenol	41B	N-Nitrosodimethylamine		
10A	Phenol	42B	N-Nitrosodi-n-propylamine		
11A	2,4,6-Trichlorophenol	43B	N-Nitrosodiphenylamine		
		44B	Phenanthrene		
		45B	Pyrene		
		46B	1,2,4-Trichlorobenzene		

APPENDIX A – TABLE III

OTHER TOXIC POLLUTANTS, METALS, CYANIDE, AND TOTAL PHENOLS

Antimony, Total	Nickel, Total
Arsenic, Total	Selenium, Total
Beryllium, Total	Silver, Total
Cadmium, Total	Thallium, Total
Chromium, Total	Zinc, Total
Copper, Total	Cyanide, Total
Lead, Total	Phenols, Total
Mercury, Total	

Dioxin 2, 3, 7, 8 - Tetra - Chlorodibenzo-P-Dioxin
See Rule 11.02(a)(14)(v)

APPENDIX A - TABLE IV

CONVENTIONAL AND NON-CONVENTIONAL POLLUTANTS REQUIRED TO BE TESTED BY EXISTING DISCHARGERS IF EXPECTED TO BE PRESENT

Bromide
Chlorine, Total Residual
Color
Fecal Coliform
Fluoride
Nitrate-Nitrite
Nitrogen, Total Organic
Oil and Grease
Phosphorus, Total
Radioactivity
Sulfate
Sulfide
Sulfite
Surfactants
Aluminum, Total
Barium, Total
Boron, Total
Cobalt, Total
Iron, Total
Magnesium, Total
Molybdenum, Total
Manganese, Total
Tin, Total
Titanium, Total

APPENDIX A - TABLE V

TOXIC POLLUTANTS AND HAZARDOUS SUBSTANCES REQUIRED TO BE IDENTIFIED BY APPLICANTS IF EXPECTED TO BE PRESENT

TOXIC POLLUTANT: Abestos

HAZARDOUS SUBSTANCES:

1. Acetaldehyde
2. Acetic acid
3. Acetic anhydride
4. Acetone cyanohydrin
5. Acetylbromide
6. Acetyl chloride
7. Acrolein
8. Acrylonitrile
9. Adipic acid
10. Aldrin
11. Allyl alcohol
12. Allyl chloride
13. Aluminum sulfate
14. Ammonia
15. Ammonium acetate
16. Ammonium benzoate
17. Ammonium bicarbonate
18. Ammonium bichromate
19. Ammonium bifluoride
20. Ammonium bisulfite
21. Ammonium carbamate
22. Ammonium carbonate
23. Ammonium chloride
24. Ammonium chromate
25. Ammonium citrate
26. Ammonium fluoroborate
27. Ammonium fluoride
28. Ammonium hydroxide
29. Ammonium oxalate
30. Ammonium silicofluoride
31. Ammonium sulfamate
32. Ammonium sulfide
33. Ammonium sulfite
34. Ammonium tartrate
35. Ammonium thiocyanate
36. Ammonium thiosulfate
37. Amyl acetate
38. Aniline
39. Antimony pentachloride
40. Antimony potassium tartrate
41. Antimony tribromide
42. Antimony trichloride
43. Antimony trifluoride
44. Antimony trioxide
45. Arsenic disulfide
46. Arsenic pentoxide
47. Arsenic trichloride
48. Arsenic trioxide
49. Arsenic trisulfide
50. Barium cyanide
51. Benzene
52. Benzoic acid
53. Benzonitrile
54. Benzoyl chloride
55. Benzyl chloride
56. Beryllium chloride
57. Beryllium fluoride
58. Beryllium nitrate
59. Butylacetate
60. n-Butylphthalate
61. Butylamine
62. Butyric acid
63. Cadmium acetate
64. Cadmium bromide
65. Cadmium chloride
66. Calcium arsenate
67. Calcium arsenite
68. Calcium carbide
69. Calcium chromate
70. Calcium cyanide
71. Calcium dodecylbenzenesulfonate
72. Calcium hypochlorite
73. Captan
74. Carbaryl
75. Carbofuran
76. Carbon disulfide
77. Carbon tetrachloride
78. Chlordane
79. Chlorine
80. Chlorobenzene
81. Chloroform
82. Chloropyrifos
83. Chlorosulfonic acid
84. Chromic acetate
85. Chromic acid
86. Chromic sulfate
87. Chromous chloride
88. Cobaltous bromide
89. Cobaltous formate
90. Cobaltous sulfamate
91. Coumaphos
92. Cresol
93. Crotonaldehyde
94. Cupric acetate
95. Cupric acetoarsenite
96. Cupric chloride
97. Cupric nitrate
98. Cupric oxalate
99. Cupric sulfate
100. Cupric sulfate ammoniated
101. Cupric tartrate
102. Cyanogen chloride
103. Cyclohexane
104. 2,4-D acid (2,4-Dichlorophenoxyacetic acid)
105. 2,4-D esters (2,4-Dichlorophenoxyacetic acid esters)
106. DDT
107. Diazinon
108. Dicamba
109. Dichlobenil
110. Dichlone
111. Dichlorobenzene
112. Dichloropropane
113. Dichloropropene
114. Dichloropropene-dichloproropane mix
115. 2,2-Dichloropropionic acid
116. Dichlorvos
117. Dieldrin
118. Diethylamine
119. Dimethylamine
120. Dinitrobenzene
121. Dinitrophenol
122. Dinitrotoluene
123. Diquat
124. Disulfoton
125. Diuron
126. Dodecylbenzesulfonic acid
127. Endosulfan
128. Endrin
129. Epichlorohydrin
130. Ethion
131. Ethylbenzene
132. Ethylenediamine
133. Ethylene dibromide
134. Ethylene dichloride
135. Ethylene diaminetetracetic acid (EDTA)-
136. Ferric ammonium citrate
137. Ferric ammonium oxalate
138. Ferric chloride
139. Ferric fluoride
140. Ferric nitrate
141. Ferric sulfate
142. Ferrous ammonium sulfate
143. Ferrous chloride
144. Ferrous sulfate
145. Formaldehyde
146. Formic acid
147. Fumaric acid
148. Forfural
149. Guthion
150. Heptachlor
151. Hexachlorocyclopentadiene
152. Hydrochloric acid
153. Hydrofluoric acid
154. Hydrogen cyanide
155. Hydrogen sulfite
156. Isoprene
157. Isopropanolamine dodecybenzenesulfonate
158. Kelthane
159. Kepone
160. Lead acetate
161. Lead arsenate
162. Lead chloride
163. Lead fluoborate
164. Lead flourite
165. Lead iodide
166. Lead nitrate
167. Lead strearate
168. Lead sulfate
169. Lead sulfide
170. Lead thiocyanate
171. Lindane
172. Lithium chromate
173. Malathion
174. Maleic acid
175. Maleic anhydride
176. Mercaptodimethur
177. Mercuric cyanide
178. Mercuric nitrate
179. Mercuric sulfate
180. Mercuric thiocyanate

APPENDIX A – TABLE V, Cont.

181. Mercurous nitrate
182. Methoxychlor
183. Methyl mercaptan
184. Methyl methacrylate
185. Methyl parathion
186. Mevinphos
187. Mexacarbate
188. Monoethylamine
189. Monomethylamine
190. Naled
191. Napthalene
192. Napthenic acid
193. Nickel ammonium sulfate
194. Nickel chloride
195. Nickel hydroxide
196. Nickel nitrate
197. Nickel sulfate
198. Nitric acid
199. Nitrobenzene
200. Nitrogen dioxide
201. Nitrophenol
202. Nitrotoluene
203. Paraformaldehyde
204 Parathion
205. Pentachlorophenol
206. Phenol
207. Phosgene
208. Phosphoric acid
209. Phosphorus
210. Phosphorus oxychloride
211. Phosphorus pentasulfide
212. Phosphorus trichloride
213. Polychlorinated biphenyls (PCB)
214. Potassium arsenate
215. Potassium arsenite
216. Potassium bichromate
217. Potassium chromate
218. Potassium cyanide
219. Potassium hydroxide
220. Potassium permanganate
221. Propargite
222. Propionic acid
223. Propionic anhydride
224. Propylene oxide
225. Pyrethrins
226. Quinoline
227. Resorcinol
228. Selenium oxide
229. Silver nitrate
230. Sodium
231. Sodium arsenate
232. Sodium arsenite
233. Sodium bichromate
234. Sodium bifluoride
235. Sodium bisulfite
236. Sodium chromate
237. Sodium cyanide
238. Sodium dodecylbenzenesulfonate
239. Sodium fluoride
240. Sodium hydrosulfide
241. Sodium hydroxide
242. Sodium hypochlorite
243. Sodium methylate
244. Sodium nitrite
245. Sodium phosphate (dibasic)
246. Sodium phosphate (tribasic)
247. Sodium selenite
248. Strontium chromate
249. Strychnine
250. Styrene
251. Sulfuric acid
252. Sulfur monochloride
253. 2,4,5-T acid (2,4,5-Trichlorophenoxy acetic acid)
254. 2,4,5-T amines (2,4,5-Trichloro- phenoxy acetic acid amines)
255. 2,4,5-T esters (2,4,5-Trichloro- phenoxy acetic acid esters)
256. 2,4,5-t salts (2,4,5-Trichloro- phenoxy acetic acid salts)
257. 2,4,5-TP acid (2,4,5-Trichlorophenoxy propanoic acid)
258. 2, 4, 5-TP acid esters (2,4,5-Trichlorophenoxy propanoic acid esters)
259. TDE (Tetrachlorodiphenyl ethane)
260. Tetraethyl lead
261. Tetraethyl pyrophosphate
262. Thallium sulfate
263. Toluene
264. Toxaphene
265. Trichlorofon
266. Trichloroethylene
267. Trichlorophenol
268. Triethanolamine dodecyl benzenesulfonate
269. Triethylamine
270. Trimethylamine
271. Uranyl acetate
272. Uranyl nitrate
273. Vanadium pentoxide
274. Vanadyl sulfate
275. Vinyl acetate
276. Vinylidene chloride
277. Xylene
278. Xylenol
279. Zinc acetate
280. Zinc ammonium chloride
281. Zinc borate
282. Zinc bromide
283. Zinc carbonate
284. Zinc chloride
285. Zinc cyanide
286. Zinc fluoride
287. Zinc formate
288. Zinc hydrosulfonate
289. Zinc nitrate
290. Zinc phenolsulfonate
291. Zinc phosphide
292. Zinc silicofluoride
293. Zinc sulfate
294. Zirconium nitrate
295. Zirconium potassium flouride
296. Zirconium sulfate
297. Zirconium tetrachloride

APPENDIX B

CRITERIA FOR DETERMINING A CONCENTRATED ANIMAL FEEDING OPERATION

An animal feeding operation is a concentrated animal feeding operation for purposes of Rule 27 if either of the following criteria are met.

(a) More than the numbers of animals specified in any of the following categories are confined:

1) 1,000 slaughter and feeder cattle;

2) 700 mature dairy cattle (whether milked or dry cows);

3) 2,500 swine each weighing over 25 kilograms (approximately 55 pounds);

4) 500 horses;

5) 10,000 sheep or lambs;

6) 55,000 turkeys;

7) 100,000 laying hens or broilers (if the facility has continuous overflow watering);

8) 30,000 laying hens or broilers (if the facility has a liquid manure handling system);

9) 5,000 ducks; or

10) 1,000 animal units; or

(b) More than the following number and types of animals are confined:

1) 300 slaughter or feeder cattle;

2) 200 mature dairy cattle (whether milked or dry cows);

3) 750 swine each weighing over 25 kilograms (approximately 55 pounds);

4) 150 horses;

5) 3,000 sheep or lambs;

6) 14,500 turkeys;

7) 30,000 laying hens or broilers (if the facility has continuous overflow watering);

8) 9,000 laying hens or broilers (if the facility has a liquid manure handling system);

9) 1,500 ducks; or

10) 300 animal units;

and either one of the following conditions are met: pollutants are discharged into navigable waters through a manmade ditch, flushing system or other similar manmade device; or pollutants are discharged directly into waters of the United States which originate outside of and pass-over, across, or through the facility or otherwise come into direct contact with the animals confined in the operation.

Provided, however, that no animal feeding operation is a concentrated animal feeding operation as defined above if such animal feeding operation discharges only in the event of a 25-year, 24-hour storm event.

The term "animal unit" means a unit of measurement for any animal feeding operation calculated by adding the following numbers: the number of slaughter and feeder cattle multiplied by 1.0, plus the number of mature dairy cattle multiplied by 1.4, plus the number of swine weighing over 25 kilograms (approximately 55 pounds) multiplied by 0.4, plus the number of sheep multiplied by 0.1, plus the number of horses multiplied by 2.0.

The term "manmade" means constructed by man and used for the purpose of transporting wastes.

APPENDIX C

CRITERIA FOR DETERMINING A CONCENTRATED AQUATIC ANIMAL PRODUCTION FACILITY

A hatchery, fish farm, or other facility is a concentrated aquatic animal production facility for purposes of Rule 28 if it contains, grows, or holds aquatic animals in either of the following categories.

(a) Cold water fish species or other cold water aquatic animals in ponds, raceways, or other similar structures which discharge at least thirty (30) days per year but does not include:

1) Facilities which produce less than 9,090 harvest weight kilograms (approximately 20,000 pounds) of aquatic animals per year; and

2) Facilities which feed less than 2,272 kilograms (approximately 5,000 pounds) of food during the calendar month of maximum feeding.

(b) Warm water fish species or other warm water aquatic animals in ponds, raceways, or other similar structures which discharge at least thirty (30) days per year, but does not include:

1) Closed ponds which discharge only during periods of excess runoff; or

2) Facilities which produce less than 45,454 harvest weight kilograms (approximately 100,000 pounds) of aquatic animals per year.

"Cold water aquatic animals" include, but are not limited to, the Salmonidae family of fish; e.g., trout and salmon.

"Warm water aquatic animals" include, but are not limited to, the Ameiuride, Centrarchidae and Cyprinidae families of fish; e.g., respectively, catfish, sunfish and minnows.

APPENDIX D

PRIMARY INDUSTRY CATEGORIES

Adhesives and Sealants	Inorganic Chemicals Manufacturing	Plastics Processing
Aluminum Forming	Iron and Steel Manufacturing	Plastic and Synthetic Materials Manufacturing
Auto and Other Laundries	Leather Tanning and Finishing	Porcelain Enameling
Battery Manufacturing	Mechanical Products Manufacturing	Printing and Publishing
Coal Mining	Nonferrous Metals Manufacturing	Pulp and Paper Mills
Coil Coating	Ore Mining	Rubber Processing
Copper Forming	Organic Chemicals Manufacturing	Soap and Detergent Manufacturing
Electrical and Electronic Components	Paint and Ink Formulation	Steam Electric Power Plants
Electroplating	Pesticides	Textile Mills
Explosives Manufacturing	Petroleum Refining	Timber Products Processing
Foundries	Pharmaceutical Preparations	
Gum and Wood Chemicals	Photographic Equipment and Supplies	

SUB-CATEGORIES OF PRIMARY INDUSTRIES

1. Timber Products Processing
SIC 2411--Logging Camps and Logging Contractors (Camps Only)
SIC 2421--Saw Mills and Planning Mills, General
SIC 2426--Hardwood Dimension and Flooring Mills
SIC 2429--Special Purpose Sawmills, Not Elsewhere Classified
SIC 2431--Mill Work
SIC 2434--Wood Kitchen Cabinets
SIC 2435--Hardwood Veneer and Plywood
SIC 2436--Softwood Veneer and Plywood
SIC 2439--Structural Wood Members, Not Elsewhere Classified
SIC 2491--Wood Preserving
SIC 2499--Wood Products, Not Elsewhere Classified (Furniture Mills)
SIC 2661--Building Paper and Building Board Mills (Hardboard Only)

2. Steam Electric Power Plants
SIC 4911--Electric Services (Limited to Steam Electric Power Plants)

3. Leather Tanning and Finishing
SIC 31--Leather and Leather Products

4. Iron and Steel Manufacturing
SIC 3312--Blast Furnaces (Including Coal Ovens), Steel Works and Rolling Mills
SIC 3313--Electrometallurgical Products
SIC 3315--Steel Wire Drawing and Steel Nails and Spikes
SIC 3316--Cold Rolled Steel Sheet, Strip and Bars
SIC 3317--Steel Pipe and Tubes

5. Petroleum Refining
SIC 2911--Petroleum Refining (Including: (1) Topping Plant; (2) Topping and Cracking Plants; (3) Topping, Cracking and Petro-chemical Plants; (4) Integrated Plants; and (5) Integrated and Petro-chemical Plants)

6. Inorganic Chemicals Manufacturing
SIC 2812--Alkalies and Chlorine
SIC 2813--Industrial Gasses
SIC 2816--Inorganic Pigments
SIC 2819--Industrial Inorganic Chemicals, Not Elsewhere Classified

7. Textile Mills
SIC 22--Textile Mill Products
SIC 33--Apparel and Other Finished Products Made from Fabrics and Similar Materials

8. Organic Chemicals Manufacturing
SIC 2865--Cylic (Coal Tar) Crudes, and Cylic Intermediates, Dyes, and Organic Pigments (Lakes and Toners)
SIC 2869--Industrial Organic Chemicals, Not Elsewhere Classified

9. Nonferrous Metals Manufacturing
SIC 2819--Industrial Inorganic Chemicals, Not Elsewhere Classified (Baunite Refining Only)
SIC 3331--Primary Smelting and Refining of Copper
SIC 3332--Primary Smelting and Refining of Lead
SIC 3333--Primary Smelting and Refining of Zinc
SIC 3334--Primary Production of Aluminum
SIC 3339--Primary Smelting and Refining of Nonferrous Metals, Not Elsewhere Classified
SIC 3341--Secondary Smelting and Refining of Nonferrous Metals

10. Paving and Roofing Materials (Tars and Asphalt)
SIC 2951--Paving Mixtures and Blocks
SIC 2952--Asphalt Pelts and Coatings
SIC 3996--Linoleum, Asphalted Pelt Base, and Other Hard Surface Floor Coverings, Not Elsewhere Classified

APPENDIX D, Cont.

SUB-CATEGORIES OF PRIMARY INDUSTRIES, Cont.

11. Paint and Ink Formulation and Printing
SIC 2711--Newspaper; Publishing, Publishing & Printing
SIC 2721--Periodicals; Publishing, Publishing and Printing
SIC 2731--Books; Publishing, Publishing and Printing
SIC 2732--Book Printing
SIC 2741--Miscellaneous Publishing
SIC 2751--Commercial Printing, Letterpress and Screen
SIC 2752--Commercial Printing, Letterpress and Lithographic
SIC 2753--Engraving and Plate Printing
SIC 2754--Commercial Printing, Gravure
SIC 2761--Mainfold Business Forms
SIC 2771--Greeting Card Publishing
SIC 2793--Photoengraving
SIC 2794--Electrotyping and Stereotyping
SIC 2795--Lithographic Platemaking and Related Services
SIC 2851--Paints, Varnishes, Lacquers, Enamels, and Allied Products
SIC 2893--Printing Ink
SIC 3951--Pens, Mechanical Pencils, and Parts and Stamp Pads (Inked Materials Only)
SIC 3952--Lead Pencils, Crayons, and Artists Materials
SIC 3955--Carbon Paper and Inked Ribbons

12. Soap and Detergent Manufacturing
SIC 2841--Soap and Other Detergents, Except Specialty Cleaners

13. Auto and Other Laundries
SIC 7211--Power Laundries, Family and Commercial
SIC 7213--Linen Supply
SIC 7214--Diaper Service
SIC 7215--Coin-Operated Laundries and Dry Cleaning
SIC 7216--Dry Cleaning Plants, Except Rug Cleaning
SIC 7217--Carpet and Upholstery Cleaning
SIC 7218--Industrial Launderers
SIC 7219--Laundry and Garment Services, Not Elsewhere Classified
None--Auto Wash Establishments

14. Plastic and Synthetic Materials Manufacturing
SIC 282--Plastic Materials and Synthetic Resins, Synthetic and Other Manmade Fibers, Except Glass

15. Pump and Paperboard Mills; and Converted Paper Products
SIC 2611--Pulp Mills
SIC 2621--Paper Mills, Except Building Paper Mills
SIC 2631--Paperboard Mills
SIC 2641--Paper Coating and Glazing
SIC 2642--Envelopes
SIC 2643--Bags, Except Textile Bags
SIC 2645--Die-Cut Paper and Paperboard and Cardboard
SIC 2646--Pressed and Molded Pump Goods
SIC 2647--Sanitary Paper Products
SIC 2648--Stationery, Tablets and Related Products
SIC 2649--Converted Paper and Paperboard Products, Not Elsewhere Classified
SIC 2651--Folding Paperboard Boxes
SIC 2652--Set-up Paperboard Boxes
SIC 2653--Corrugated and Solid Fiber Boxes
SIC 2654--Sanitary Food Containers
SIC 2655--Fiber Cans, Tubes, Drums, and Similar Products
SIC 2661--Building Paper and Building Board Mills
SIC 2782--Blankbooks, Loose Leaf Binders and Dividers

16. Rubber Processing
SIC 2822--Synthetic Rubber (Vulcanizable Customers)
SIC 2891--Rubber Cement
SIC 3011--Tires and Inner Tubes
SIC 3021--Rubber and Plastics Footwear (Rubber Only)
SIC 3031--Reclaimed Rubber
SIC 3041--Rubber and Plastics Hose and Melting (Rubber Only)
SIC 3069--Fabricated Rubber Products, Not Elsewhere Classified
SIC 3293--Gaskets, Packing and Sealing Devices (Rubber Packing Only)

17. Miscellaneous Chemicals
SIC 2831--Biological Products
SIC 2833--Medicinal Chemicals and Botanical Products
SIC 2834--Pharmaceutical Preparations
SIC 2861--Gum and Wood Chemicals
SIC 2879--Pesticides and Agricultural Chemicals, Not Elsewhere Classified
SIC 2891--Adhesive and Sealants
SIC 2893--Explosives
SIC 2895--Carbon Black
SIC 2899--Chemicals and Chemical Preparation, Not Elsewhere Classified
SIC 3861--Photographic Equipment and Supplies

18. Machinery and Mechanical Products Manufacturing
SIC 3021--Rubber and Plastics Footwear (Balance)
SIC 3041--Rubber and Plastics Hose and Belting (Balance)
SIC 3079--Miscellaneous Plastics Products
SIC 3293--Gaskets, Packing, and Sealing Devices (Balance)
SIC 3321--Gray Iron Foundries
SIC 3322--Malleable Iron Foundries
SIC 3324--Steel Investment Foundries
SIC 3325--Steel Foundries, Not Elsewhere Classified
SIC 3351--Rolling, Drawing and Extruding of Copper
SIC 3353--Aluminum Sheet, Plate and Foil
SIC 3354--Aluminum Extruded Products
SIC 3355--Aluminum Rolling and Drawing, Not Elsewhere Classified
SIC 3356--Rolling, Drawing and Extruding of Nonferrous Metals, Except Copper and Aluminum
SIC 3357--Drawing and Insulating of Nonferrerous Wire
SIC 3361--Aluminum Foundries (Castings)
SIC 3362--Brass, Bronze, Copper, Copper Base Alloy Foundries (Castings)
SIC 3369--Nonferrous Foundries (Castings), Not Elsewhere Classified
SIC 3398--Metal Meat Treating

SUB-CATEGORIES OF PRIMARY INDUSTRIES, Cont.

APPENDIX D, Cont.

18. Machinery and Mechanical Products Manufacturing, Cont.

SIC 3399--Primary Metal Products, Not Elsewhere Classified
SIC 3411--Metal Cane
SIC 3412--Metal Shipping Barrels, Drums, Kegs and Pails
SIC 3421--Cuttery
SIC 3423--Hand and Edge Tools, Except Machine Tools and Hand Saws
SIC 3425--Hand Saws and Saw Blades
SIC 3429--Hardware, Not Elsewhere Classified
SIC 3431--Enameled Iron and Metal Sanitary Ware
SIC 3432--Plumbing Fixture Fittings and Trim (Brass Goods)
SIC 3433--Heating Equipment, Except Electric and Warm Air Furnaces
SIC 3441--Fabricated Structural Metal
SIC 3442--Metal Doors, Bash, Frames, Molding and Trim
SIC 3443--Fabricated Platework (Broiler Shops)
SIC 3444--Sheet Metal Work
SIC 3446--Architectural and Ornamental Metal Work
SIC 3448--Prefabricated Metal Buildings and Components
SIC 3449--Miscellaneous Metal Work
SIC 3451--Screw Machine Products
SIC 3452--Bolts, Nuts, Screws Rivets and Washers
SIC 3462--Iron and Steel Forgings
SIC 3463--Nonferrous Forgings
SIC 3465--Automotive Stampings
SIC 3466--Crowns and Closures
SIC 3469--Metal Stampings, Not Elsewhere Classified
SIC 3482--Small Arms Ammunition
SIC 3483--Ammunition, Except for Small Arms, Not Elsewhere Classified
SIC 3484--Small Arms
SIC 3489--Ordinance and Accessories, Not Elsewhere Classified
SIC 3493--Steel Springs, Except Wire
SIC 3494--Valves and Pipe Fittings, Except Plumbers' Brass Goods
SIC 3495--Wire Springs
SIC 3496--Miscellaneous Fabricated Wire Products
SIC 3497--Metal Poll and Leaf
SIC 3498--Fabricated Pipe and Fabricated Pipe Fittings
SIC 3499—Fabricated Metal Products, Not Elsewhere Classified
SIC 3511--Steam, Gas, and Hydraulic Turbines and Turbine Generator Set Units
SIC 3519--Internal Combustion Engines, Not Elsewhere Classified
SIC 3523--Farm Machinery and Equipment
SIC 3524--Garden Tractors and Lawn and Garden Equipment
SIC 3531--Construction Machinery and Equipment
SIC 3532--Mining Machinery and Equipment, Except Oil Field Machinery and Equipment
SIC 3533--Oil Field Machinery and Equipment
SIC 3534--Elevators and Moving Stairways
SIC 3535--Conveyors and Conveying Equipment
SIC 3536--Hoists, Industrial Cranes, and Monorail Systems
SIC 3537--Industrial Trucks, Tractors, Trailers and Stackers
SIC 3541--Machine Tools, Metal Cutting Types
SIC 3542--Machine Tools, Metal Forming Types
SIC 3544--Special Dies and Tools, Die Sets, Jigs and Fixtures and Industrial Molds
SIC 3545--Machine Tool Accessories and Measuring Devices
SIC 3546--Power Driven Hand Tools
SIC 3549--Metalworking Machinery, Not Elsewhere Classified
SIC 3551--Food Products Machinery
SIC 3552--Textile Machinery
SIC 3553--Woodworking Machinery
SIC 3554--Paper Industries Machinery
SIC 3555--Printing Trades Machinery and Equipment
SIC 3559--Special Industry Machinery, Not Elsewhere Classified
SIC 3561--Pumps and Pumping Equipment
SIC 3562--Ball and Roller Bearings
SIC 3563--Air and Gas Compressors
SIC 3564--Blowers and Exhaust and Ventilation Pans
SIC 3565--Industrial Pattern
SIC 3566--Speed Changers, Industrial High Speed Drives, and Gears
SIC 3567--Industrial Process Furnaces and Ovens
SIC 3568--Mechanical Power Transmission Equipment, Not Elsewhere Classified
SIC 3569--General Industrial Machinery and Equipment, Not Elsewhere Classified
SIC 3572--Typewriters
SIC 3573--Electronic Computing Equipment
SIC 3574--Calculating and Accounting Machines, Except Electronic Computing Equipment
SIC 3576--Scales and Balances, Except Laboratory
SIC 3579--Office Machines, Not Elsewhere Classified
SIC 3581--Automatic Merchandising Machines
SIC 3582--Commercial Laundry, Dry Cleaning, and Pressing Machines
SIC 3585--Air Conditioning and Warm Air Heating Equipment and Commercial and Industrial Refrigeration Equipment
SIC 3586--Measuring and Dispensing Pumps
SIC 3589--Service Industry Machines, Not Elsewhere Classified
SIC 3592--Carburetors, Piston, Piston Rings, and Valves
SIC 3599--Machinery, Except Electrical, Not Elsewhere Classified
SIC--3612--Power, Distribution, and Specialty Transformers
SIC 3613--Switchgear and Switchboard Apparatus
SIC 3621--Motors and Generators
SIC 3622--Industrial Controls
SIC 3623--Welding Apparatus, Electric
SIC 3624--Carbon and Graphic Products
SIC 3629--Electrical Industrial Apparatus, Not Elsewhere Classified
SIC 3631--Household Cooking Equipment
SIC 3632--Household Refrigerators and Home and Farm Freezers
SIC 3633--Household Laundry Equipment
SIC 3634--Electric Housewares and Fans
SIC 3635--Household Vacuum Cleaners
SIC 3639--Household Appliances, Not Elsewhere Classified
SIC 3641--Electric Lamps
SIC 3643--Current-Carrying Wiring Devices
SIC 3644--Noncurrent/Carrying Wiring Devices
SIC 3645--Residential Electric Lighting Fixtures
SIC 3645--Commercial, Industrial, and Institutional Electric Lighting Fixtures

APPENDIX D, Cont.

SUB-CATEGORIES OF PRIMARY INDUSTRIES, Cont.

SIC 3647--Vehicular Lighting Equipment
SIC 3648--Lighting Equipment, Not Elsewhere Classified
SIC 3651--Radio and Television Receiving Sets, Except Communication Types
SIC 3652--Phonograph Records and Pre-Recorded Magnetic Tape
SIC 3661--Telephones and Telegraph Apparatus
SIC 3662--Radio and Television Transmitting, Signaling, and Detection Equipment and Apparatus
SIC 3671--Radio and Television Receiving Type Electron Tubes, Except Cathode Ray
SIC 3672--Cathode Ray Television Picture Tubes
SIC 3673--Transmitting, Industrial, and Special Purpose Electron Tubes
SIC 3674--Semiconductors and Related Devices
SIC 3675--Electronic Capacitors
SIC 3676--Resistors, for Electronic Applications
SIC 3677--Electronic Coils, Transformers and Other Inductors
SIC 3678--Connectors, for Electronic Applications
SIC 3679--Electronic Components, Not Elsewhere Classified
SIC 3691--Storage Batteries
SIC 3692--Primary Batteries, Dry and Wet
SIC-3693--Radiographic X-ray Fluoroscopic X-ray, Therapeutic X-ray, and Other X-ray Apparatus and Tubes; Electromedical and Electrotherapeutic Apparatus
SIC 3694--Electrical Equipment for Internal Combustion Engines
SIC 3699--Electrical Machinery, Equipment, and Supplies, Not Elsewhere Classified
SIC 3711--Motor Vehicles and Passenger Car Bodies
SIC 3713--Truck and Bus Bodies
SIC 3714--Motor Vehicle Parts and Accessories
SIC 3715--Truck Trailers
SIC 3721--Aircraft
SIC 3724--Aircraft Engines and Engine Parts
SIC 3728--Aircraft Parts and Auxiliary Equipment, Not Elsewhere Classified
SIC 3731--Ship Building and Repairing
SIC 3722--Boat Building and Repairing
SIC 3743--Railroad Equipment
SIC 3751--Motorcycles, Bicycles, and Parts
SIC 3761--Guided Missiles and Space Vehicles
SIC 3764--Guided Missile and Space Vehicle Propulsion Units and Propulsion Unit Parts
SIC 3769--Guided Missile and Space Vehicle Parts and Auxiliary Equipment, Not Elsewhere Classified
SIC 3792--Travel Trailers and Campers
SIC 3795--Tanks and Tank Components
SIC 3799--Transportation Equipment, Not Elsewhere Classified
SIC 3811--Engineering, Laboratory, Scientific, and Research Instruments and Associated Equipment
SIC 3822--Automatic Controls for Regulating Residential and Commercial Environments and Appliances
SIC 3823--Industrial Instruments for Measurement, Display and Control of Process Variables; and Related Products
SIC 3824--Totalizing Fluid Meters and Counting Devices
SIC 3825--Instruments for Measuring and Testing of Electricity and Electrical Signals
SIC 3829--Measuring and Controlling Devices, Not Else where Classified
SIC 3832--Optical Instruments and Lenses
SIC 3841--Surgical and Medical Instruments and Apparatus
SIC 3842--Orthopedic, Prosthetic, and Surgical Appliances and Supplies
SIC 3843--Dental Equipment and Supplies
SIC 3851--Ophthalmic Goods
SIC 3873--Watches, Clocks, Clockwork Operated Devices and Parts
SIC 3911--Jewelry, Precious Metal
SIC 3914--Silverware, Plated Ware, and Stainless Steel Ware
SIC 3915--Jewelers' Findings and Materials, and Lapidary Work
SIC 3931--Musical Instruments
SIC 3942--Dolls
SIC 3944--Games, Toys, and Children's Vehicles; Except Dolls and Bicycles
SIC 3949--Sporting and Athletic Goods, Not Elsewhere Classified
SIC 3951--Pens, Mechanical Pencils, and Parts
(Balance)
SIC 3961--Costume Jewelry and Costume Novelties, Except Precious Metal
SIC 3991--Brooms and Brushes
SIC 3993--Signs and Advertising Displays
SIC 3995--Burial Caskets

APPENDIX D, Cont.

SUB-CATEGORIES OF PRIMARY INDUSTRIES, Cont.

19. Electroplating SIC 347--Coating, Engraving and Allied Services **20. Ore Mining and Dressing** SIC 1011--Iron Ores SIC 1021--Copper Ores SIC 1031--Lead and Zinc Ores SIC 1041--Gold Ores SIC 1044--Silver Ores SIC 1051--Bauxite and Other Aluminum Ores SIC 1061--Ferroalloy Ores, Except Vanadium SIC 1092--Mercury Ores SIC 1094--Uranium-Radium-Vanadium Ores SIC 1099--Metal Ores, Not Elsewhere Classified **21. Coal Mining** SIC 1111--Anthracite SIC 1112--Anthracite Mining Services SIC 1211--Bituminous Coal and Lignite SIC 1213--Bituminous Coal and Lignite Mining Services		

APPENDIX E
EPA WATER QUALITY CRITERIA FOR THE 64 PRIORITY POLLUTANTS

(Units are in Micro Grams Per Liter)

COMPOUND	AQUATIC LIFE CRITERIA[1/]		HUMAN HEALTH CRITERIA[2/]	ANALYTIC IDENTIFICATION[3/]	DETECTION LIMIT[4/]
	FRESHWATER	SALTWATER			
Acenaphthene			20 0/ -	B.N.E.O.	3
Acrolein			320 T/780 T	V.O.	2
Acrylonitrile			0.58 C/6.5 C	V.O.	100
Aldrin/Dieldrin Aldrin Dieldrin	 3 Max. 0.0019 24-Hr. 2.5 Max.	 1.3 Max. 0.0019 24-Hr. 0.71 Max.	 0.00074 C/0.00079 C 0.00071 C/0.00076 C	 P.	 0.003 0.006
Antimony	(9,000) (1,600)	--	146 T/45,000 T	M.	3
Arsenic	(440) (40)	(508) (--)	0.022 C/.175 C	M.	53
Asbestos			300,000 Fibers[1/] C/--	O.	100,000 Fibers[1/]
Benzene			6.6 C/400 C	V.O.	0.2
Benzidine			0.0012 C/O.0053 C	B.N.E.O.	0.05
Beryllium	(130) (5.3)	--	0.068 C/1.17 C	M.	0.3
Cadmium	0.012 24-Hr. 1.5 Max	4.5 24-Hr. 59 Max.	*10 T -	 M.	4
Carbon Tetrachloride			4.0 C/69.4 C	V.O.	0.007
Chlordane	0.0043 24-Hr. 2.4 Max.	0.004 24-Hr. 0.09 Max.	0.0046 C/0.0048 C	P.	0.04
Chlorinated Benzenes Monochlorobenzene 1,2,4,5-Tetrachlorobenene Pentachlorobenzene Hexachlorobenzene			 488 T (20 0)/ - 38 T/48 T 74 T/85 T 0.0072 C/0.0074 C	 V.O.	 0.03 0.001
Chlorinated Ethanes 1,2-Dichloroethane 1,1,1-Trichloroethane 1,1,2-Trichloroethane 1,1,2,2-Tetrachloroethane Hexachloroethane			 9.4 C/2,430 C 18,400 T/1,030,000 T 6.0 C/418 C 1.7 C/107 C 19 C/87.4 C	 V.O.	 0.006 0.005 0.006 0.006 0.001
Chloroalkyl Ethers bis(2-chloroisopropyl) ether bis(chloromethyl) ether bis(2-chloroethyl) ether			 34.7 T 0.000038 C 0.3 C	 B.N.E.O.	 0.9 0.4 0.5

COMPOUND	AQUATIC LIFE CRITERIA[1/]		HUMAN HEALTH CRITERIA[2/]	ANALYTIC IDENTIFICATION[3/]	DETECTION LIMIT[4/]
	FRESHWATER	SALTWATER			
Chlorinated Naphthalenes				B.N.E.O.	0.015
Chlorinated Phenols					
3-monochlorophenol			0.1 0/ -		
4-monochlorophenol			0.1 0/ -		
2,3-dichlorophenol			0.04 0/ -		
2,5-dichlorophenol			0.5 0/ -		
2,6-dichlorophenol			0.2 0/ -		
3,4-dichlorophenol			0.3 0/ -		
2,4,5-trichlorophenol			2,600 T (1 0)/ -		
2,4,6-trichlorophenol			12 C (2 0)/36 C		5
2,3,4,6-tetrachlorophenol			1 0/ -		
2-methyl-4-chlorophenol			1,800 0/ -		
3-methyl-4-chlorophenol			3,000 0/ -		8.3
3-methyl-6-chlorophenol			20 0/ -		
Chloroform			1.90 C/157 C	V.O.	0.006
2-Chlorophenol			0.1 0/ -	A.E.O.	2
Chromium					
Chromium VI	0.29 24-Hr. 21 Max.	18 24-Hr. 1,260 Max.	*50 T/ -	M.	7
Chromium III	2,200 Max.		170,000 T/3,433,000 T		7
Copper	5.6 24-Hr. 12 Max.	4.0 24-Hr. 23 Max.	1,000 0/ -	M.	6
Cyanide	3.5 24-Hr. 52 Max.		200 T/ -	O.	5
DDT	0.001 24-Hr. 1.1 Max.	0.001 24-Hr. 0.13 Max.	0.00024 C/0.00024 C	P.	0.016
Dichlorobenzenes			400 T/2,600 T	B.N.E.O.	0.009
Dichlorobenzidines			0.103 C/.204 C	B.N.E.O.	0.1
Dichloroethylenes					
1,1-Dichloroethylene			0.33 C/18.5 C	V.O.	0.006
2,4-Dichlorophenol			3,090 T (0.3 0)/ -	A.E.O.	2.1
Dichloropropanes/propenes					
Dichloropropene			87 T/1,410 T	V.O.	0.006
2,4-Dimethylphenol			400 0/ -	A.E.O.	1.7
Dinitrotoluene					
2,4-Dinitrotoluene			1.1 C/91 C	B.N.E.O.	0.06

COMPOUND	AQUATIC LIFE CRITERIA[1/]		HUMAN HEALTH CRITERIA[2/]	ANALYTIC IDENTIFICATION[3/]	DETECTION LIMIT[4/]
	FRESHWATER	SALTWATER			
Diphenylhydrazine 1,2-Diphenylhydrazine			0.422 C/5.6 C	B.N.E.O.	10
Endosulfan	0.056 24-Hr. - 0.22 Max.	0.0087 24-Hr. - 0.034 Max.	74 T/159 T	P.	0.005
Endrin	0.0023 24-Hr. - 0.18 Max.	0.0023 24-Hr. - 0.037 Max.	1 T/ -	P.	0.009
Ethylbenzene			1,400 T/3,280 T	V.O.	10
Fluoranthene			42 T/54 T	B.N.E.O.	0.05
Haloethers			- / -	B.N.E.O.	0.06
Halomethanes			1.9 C/157 C	V.O.	0.01
Heptachlor	0.0038 24-Hr. - 0.52 Max.	0.0036 24-Hr. - 0.053 Max	0.00278 C/0.00285 C	P.	0.002
Hexachlorobutadiene			4.47 C/500 C	B.N.E.O.	0.001
Hexachlorocyclohexane alpha-BHC beta-BHC gamma-BHC (lindane) tech-BHC	0.080 24-Hr. - 2.0 Max.	0.16 Max	0.092 C/0.310 C 0.163 C/0.547 C 0.186 T/.625 T 0.123 C/0.414 C	P.	0.002 0.004 0.002 0.004
Hexachlorocyclopentadiene			206 T (1 0)/ -	B.N.E.O.	0.001
Isophorone			520,000 T	B.N.E.O.	5
Lead	.75 24-Hr. - 74 Max.	(668) (25)	*50 T/ -	M.	42
Mercury	0.20 24-Hr. - 4.1 Max.	0.10 24-Hr. - 3.7 Max.	0.144 T/.146 T	M.	0.4
Napthalene			- / -	B.N.E.O.	2.5
Nickel	56 24-Hr. - 1,100 Max.	7.1 24-Hr. - 140 Max.	13.4 T/100 T	M.	15
Nitrobenzene			19,800 T (30 0)/ -	B.N.E.O.	5
Nitrophenols 2,4-dinitro-o-cresol dinitrophenol			13.4 T/765 T 70 T/14,300 T	A.E.O.	7
Nitrosamines N-nitrosodimethylamine N-nitrosodiethylamine N-nitrosodi-n-butylamine N-nitrosopyrrolidine N-nitrosodiphenylamine			0.014 C/160 C 0.008 C/12.4 C 0.064 C/5.868 C 0.160 C/919 C 49 C/161 C	B.N.E.O.	0.3

COMPOUND	AQUATIC LIFE CRITERIA[1/]		HUMAN HEALTH CRITERIA[2/]	ANALYTIC IDENTIFICATION[3/]	DETECTION LIMIT[4/]
	FRESHWATER	SALTWATER			
Pentachlorophenol			1,010 T (30 0)/ -	A.E.O.	10
Phenol			3,500 T (300 0)/ -	A.E.O.	1.4
Phthalate esters				B.N.E.O.	
dimethyl-phthalate			313,000 T/2,900,000 T		0.11
diethyl-phthalate			350,000 T/1,800,000 T		0.13
dibutyl-phthalate			34,000 T/154,000 T		0.02
di-2-ethylhexyl-phthalate			15,000 T/50,000 T		0.04
Polychlorinated biphenyls (PCB's)	0.014 24-Hr.	0.030 24-Hr.	0.00079 C/0.00079 C	P.	0.04
Polynuclear Aromatic Hydrocarbons(PAH's)			0.028 C/0.311 C	B.N.E.O.	0.04
Selenium Selenite	35 24-Hr. 260 Max.	54 24-Hr. 410 Max.	*10 T/ -	M.	75
Silver	1.2 Max.	2.3 Max.	*50 T/ -	M.	7
Tetrachloroethylene			8 C/88.5 C	V.O.	0.007
Thallium	(1,400) (40)	(2,130) (--)	13 T/48 T	M.	1
Toluene			14,300 T/424,000 T	V.O.	10
Toxaphene	0.013 24-Hr. 1.6 Max.	0.070 Max.	0.0071 C/0.0073 C	P.	0.4
Trichloroethylene			27 C/807 C	V.O.	0.005
Vinyl Chloride			20 C/5,246 C	V.O.	0.01
Zinc	47 24-Hr. 180 Max.	52 24-Hr. 170 Max.	5,000 0/ -	M.	2

NOTES:
1/ Criteria as published at 45 FR 79318 and 46 FR 40919. Criteria for hardness-related metals assumes 50 mg/l $CaCO_3$ most stringent criteria. Data in ( ) is best available for acute and chronic toxicity.
2/ Criteria as published at 45 FR 79318 and 46 FR 40919. Basis for criteria designated as follows:
O = Organoleptic effect
T = Toxicity
C = Carcinogenicity at the 10^{-5} risk level for lifetime exposure level
First Value: Ingestion of contaminated water and contaminated aquatic organism.
Second Value: Ingestion of contaminated aquatic organism alone.
3/ VOC = Volatile Organic Compounds
B.N.E.O. = Base-Neutral Extractable Organic Compounds
A.E.O. = Acid Extractable Organic Compounds
P. = Pesticides and PCB's
M. = Metals
O. = Other
4/ Detection Limits as published at 44 FR 64464.
*Ambient water quality criterion recommended to be identical to existing drinking water standards.

APPENDIX F

NOMOGRAPHS FOR CALCULATING FROUDE NUMBERS AND DILUTION FACTOR

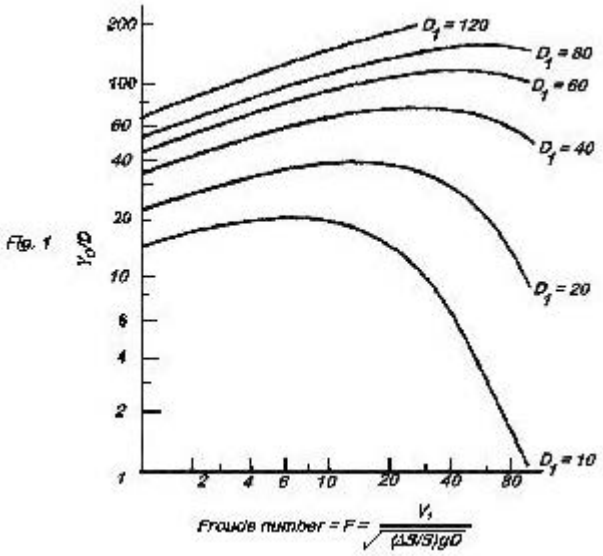


Fig. 1

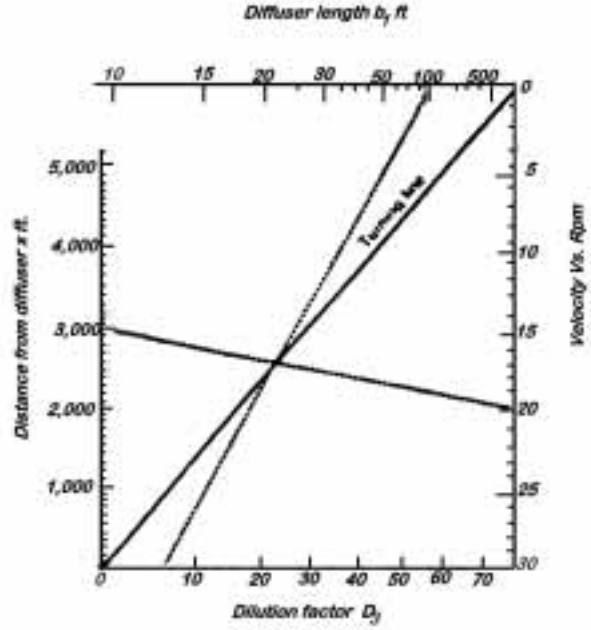


Fig. 2

APPENDIX G

INCORPORATED PLACES IN RHODE ISLAND WITH POPULATIONS GREATER THAN 100,000 ACCORDING TO 1990 DECENNIAL CENSUS BY BUREAU OF CENSUS (40 CFR 122 APPENDIX G)

State	Incorporated Place
Rhode Island	Providence

APPENDIX H

INCORPORATED PLACES IN RHODE ISLAND LOCATED FULLY OR PARTIALLY WITHIN AN URBANIZED AREA AND DENSELY POPULATED AREA

(This is a reference list only, not a list of all operators of small MS4s subject to Rule 31(a)(5). For example, a listed governmental entity is only regulated if it operates a small MS4 within an "urbanized area" boundary as determined by the Bureau of the Census. Furthermore, entities such as military bases, large hospitals, prison complexes, universities, sewer districts, and highway departments that operate a small MS4 within an urbanized area are also subject to the permitting regulations but are not individually listed here. This reference list reflects populations within regulated areas as shown in Appendix J. Regulated areas include the areas determined by the 1990 UA and 2000 US and 2000 densely populated area (DPA) from the Bureau of the Census. See Rule 31(b)(17) for the definition of a small MS4 and 31(a)(5)(i) for the definition of a regulated small MS4). (Source: 1990 and 2000 Census of Population and Housing, U.S. Bureau of the Census. This list is subject to change with the Decennial Census).

City or Town	Population Within Regulated Area[1]
Barrington (Town)	16,806
Bristol (Town)	22,308
Burrillville (Town)	8,862
Central Falls (City)	18,725
Coventry (Town)	28,423
Cranston (City)	79,526
Cumberland (Town)	30,029
East Greenwich (Town)	10,656
East Providence (City)	48,505
Exeter (Town)	1,360
Glocester (Town)	1,617
Jamestown (Town)	5,202
Johnston (Town)	27,163
Lincoln (Town)	20,687
Middletown (Town)	16,933
Narragansett (Town)	16,350
Newport (City)	26,282
North Kingstown (Town)	23,306
North Providence (Town)	32,549
North Smithfield (Town)	7,887
Pawtucket (City)	72,912
Portsmouth (Town)	16,769
Providence (City)	173,356
Scituate (Town)	2,468
Smithfield (Town)	18,911
South Kingstown (Town)	20,503[2]
Tiverton (Town)	10,912
Warren (Town)	11,103
Warwick (City)	85,922
West Greenwich (Town)	997
West Warwick (Town)	29,509
Westerly (Town)	16,612[3]
Woonsocket (City)	43,224

[1]Regulated Area includes both 1990 and 2000 Bureau of Census UA and as indicated, the 2000 DPA
[2]Population includes both 1990 and 2000 Bureau of Census UA and 2000 DPA
[3]Population of 2000 DPA

APPENDIX I

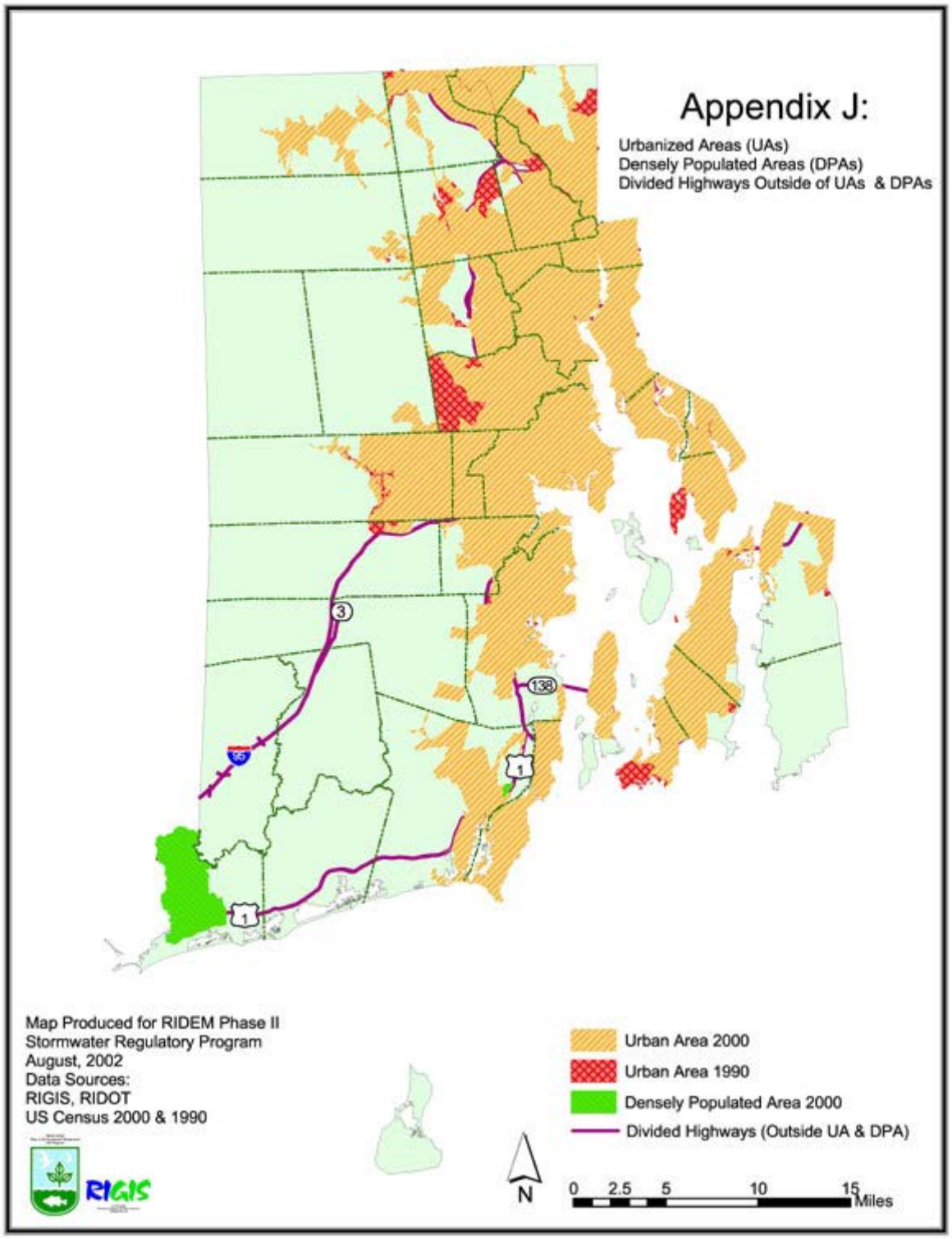
CENSUS DESIGNATED PLACES COMPLETELY OUTSIDE OF URBZNIZED AREAS IN RHODE ISLAND

(This is a reference list only, not a list of all operators of small MS4s subject to Rule 31(a)(5). This list represents the populations in Census Designated Places outside of Urbanized Areas used to determine areas that meet the definition of a Densely Populated Area in accordance with Rule 31(b)(21). See Rule 31(b)(17) for the definition of a small MS4 and 31(a)(5)(i) for the definition of a regulated small MS4).
(Source: 2000 U.S. Census Data)

Census Designated Place (CDP)	Population Within CDP
Ashaway CDP	1,624
Bradford CDP	1,469
Hope Valley	1,445
Westerly CDP	16,612

APPENDIX J

MAP OF URBANIZED AREAS (UAs), DENSELY POPULATED AREAS (DPAs), AND DIVIDED HIGHWAYS OUTSIDE OF UAs AND DPAs



ATTACHMENT D

Copy of Other Regulatory Permits

RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

Office Of Water Resources
235 Promenade Street, Providence, RI 02908-5767
Telephone: 401-222-6820, Telecommunication Device for the Deaf: 401-831-5508, FAX: 401-222-6177

WATER QUALITY CERTIFICATION PROGRAM APPLICATION

This form is to be completed for all applications to the Department of Environmental Management (DEM), Office of Water Resources, for Water Quality Certification as specified in Rule 13 of the DEM "Water Quality Regulations." Reference the "Rules and Regulations Governing the Establishment of Various Fees" for fees listed below. Attach a non-refundable check payable to "General Treasurer, State of RI."

FOR DEM USE ONLY Date Received
Amount Paid: _____ Check #: _____ File #: _____

PURPOSE OF APPLICATION (Check only one) AND FEES:

☑ Application for Water Quality Certification:
Submit required documentation for Estimated Construction Costs (See **Note 1**)
Fee: ☐ $200. for estimated construction costs < $250,000.
☑ $400. for estimated construction costs ≥ $250,000.

☐ Request Renewal of Water Quality Certification: File # _____
Fee: No fee

☐ Request Modification of Water Quality Certification: File # _____
Fee: One-half of original fee noted above

(A.) PROJECT NAME AND LOCATION:

Phase II and III - Former Gorham Manufacturing Facility		Plat 51 Lot 324	
(Project Name)		(Tax Assessor's Plat(s) and Lot No.(s))	
Area Surrounding Mashapaug Cove	333 Adelaide Avenue	Providence	02908
(Project Location)	(Street Address)	(City/Town)	(ZIP)

(B.) APPLICANT: (**Note:** Applicant must be the owner of the property on which the activity is proposed.)

Gregory Simpson	40 Westminster Street	Providence	RI	02903
(Name)	(Mailing Address)	(City/Town)	(State)	(ZIP)
Textron, Inc.		401-457-2635		
(Company/Organization)		(Area Code & Telephone Number)		

(C.) CONTACT TO ANSWER QUESTIONS REGARDING APPLICATION (If different than Section B):

David Heislein	271 Mill Road	Chelmsford	MA	01824
(Name)	(Mailing Address)	(City/Town)	(State)	(ZIP)
AMEC Foster Wheeler, Inc.	Senior Project Manager	978-392-5327		
(Company/Organization)	(Title)	(Area Code & Telephone Number)		

(D.) PROJECT TYPE/ACTIVITY (Check All That Apply):

- ☐ Filling of Waters of the State
- ☑ Any project ≥ five (5) acres disturbance
- ☐ Commercial, Industrial, State or Municipal Development
- ☐ Flow Alterations
- ☐ Harbor Management Plan
- ☐ Marinas – New construction or expansion
- ☐ Residential Development: six (6) or more dwellings
- ☐ Site Disturbances
- ☐ Other _____

*** abbutter notification will be included in RAWP public notice ***

(E.) GENERAL INFORMATION: Check program and list number(s) of other applications associated with this project.

☐ Coastal Resources Management Council _____

☑ US Army Corps of Engineers 404 Permit (Submitted Concurrently)

☑ Other RIDEM Solid Waste Remedial Action Work Plan (Submitted Concurrently)

(F.) CERTIFICATION 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.

Signature of Applicant: _____ Date: 3/26/15

Print Name: Greg Simpson, Textron, Inc.

Please return completed form to:

Rhode Island Department of Environmental Management
Office of Water Resources, Water Quality Certification Program
235 Promenade Street, Suite 260
Providence, RI 02908-5767

Office Use Only:

Suitable for Public Notice Date: _____

Certification Determination:
Date: _____

- ☐ Approved
- ☐ Denied
- ☐ Withdrawn
- ☐ Closed

_____ Project Reviewer:

Note 1: Documentation of Estimated Construction Costs (ECC) will be required unless the ECC is ≥ $250,000. ECCs include all costs of construction activities such as materials, labor, and equipment. ECC shall not include the cost of land acquisition and consultant fees for planning, design, and construction supervision. The ECC for proposed projects must be documented and prepared by an appraiser, general contractor, engineer, land surveyor, architect, landscape architect, or another appropriate qualified professional. Such documentation must be submitted by the applicant with the application. All ECCs are subject to the review and acceptance by the Department.

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
HISTORICAL PRESERVATION & HERITAGE COMMISSION
Old State House • 150 Benefit Street • Providence, R.I. 02903-1209
TEL (401) 222-2678 FAX (401) 222-2968
TTY / Relay 711 Website www.preservation.ri.gov

26 June 2015

Sarah Benoit
Amec Foster Wheeler Environment & Infrastructure, Inc.
271 Mill Road
Chelmsford, MA 01824

Re: Mashapaug Pond Inner Cove Sediment Remediation
Former Gorham Manufacturing Facility
Providence RI

Dear Ms. Benoit:

The Rhode Island Historical Preservation and Heritage Commission staff has reviewed the information that you sent related to the above-referenced proposal.

It is our conclusion that the proposed sediment remediation will have no effect on any significant cultural resources (those listed on or eligible for listing on the National Register of Historic Places). Therefore, we have no objections to the proposed project.

These comments are provided in accordance with Section 106 of the National Historic Preservation Act. If you have any questions, please contact Charlotte Taylor, Senior Archaeologist, or Jeffrey Emidy, Project Review Coordinator of this office.

Very truly yours,

Charlotte Taylor for

Edward F. Sanderson
Executive Director
State Historic Preservation Officer

150626.01

DEPARTMENT OF THE ARMY
NEW ENGLAND DISTRICT, CORPS OF ENGINEERS
696 VIRGINIA ROAD
CONCORD, MASSACHUSETTS 01742-2751

REPLY TO
ATTENTION OF

June 3, 2015

Regulatory Division
CENAE-R-PEB
Permit Number: NAE-2013-2359

Gregory Simpson
Textron, Inc.
40 Westminster Street
Providence, Rhode Island 02903

Dear Mr. Simpson:

We have reviewed the application by Textron, Inc. to perform work at the former Gorham Manufacturing Facility located at 425 Adelaide Avenue in Providence, Rhode Island. You are authorized to perform site remediation involving work in and along Mashapaug Pond. You will construct a temporary coffer dam to isolate and de-water Inner Cove. The water will be pumped from Inner Cove into Mashapaug Pond to allow the contractor to work in the dry. The last foot of water will be pumped to an infiltration gallery located in a nearby upland area. Work includes excavating an average depth of one to two feet of contaminated sediments below existing grade from the approximately 2.8 acre area in Inner Cove. One foot of clean fill will be placed on the Inner Cove bottom resulting in a net increase in depth of up to one-foot. Backfill material will consist of sand and organic mix (10% compost/organic material). A vegetated wetland extends up to approximately 10 feet from the water's edge. This adjacent palustrine wetland (11,075 square feet or 0.25 acres) along the shoreline will be impacted with soils removed and the wetlands subsequently restored. The project is shown on the enclosed plans titled "TEXTRON, INC. PHASE II, III, AND PARCEL CAP C FORMER GORHAM MANUFATURING SITE PROVIDENCE, RHODE ISLAND" dated "MAY, 2015."

Based on the information you have provided, we have determined that the proposed activity will have only minimal individual or cumulative impacts on waters of the United States, including wetlands. Therefore, this work is authorized as a Category 2 activity under the attached Federal permit known as the Rhode Island General Permit (GP). The work must be performed in accordance with the terms and conditions of the GP and the following special conditions:

1.) Work must be preformed according to the narrative by Amec Foster Wheeler Environment & Infrastructure, Inc. titled "MASHAPAUG POND INNER COVE SEDIMENT REMEDIATION" dated "MARCH 11, 2015" and updated in

"CONTRACT DOCUMENTS AND TECHNICAL SPECIFICATIONS FOR PHASE II, III, AND PARCEL C CAP FORMER GORHAM MANUFATURING SITE PROVIDENCE, RHODE ISLAND" dated "MAY, 2015."

2.) You must perform shoreline and wetland restoration as outlined in the enclosed Appendix E of the document titled "CONTRACT DOCUMENTS AND TECHNICAL SPECIFICATIONS FOR PHASE II, III, AND PARCEL C CAP FORMER GORHAM MANUFATURING SITE PROVIDENCE, RHODE ISLAND" dated "MAY, 2015."

You are responsible for complying with all of the GP's requirements. Please review the attached GP carefully, in particular the GP conditions beginning on Page 4, to familiarize yourself with its contents. You should ensure that whoever does the work fully understands the requirements and that a copy of the permit document and this authorization letter are at the project site throughout the time the work is underway.

This authorization expires on February 22, 2017, unless the GP is modified, suspended or revoked. You must complete the work authorized herein by February 22, 2017. If you do not, you must contact this office to determine the need for further authorization before continuing the activity. We recommend you contact us before this permit expires to discuss a time extension or permit reissuance.

If you change the plans or construction methods for work within our jurisdiction, please contact us immediately to discuss modification of this authorization. This office must approve any changes before you undertake them.

This authorization requires you to complete and return the enclosed Work Start Notification Form to this office at least two weeks before the anticipated starting date. You must also complete and return the enclosed Compliance Certification Form within one month following the completion of the authorized work.

This permit does not obviate the need to obtain other Federal, state, or local authorizations required by law, as listed on Page 2 of the GP. Performing work not specifically authorized by this determination or failing to comply with any special condition(s) provided above or all the terms and conditions of the GP may subject you to the enforcement provisions of our regulations.

We continually strive to improve our customer service. In order for us to better serve you, we would appreciate your completing our Customer Service Survey located at

http://corpsmapu.usace.army.mil/cm_apex/f?p=regulatory_survey.

Please contact Michael Elliott of my staff at (978) 318-8131 if you have any questions.

Sincerely,

Robert J. DeSista
Chief, Permits & Enforcement Branch
Regulatory Division

Enclosures

Copies Furnished:

David Heislein - AMEC Foster Wheeler E&I Inc. - david.heislein@amec.com

Joseph Antonio – RIDEM OCTA - joseph.antonio@dem.ri.gov

Joseph Martella – RIDEM Hazardous Waste Site Remediation
joseph.martella@dem.ri.gov

APPENDIX E

WETLAND RESTORATION PLAN

amec
foster
wheeler

Wetland Restoration Plan
Former Gorham Manufacturing Site
333 Adelaide Ave.
Providence, RI

Three natural environments will require restoration following remediation: Mashapaug Inner Cove (sediment); fringe wetlands that form a narrow band along the shore of the Inner Cove; and perimeter wetlands that extend 50 feet upgradient of the delineated wetland edge. Figure 4 shows the conceptual plan for Site restoration.

This proposed restoration is consistent with the requirements of the Rhode Island Rules and Regulations Governing the Administration and Enforcement of the Fresh Water Wetlands Act Rule 6.00 (Exempt Activities), Section 6.08 Site Remediation. Textron will also obtain a U.S. Army Corps of Engineers General Permit - Category 2 or an Individual Permit under Section 404 of the Clean Water Act. The 404 Permit application is included within Appendix G of the Remedial Action Work Plan.

Mashapaug Inner Cove

The bottom sediments of the Inner Cove will be excavated to an average depth of one to two feet below existing grade for dewatering, stabilization and placement in the former Carriage House Area. A one foot thick layer of sand will then be placed on the Inner Cove bottom, partially restoring the grade. This restoration of the Inner Cove floor will be similar to the sediment surface material of the Outer Cove and Mashapaug Pond. Backfill material within the Inner Cove will consist of sand and organic mix (10% compost/organic material) and the material source area(s) will be tested to meet Remediation Regulation Residential Direct Exposure Criteria (RDEC) prior to its use onsite.

Within approximately ten feet of the shoreline of the Inner Cove, a mixture of sand and organic material will be laid down to replace the organic-rich soils in this shallow shoreline portion of the Inner Cove. This area will receive up to two-feet of clean backfill and will be graded to meet the surrounding grade of the capped fringe wetland discussed below. The Inner Cove is anticipated to naturally recover its functions of plant habitat, nutrient cycling, biological production, animal habitat, and other functions. Backfill material within 10 feet of the shoreline will consist of sand and organic mix (20% compost/organic material) and the material source area(s) will be tested to meet RDEC (Appendix C) prior to its use onsite.

Fringe Wetland

A vegetated wetland extends up to approximately 10 feet from the water's edge around the Inner Cove and Outer Cove (Figure 4). The wetland is presently vegetated with herbaceous plants, shrubs, and some trees. Dominant species include red maple, silver maple, black willow, sweet pepperbush, red osier dogwood, buttonbush, sensitive fern, poison ivy, along with other herbs and graminoids. The non-native invasive species purple loosestrife was observed in the fringe wetland along the Inner Cove; all occurrences of this plant in the restoration area will be mechanically removed prior to soil placement.

The restoration plan proposes to avoid site grading within this area and instead use the placement of a variable thickness layer of organic-rich soil over the existing ground surface. The soil will be placed to a maximum thickness of up to 12 inches over this fringe wetland. The soil thickness will be tapered to a minimum around existing large woody vegetation to maintain existing plantings where possible. Soil thickness will be determined in the field to avoid or

minimize damage to existing trees, and to match the contours of organic-rich soil to be placed off shore (below water level) within the Inner Cove shoreline. This thickness of soil is proposed so as to maintain wetland hydrology, but still serve as a physical barrier to impacted soil until vegetation is well-established. The area of the wetland is approximately 11,000 square feet. A volume of up to 8,250 cubic feet of soil is estimated to be required to cap the fringe wetland. Soil cover material within the fringe wetland will be amended with compost to achieve an organic content of 20%. The material source area will be tested to meet Remediation Regulation RDEC prior to its use onsite. This soil cover will be placed by hand to minimize damage to the existing vegetation.

A seed mixture of native New England wetland species will be spread over the emplaced soil. New England Wetland Plants "Wetmix" or a similar mixture is proposed. The seed mix consists of sedges, other graminoids, and other herbaceous species with wetland indicator status from obligate to facultative. The seed mix will provide a native community of wetland herbaceous plants to form the ground cover in this fringe wetland. The range in wetland indicator species in the seed mix will promote local establishment of species best suited to the varied hydrology and microtopography expected to result after soil placement. The New England Wetmix recommended application rate is 1 pound per 2,500 square feet over the 11,000 square feet of wetlands. The seed will be placed by hand to ensure thorough and even coverage in this relatively narrow wetland area.

Woody vegetation remaining in place in the fringe wetland will be amended by planting shrub species. A select list of species will be planted with emphasis on locations where existing vegetation is sparse or has been unavoidably damaged or removed by the soil placement process. Native shrub species were selected for their wildlife habitat value, and their ability to grow readily in this disturbed area, in order to prevent erosion and rapidly establish a dense community that will resist incursion by non-native invasive species. Importantly, greenbrier, swamp rose, and blackberry/rubus species have been specified because of their dense spines and propensity to form shrub thickets, which will serve as a barrier to human access to this area. The following species are proposed (if available to the trade in restoration grade):

- greenbrier (Smilax rotundifolia)
- swamp rose (Rosa palustris) – obligate wetland species
- blackberry (Rubus spp.)

Plants will be installed only within approximately four feet of the water's edge, with an average spacing of four feet on center, placed in clusters. This dense planting is required to aid in resisting incursion by invasive species and create thickets to prevent access to the water's edge by trespassers.

Perimeter Wetland

The remediation of the perimeter wetland within Parcel C-1 Phase III Area consists of variably steep forested uplands with mature trees, a thin mixed herbaceous and woody understory, and patches of woody invasive species. The perimeter wetland plant community presently includes oak species (white, red, black), gray birch, black birch, black cherry, mountain laurel, low-bush blueberry, huckleberry, ailanthus, oriental bittersweet, Japanese knotweed, and honeysuckle. The crowns of many of the mature trees in the perimeter wetland have been damaged, apparently by an ice storm within the last several years. These damaged trees are now more susceptible to other injury, and are expected to have significantly shortened expected life spans.

The remedial action proposed for the perimeter wetland includes site grading for slope stabilization (maximum 3:1 slope) where needed, placement of a permeable fabric warning

barrier, and placement of a one-foot thick soil cover (six inches cover soil and six inches topsoil) to serve as a physical barrier to underlying impacted soils. Trees and shrubs will be saved where possible. To facilitate soil placement (as a remedy) damaged trees will be removed prior to Site grading. In addition, some other trees and shrubs may require removal to allow equipment access and soil cover placement. The eradication or control of invasive species is proposed as one aspect of the perimeter wetland restoration. All invasive plants will be cut and treated with an herbicide by stump application prior to placement of the soil cover.

A seed mixture of native New England herbaceous species will be spread over the emplaced soil in order to stabilize the soil cap, promote native species and exclude invasive species in the understory, and rapidly restore the vegetated community that will be impacted by the cap. An area of 34,500 square feet will require seeding. To aid in stabilizing the emplaced soil, a hydromulch with tackifier will be applied with the seed mix. The seed mix New England Wetland Plants / "New England Erosion Control/Restoration Mix for Dry Sites" or a similar mixture is proposed. This restoration seed mix contains native and naturalized grasses to ensure that dry or recently disturbed sites will be quickly re-vegetated and the soil surface stabilized. The seed application rate is one pound per 1,250 square feet.

Trees and woody shrubs remaining in the perimeter wetland will be amended by planting with native species. A select list of species will be planted with emphasis on places where existing vegetation is sparse or has been unavoidably damaged or removed by the site grading and soil placement process. Native species were selected for wildlife habitat value, ability to thrive in a disturbed area, in order to prevent erosion and rapidly establish a dense community that will resist incursion by non-native invasive species. Importantly, greenbrier and blackberry/rubus species are included because of their dense spines and propensity to form shrub thickets, which will serve as a barrier to human access. The following species are proposed:

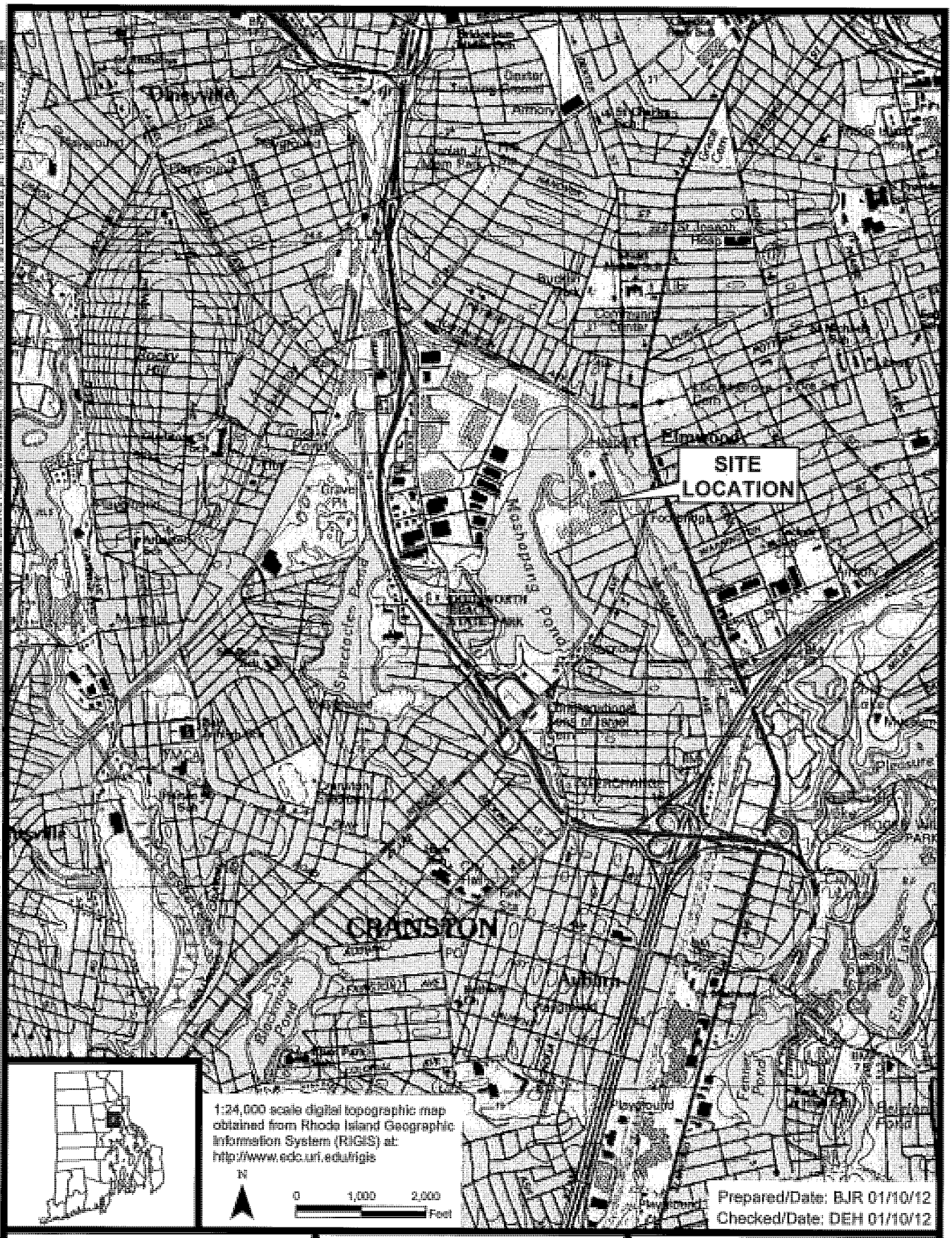
- greenbrier (Smilax rotundifolia)
- blackberry (Rubus spp.)
- highbush blueberry (Vaccinium corymbosum) – thick-growth with high wildlife value
- red osier dogwood (Cornus sericea)
- sweet pepperbush (Clethra alnifolia)
- black willow (Salix nigra)
- red maple (Acer rubrum)

Plants will be installed randomly in clusters, with an average spacing of eight feet on center.

Monitoring and Reporting

Monitoring of the restored fringe wetland and perimeter wetland areas will be conducted over a one-year growth period to provide early indication of problems and corrective actions. Observations will be made at least two times during the growing season (late spring, late summer). The restored areas will be monitored for performance standards to include the minimum 80 % vegetation coverage in the fringe wetland and perimeter wetland; successful establishment of species with a wetland indicator status of facultative, facultative-wetland, or obligate within the fringe wetland; and absence of invasive species. Monitoring reports will be prepared bi-annually and will be submitted to RIDEM and the City of Providence.

As requested by RIDEM, a no cut zone of vegetation will be implemented 60 feet (10 feet fringe and 50 feet perimeter wetlands) from the water's edge within the Phase I and Phase III areas of Parcel C-1 (Figure 4). This no-cut zone will allow the wetland plants and grasses to naturally restore the habitat for the Site. This no-cut zone requirement has been included within the Environmental Land Use Restrictions for Parcel C and C-1 (Appendix E).

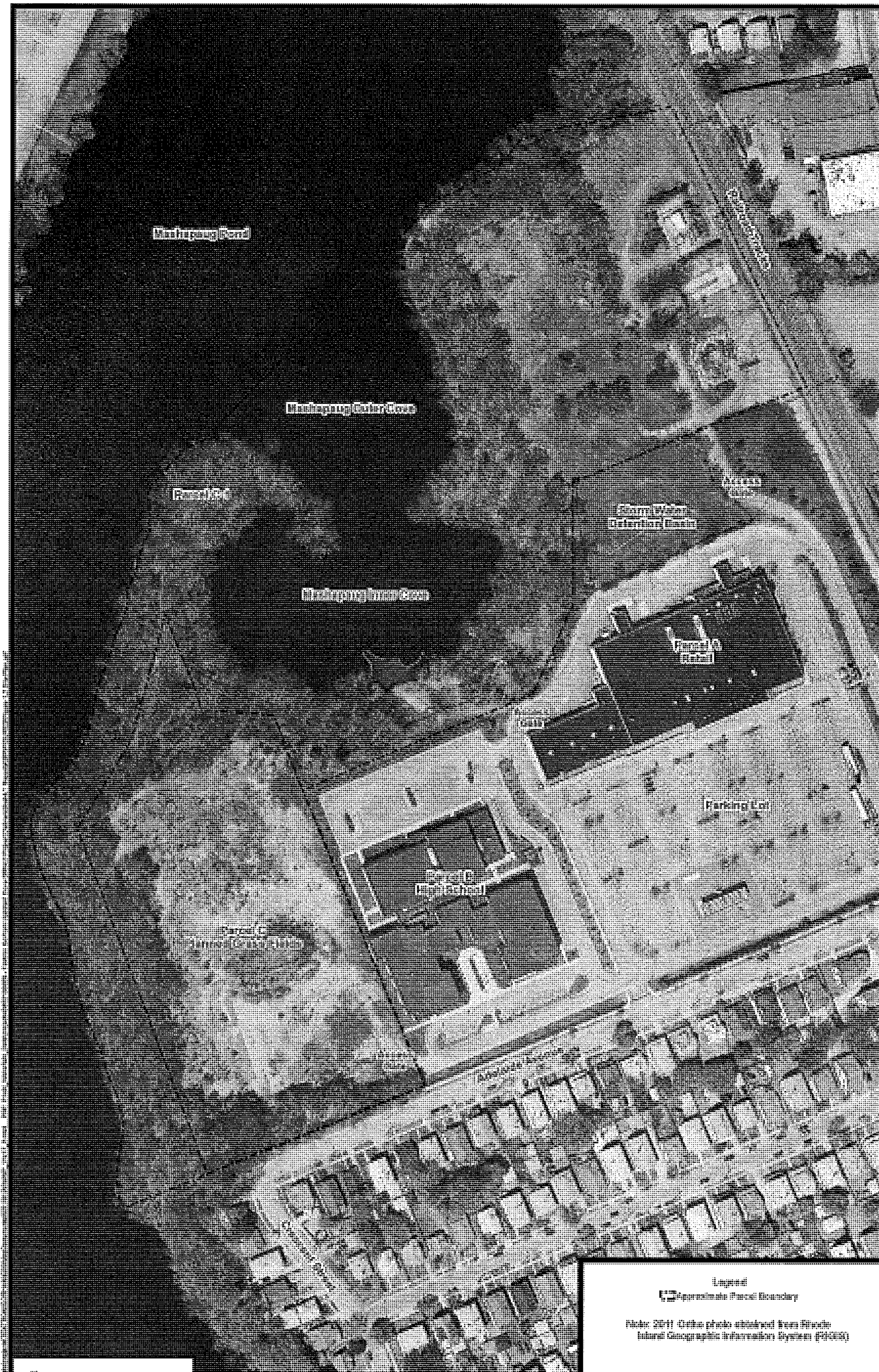


333 Adelaide Avenue
Providence, RI

amec

Site Location Map

Project 3650-11-0222 Figure 1.1



Legend
Approximate Parcel Boundary

Note: 2011 Ortho photo obtained from Rhode Island Geographic Information System (RIGIS)

Prepared/Date: BJR 10/17/13
Checked/Date: ARM 10/17/13

Former Gorham Manufacturing Site
333 Adelaide Avenue
Providence, RI

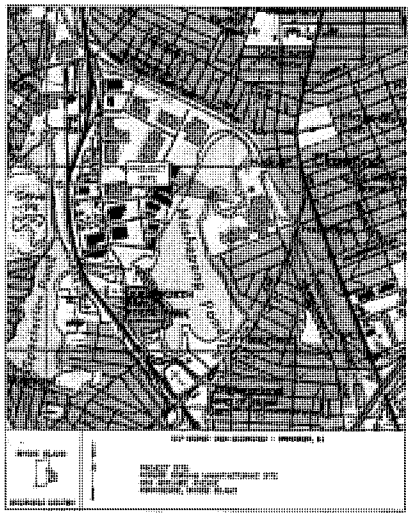
amec

Site Plan

Project 3650-11-0222

Figure 1.2

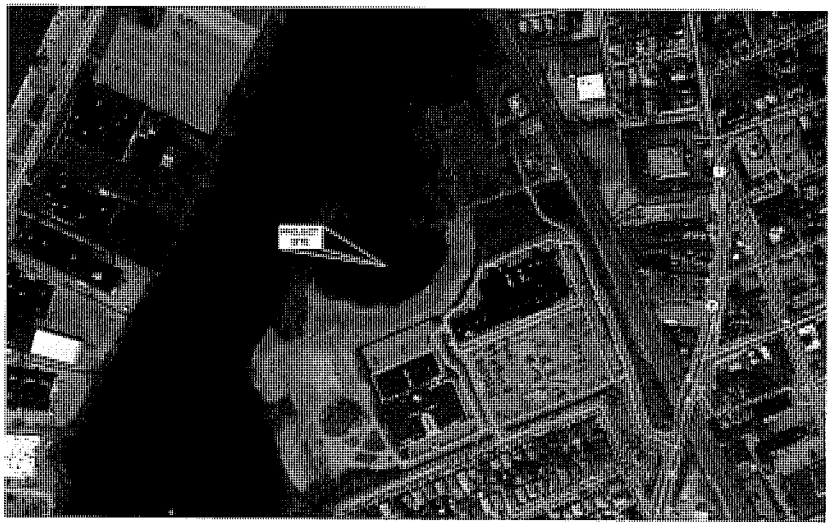
TEXTRON, INC.
PHASE II, III, AND PARCEL C CAP
FORMER GORHAM MANUFACTURING SITE
PROVIDENCE, RHODE ISLAND
MAY, 2015



LOCUS MAP

0 500 1000 2000

SCALE IN FEET



MAP SOURCE: GOOGLE EARTH PRO

KEY

0 100 200 400

SCALE IN FEET

DRAWING INDEX

SHEET NUMBER	DRAWING TITLE	DISCIPLINE NUMBER
	COVER SHEET	
1	GENERAL NOTES, ABBREVIATIONS, AND LEGEND	G-001
2	EXISTING CONDITIONS SITE PLAN	C-001
3	DEMOLITION, EROSION AND SEDIMENTATION CONTROL PLAN, SHEET 1 OF 3	C-002
4	DEMOLITION, EROSION AND SEDIMENTATION CONTROL PLAN, SHEET 2 OF 3	C-003
5	DEMOLITION, EROSION AND SEDIMENTATION CONTROL PLAN, SHEET 3 OF 3	C-004
6	TEMPORARY DEWATERING, EXCAVATION AND MATERIAL STAGING PLAN	C-101
7	PROPOSED SITE PLAN, SHEET 1 OF 3	C-102
8	PROPOSED SITE PLAN, SHEET 2 OF 3	C-103
9	PROPOSED SITE PLAN, SHEET 3 OF 3	C-104
10	PLAN AND PROFILE A-A'	C-301
11	PLAN AND PROFILE B-B'	C-302
12	DETAILS, SHEET 1 OF 3	C-501
13	DETAILS, SHEET 2 OF 3	C-502
14	DETAILS, SHEET 3 OF 3	C-503

PREPARED FOR:

TEXTRON

PREPARED BY:

amec foster wheeler

ISSUED FOR BID

GENERAL NOTES:

1. PLANS HAVE BEEN COMPILED FROM ON-SITE INVESTIGATIONS, GIS, LIDAR, AND SURVEY. SEE PLAN REFERENCES FOR FURTHER INFORMATION.
2. ELEVATIONS BASED UPON THE CONTROL DATUM SHOWN ON V-101.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REVIEW OF ALL DRAWINGS AND SPECIFICATIONS PRIOR TO CONSTRUCTION. ANY DISCREPANCY SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER, INCLUDING DISCREPANCIES TO ANY CODE/REGULATORY REQUIREMENTS. IF ANY DISCREPANCIES ARE ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE ENGINEER BEFORE PROCEEDING WITH THE WORK.
4. ALL ACTIVITIES SHALL BE CONDUCTED IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS. THE CONTRACTOR SHALL GIVE ALL NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY, MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS, AND LOCAL, STATE, AND FEDERAL JURISDICTIONAL CODES BEARING ON THE PERFORMANCE OF THE WORK. THE WORK PERFORMED ON THE PROJECT AND THE MATERIALS INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. THE WORK SHALL ALSO CONFORM TO ALL APPLICABLE TEXTRON REQUIREMENTS.
5. THE CONTRACTOR SHALL OBTAIN AUTHORIZATION FROM OWNER AND/OR ENGINEER TO PROCEED WITH CONSTRUCTION PRIOR TO STARTING WORK ON ANY ITEM NOT CLEARLY DEFINED BY THE CONTRACT DOCUMENTS.
6. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS WHICH MAY BE REQUIRED BY THE OWNER, ENGINEER, THE STATE, COUNTY OR LOCAL GOVERNMENT AUTHORITY.
8. THE CONTRACTOR SHALL KEEP THE GENERAL WORK AREA CLEAN AND HAZARD FREE DURING CONSTRUCTION AND DISPOSE OF ALL DIRT, DEBRIS, RUBBISH, AND EQUIPMENT AS SPECIFIED. CONTRACTOR SHALL CLEAN AND SUPPLY A ROLL-OFF CONTAINER OR DUMPSTER TO BE EMPTIED AS NEEDED. CLEANING SHALL BE IN COMPLIANCE WITH ALL FEDERAL, STATE, AND LOCAL REGULATIONS. PREMISES SHALL BE LEFT IN CLEAN CONDITION AND FREE FROM TRASH, DEBRIS, DUST, OR OTHER HAZARDS OF ANY NATURE AT PROJECT COMPLETION.
9. DISPOSAL OF ALL MATERIALS SHALL BE COMPLETED IN ACCORDANCE WITH APPLICABLE LOCAL, STATE, AND FEDERAL REGULATIONS AND SHALL BE THE CONTRACTOR'S RESPONSIBILITY. CONTRACTOR SHALL STORE ON SITE AND LOAD IN CLIENT PROVIDED CONTAINERS ALL STUMPS AND HAZARDOUS MATERIALS, FOR DISPOSAL BY CLIENT.
10. THE CONTRACTOR SHALL COMPLY WITH ALL OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) REQUIREMENTS AS THEY APPLY TO THIS PROJECT. ANY PERSONNEL THAT HAVE THE POTENTIAL TO BE EXPOSED TO HAZARDOUS OR POTENTIALLY HAZARDOUS MATERIALS, SHALL BE TRAINED AND PERFORM ALL WORK IN COMPLIANCE WITH 29 CFR 1910.120, HAZARDOUS WASTE OPERATIONS AND EMERGENCY RESPONSE (HAZWOPER).
11. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS, AND EXISTING FEATURES PRIOR TO THE START OF ANY WORK. ANY DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER. CONTRACTOR SHALL VERIFY ACTUAL FIELD CONDITIONS PRIOR TO CONSTRUCTION.
12. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL UTILITIES AND SERVICES THROUGHOUT THE DURATION OF THE PROJECT. THE CONTRACTOR SHALL PROTECT ALL UTILITY LINES THROUGHOUT ALL PHASES OF WORK.
13. UTILITY LOCATIONS SHOWN ARE APPROXIMATE AND MAY NOT INCLUDE ALL UTILITIES WITHIN THE PROJECT SITE.
14. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL UNDERGROUND PIPING AND STRUCTURES PRIOR TO ANY EXCAVATION ACTIVITIES BY CONTACTING THE CITY OF PROVIDENCE FOR WATER LOCATION AND RHODE ISLAND DIG-SAFE (1-800-DIG-SAFE) (72) HOURS BEFORE STARTING CONSTRUCTION ACTIVITIES FOR FIELD MARKING UNDERGROUND UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING UNDERGROUND UTILITIES THAT MAY NOT BE MARKED BY THE UTILITY COMPANIES. SUBSURFACE CONDITIONS ARE NOT GUARANTEED. THE CONTRACTOR SHALL REPAIR CONTRACTOR-CAUSED DAMAGE ACCORDING TO LOCAL STANDARDS AT CONTRACTOR'S EXPENSE.
15. UNLESS OTHERWISE NOTED, ALL EXISTING FEATURES DESIGNATED ON THE PLANS ARE TO REMAIN, INCLUDING, BUT NOT LIMITED TO, TREES, SIGNS, FENCING/GATES, AND SIGN POSTS. FEATURES SHALL BE VERIFIED, LOCATED AND PROTECTED DURING ALL PHASES OF CONSTRUCTION.
16. THE SITE IS ADJACENT TO AN ACTIVE NEIGHBORHOOD, HIGH SCHOOL, AND RETAIL CENTER WHICH WILL BE OPERATIONAL DURING CONSTRUCTION. ALL CONSTRUCTION ACTIVITIES MUST BE COMPLETED WITH RESPECT TO THE ONGOING ACTIVITIES OF THE SURROUNDING AREAS. ACCESS ROADWAYS SHALL REMAIN OPEN AND FREE OF DEBRIS AT ALL TIMES.
17. PORTIONS OF THE WORK MAY REQUIRE ACCESS AND USE OF THE NARRAGANSETT BAY SEWER COMMISSION (NBC) EASEMENT. THE NBC IS AWARE OF THE PROJECT. NO SOIL DISTURBANCE, MATERIAL STAGING OR ALTERATION OF THE LAND WITHIN THE EASEMENT WILL BE ALLOWED.
18. PORTIONS OF THE WORK ARE WITHIN THE VICINITY OF THE NATIONAL RAILROAD PASSENGER CORPORATION (AMTRAK) EASEMENT OF AN ELECTRIC BOOSTER STATION AND HIGH SPEED RAILROAD. AMTRAK IS AWARE OF THE PROJECT. NO ACCESS TO AMTRAK PROPERTY IS ALLOWED. NO SOIL DISTURBANCE, MATERIAL STAGING OR ALTERATION OF THE LAND WITHIN THE EASEMENT WILL BE ALLOWED.
19. ALL ACTIVITIES SHALL BE CONDUCTED IN ACCORDANCE WITH THE RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT SOIL EROSION AND SEDIMENT CONTROL PLAN, RHODE ISLAND STORMWATER DESIGN AND INSTALLATION STANDARDS MANUAL, THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP), AND THE RHODE ISLAND POLLUTION DISCHARGE ELIMINATION SYSTEM (RIPDES) CONSTRUCTION GENERAL PERMIT.
20. CONTRACTOR SHALL LIMIT ALL CONSTRUCTION ACTIVITIES TO THE LIMITS OF DISTURBANCE.
21. PLACING OF TOPSOIL AND HYDROSEEDING SHALL NOT OCCUR UNTIL AUTHORIZED BY THE ENGINEER.
22. DISTURBED AREAS SHALL BE PLANTED AND SEEDED AS SPECIFIED IN THE CONTRACT DOCUMENTS.
23. THE CONTRACTOR SHALL REPORT TO THE OWNER OR THE ENGINEER ALL SPILLS AND LEAKS OF OIL OR OTHER HAZARDOUS SUBSTANCES (E.G., OIL, ANTIFREEZE, CHEMICALS, ETC.) OCCURRING DURING THE PERFORMANCE OF THIS CONTRACT IMMEDIATELY UPON DISCOVERY, REGARDLESS OF THE QUANTITY.
24. THE CONTRACTOR SHALL PREVENT DEBRIS FROM ENTERING ALL SWALES, INLETS, AND BASINS, PROVIDE AND MAINTAIN INLET PROTECTION FOR THE DURATION OF THE WORK AND CLEAN ALL STRUCTURES AT THE COMPLETION OF THE WORK.
25. CONTRACTOR SHALL PROVIDE A FULL SET OF AS-BUILT DRAWINGS TO THE OWNER AT THE COMPLETION OF THE PROJECT IN CONFORMANCE WITH THE CONTRACT DOCUMENTS.
26. ELEVATED CONCENTRATIONS OF PAHs, METALS, AND DIOXINS EXIST IN SURFACE SOILS WITHIN THE PROPOSED CONSTRUCTION LAYDOWN/STAGING/DECONTAMINATION AREAS. CONTRACTOR SHALL PERFORM DECONTAMINATION ACTIVITIES IN ACCORDANCE WITH THE SPECIFICATIONS. ALL MATERIAL STAGED WITHIN THESE AREAS MUST BE SEGREGATED SUCH THAT THERE IS NO CROSS CONTAMINATION.
27. CONTRACTOR TO PROVIDE DEWATERING AND TEMPORARY DAM DESIGN TO THE ENGINEER FOR APPROVAL FOR THE REMEDIATION ON THE INNER COVE.
28. CONTRACTOR SHALL REMOVE ORGANIC SEDIMENT FROM THE INNER COVE DOWN TO THE SANDY/GRAVEL MATERIAL TO A MAXIMUM DEPTH OF 2 FEET.
29. CONTRACTOR TO DISABLE AND SECURE ALL EQUIPMENT PRIOR TO DAILY SHUTDOWN. CLIENT IS NOT RESPONSIBLE FOR VANDALISM, OR LOSS DUE TO TRESPASSING.
30. ENGINEER TO PROVIDE CADD FILES AND ASCII (XYZ) FILES OF THE EXISTING BATHYMETRY, POST-DREDGE SEDIMENT ELEVATIONS, AND RESTORED CAP ELEVATIONS. THE CONTRACTOR SHALL PROVIDE ESTIMATES FOR REMOVAL AND PLACEMENT VOLUMES, AND ACCOUNT FOR BULKING OR DENSIFICATION OF MATERIALS DUE TO HANDLING AND PLACEMENT.
31. JOBSITE OR NEIGHBORHOOD COMPLAINTS OF EXCESSIVE NOISE, VIBRATION, OR ODORS MUST BE COMMUNICATED WITH ENGINEER AS SOON AS POSSIBLE UPON RECEIPT OF FIRST COMPLAINT EACH PROJECT DAY. CONTRACTOR MUST HAVE CONTINGENCY PLANS FOR EXCESSIVE NOISE AND ODORS AS SUPPLIED IN THE WORK PLAN.
32. CONTRACTOR MAY USE PUBLIC BOAT LAUNCH ACCESS RAMP LOCATED ALONG WEST SHORE OF MASHAPAUG POND NEAR PARK LANE AND ACCESS ROAD FOR MOBILIZATION OF EQUIPMENT TO THE SITE.

GRADING, DRAINAGE, AND EROSION CONTROL NOTES:

1. NO VEGETATION SHALL BE DISTURBED EXCEPT AS DESCRIBED IN THE CONTRACT DOCUMENTS OR AS NECESSARY FOR GRADING PURPOSES AND ONLY AS APPROVED BY THE ENGINEER. NO HEAVY EQUIPMENT SHALL BE OPERATED OR STORED AND NO MATERIALS SHALL BE HANDLED OR STORED WITHIN THE DRIP LINES OF UNDISTURBED TREES OR WITHIN 50 FEET FROM THE LIMIT OF WETLANDS AND/OR MASHAPAUG POND.
2. PERMANENT CONTROLS OR SURFACE STABILIZATION SHALL COMMENCE AS SOON AS PRACTICABLE BUT IN NO CASE MORE THAN 14 DAYS AFTER COMPLETION OF FILLING AND GRADING ACTIVITIES. AREAS WHICH ARE NOT TO FINAL GRADE BUT WILL NOT BE REWORKED FOR 14 CALENDAR DAYS SHALL BE TEMPORARILY SEEDED AND MULCHED AS SOON AS IT IS KNOWN WITH REASONABLE CERTAINTY THAT WORK WILL BE STOPPED FOR AT LEAST 14 CALENDAR DAYS.
3. CONSTRUCT TEMPORARY EROSION CONTROLS AS SHOWN ON THE DRAWINGS PRIOR TO STARTING WORK. THE SMALLEST PRACTICAL AREA OF LAND SHOULD BE EXPOSED AT ANY ONE TIME DURING CONSTRUCTION. WHEN LAND IS EXPOSED DURING CONSTRUCTION, THE EXPOSURE SHOULD BE KEPT TO THE SHORTEST PRACTICAL PERIOD OF TIME. LAND SHOULD NOT BE LEFT EXPOSED DURING THE WINTER MONTHS.
4. ALL DRAINAGE STRUCTURES (INCLUDING SWALES) IMPACTED BY THE CONTRACTOR'S ACTIVITIES SHALL BE INSPECTED WEEKLY AND DAILY DURING STORM EVENTS. INLET PROTECTION DEVICES SHOULD BE CLEANED OR REMOVED AND REPLACED BEFORE SIX INCHES OF SEDIMENT CAN ACCUMULATE.
5. SILT FENCE AND AUGMENTED SILT FENCE SHALL BE INSTALLED AND MAINTAINED WHERE SHOWN. ADDITIONAL PERIMETER CONTROLS SHALL BE ADDED AS REQUIRED BY THE ENGINEER PRIOR TO ANY ON SITE DISTURBANCE OF EXISTING SURFACE MATERIAL. SILT FENCE SHALL BE MAINTAINED DURING AND AFTER CONSTRUCTION TO REMOVE SEDIMENT FROM RUNOFF WATER AND FROM LAND UNDERGOING CONSTRUCTION. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN ITS DEPTH REACHES 50% OF THE HEIGHT OF THE FENCE. REPLACE DAMAGED SILT BARRIERS AS REQUIRED BY THE ENGINEER AND IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. WHERE POSSIBLE, NATURAL DRAINAGE WAYS SHOULD BE UTILIZED AND LEFT OPEN TO REMOVE CLEAN EXCESS SURFACE WATER.
6. ALL LOCATIONS OF TEMPORARY EROSION CONTROL DEVICES SHALL BE SUBJECT TO ADJUSTMENT AS DIRECTED BY THE ENGINEER, AND SHALL BE REPLACED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
7. TEMPORARY EROSION AND SEDIMENT CONTROL BMPS (INCLUDING ALL CONSTRUCTION ENTRANCES) SHALL BE REMOVED WITHIN 30 CALENDAR DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED OR AFTER THE TEMPORARY BMPS ARE NO LONGER NEEDED AS DETERMINED BY THE ENGINEER. TRAPPED SEDIMENT SHALL BE REMOVED OR STABILIZED ON SITE. DISTURBED SOIL RESULTING FROM REMOVAL OF BMPS OR VEGETATION SHALL BE PERMANENTLY STABILIZED (80% VEGETATION DENSITY).
8. CONTRACTOR SHALL VERIFY EXISTING ELEVATIONS AND INVERTS PRIOR TO BEGINNING WORK. ALL SLOPES SHALL HAVE A 3:1 MAXIMUM SLOPE AND A 20:1 MINIMUM SLOPE AS SHOWN ON THE DRAWINGS OR AS DIRECTED BY THE ENGINEER.
9. EXISTING CONTOUR LINES AND SPOT ELEVATIONS ARE THE RESULT OF FIELD SURVEY, GIS AND LIDAR DATA. SHOULD THE CONTRACTOR HAVE ANY QUESTIONS OF THEIR INTENT OR ANY PROBLEMS WITH CONTINUITY OF GRADES, THE ENGINEER SHALL BE CONTACTED PRIOR TO BEGINNING WORK.
10. STABILIZE ALL STOCKPILES AND ALL OTHER AREAS OF THE SITE THAT SHALL REMAIN UNDISTURBED FOR 14 CALENDAR DAYS OR MORE. TO ENSURE NO TARPS BECOME WIND BORNE AND ENTER AMTRAK AREAS (TRACKS OR SUBSTATION) ALL TARPS USED ON SITE MUST BE SECURED PROPERLY.
11. CONTRACTOR SHALL NOT LEAVE ANY OPEN HOLES WITH A DROP GREATER THAN 12" OVERNIGHT.
12. STORMWATER DRAINAGE SHALL BE CONTROLLED ONSITE, SUCH THAT THERE IS NO CHANNELIZED FLOW OF RUNOFF TOWARDS THE POND.
13. STABILIZED CONSTRUCTION EXITS SHALL BE INSTALLED AS SHOWN ON THE DRAWINGS AND WHEREVER CONSTRUCTION TRAFFIC ENTERS AND LEAVES THE SITE. EXISTING CONSTRUCTION EXITS SHALL BE INSPECTED AND MAINTAINED TO REFLECT REQUIREMENTS AS STATED IN THE CONTRACT DOCUMENTS.
14. THE EROSION CONTROL DEVICES SHOWN ON THE DRAWINGS AND AS SPECIFIED IN THE CONTRACT DOCUMENTS REPRESENT THE MINIMUM REQUIRED FOR EROSION CONTROL. THE CONTRACTOR SHALL ADD TO THESE DEVICES ANY AND ALL MEASURES AS REQUIRED BY THE ENGINEER TO EFFECTIVELY PREVENT EROSION AND MIGRATION OF SEDIMENT FROM THE WORK AREA.
15. ALL SURFICIAL FILL MATERIALS AND COVE SEDIMENTS TO BE CONSOLIDATED SHALL BE MANAGED AND STOCKPILED ONLY WITHIN THE PROPOSED LIMITS OF CAPPING. NO IMPACTED MATERIALS SHALL BE STOCKPILED OUTSIDE THE PROPOSED LIMITS OF THE CAP.
16. ALL INTERNAL HAUL TRUCKS CONSOLIDATING IMPACTED MATERIAL SHALL BE DECONTAMINATED PRIOR TO ACCESSING AREAS OUTSIDE OF THE LIMITS OF DISTURBANCE.
17. PRIVACY PANELS SHALL BE INSTALLED AND MAINTAINED ALONG THE PERIMETER CHAIN LINK FENCE AS SHOWN IN THE CONTRACT DOCUMENTS TO MINIMIZE DUST AND DISTURBANCE TO THE SURROUNDING COMMUNITY.
18. EROSION CONTROL MATTING SHALL BE INSTALLED ON ALL SLOPES 3:1 OR GREATER AND BELOW ALL PROPOSED STORMWATER MANAGEMENT DISCHARGES.

INNER COVE:

1. MATERIALS USED FOR ACCESS ROAD AND SEDIMENT COVER MUST BE IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS. ANY SEDIMENT OR SOIL REMOVAL REQUIRED TO CONSTRUCT OR MAINTAIN THE ACCESS ROAD SHALL BE MANAGED IN THE SAME MANNER AS INNER COVE SEDIMENT OR PHASE III SOILS.
2. TEMPORARY ACCESS ROAD SHALL BE REMOVED AFTER SEDIMENT REMOVAL AND INNER COVE CAP INSTALLATION IS COMPLETE. ALL SEDIMENT, WETLAND, AND SOIL AREAS IMPACTED BY THE ACCESS ROAD SHALL BE RESTORED ACCORDING TO SPECIFICATIONS FOR THE AREAS. CONTRACTOR MAY REUSE MATERIALS FROM ACCESS ROAD WITH ENGINEER'S APPROVAL AND IF MATERIALS MEET SPECIFICATIONS FOR THE SPECIFIC USE.
3. DEBRIS AND TRASH ENCOUNTERED IN INNER COVE SHALL BE REMOVED AND MANAGED ACCORDING TO THE WASTE MANAGEMENT SPECIFICATION. DEBRIS SHOULD BE CONSIDERED AS NON-SEDIMENT MATERIALS SUCH AS BROKEN CONCRETE, TIMBERS, AND TRASH. VEGETATION, ROOTS, AND TREE LIMBS MAY BE HANDLED SEPARATELY.
4. INNER COVE SEDIMENTS INCLUDE PARTICULATES FROM FORMER METALS MANUFACTURING, WITH PARTICLE DIAMETERS LESS THAN 3 INCHES. IF ENCOUNTERED, METALLIC OR STONE PARTICLES LARGER THAN 3 INCHES DIAMETER MAY BE CONSIDERED AS DEBRIS.
5. USE OF A TEMPORARY DAM AND SILT CURTAIN IS REQUIRED TO GREATLY REDUCE LOSSES OF SUSPENDED SOLIDS FROM THE INNER COVE DURING OR AFTER SEDIMENT REMOVAL TO THE OUTER COVE. ALTERNATIVE METHODS MUST DEMONSTRATE A SIMILAR DEGREE OF ACCESS TO THE INNER COVE AND TURBIDITY CONTROL IN THE OUTER COVE.
6. DEWATERING SHALL BE PERFORMED IN A MANNER THAT DOES NOT SIGNIFICANTLY DELAY REMOVAL OR PLACEMENT IN THE CONSOLIDATION CELL. HOLDING TIME OF SEDIMENTS IN THE DEWATERING AREA SHALL NOT EXCEED 14 DAYS. ANY USAGE OF ADMIXTURES OR COAGULANTS/FLOCCULANTS MUST MEET LOCAL, STATE, AND FEDERAL REQUIREMENTS.
7. CONTRACTOR SHALL MONITOR PROGRESS OF SEDIMENT REMOVAL, DEWATERING, AND PLACEMENT IN CONSOLIDATION CELL. CONTRACTOR SHALL REPORT CUMULATIVE VOLUMES REMOVED AND PLACED IN EACH UNIT AT A MINIMUM FREQUENCY OF ONCE PER WEEK AFTER SEDIMENT REMOVAL, OVER THE PERIOD IN WHICH REMOVAL HAS BEGUN, AND PRIOR TO THE PLACEMENT OF THE FINAL LOAD TO THE CONSOLIDATION CELL.
8. WATER MANAGEMENT IN THE DEWATERING AREA ALLOWS FOR INFILTRATION, BUT NOT RUNOFF OF WATER FROM SEDIMENT DEWATERING. EROSION CONTROL MEASURES MUST BE USED TO PREVENT EROSION OF PLACED SEDIMENTS TO AREAS OUTSIDE OF THE DEWATERING AREA. IF THE RATE OF INFILTRATION IS NOT ADEQUATE TO MEET THE WATER LOADINGS FROM DEWATERING, THE RATE OF DREDGING SHALL BE DECREASED UNTIL THE RATE OF INFILTRATION IS ACCEPTABLE. FRAC TANK STORAGE MAY ALSO BE USED TO BUFFER FLOW RATES AS NECESSARY DURING PERIODS OF HEAVIER DEWATERING OR RAINFALL EVENTS.
9. SEDIMENT REMOVAL IS EXPECTED TO BE PERFORMED WITH MECHANICAL DREDGING. ALTERNATIVE METHODS FOR REMOVAL MUST MEET APPROVAL OF ENGINEER. ACCESS ROAD MAY PROVIDE ONLY PARTIAL ACCESS TO INNER COVE AND CONTRACTOR IS RESPONSIBLE FOR DEVELOPING MEANS AND METHODS TO COMPLETE REMOVAL AND GAIN ACCESS TO ALL AREAS OF DREDGING. ALTHOUGH THE POND WILL BE LOWERED OVER A SIGNIFICANT PORTION OF THE INNER COVE AREA, SOME SEDIMENT AREAS ARE EXPECTED TO BE SOFT AND MAY BE UNABLE TO SUPPORT EXCAVATORS OR GRADERS. USE OF TIMBER MATS OR SPUDS ARE ACCEPTABLE, PROVIDED MATERIALS AND EQUIPMENT USED ARE CLEAN AND ARE REMOVED PRIOR TO COMPLETION OF INNER COVE PHASE OF WORK.

SUGGESTED CONSTRUCTION SEQUENCE:

1. ESTABLISH VERTICAL AND HORIZONTAL CONTROL.
2. INSTALL EROSION AND SEDIMENTATION CONTROL DEVISES AS SHOWN AND AS REQUIRED PRIOR TO SITE DISTURBANCE.
3. CLEAR AND GRUB TO THE LIMITS SHOWN ON THE PLANS AS DEPICTED BY THE 'LIMIT OF DISTURBANCE' LINE.

PARCEL C

1. REGRADE EXISTING SOILS TO PREPARE THE SUBGRADE ELEVATIONS AS SHOWN.
2. INSTALL CAPPING MATERIALS FOR COMPLETION OF THE PARCEL C UPLAND SOIL CAP.
3. SEED AND STABILIZE THE PARCEL C CAP.

INNER COVE

1. PREPARE PARCEL C-1 UPLAND AREA FOR DEWATERING TREATMENT SYSTEM AND SEDIMENT PROCESSING. IMPLEMENT WILD LIFE MANAGEMENT PLAN THEN INSTALL TURBIDITY CURTAIN.
2. INSTALL SHORING AND DEWATERING SYSTEM (PER CONTRACTOR SUBMITTED AND ENGINEER APPROVED METHOD).
3. INSTALL TEMPORARY GRAVEL ACCESS ROAD TO INNER COVE.
4. COMPLETE INNER COVE REMOVAL OF IMPACTED SEDIMENTS.
5. COMPLETE PROCESSING/DEWATERING/STABILIZATION OF DREDGED SEDIMENT.
6. CONSOLIDATE PROCESSED SEDIMENT WITHIN PROPOSED LIMITS AS SHOWN.
7. INSTALL CAPPING MATERIALS FOR COMPLETION OF THE INNER COVE SEDIMENT SOIL CAP.
8. REMOVE SHORING PER APPROVED METHOD FOR INNER COVE RESTORATION.
9. INSTALL CAPPING MATERIALS FOR COMPLETION OF THE CONSOLIDATED SEDIMENT SOIL CAP.
10. SEED AND STABILIZE THE CONSOLIDATED SEDIMENT CAP.

PARCEL C-1

1. REMOVE ALL INNER COVE SEDIMENT DEWATERING AND PROCESSING MATERIALS.
2. REGRADE EXISTING SOILS TO PREPARE THE SUBGRADE ELEVATIONS.
3. INSTALL CAPPING MATERIALS FOR COMPLETION OF THE PARCEL C-1 SOIL CAP.
4. SEED AND STABILIZE THE PARCEL C-1 CAP.
5. SITE RESTORATION AND CLEAN-UP.

PLAN REFERENCES:

1. PLAN PREPARED BY THE U.S. ARMY CORPS OF ENGINEERS, ENTITLED 'SEWER SYSTEM' DATED SEPTEMBER 1943 AND REVISED OCTOBER 1943 (AS-BUILT) ORIGINAL SCALE: 1" = 100'
2. SELECTED SITE FEATURES DIGITIZED FROM DIVERSIFIED TECHNOLOGY CONSULTANTS' FIGURE 7 TITLED 'BATTERY HAMILTON AND BORING/SAMPLING LOCATIONS' DATED AUGUST 8, 1999 FROM THE 'RESEARCH AND ASSESSMENT STUDY' DATED OCTOBER 2000.
3. WETLAND DELINEATION COMPLETED BY VANASSE HANGEN BRUSTLIN, INC. (VHB) DATED MAY 2004.
4. WETLAND DELINEATION REVIEWED IN THE FIELD BY RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT, DATED AUGUST 2011.
5. TOPOGRAPHIC (1-FOOT CONTOURS) AND LOCATION SURVEY COMPLETED BY CASCO CONSULT, INC., PLAN TITLED 'TOPOGRAPHIC PLAN OF LAND' DATED MAY 24, 2007.
6. PARCEL B TOPOGRAPHY AND FIELD SURVEY COMPLETED BY EDWARD ROWSE ARCHITECTS. PLAN TITLED 'PROVIDENCE HIGH SCHOOL, GORHAM MILLS, PROVIDENCE RHODE ISLAND, SITE PLAN DATED 2007.
7. PARCEL A TOPOGRAPHY AND FIELD SURVEY COMPLETED BY VANASSE HANGEN BRUSTLIN, INC. (VHB). PLAN TITLED 'RETAIL DEVELOPMENT SITE PLAN' DATED 2001.
8. BATHYMETRIC CONTOURS OF MASHAPAUG COVE AND MASHAPAUG POND COMPLETED BY TO&B MARINE DATED DECEMBER, 2011.
9. AS-BUILT SURVEY OF PHASE I WORK COMPLETED BY E.T.&L. DATED NOVEMBER 2012.

ABBREVIATIONS:

AMTRAK	NATIONAL RAILROAD PASSENGER CORPORATION
APPROX	APPROXIMATELY
BMPs	BEST MANAGEMENT PRACTICES
CB	CATCH BASIN
℄	CENTER LINE
CONC	CONCRETE
DIA	DIAMETER
Ø	DIAMETER
E	EASTING, EAST
ELEV	ELEVATION
'	FEET
GPM	GALLONS PER MINUTE
LLDPE	LINEAR LOW DENSITY POLYETHYLENE
ID	IDENTIFICATION, INSIDE DIAMETER
"	INCHES
LF	LINEAR FEET
MAX	MAXIMUM
MH	MANHOLE
MIN	MINIMUM
MW	MONITORING WELL
N	NORTHING, NORTH
NBC	NARRAGANSETT BAY COMMISSION
NTS	NOT TO SCALE
OD	OUTSIDE DIAMETER
OZ	OUNCE
PPM	PARTS PER MILLION
PVC	POLYVINYL CHLORIDE
SB	SOIL BORING
SF	SQUARE FEET
TYP	TYPICAL

GENERAL LEGEND:

- - 35 - -	5 FT EXISTING CONTOUR
33	1 FT EXISTING CONTOUR
	EXISTING TREE LINE
24" TREE	LARGE DIAMETER TREE
	LIMIT OF WETLAND
	EDGE OF WATER
	50' PERIMETER WETLAND LINE
	PROPERTY LINE
	EXISTING PAVEMENT
	EXISTING LIMIT OF SURFICIAL FILL
TC	EXISTING TURBIDITY CURTAIN
D	EXISTING DRAIN LINE
	EXISTING STRUCTURE
	EXISTING MONITORING WELL
	EXISTING SURFACE WATER AND SEDIMENT SAMPLE LOCATION
	EXISTING WELLS TO BE SAMPLED (BY OTHERS)
	EXISTING WELL TO BE ABANDONED
—X—X—X—	EXISTING FENCE TO BE REMOVED
—X—X—X—	EXISTING FENCE
WF-100	WETLAND FLAG
	EXISTING SOIL CAP
	EXISTING GEOMEMBRANE CAP
17	PROPOSED 1FT CONTOUR
15	PROPOSED 5FT CONTOUR
TC	PROPOSED TURBIDITY CURTAIN
LOD	PROPOSED LIMIT OF DISTURBANCE
LOW	PROPOSED LIMIT OF WORK
—SF—SF—SF—	PROPOSED SILT FENCE
ASF	PROPOSED AUGMENTED SILT FENCE
	PROPOSED GRAVEL ACCESS
	PROPOSED EDGE OF GRAVEL
	PROPOSED MONITORING WELL
	PROPOSED TREE LINE
	PROPOSED FRINGE WETLAND CAP
	PROPOSED PERIMETER WETLAND CAP
	PROPOSED UPLAND CAP
	PROPOSED INNER COVE CAP
	PROPOSED EROSION CONTROL MATTING FOR SLOPES 3:1
B	DETAIL NUMBER
C-502	SHEET NUMBER

ISSUED FOR BID

amec foster wheeler

AMEC FOSTER WHEELER
ENVIRONMENT & INFRASTRUCTURE, INC.
271 MILL ROAD
CHELMSFORD MASSACHUSETTS 01824
TELEPHONE: (978) 692-9090
FAX: (978) 692-9033
WEB: WWW.AMECFW.COM

REVISION	DATE	ISSUE / REVISION DESCRIPTION	ISSUED BY	APPROVED
0	05/14/2015	ISSUED FOR BID	DAA	RJB
A	04/24/2015	ISSUED FOR CLIENT REVIEW	DAA	RJB

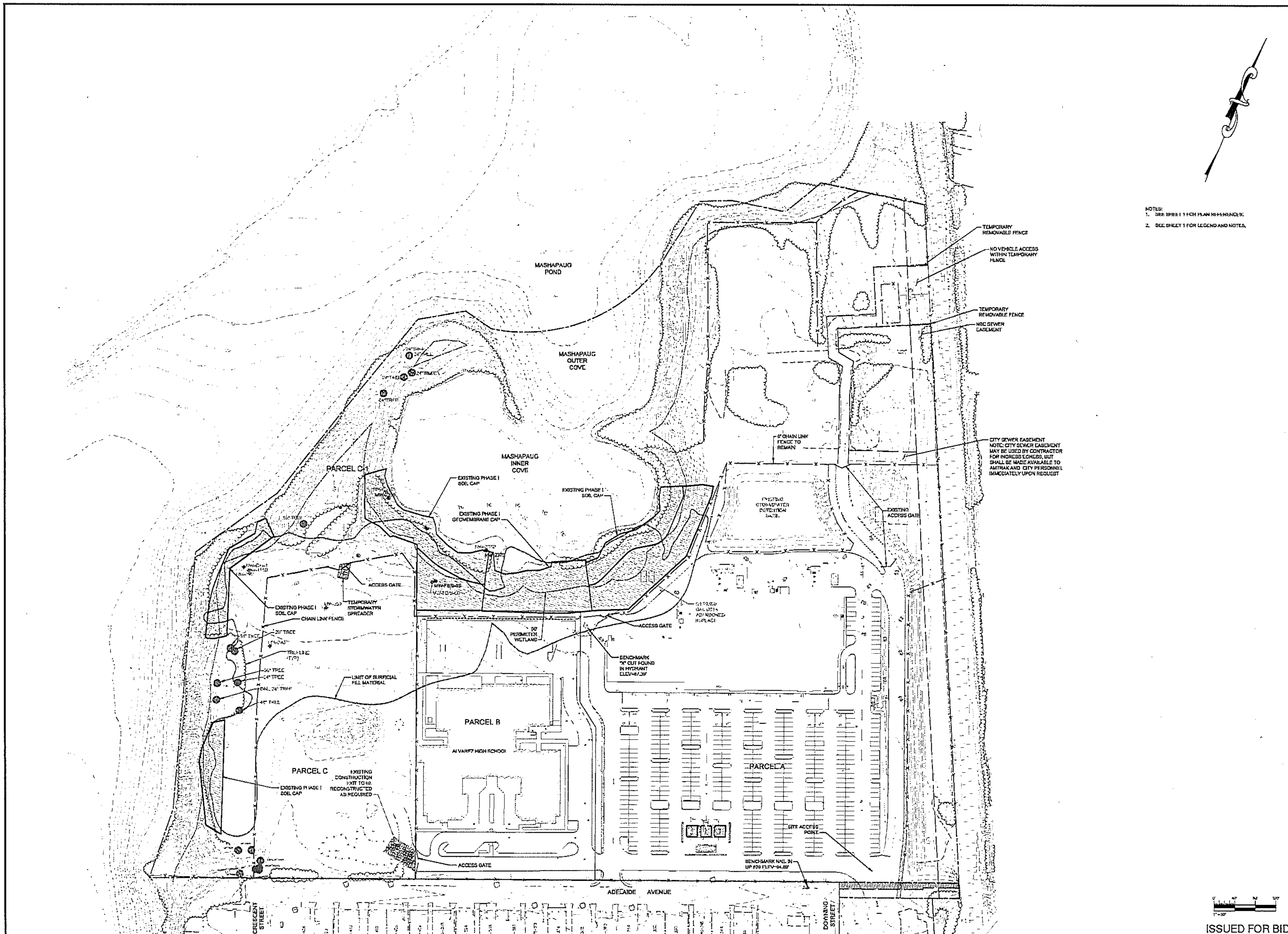
PROJECT: TEXTRON, INC.
PHASE II, III, AND PARCEL C CAP
FORMER GORHAM MANUFACTURING SITE
PROVIDENCE, RI

TITLE: GENERAL NOTES, ABBREVIATIONS, AND LEGEND

CLIENT: TEXTRON

SEAL

DESIGNED BY: DAA	DRAWN BY: DED
CHECKED BY: TD	SCALE: NONE
PROJECT NUMBER: 3652140032	
DRAWING NUMBER: G-001	
SHEET NUMBER: 1 OF 14	



NOTES:
1. SEE SHEET 1 FOR PLAN REFERENCES.
2. SEE SHEET 1 FOR LEGEND AND NOTES.

ISSUED FOR BID

amec foster wheeler
AMEC FOSTER WHEELER ENVIRONMENT & INFRASTRUCTURE, INC.
271 MILL ROAD
CHELMSFORD MASSACHUSETTS 01824
TELEPHONE: (978) 692-9090
FAX: (978) 692-6633
WEB: WWW.AMECFW.COM

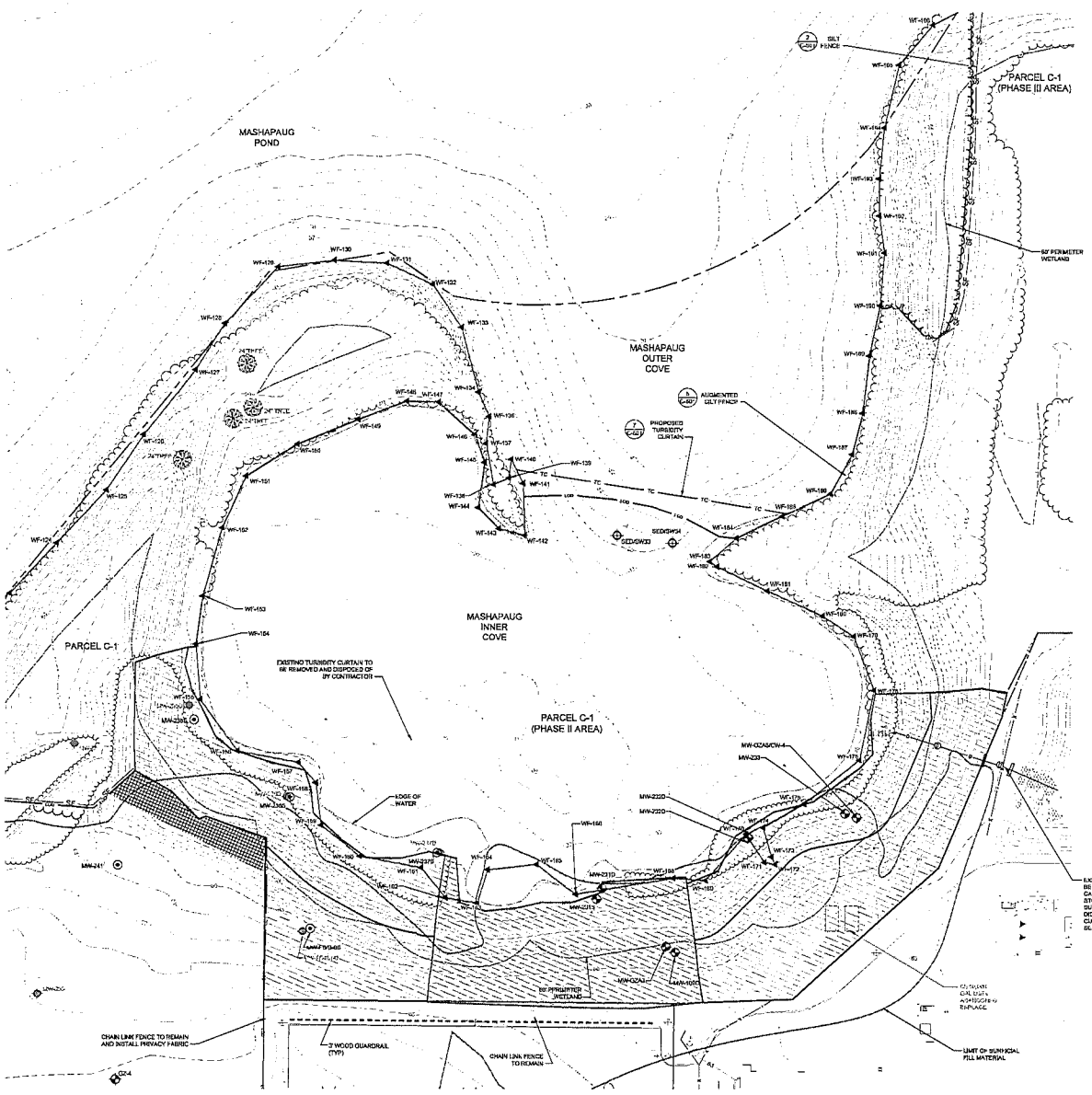
REVISION	DATE	ISSUE / REVISION DESCRIPTION	ISSUED BY	APPROVED
0	05/11/2015	ISSUED FOR BID	DAA	PJB
A	04/24/2015	ISSUED FOR CLIENT REVIEW	DAA	PJB

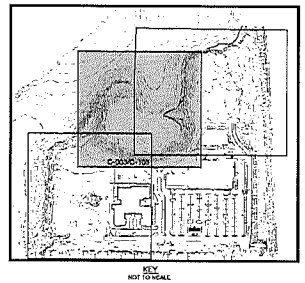
PROJECT: TEXTRON, INC.
PHASE II, III, AND PARCEL C CAP
FORMER GORHAM MANUFACTURING SITE
PROVIDENCE, RI

TITLE: EXISTING CONDITIONS SITE PLAN

CLIENT: TEXTRON

DESIGNED BY: DAA | DRAWN BY: DED
CHECKED BY: TD | SCALE: AS SHOWN
PROJECT NUMBER: 3652140032
DRAWING NUMBER: C-001
SHEET NUMBER: 2 OF 14





NOTES:
1. SEE SHEET 1 FOR PLAN REFERENCES.
2. SEE SHEET 1 FOR LEGEND AND NOTES.

ISSUED FOR BID

amec foster wheeler
AMEC FOSTER WHEELER ENVIRONMENT & INFRASTRUCTURE, INC.
271 MILL ROAD
CHELMSFORD, MASSACHUSETTS 01824
TELEPHONE: (978) 692-4300
FAX: (978) 692-4333
WEB: WWW.AMECFW.COM

REVISION	DATE	DESCRIPTION	DESIGNED BY	APPROVED
0	04/17/15	ISSUED FOR BID	DAA	KJS
A	04/29/15	ISSUED FOR CLIENT REVIEW	DAA	KJS

PROJECT: TEXTRON, INC.
PHASE II, III, AND PARCEL C CAP
FORMER GORHAM MANUFACTURING SITE
PROVIDENCE, RI

TITLE: DEMOLITION, EROSION AND SEDIMENTATION CONTROL PLAN
SHEET 2 OF 3

CLIENT: TEXTRON

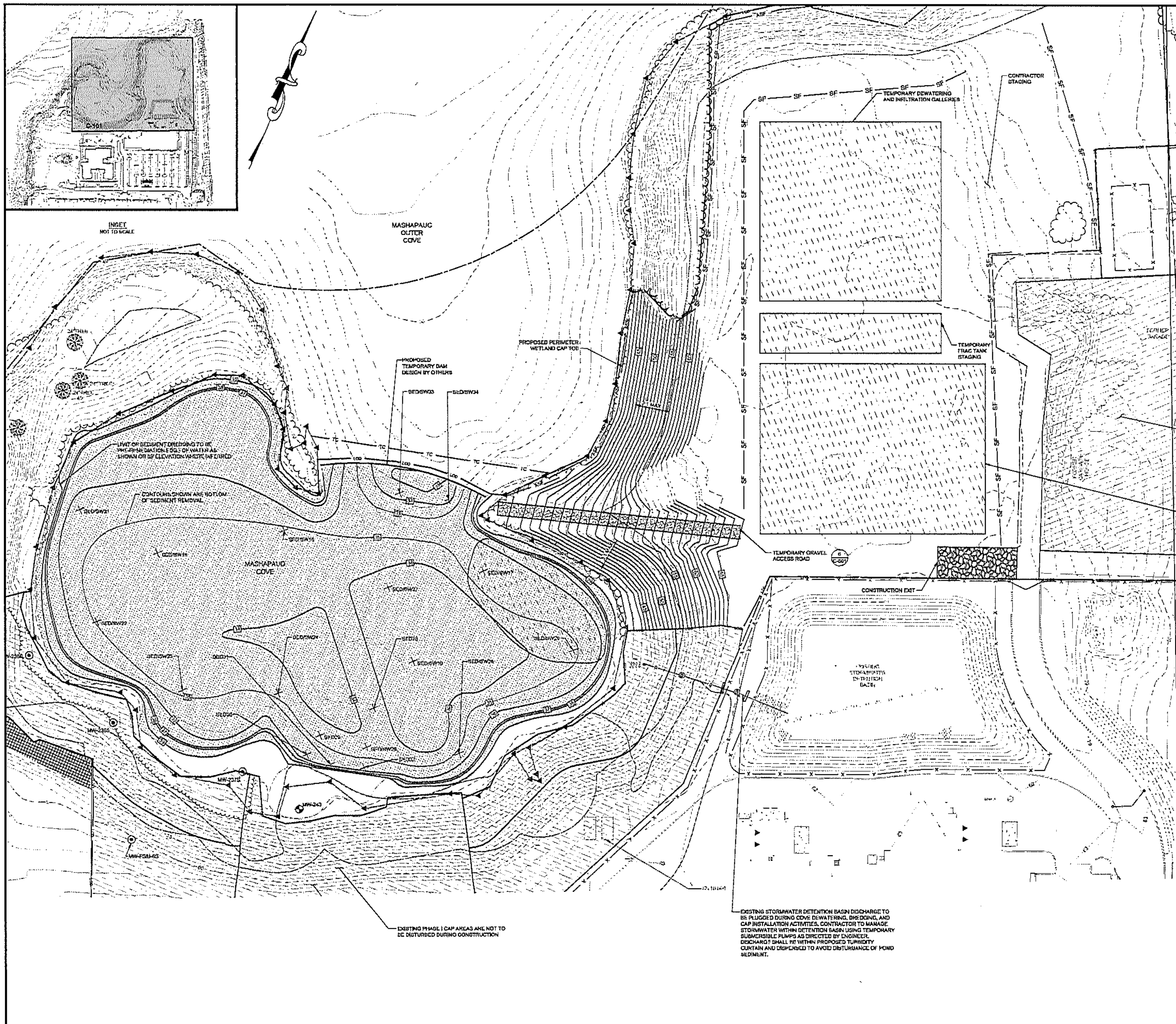
SEAL:

DESIGNED BY: DAA	DRAWN BY: DED
CHECKED BY: TD	SCALE: AS SHOWN

PROJECT NUMBER: 3652140032

DRAWING NUMBER: C-003

SHEET NUMBER: 4 OF 14



NOTES:

1. CONTRACTOR MUST MANAGE DEWATERING RATES WITH AVAILABLE INFILTRATION AREA TO PREVENT EXCESSIVE PONDING OR OVERFLOW.
2. FRAC TANKS MAY BE USED TO PROVIDE ADDITIONAL STORAGE TO BALANCE INFILTRATION RATES DURING TIMES OF PEAK WATER GENERATION.
3. DURING CONSTRUCTION, ADDITIONAL DEWATERING TREATMENT MAY BE REQUIRED TO MEET TOTAL SUSPENDED SOLIDS AND TOTAL PETROLEUM HYDROCARBON LIMITATIONS UNDER TEMPORARY DISCHARGE PERMIT.
4. CONFIGURATION OF INFILTRATION GALLERIES, FRAC TANKS AND MATERIAL PROCESSING AREA MAY BE ADJUSTED BASED UPON ENGINEER APPROVED CONTRACTOR PLANS.
5. SEE SHEET 1 FOR PLAN REFERENCES.
6. SEE SHEET 1 FOR LEGEND AND NOTES.

TABLE 1: KEY SEDIMENT ELEVATIONS AND FINISH GRADES

Point #	Description	Northing	Easting	Existing Elev.[1]	Bottom Elev. of Removal	Finish Grade Elev. of Sand Cap	Bottom Elev. of Organic Material[2]
520	SED29	258774	347006	36.6	34.6	35.6	<32.5
513	SED/SW26	259007	347125	36.8	35.3	36.3	35.27
519	SED62	258763	347273	37.3	35.5	36.5	34.8
515	SED/SW34	260013	347324	34.9	33.4	34.9	31.4
512	SED/SW22	258764	346857	36.5	34.5	35.5	32.5
521	SED30	258754	347302	37.6	35.4	36.6	33.1
516	SED/SW27	259218	347252	35.9	33.8	34.8	33.5
519	SED24	258414	347040	36.6	34.6	35.6	<31.1
524	SED/SW25	258780	347228	36.5	34.5	35.5	<31.45
522	SED61	258754	347224	37.5	35.5	36.5	34.6
517	SED/SW33	259335	346847	34.6	33.6	34.6	33.6
505	SED/SW28	258829	346806	36.3	34.3	35.3	34.7
506	SED/SW27	259062	347062	36.6	35.6	36.6	36.1
507	SED/SW23	259467	346612	36.5	34.5	35.5	32.4
508	SED/SW29	258868	347236	35.3	33.3	34.3	32.3
509	SED/SW30	258930	347182	36.7	34.7	35.7	<34.3
510	SED/SW31	258876	346733	36.3	35.6	36.6	35.6
511	SED/SW32	258790	346785	36.4	34.8	35.8	33.6
512	SED/SW33	258763	346478	36.3	34.3	35.3	34.4

NOTES:

1. BOTTOM ELEVATION OF ORGANIC MATERIAL IS BASED ON THE EXISTING SEDIMENT BORING LOGS PROVIDED IN THE CONTRACT DOCUMENTS.
2. EXISTING ELEVATIONS ARE INTERPOLATED BASED UPON THE 2011 BATHYMETRIC SURVEY COMPLETED BY TGES MARINE. ACTUAL ELEVATIONS AT THESE LOCATIONS WILL VARY FROM THOSE PROVIDED ON THIS TABLE AND THE CONTRACTOR SHALL VERIFY ALL ELEVATIONS, AND SUBMIT TO ENGINEER, PRIOR TO CONDUCTING THE WORK.

ISSUED FOR BID

amec foster wheeler
AMEC FOSTER WHEELER
ENVIRONMENT & INFRASTRUCTURE, INC.
271 MILL ROAD
CHELMSFORD, MASSACHUSETTS 01824
TELEPHONE: (978) 692-9090
FAX: (978) 692-4633
WEB: WWW.AMECFW.COM

REVISION	DATE	ISSUE / REVISION DESCRIPTION	ISSUED BY	APPROVED
0	05/11/2015	ISSUED FOR BID	CAA	RJS
A	04/24/2015	ISSUED FOR CLIENT REVIEW	CAA	RJS

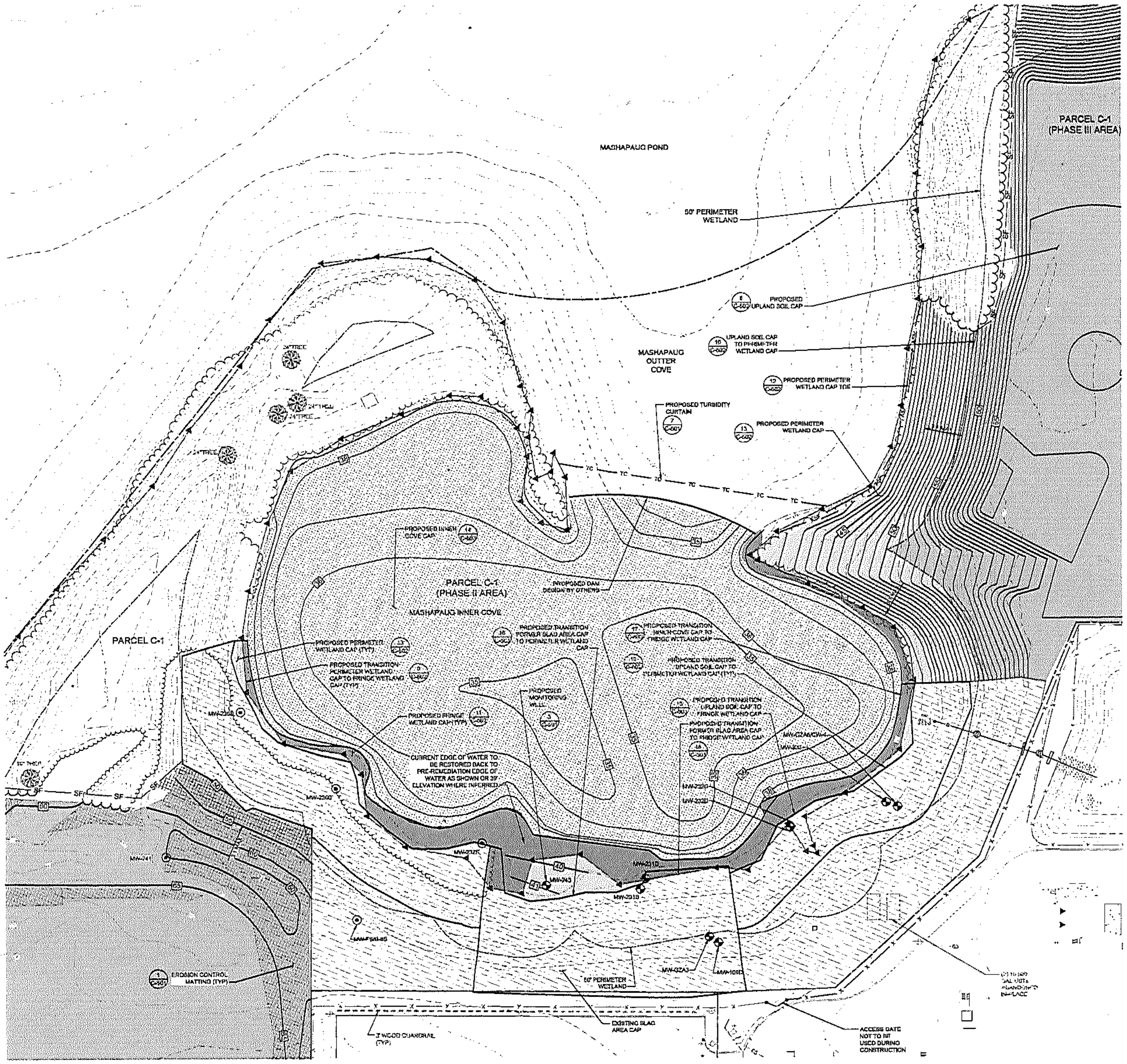
PROJECT: TEXTRON, INC.
PHASE II, III, AND PARCEL C CAP
FORMER GORHAM MANUFACTURING SITE
PROVIDENCE, RI

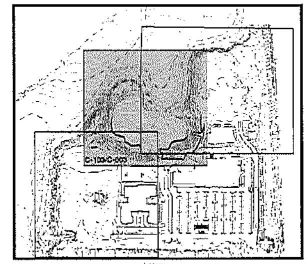
TITLE: TEMPORARY DEWATERING, EXCAVATION AND MATERIAL STAGING PLAN

CLIENT: TEXTRON

SEAL

DESIGNED BY: DAA
DRAWN BY: DED
CHECKED BY: TD
SCALE: AS SHOWN
PROJECT NUMBER: 3652140032
DRAWING NUMBER: C-101
SHEET NUMBER: 6 OF 14





INSET
NOT TO SCALE

NOTES:
1. SEE SHEET 1 FOR PLAN REFERENCES.
2. SEE SHEET 1 FOR LEGEND AND NOTES.

1" = 40'

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amec foster wheeler

AMEC FOSTER WHEELER
ENVIRONMENT & INFRASTRUCTURE, INC.
271 MILL ROAD
CHELMSFORD MASSACHUSETTS 01824
TELEPHONE: (978) 692-9090
FAX: (978) 692-4633
WEB: WWW.AMECFW.COM

REVISION	DATE	ISSUE / REVISION DESCRIPTION	ISSUED BY	APPROVED
0	05/11/2015	ISSUED FOR BID	DAA	RJS
A	04/29/2015	ISSUED FOR CLIENT REVIEW	DAA	RJS

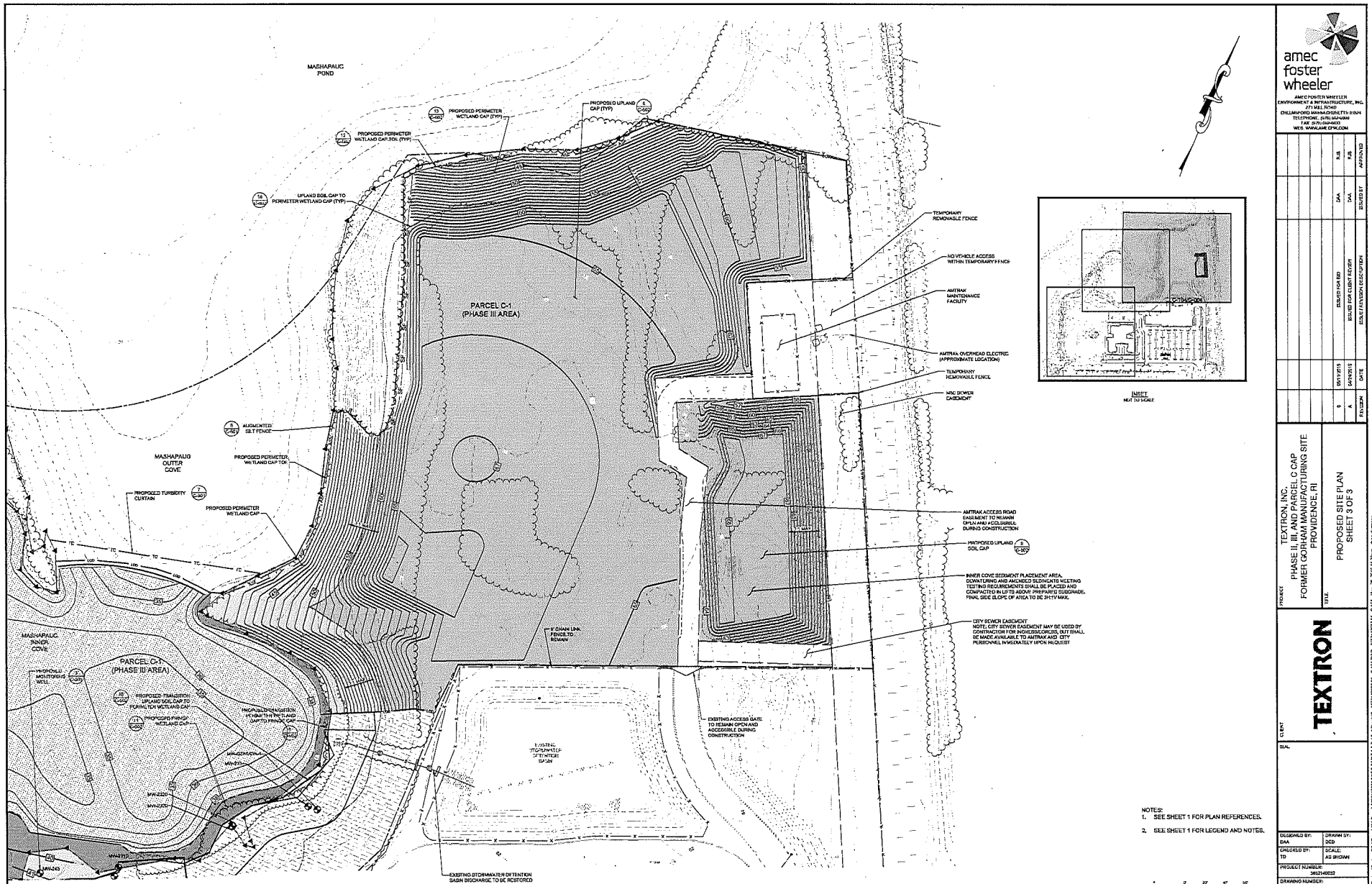
PROJECT: TEXTRON, INC.
PHASE II, III, AND PARCEL C CAP
FORMER GORHAM MANUFACTURING SITE
PROVIDENCE, RI

TITLE: PROPOSED SITE PLAN
SHEET 2 OF 3

CLIENT: TEXTRON

SEAL:

DESIGNED BY: DAA	DRAWN BY: DED
CHECKED BY: TD	SCALE: AS SHOWN
PROJECT NUMBER: 3652140032	
DRAWING NUMBER: C-103	
SHEET NUMBER: 8 OF 14	



NOTES:
1. SEE SHEET 1 FOR PLAN REFERENCES.
2. SEE SHEET 1 FOR LEGEND AND NOTES.

ISSUED FOR BID

amec foster wheeler
AMEC FOSTER WHEELER ENVIRONMENT & INFRASTRUCTURE, INC.
271 MILL ROAD
CHELMSFORD MASSACHUSETTS 01824
TELEPHONE: (978) 692-4300
FAX: (978) 692-6633
WEB: WWW.AMEC.COM

REVISION	DATE	ISSUED BY	APPROVED
A	04/19/2013	DAA	RJS
B	05/17/2013	DAA	RJS

ISSUED FOR BID
ISSUED FOR CLIENT REVIEW
ISSUED FOR BID

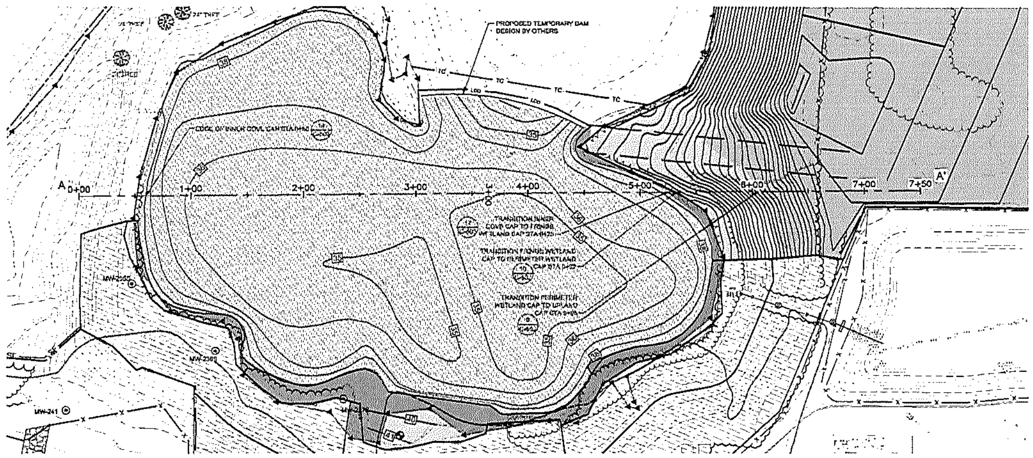
PROJECT: TEXTRON, INC.
PHASE II, III, AND PARCEL C CAP
FORMER GORHAM MANUFACTURING SITE
PROVIDENCE, RI

TITLE: PROPOSED SITE PLAN
SHEET 3 OF 3

CLIENT: TEXTRON

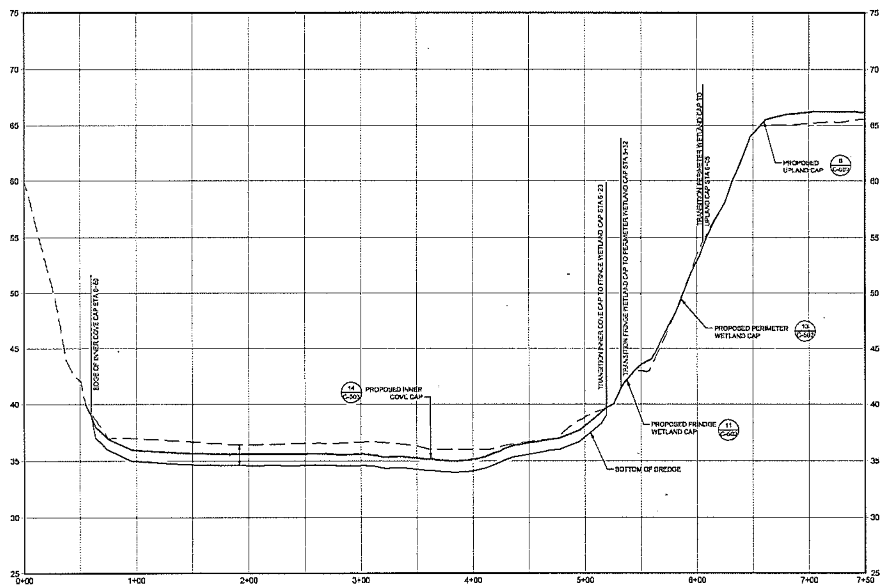
SEAL

DESIGNED BY: DAA	DRAWN BY: DCD
CHECKED BY: TD	SCALE: AS SHOWN
PROJECT NUMBER: 3852140032	
DRAWING NUMBER: C-104	
SHEET NUMBER: 9 OF 14	



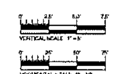
PLAN VIEW PROFILE A-A'

SCALE: 1" = 50'



PROFILE A-A'

HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 5'



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amec foster wheeler
AMEC FOSTER WHEELER ENVIRONMENT & INFRASTRUCTURE, INC.
271 MILL ROAD
CHELMSFORD MASSACHUSETTS 01824
TELEPHONE: (978) 692-9090
FAX: (978) 692-9633
WEB: WWW.AMECFW.COM

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0	05/11/2015	ISSUED FOR EEI	DAA	RJB
A	04/29/2015	ISSUED FOR CLIENT REVIEW	DAA	RJB

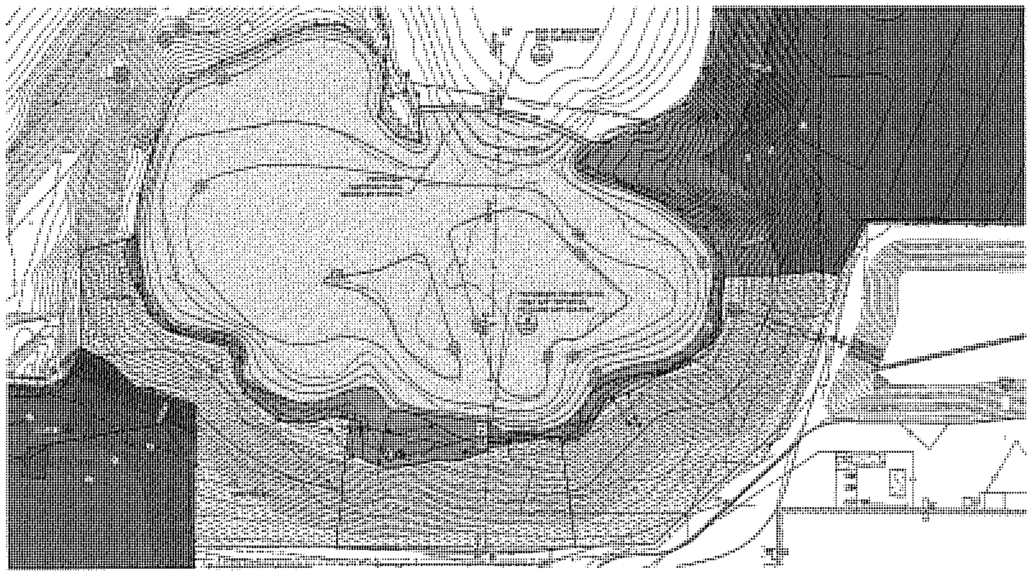
PROJECT: TEXTRON, INC.
PHASE II, III, AND PARCEL C CAP
FORMER GORHAM MANUFACTURING SITE
PROVIDENCE, RI

TITLE: PLAN AND PROFILE A-A'

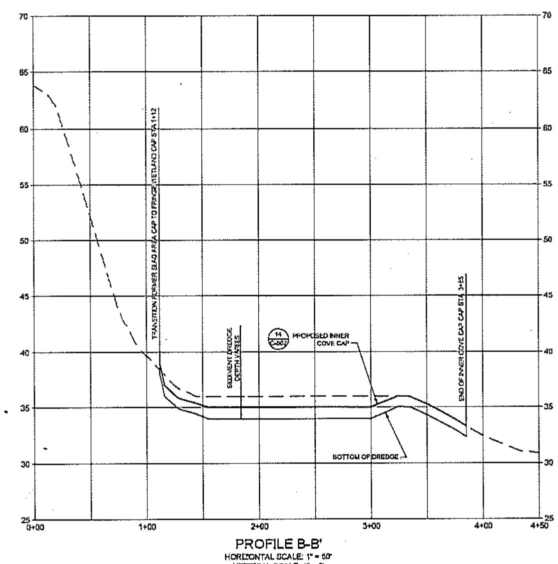
CLIENT: TEXTRON

SEAL:

DESIGNED BY: DAA	DRAWN BY: DED
CHECKED BY: TD	SCALE: AS SHOWN
PROJECT NUMBER: 3652140032	
DRAWING NUMBER: C-301	
SHEET NUMBER: 10 OF 14	



PLAN VIEW PROFILE B-B'
SCALE: 1" = 50'



PROFILE B-B'
HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 5'

ISSUED FOR BID

amec foster wheeler
AMEC FOSTER WHEELER ENVIRONMENT & INFRASTRUCTURE, INC.
271 MILL ROAD
CHELMSFORD MASSACHUSETTS 01824
TELEPHONE: (978) 692-9090
FAX: (978) 692-4033
WEB: WWW.AMECFW.COM

REVISION	DATE	ISSUE / REVISION DESCRIPTION	ISSUED BY	APPROVED
0	05/1/2015	ISSUED FOR BID	DAA	RJB
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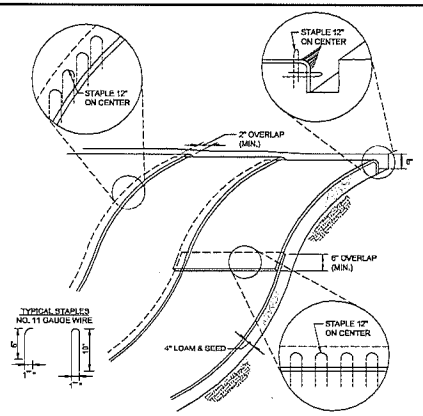
PROJECT: TEXTRON, INC.
PHASE II, III, AND PARCEL C CAP
FORMER GORHAM MANUFACTURING SITE
PROVIDENCE, RI

TITLE: PLAN AND PROFILE B-B'

CLIENT: TEXTRON

SEAL:

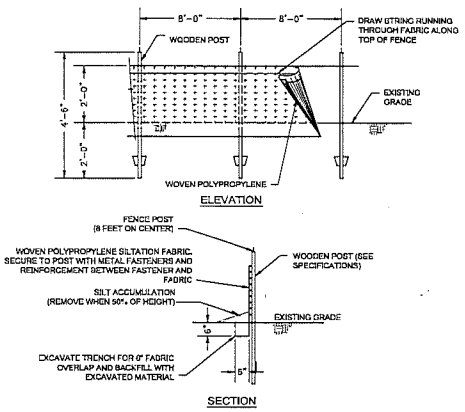
DESIGNED BY: DAA	DRAWN BY: DED
CHECKED BY: TD	SCALE: AS SHOWN
PROJECT NUMBER: 3652140022	
DRAWING NUMBER: C-302	
SHEET NUMBER: 11 OF 14	



NOTES:

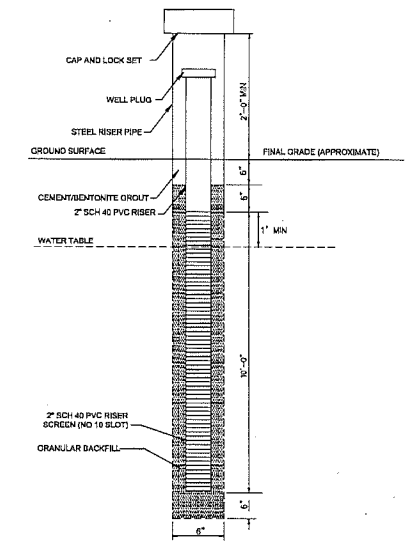
1. BEGIN AT THE TOP OF MATTING INSTALLATION AREA BY ANCHORING MATTING IN A 6" DEEP TRENCH BACKFILL AND COMPACT TRENCH AFTER STAPLING.
2. ROLL THE MATTING DOWN THE SWALE IN THE DIRECTION OF THE WATER FLOW.
3. THE EDGES OF MATTINGS MUST BE STAPLED WITH A MINIMUM OF 4 INCH OVERLAP WHERE 2 OR MORE STRIP WIDTHS ARE REQUIRED.
4. WHEN MATTINGS MUST BE SPLICED DOWN THE SWALE, PLACE MATTING END OVER END WITH 6 INCH (MIN) OVERLAP AND ANCHOR DOWN SLOPE MATTING IN A 6 INCH DEEP TRENCH.

EROSION CONTROL MATTING SLOPE INSTALLATION (1)
NTS

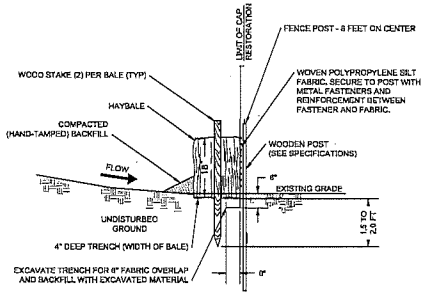


NOTE:
SEE SPECIFICATION FOR REINFORCEMENT REQUIREMENTS.

SILT FENCE (2)
NTS

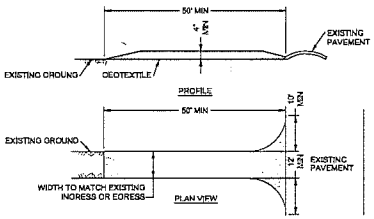


TYPICAL MONITORING WELL INSTALLATION (3)
NTS



NOTE:
AUGMENTED SILT FENCE SHALL BE USED AT LOCATIONS AS SHOWN ON THE DRAWINGS.

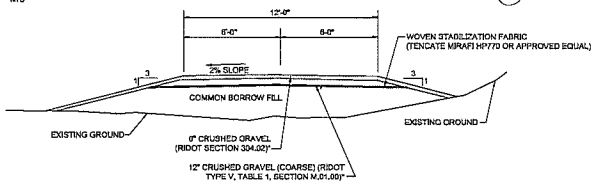
AUGMENTED SILT FENCE (4)
NTS



CONSTRUCTION SPECIFICATIONS:

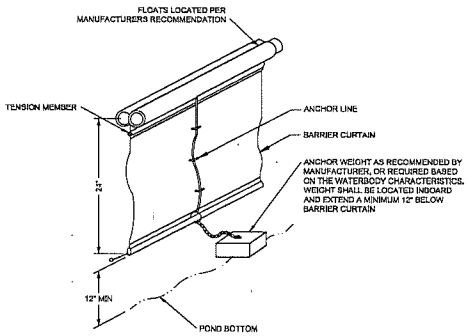
1. STONE SIZE - USE 2 INCH CRUSHED STONE OR GRAVEL.
2. LENGTH - NOT LESS THAN 50 FEET.
3. THICKNESS - NOT LESS THAN FOUR (4) INCHES.
4. WIDTH - TWELVE (12) FEET MINIMUM, BUT NOT LESS THAN THE THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. TWENTY-FOUR (24) FEET IF SINGLE ENTRANCE TO SITE.
5. GEOTEXTILE - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
6. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED BENEATH THE ENTRANCE, IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
8. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND REQUIRED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN EVENT.

STABILIZED CONSTRUCTION EXIT (5)
NTS



* CRUSHED GRAVEL MATERIAL SHALL MEET THE REQUIREMENTS OF RIDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, SECTION 3.03.02.

TEMPORARY GRAVEL ACCESS ROAD (6)
NTS



NOTES:

1. THE TURBIDITY CURTAIN SHALL BE DEPLOYED PRIOR TO DISTURBING THE WATERBODY BANK SOILS.
2. THE TURBIDITY CURTAIN SHALL WITHSTAND THE WATERBODY FLOW CHARACTERISTICS.

TURBIDITY CURTAIN DETAIL (7)
NTS

ISSUED FOR BID

amec foster wheeler
AMEC FOSTER WHEELER ENVIRONMENT & INFRASTRUCTURE, INC.
271 MILL ROAD
CHELMSFORD, MASSACHUSETTS 01824
TELEPHONE: (978) 692-4990
FAX: (978) 692-4933
WEB: WWW.AMECFW.COM

REVISION	DATE	DESCRIPTION	DESIGN BY	APPROVED
A	04/25/2015	ISSUED FOR COMMENT/PERMIT	DAA	RJS
B	09/15/2015	ISSUED FOR BID	DAA	RJS

PROJECT: TEXTRON, INC.
PHASE III, III, AND PARCEL C CAP
FORMER GORHAM MANUFACTURING SITE
PROVIDENCE, RI

TITLE: DETAILS
SHEET 1 OF 3

CLIENT: TEXTRON

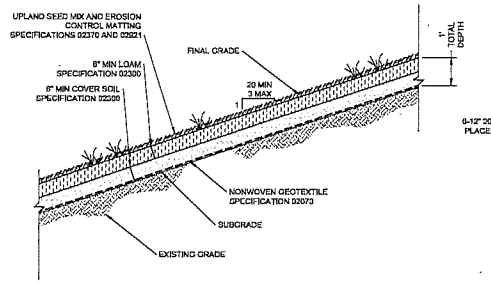
SEAL:

DESIGNED BY: DAA	DRAWN BY: DED
CHECKED BY: TD	SCALE: NOT TO SCALE

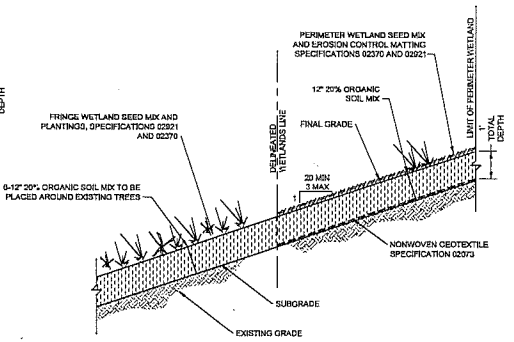
PROJECT NUMBER: 3652140032

DRAWING NUMBER: C-501

SHEET NUMBER: 12 OF 14



TYPICAL UPLAND CAP (8)
NTS



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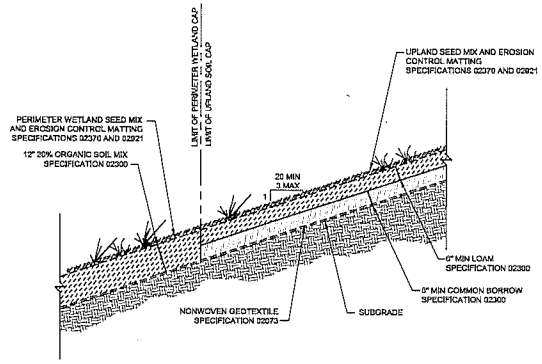
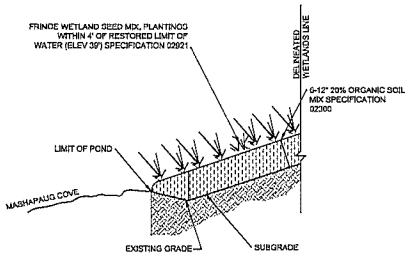
PERIMETER WETLAND CAP TO FRINGE WETLAND CAP (9)
NTS



TYPICAL TRANSITION DETAIL:
UPLAND CAP TO PERIMETER WETLAND CAP (10)
NTS



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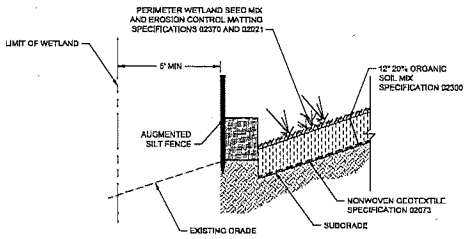
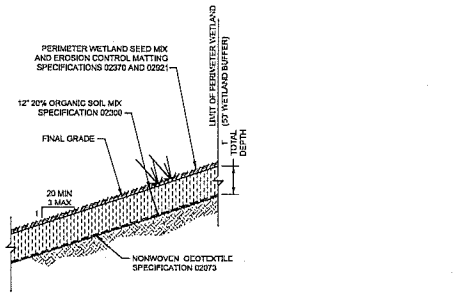


TYPICAL PERIMETER WETLAND CAP TOE DETAIL (12)
NTS



TYPICAL PERIMETER WETLAND CAP (13)
NTS

ISSUED FOR BID

amec foster wheeler
AMEC FOSTER WHEELER ENVIRONMENT & INFRASTRUCTURE, INC.
371 MILL ROAD
CHELMSFORD, MASSACHUSETTS 01824
TELEPHONE: (978) 692-6900
FAX: (978) 692-6633
WEB: WWW.AMECFW.COM

REVISION	DATE	ISSUED FOR REVISION DESCRIPTION	ISSUED BY	APPROVED
0	04/28/15	ISSUED FOR BID	DAA	RJS
A	04/08/15	ISSUED FOR CLIENT REVIEW	DAA	RJS

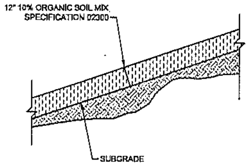
PROJECT: TEXTRON, INC.
PHASE II, III, AND PARCEL C CAP
FORMER GORHAM MANUFACTURING SITE
PROVIDENCE, RI

TITLE: DETAILS
SHEET 2 OF 3

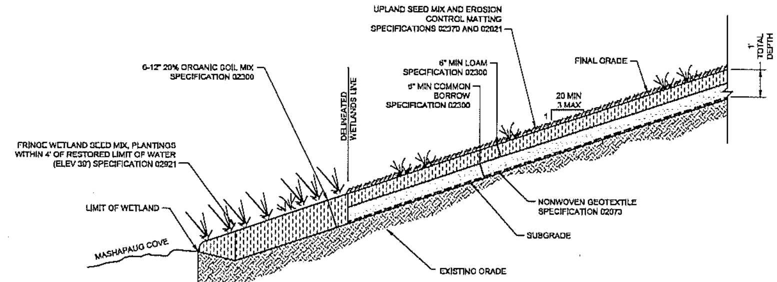
CLIENT: TEXTRON

SEAL

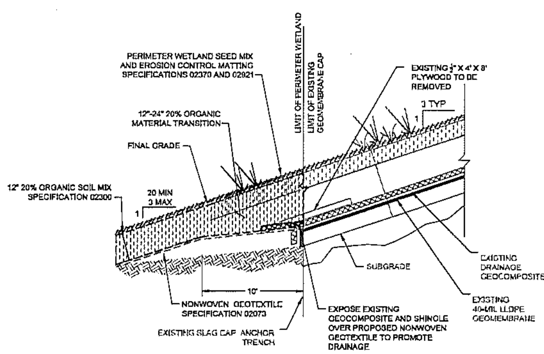
DESIGNED BY: DAA	DRAWN BY: DCD
CHECKED BY: TD	SCALE: NOT TO SCALE
PROJECT NUMBER: 3625140002	
DRAWING NUMBER: C-502	
SHEET NUMBER: 13 OF 14	



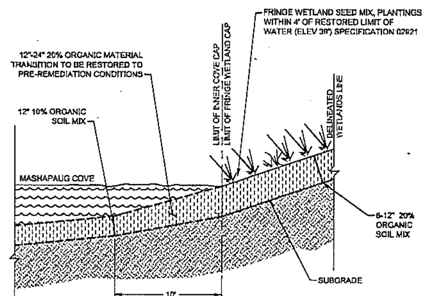
TYPICAL INNER COVE CAP
NTS
(14)



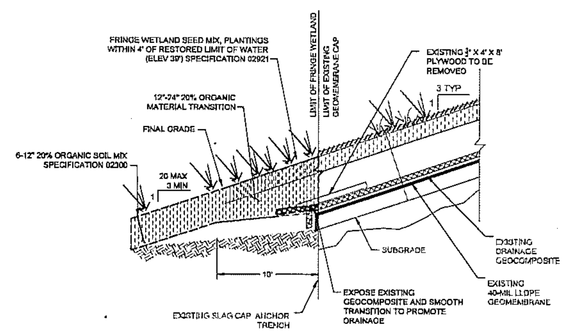
TYPICAL TRANSITION DETAIL:
UPLAND SOIL CAP TO FRINGE WETLAND CAP
NTS
(15)



TYPICAL TRANSITION DETAIL:
FORMER SLAG AREA CAP TO PERIMETER WETLAND CAP
NTS
(16)



TYPICAL TRANSITION DETAIL:
INNER COVE CAP TO FRINGE WETLAND CAP
NTS
(17)



TYPICAL TRANSITION DETAIL:
FORMER SLAG AREA CAP TO FRINGE WETLAND CAP
NTS
(18)

ISSUED FOR BID

amec foster wheeler
AMEC FOSTER WHEELER
ENVIRONMENT & INFRASTRUCTURE, INC.
271 MILL ROAD
CHELMSFORD MASSACHUSETTS 01824
TELEPHONE: (978) 692-9090
FAX: (978) 692-6633
WEB: WWW.AMECFW.COM

REVISION	DATE	ISSUE / REVISION DESCRIPTION	ISSUED BY	APPROVED
A	04/24/2015	ISSUED FOR CLIENT REVIEW	CAA	RJS
0	05/11/2015	ISSUED FOR BID	CAA	RJS

PROJECT: TEXTRON, INC.
PHASE II, III, AND PARCEL C CAP
FORMER GORHAM MANUFACTURING SITE
PROVIDENCE, RI

TITLE: DETAILS
SHEET 3 OF 3

CLIENT: TEXTRON

SEAL:

DESIGNED BY: DAA	DRAWN BY: DED
CHECKED BY: TD	SCALE: NOT TO SCALE
PROJECT NUMBER: 3652140032	
DRAWING NUMBER: C-503	
SHEET NUMBER: 14 OF 14	

U:\ CAD Projects\Textron\Textron RAWP and 404 Permit 3652140032.01\7.0 CAD\7.1 A Bid Set\Sheets\4 • 3652140032.01 • C-503.DWG • 3652140032.01 • C-503 • May. 28, 2015 11:53am • dana.dempsey

US Army Corps
of Engineers®
New England District

GENERAL PERMIT
WORK-START NOTIFICATION FORM
(Minimum Notice: Two weeks before work begins)

****
* MAIL TO: U.S. Army Corps of Engineers, New England District *
* Policy Analysis/Technical Support Branch *
* Regulatory Division *
* 696 Virginia Road *
* Concord, Massachusetts 01742-2751 *
****

Corps of Engineers Permit No. 2013-2359 was issued to Textron, Inc. The site is the former Gorham Manufacturing Facility located at 425 Adelaide Avenue in Providence, RI. They are authorized to perform a site remediation involving work in and along Mashpaug Pond. They will construct a temporary coffer dam to isolate and de-water Inner Cove from Mashaug Pond to allow work in the dry. Work includes excavating one to two feet of contaminated sediments from the 2.8 acre area in Inner Cove and placing one-foot of clean fill on the bottom. Also, an adjacent palustrine wetland (11,075 square feet or 0.25 acres) along the shoreline will also be impacted with soils removed and the wetlands subsequently restored.

The people (e.g., contractor) listed below will do the work, and they understand the permit's conditions and limitations.

PLEASE PRINT OR TYPE

Name of Person/Firm: _____

Business Address: _____

_____

_____

_____

Telephone Numbers: (___) _____ (___) _____

Proposed Work Dates: **Start:** _____ **Finish:** _____

Permittee/Agent Signature: _____ **Date:** _____

Printed Name: _____ **Title:** _____

Date Permit Issued: _____ **Date Permit Expires:** _____

****

FOR USE BY THE CORPS OF ENGINEERS

PM: M. Elliott **Submittals Required:** No

Inspection Recommendation: _____

US Army Corps
of Engineers ®
New England District

(Minimum Notice: Permittee must sign and return notification within one month of the completion of work.)

COMPLIANCE CERTIFICATION FORM

Permit Number: 2013-2359

Project Manager: M. Elliott

Name of Permittee: Textron, Inc.

Permit Issuance Date: June 3, 2015

Please sign this certification and return it to the following address upon completion of the activity and any mitigation required by the permit. You must submit this after the mitigation is complete, but not the mitigation monitoring, which requires separate submittals.

****
* MAIL TO: U.S. Army Corps of Engineers, New England District *
* Permits and Enforcement Branch B *
* Regulatory Division *
* 696 Virginia Road *
* Concord, Massachusetts 01742-2751 *
****

Please note that your permitted activity is subject to a compliance inspection by an U.S. Army Corps of Engineers representative. If you fail to comply with this permit you are subject to permit suspension, modification, or revocation.

I hereby certify that the work authorized by the above referenced permit was completed in accordance with the terms and conditions of the above referenced permit, and any required mitigation was completed in accordance with the permit conditions.

_____ _____
Signature of Permittee Date

_____ _____
Printed Name Date of Work Completion

(____) _____
Telephone Number

ATTACHMENT E

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

RHODE ISLAND POLLUTANT DISCHARGE ELIMINATION SYSTEM (RIPDES)
NOTICE OF INTENT (NOI)
STORMWATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITY
(Revised September 2013)

DEM USE ONLY
Date NOI Received _____
Date Fee Received _____
RIPDES# RIR _____

CHECK ONLY ONE ITEM	☑ New Request for Permit Authorization ☐ Re-Application for RIPDES Authorization No. RIR_____, which expires on September 25, 2013. ☐ Amendment to RIPDES Authorization No. RIR_____.

I. OWNER

Name: Textron, Inc.			
Mailing Address: 40 Westminster Street			
City: Providence	State: RI	Zip: 02903	Phone: (401) 457-2635
Contact Person: Gregory Simpson	Title: Director, Site Remediation		
Email Address of Contact Person: gsimpson@textron.com			
Billing Address (if different than above):			
City:	State:	Zip:	

II. OPERATOR (If different from Owner)

Name:			
Local Mailing Address:			
City:	State:	Zip:	Phone: ( )
Contact Person:	Title:		
Email Address of Contact Person:			

III. CONSTRUCTION SITE INFORMATION

Site's Official or Legal Name: Former Gorham Manufacturing Facility			
Street Address: 333 Adelaide Avenue			
City: Providence	State: RI	Zip: 02908	Phone: NA
Latitude (to nearest 15 sec.) 41 Deg. 47 Min. 45 Sec.	Longitude (to nearest 15 sec.) 71 Deg. 25 Min. 46 Sec.		
Nearest Utility Pole Number:	Assessors Plat: 51	Lot: 324	

Is the construction site part of a larger common plan of development or sale? ☐ YES ☐ NO

List Name of Larger Common Plan:_____ Total Disturbed Acres of Common Plan _____Acres

Projected or Actual Construction Commencement Date 07/2015
MM/DD/YY

Projected Construction Completion Date 11/2015
MM/DD/YY

Area of Site: Total Acres: 37 Proposed Area of Disturbance in Acres: 14.5

IV. DISCHARGE LOCATION INFORMATION

Note: If stormwater from the site discharges to a Combined Sewer Overflow a RIPDES authorization for the construction activity is not necessary, please confirm that the discharge will enter a combined sewer system with the appropriate sewer authority.

☐ Separate Storm Sewer System (MS4) Name:_____

☐ Unnamed stream or wetlands connected to named receiving water body. Name:_____

☑ Ultimate Receiving Water Body Name: Mashapaug Pond Water Body ID#: RI0006017L-06

Is the receiving water body classified as a Cold or Warm Water Fishery? ☐ Cold Water ☐ Warm Water ☐ Unassessed

Is the receiving water body on the most recent State of RI 303(d) List of Impaired Waters?

☐ YES ☐ NO

If yes, list any applicable impairments:

Is the Receiving Water(s) designated as a Special Resource Protection Water (SRPW)? ☐ YES ☑ NO

Has a TMDL been completed for the receiving water body? ☐ YES ☑ NO

If yes, list any applicable impairments:

Is the project associated with a DEM Office of Waste Management (OWM) site? ☑ YES ☐ NO ;

If yes, please describe and provide a DEM OWM contact:
Joseph Martella

Is the proposed project associated with a previous permit application or enforcement action? ☑ YES ☐ NO ;

If yes, please describe: Phase I Construction Completed in 2012

Does the project meet the criteria for a Land Use with Higher Potential Pollutant Loads (LUHPPL) as defined by the RI Stormwater Design & Installation Standards Manual (as amended)?

☐ YES ☑ NO If yes, describe:

Will the site require a separate permit for the proposed industrial activity under Rule 31(b)15 of the RIPDES Regulations? ☐ YES ☑ NO

If yes, describe:

Is the site within or directly discharging to a Natural Heritage Area (NHA)? NHA orange dots on attached figure

☑ YES ☐ NO

V. OWNER/OPERATOR CERTIFICATION

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 if review of the Stormwater Management Plan is performed by the DEM RIPDES Permitting Program, Freshwater Wetlands Section, Water Quality Certification Program, the UIC/Ground Permit Program, Coastal Resources Management Council, or by a city/town which has adopted a DEM approved Soil Erosion and Sediment Control Ordinance, then a Stormwater Permit from this office is contingent upon approval from the reviewing agency. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. 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 General Permit.

Print Owner Name & Company: Gregory Simpson Textron, Inc.

Print Owner Title: Director, Site Remediation

Signature: _____ Date: 3/26/15

Print Operator Name & Company: _____

Print Operator Title: _____

Signature: _____ Date: _____

VI. PROFESSIONAL CERTIFICATION - NATURAL HERITAGE AREAS

I certify under penalty of law that the Natural Heritage Area Information under Section IV of this NOI was 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 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.

Print Name of Professional & Company: Robert J. Bukowski, Amec Foster Wheeler

Print Professionals Title*: Registered Professional Engineer

Registration or License Number: 9217

Signature: _____ Date: 3/26/15

*Must be signed by a Registered Professional Engineer, a Certified Professional in Erosion and Sediment Control (CPESC), a Certified Professional in Storm Water Quality (CPSWQ), or a Registered Landscape Architect.

VII. PROFESSIONAL CERTIFICATION - SOIL EROSION AND SEDIMENT CONTROL PLAN DEVELOPMENT

Note: The purpose of this certification is to document that a site specific Soil Erosion and Sediment Control Plan was prepared consistent with the requirements of the General Permit. This certification by a professional does not alleviate or in any way limit the liability and sole responsibility of the Owner and Operator to properly implement the Soil Erosion and Sediment Control Plan and to amend the Soil Erosion and Sediment Control Plan as site conditions may require, so as to effectively control stormwater discharges leaving the site during the construction period.

I certify under penalty of law that a site specific Soil Erosion and Sediment Control Plan was 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 developing the Soil Erosion and Sediment Control Plan, the Soil Erosion and Sediment Control Plan is, to the best of my knowledge and belief, true, accurate, and complete at the time this certification is made and has been developed in accordance to the requirements of the Permit as well as all applicable guidelines in the *Rhode Island Soil Erosion and Sediment Control (RISESC) Handbook* (as amended) and the *Rhode Island Stormwater Design and Installation Standards Manual* (as amended). I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Print Name of Professional & Company _____

Print Professionals Title* _____

Registration or License Number _____

Signature _____ Date _____

*Must be signed by a Registered Professional Engineer, a Certified Professional in Erosion and Sediment Control (CPESC), a Certified Professional in Stormwater Quality (CPSWQ), or a Registered Landscape Architect. If the Stormwater Management Plan requires the practice of engineering, this must be signed by a Registered Professional Engineer.

Note: Upon completion of the permitted project, the DEM must be notified via the submittal of a completed Notice of Termination. In accordance with Construction Activity General Permit Part V.L., this permit is not transferable to any person or group except after due notice to the Director. If no such notice is given, the named owner will be held liable for all fees and expenses levied to this permit.

RHODE DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
Office of Water Resources

APPLICATION FEE FORM

Please complete the information below and submit this completed form and your check (payable to "R.I. General Treasurer") for the appropriate fee directly to:

R.I. Department of Environmental Management
Office of Management Services
235 Promenade Street
Providence, RI 02908

***** FEES ARE NOT REFUNDABLE *****

OWNER

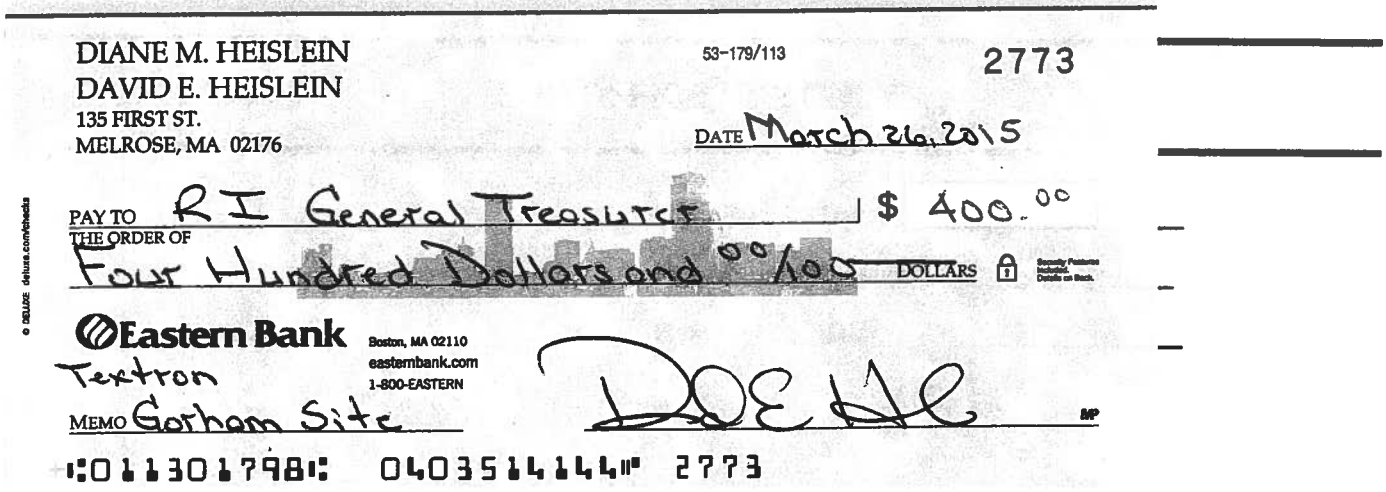
Name: Textron, Inc.			
Mailing Address: 40 Westminster Street			
City: Providence	State: RI	Zip: 02903	Phone: ( )401-457-2635
Contact Person: Greg Simpson	Title: Director, Site Remediation		
Email Address of Contact Person: gsimpson@textron.com			
Billing Address (if different than above):			
City:	State:	Zip:	

CONSTRUCTION SITE INFORMATION

Site's Official or Legal Name: Former Gorham Manufacturing Site			
Street Address: 425 (formerly 333) Adelaide Avenue			
City: Providence	State: RI	Zip: 02908	Phone: NA
Latitude (to nearest 15 sec.) 41 Deg. 47 Min. 45 Sec.	Longitude (to nearest 15 sec.) 71 Deg. 25 Min. 46 Sec.		
Nearest Utility Pole Number:	Assessors Plat:	Lot: 51/324	

APPLICATION TYPE: **RIPDES Construction General Permit**

NOTE: The application and all accompanying documents should be submitted to the appropriate section of the Office of Water Resources, 235 Promenade Street, Providence, RI 02908-5767. Application review will be initiated only upon receipt of the complete application fee.



DIANE M. HEISLEIN
DAVID E. HEISLEIN
135 FIRST ST.
MELROSE, MA 02176

53-179/113 2773

DATE March 26, 2015

PAY TO THE ORDER OF RI General Treasurer $ 400.00

Four Hundred Dollars and 00/100 DOLLARS

Eastern Bank Boston, MA 02110 easternbank.com 1-800-EASTERN

Textron

MEMO Gorham Site

DOE HE

⑈011301798⑈ 040351444⑈ 2773

ATTACHMENT F

Inspection Reports w/ Corrective Action Log

Stormwater Construction Site Inspection Report

General Information			
Project Name	Phase II, III and Parcel C Cap, Former Gorham Manufacturing Site		
RIPDES Tracking No.		**Location**	Providence, RI
Date of Inspection		**Start/End Time**	
Inspector's Name(s)			
Inspector's Title(s)			
Inspector's Contact Information			
Inspector's Qualifications			
Describe present phase of construction			

Type of Inspection:
☐ Regular ☐ Pre-storm event ☐ During storm event ☐ Post-storm event

Weather Information

Has there been a storm event since the last inspection? ☐Yes ☐No
If yes, provide:
Storm Start Date & Time: Storm Duration (hrs): Approximate Amount of Precipitation (in):

Weather at time of this inspection?
☐ Clear ☐Cloudy ☐ Rain ☐Sleet ☐Fog ☐ Snowing ☐ High Winds
☐ Other: Temperature:

Have any discharges occurred since the last inspection? ☐Yes ☐No
If yes, describe:

Are there any discharges at the time of inspection? ☐Yes ☐No
If yes, describe:

Site-specific BMPs

- *Number the structural and non-structural BMPs identified in your SWPPP on your site map and list them below (add as many BMPs as necessary). Carry a copy of the numbered site map with you during your inspections. This list will ensure that you are inspecting all required BMPs at your site.*
- *Describe corrective actions initiated, date completed, and note the person that completed the work in the Corrective Action Log.*

	BMP	BMP Installed?	BMP Maintenance Required?	Corrective Action Needed and Notes
1	Silt Fence	☐Yes ☐No	☐Yes ☐No	
2	Construction Entrance	☐Yes ☐No	☐Yes ☐No	
3	Turbidity Curtain	☐ Yes ☐No	☐ Yes ☐No	
4	Stormwater Detention Basin	☐ Yes ☐No	☐Yes ☐No	
5	Erosion Control Matting	☐Yes ☐No	☐Yes ☐No	
6		☐Yes ☐No	☐ Yes ☐No	
7		☐Yes ☐No	☐Yes ☐No	
8		☐Yes ☐No	☐Yes ☐No	
9		☐ Yes ☐No	☐Yes ☐No	
10		☐Yes ☐No	☐Yes ☐No	

Overall Site Issues

Below are some general site issues that should be assessed during inspections. Customize this list as needed for conditions at your site.

	BMP/activity	Implemented?	Maintenance Required?	Corrective Action Needed and Notes
1	Are all slopes and disturbed areas not actively being worked properly stabilized?	☐Yes ☐No	☐Yes ☐No	
2	Are natural resource areas (e.g., streams, wetlands, mature trees, etc.) protected with barriers or similar BMPs?	☐Yes ☐No	☐Yes ☐No	
3	Are perimeter controls and sediment barriers adequately installed (keyed into substrate) and maintained?	☐Yes ☐No	☐Yes ☐No	
4	Are discharge points and receiving waters free of any sediment deposits?	☐Yes ☐No	☐Yes ☐No	
5	Is the construction exit preventing sediment from being tracked into the street?	☐Yes ☐No	☐Yes ☐No	
6	Is trash/litter from work areas collected and placed in covered dumpsters?	☐Yes ☐No	☐Yes ☐No	
7	Are materials that are potential stormwater contaminants stored inside or under cover?	☐Yes ☐No	☐Yes ☐No	

Non-Compliance

Describe any incidents of non-compliance not described above:

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated 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 there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Print name and title: _____

Signature: _____

Date: _____

ATTACHMENT G

SESC Plan Amendment Log

Attachment G – SESC Amendment Log

No.	Description of the Amendment	Date of Amendment	Amendment Prepared by (Name(s) and Title)