

Textron, Inc.  
Former Gorham Manufacturing Facility, Providence, RI  
Remedial Action Completion Report: Phase II Area – Mashapaug Inner Cove,  
Phase III Area – Northeast Upland And Parcel C  
Project No.: 3652160001  
February 12, 2016



## APPENDIX N

### PARCEL C DRAFT ENVIRONMENTAL LAND USE RESTRICTIONS AND SOIL MANAGEMENT PLAN

**(under review by RIDEM and City of Providence)**

**Note:** This Remedial Action Closure Report references two parcels, *Parcel C* and *Parcel C-1*, as the subject of this work plan. These parcel identifications have been carried from previous reports (e.g., Site Investigation Report) into this work plan for clarity and continuity. However, based on the Subdivision Plan for the property the legal description and land survey contained within this Environmental Land Use Restriction, encompass all of the land of these two parcels and identifies the affected land as one parcel; Parcel C.

~~Appendix G~~  
ENVIRONMENTAL LAND USAGE RESTRICTION

This Declaration of Environmental Land Usage Restriction (“Restriction”) is made on this XXth day of January, 2016 by ~~{the Providence Redevelopment Agency property owner}~~, and its successors and/or assigns (hereinafter, the “Grantor”).

WITNESSETH:

WHEREAS, the Grantor \_\_\_\_\_ (~~name~~) is the Owner in fee simple of certain real property identified as Plat 51 Lot 324 (formerly Plat 51, Lot 170 and Portions of Lot 171, and abandoned portions of Alvin Street as depicted on the Class I Survey in Exhibit 2A), 425 Adelaide Avenue located in the City of Providence, {specify Plat, Lot(s), address and Town or City} Rhode Island (the “Property”), more particularly described in Exhibit A (Legal Description) which is attached hereto and made a part hereof;

WHEREAS, the Property (~~Site map~~ or portion thereof identified in the Class I survey which is attached hereto as Exhibit 2AB and is made a part hereof) has been determined to contain soil, sediment and/or groundwater which is contaminated with certain Hazardous Materials and/or petroleum in excess of applicable ~~{residential or industrial/commercial Direct Exposure Criteria, and/or GB applicable groundwater objective or MCP GW-3 groundwater}~~ criteria pursuant to the Rules and Regulations for the Investigation and Remediation of Hazardous Material Releases (“Remediation Regulations”);

WHEREAS, the Grantor and the Department have determined that the environmental land use restrictions set forth below are consistent with the regulations adopted by the Rhode Island Department of Environmental Management (“Department”) pursuant to R.I.G.L. § 23-19.14-1 and that this restriction shall be a Conservation Restriction pursuant to R.I.G.L. § 34-39-1 et. seq. and shall not be subject to the 30 year limitation provided in R.I.G.L. § 34-4-21;

WHEREAS, the Department's written approval of this Restriction is contained in the document entitled: ~~{Remedial Decision Letter December 12, 2011 – Park Parcel Phase I Area ; Remedial Decision Letter March 27, 2015 and Order of Approval July 9, 2015 - Phase II Area – Mashapaug Pond and Cove, Phase III Area – Northeast Upland and Parcel C; and the Remedial Decision Letter – YMCA Parcel C May 24, 2004 and Order of Approval – YMCA Parcel C, April 24, 2006 for Parcel C, / Settlement Agreement / Remedial Agreement/ Order of Approval/ Remedial Approval Letter}~~ issued pursuant to the Remediation Regulations;

WHEREAS, to prevent exposure to or migration of Hazardous Substances and to abate hazards to human health and/or the environment, and in accordance with the ~~{Remedial Decision Letter December 12, 2011; Remedial Decision Letter March 27, 2015 and Order of Approval July 9, 2015; and Remedial Decision Letter May 24, 2004 and Order of Approval April 24, 2006/ Remedial Agreement/ Order of Approval/ Remedial Approval Letter}~~, the Grantor

desires to impose certain restrictions upon the use, occupancy, and activities of and at the ~~{Property (Parcel C)/Contaminated Site}~~;

WHEREAS, the Grantor believes that this Restriction will effectively protect public health and the environment from such contamination; and

WHEREAS, the Grantor intends that such restrictions shall run with the land and be binding upon and enforceable against the Grantor and the Grantor's successors and assigns.

NOW, THEREFORE, Grantor agrees as follows:

**A. Restrictions Applicable to the ~~{Property (Parcel C)/Contaminated Site}~~:** In accordance with the ~~{Remedial Decision Letter December 12, 2011; Remedial Decision Letter March 27, 2015 and Order of Approval July 9, 2015; and Remedial Decision Letter May 24, 2004 and Order of Approval April 24, 2006/ Remedial Agreement/ Order of Approval/ Remedial Approval Letter}~~, the use, occupancy and activity of and at the ~~{Property (Parcel C)/Contaminated Site}~~ is restricted as follows:

i. No residential use of the ~~{Property (Parcel C)/Contaminated Site}~~ shall be permitted that is contrary to Department approvals and restrictions contained herein;

ii. No groundwater at the ~~{Property (Parcel C)/Contaminated Site}~~ shall be used as potable water ~~or non-potable water~~;

iii. No soil at the ~~{Property (Parcel C)/Contaminated Site}~~ shall be disturbed in any manner without written permission of the Department's Office of Waste Management, except as permitted in the ~~Remedial Action Work Plan (RAWP) or~~ Soil Management Plan (SMP) approved by the Department in a written approval letter dated                      (date) Exhibit B and attached hereto. ~~Since future use of Parcel C is designated as non-developed passive recreational, as defined in Rule 3.62(b) of the Remediation Regulations, the Grantor may use the Property (Parcel C) for non-developed active recreational activities (as defined in Rule 3.62(a) of the Remediation Regulations) such as ball fields, only with prior approval from the Department as stated in Paragraph D;~~

~~iv.~~ Humans engaged in activities at the ~~{Property/Contaminated Site (Parcel C)}~~ shall not be exposed to soils containing Hazardous Materials and/or petroleum in concentrations exceeding the applicable Department approved Direct Exposure Criteria set forth in the Remediation Regulations;

~~iv.v.~~ No sediment at the Property (Parcel C, Mashapaug Inner Cove) shall be disturbed in any manner without written permission of the Department's Office of Waste Management, except as permitted in the Soil Management Plan (SMP) Exhibit B and attached hereto;

~~{iv.} Water at the ~~{Property/Contaminated Site}~~ shall be prohibited from infiltrating soils containing Hazardous Materials and/or petroleum in concentrations~~

exceeding the applicable Department approved leachability criteria set forth in the Remediation Regulations;

vi. No subsurface structures shall be constructed on the ~~{Property (Parcel C)/Contaminated-Site}~~ over groundwater containing Hazardous Materials and/or petroleum in concentrations exceeding the applicable Department approved GB Groundwater Objectives set forth in the Remediation Regulations, without written permission of the Department's Office of Waste Management;

vii. No cutting of vegetation will be permitted within 60 feet (10 feet fringe wetland and 50 feet perimeter wetland) of the Mashapaug Cove and Mashapaug Pond on the Property (Parcel C) without written permission of the Department's Office of Waste Management;

viii. The engineered controls at the ~~{Property (Parcel C)/Contaminated-Site}~~ described in the ~~{RAWP or SMP}~~ contained in Exhibit B attached hereto shall not be disturbed and shall be properly maintained to prevent humans engaged in ~~{residential or industrial/commercial}~~ activity from being exposed to soils containing Hazardous Materials and/or petroleum in concentrations exceeding the applicable Department-approved ~~{residential or industrial/commercial}~~ Direct Exposure Criteria in accordance with the Remediation Regulations; and

ix. The engineered controls at the ~~{Property (Parcel C)/Contaminated-Site}~~ described in the ~~{RAWP or Soil Management Plan SMP}~~ contained in Exhibit BC attached hereto shall not be disturbed and shall be properly maintained so that water does not infiltrate soils containing Hazardous Materials and/or petroleum in concentrations exceeding the applicable Department-approved leachability criteria set forth in the Remediation Regulations.

Access shall be provided to allow sampling of the compliance monitoring wells, or other actions identified in the Parcel C Groundwater Remedial Action Work Plan (RAWP) dated 10/30/2012 and Addendum/Response to RAWP dated 12/5/2012, and as described in the Parcel C and Parcel C-1 RAWP dated ~~XX~~March 15, 2015 and Addendum/Response dated July 6, 2015. Further, the Grantor shall be required to prevent damage to wells, and if such damage does occur (such as during snow removal or landscaping activities), the Grantor shall repair or replace in a timely manner the damaged well(s) as necessary.

**B. No action shall be taken, allowed, suffered, or omitted at the ~~{Property (Parcel C)/Contaminated-Site}~~ if such action or omission is reasonably likely to:**

- i. Create a risk of migration of Hazardous Materials and/or petroleum;
- ii. Create a potential hazard to human health or the environment; or
- iii. Result in the disturbance of any engineering controls utilized at the ~~{Property (Parcel C)/Contaminated-Site}~~, except as permitted in the Department-approved ~~{RAWP or~~

SMP} contained in Exhibit BE.

**C. Emergencies:** In the event of any emergency which presents a significant risk to human health or to the environment, including but not limited to, maintenance and repair of utility lines or a response to emergencies such as fire or flood, the application of Paragraphs A (iii.-viii.) and B above may be suspended, provided such risk cannot be abated without suspending such Paragraphs and the Grantor complies with the following:

- i. Grantor shall notify the Department's Office of Waste Management in writing of the emergency as soon as possible but no more than three (3) business days after Grantor's having learned of the emergency. (This does not remove Grantor's obligation to notify any other necessary state, local or federal agencies.);
- ii. Grantor shall limit both the extent and duration of the suspension to the minimum period reasonable and necessary to adequately respond to the emergency;
- iii. Grantor shall implement reasonable measures necessary to prevent actual, potential, present and future risk to human health and the environment resulting from such suspension;
- iv. Grantor shall communicate at the time of written notification to the Department its intention to conduct the Emergency Response Actions and provide a schedule to complete the Emergency Response Actions;
- v. Grantor shall continue to implement the Emergency Response Actions, on the schedule submitted to the Department, to ensure that the ~~{Property (Parcel C) /Contaminated Site}~~ is remediated in accordance with the Remediation Regulations (or applicable variance) or restored to its condition prior to such emergency. Based upon information submitted to the Department at the time the ELUR was recorded pertaining to known environmental conditions at the ~~{Property (Parcel C) /Contaminated Site}~~, emergency maintenance and repair of utility lines shall only require restoration of the ~~{Property (Parcel C)/Contaminated Site}~~ to its condition prior to the maintenance and repair of the utility lines; and
- vi. Grantor shall submit to the Department, within ten (10) days after the completion of the Emergency Response Action, a status report describing the emergency activities that have been completed.

**D. Release of Restriction; Alterations of Subject Area:** The Grantor shall not make, or allow or suffer to be made, any alteration of any kind in, to, or about any portion of the ~~{Property (Parcel C)/Contaminated Site}~~ inconsistent with this Restriction unless the Grantor has received the Department's prior written approval for such alteration. If the Department determines that the proposed alteration is significant, the Department may require the amendment of this Restriction. Alterations deemed insignificant by the Department will be approved via a letter from the Department. The Department shall not approve any such alteration and shall not release the ~~{Property (Parcel C)/Contaminated Site}~~ from the

provisions of this Restriction unless the Grantor demonstrates to the Department's satisfaction that Grantor has managed the ~~{Property (Parcel C)/Contaminated Site}~~ in accordance with applicable regulations.

**E. Notice of Lessees and Other Holders of Interests in the ~~{Property (Parcel C)/Contaminated Site}~~:** The Grantor, or any future holder of any interest in the ~~{Property (Parcel C)/Contaminated Site}~~, shall cause any lease, grant, or other transfer of any interest in the ~~{Property (Parcel C)/Contaminated Site}~~ to include a provision expressly requiring the lessee, grantee, or transferee to comply with this Restriction. The failure to include such provision shall not affect the validity or applicability of this Restriction to the ~~{Property (Parcel C)/Contaminated Site}~~.

**F. Enforceability:** If any court of competent jurisdiction determines that any provision of this Restriction is invalid or unenforceable, the Grantor shall notify the Department in writing within fourteen (14) days of such determination.

**G. Binding Effect:** All of the terms, covenants, and conditions of this Restriction shall run with the land and shall be binding on the Grantor, its successors and assigns, and each Owner and any other party entitled to control, possession or use of the ~~{Property (Parcel C)/Contaminated Site}~~ during such period of Ownership or possession.

~~**H. Inspection & Non-Compliance:**~~ It shall be the obligation of the Grantor, or any future holder of any interest in the ~~{Property (Parcel C)/Contaminated Site}~~, to provide for annual inspections of the ~~{Property (Parcel C)/Contaminated Site}~~ for compliance with the ELUR in accordance with Department requirements.

~~I.—~~

~~**J. [An officer or Director of the company with direct knowledge of past and present conditions of the {Property/Contaminated Site} (the “Company Representative”), or]**~~ A qualified environmental professional will, on behalf of the Grantor or future holder of any interest in the ~~{Property (Parcel C)/Contaminated Site}~~, evaluate the compliance status of the ~~{Property (Parcel C)/Contaminated Site}~~ on an annual basis. Upon completion of the evaluation, the ~~{Company Representative or}~~ environmental professional will prepare and simultaneously submit to the Department and to the Grantor or future holder of any interest in the ~~{Property (Parcel C)/Contaminated Site}~~ an evaluation report detailing the findings of the inspection—, and noting any compliance violations at the ~~{Property (Parcel C)/Contaminated Site}~~. If the ~~{Property (Parcel C)/Contaminated Site}~~ is determined to be out of compliance with the terms of the ELUR, the Grantor or future holder of any interest in the ~~{Property (Parcel C)/Contaminated Site}~~ shall submit a corrective action plan in writing to the Department within ten (10) days of receipt of the evaluation report, indicating the plans to bring the ~~{Property (Parcel C)/Contaminated Site}~~ into compliance with the ELUR, including, at a minimum, a schedule for implementation of the plan.

~~K.—~~

L.H.

In the event of any violation of the terms of this Restriction, which remains uncured more than ninety (90) days after written notice of violation, all Department approvals and

agreements relating to the ~~{Property (Parcel C)/Contaminated Site}~~ may be voided at the sole discretion of the Department.

**M.I. Terms Used Herein:** The definitions of terms used herein shall be the same as the definitions contained in Section 3 (DEFINITIONS) of the Remediation Regulations.

IN WITNESS WHEREOF, the Grantor has hereunto set (his/her) hand and seal on the day and year set forth above.

**PROVIDENCE REDEVELOPMENT AGENCY**

~~{Name of Person(s), company, LLC or LLP}~~

By: \_\_\_\_\_  
GRALNEK \_\_\_\_\_  
Grantor (signature) \_\_\_\_\_  
Director \_\_\_\_\_ Grantor (typed name)

DONALD \_\_\_\_\_ D.  
\_\_\_\_\_ Executive

STATE OF RHODE ISLAND  
COUNTY OF PROVIDENCE

In ~~(Providence)~~CITY/TOWN, in said County and State, on the XX day of January, 2016, before me Personally appeared Donald D. Gralnek, in his capacity as Executive Director of the Providence Redevelopment Agency, to me known and known by me to be the party executing the foregoing instrument and ~~(he/she)~~ acknowledged said instrument by ~~(him/her)~~ executed to be ~~(his/her)~~ free act and deed.

Notary Public: \_\_\_\_\_

My Comm. Expires: \_\_\_\_\_

**EXHIBIT A  
LEGAL DESCRIPTION**



**EXHIBIT 2A  
CLASS I SURVEY**

**EXHIBIT B**  
**SOIL MANAGEMENT PLAN**

**EXHIBIT B – FIGURE 1  
PARCEL C**

**EXHIBIT B – FIGURE 2  
PARCEL C CAP**

**EXHIBIT A  
LEGAL DESCRIPTION  
FOR PARCEL C  
A PORTION OF ASSESSOR'S PLAT 51 LOT 324**

That certain tract or parcel of land with all buildings and improvements thereon situated on the northerly side of Adelaide Avenue in the City of Providence, County of Providence, and State of Rhode Island is herein bounded and described;

Beginning at the most southeasterly corner of the herein described parcel, said point being at the westerly line of land now or formerly of National Railroad Passenger Corporation;

Thence proceeding south  $67^{\circ}33'52''$  west a distance of four hundred eleven and  $45/100$  (411.45') feet to a point, bounded southerly by Parcel A;

Thence proceeding south  $00^{\circ}17'20''$  east a distance of one hundred ninety eight and  $35/100$  (198.35') feet to a point;

Thence proceeding south  $24^{\circ}34'35''$  west a distance of one hundred fifty three and  $23/100$  (153.23') feet to a point;

Thence proceeding south  $64^{\circ}48'45''$  west a distance of ninety one and  $93/100$  (91.93') feet to a point at the most northeasterly corner of Parcel B;

Thence proceeding north  $67^{\circ}27'49''$  east a distance of three hundred seventeen and  $84/100$  (317.84') feet to a point at the most northwesterly corner of Parcel B;

Thence proceeding north  $22^{\circ}32'11''$  west a distance of five hundred twenty three and  $53/100$  (523.53') feet to the most southwesterly corner of Parcel B;

Thence proceeding south  $67^{\circ}27'49''$  west along the northerly street line of Adelaide Avenue a distance of five hundred fifteen and  $07/100$  (515.07') feet to the most southwesterly corner of the herein described parcel;

Thence proceeding south  $03^{\circ}37'09''$  east a distance of one hundred forty two and  $04/100$  (142.04') feet to a point;

Thence proceeding south  $17^{\circ}54'41''$  east a distance of five hundred feet and  $00/100$  (500.00') feet to a point;

Thence proceeding south  $31^{\circ}14'42''$  west a distance of one hundred ninety five and  $00/100$  (195.00') feet to a point, the last three courses bounded easterly by said parcel described herein;

Thence proceeding south  $15^{\circ}53'02''$  west a distance of four hundred thirty five and  $00/100$  (435.00') feet to a point;

Thence proceeding south  $57^{\circ}16'28''$  west a distance of ninety five and  $00/100$  (95.00') feet to a point;

**Exhibit A  
Legal Description  
For Parcel C  
Plat 51 Lot 324**

Thence proceeding north  $78^{\circ}12'20''$  west a distance of sixty and  $00/100$  (60.00') feet to a point;

Thence proceeding along the arc of a curve with a radius of three hundred twenty five and  $95/100$  (325.95') feet and a delta angle of  $66^{\circ}14'06''$  a distance of three hundred seventy six and  $80/100$  (376.80') feet to a point of reverse curve;

Thence proceeding south  $08^{\circ}56'52''$  west a distance of one hundred thirty eight and  $00/100$  (138.00') feet to a point;

Thence proceeding south  $64^{\circ}55'21''$  west a distance of sixty three and  $00/100$  (63.00') feet to a point;

Thence proceeding south  $79^{\circ}28'55''$  west a distance of one hundred five and  $00/100$  (105.00') feet to a point;

Thence proceeding south  $27^{\circ}29'36''$  west a distance of eighty nine and  $96/100$  (89.96') feet to a point;

Thence proceeding south  $78^{\circ}59'14''$  west a distance of eighty three and  $22/100$  (83.22') feet to a point;

Thence proceeding south  $78^{\circ}59'15''$  west a distance of one hundred twenty two and  $00/100$  (122.00') feet to a point;

Thence proceeding north  $25^{\circ}49'03''$  west a distance of one hundred sixteen and  $91/100$  (116.91') feet to a point;

Thence proceeding north  $64^{\circ}10'57''$  east along the northerly line of land now or formerly of National Railroad Passenger Corporation, a distance of one hundred five and  $00/100$  (105.00') feet to a point;

Thence proceeding north  $25^{\circ}49'03''$  west along said railroad, a distance of one hundred fifteen and  $00/100$  (115.00') feet to a point at most easterly line of existing access easement;

Thence proceeding south  $64^{\circ}10'57''$  west along said railroad, a distance of one hundred five and  $00/100$  (105.00') feet to a point;

Thence proceeding north  $25^{\circ}49'03''$  west along said railroad, a distance of two hundred twenty seven and  $07/100$  (227.07') feet to the point and place of beginning;

Said parcel contains 914,757 square feet or 21 acres more or less.

Said parcel is subject to a no cut zone within the fringe and perimeter wetland areas on said parcel, to easements, and to any rights there may be in that portion of abandoned Adelaide Avenue.

### 1.0 INTRODUCTION

This Soil Management Plan (SMP) has been prepared to describe the procedures that are necessary to safely manage contaminated soil at Parcel C (Plat 51, Lot 324 [formerly Plat 51 Lot 170 and a portion of Lot 171, and a portion of abandoned Alvin Street]) located at 425 Adelaide Avenue (formerly identified as 333 Adelaide Avenue) in Providence, Rhode Island (the Property) (Figure 1). The Property consists of approximately 17.1 acres of land that was formerly occupied by the Gorham Manufacturing facility at 333 Adelaide Avenue and abandoned portions of Alvin Street as shown on the plan provided in Exhibit 2A of the Environmental Land Usage Restriction (ELUR).

#### 1.1 *Property Description and Background*

The Gorham Manufacturing Company engaged in the manufacture of silverware, both sterling and plated, and bronze castings from approximately 1890 to 1985. Operations included casting, rolling, polishing, lacquering, forging, plating, annealing, soldering, degreasing, machining and melting. Vapor degreasers reportedly used volatile organic compounds (VOCs), i.e., tetrachloroethylene (PCE), trichloroethylene (TCE) and trichloroethane (TCA) during various periods of operations.

Parcel C includes two of the four parcels identified in the 2006 Consent Order between the Rhode Island Department of Environmental Management (RIDEM) and the City of Providence that comprised the 333 Adelaide Avenue Former Gorham Manufacturing Facility Site. The two parcels, formerly known as the YMCA main parcel and land formerly known as the Park Parcel, are currently owned by the City of Providence. A retail development was completed on the southeastern portion of the Site (Parcel A) and a public high school (Dr. Jorge Alvarez High School) was constructed on a second parcel (Parcel B). A fast food restaurant located along Adelaide Avenue in the southeast corner of the Site makes up Parcel D of the Property. Parcel D is not owned by the City of Providence.

Parcel C also includes abandoned portions of Alvin Street as described in the legal description provided in Exhibit A and shown on the plan provided in Exhibit 2A, of the Environmental Land Usage Restriction (ELUR).

Historic spills and releases of oil and hazardous materials to specific areas of soil and groundwater have occurred at the Property as a result of prior manufacturing activities. Remediation activities completed on this Property have isolated contaminants that exceed the applicable Rhode Island Direct Exposure Criteria (RIDEDEC) or UCLs. In general, contaminants that remain in Parcel C soils are as follows:

1. Polycyclic aromatic hydrocarbons (PAHs), metals, and dioxin at concentrations that exceed residential and commercial RIDEDEC at various locations.

Prior sampling has shown that soil vapor present in the subsurface of the central portion of Parcel C has historically contained low levels of methane.

To prevent exposure, the final remedial action for Parcel C included constructing an engineered barrier consisting of a permeable, high-visibility marker fabric placed over compacted, surface soil, and then overlain by six inches of cover soil and six inches of clean, imported topsoil. Excavated Inner Cove sediment was placed in the area of the former Carriage House, covered

with a marker fabric, six inches of cover soil and six inches of clean imported topsoil. Topsoil was seeded using an appropriate seed mix applied with fertilizer, and mulch. An ELUR will be implemented for the entire Parcel C to eliminate the potential for direct exposure to contaminated soil. Construction of any structure is prohibited on Parcel C without prior approval from the RIDEM as described in the ELUR.

### **1.2 *Applicability and Purpose of SMP***

This SMP is a component of the ELUR for Parcel C and is intended to address management of impacted soils and placed sediment that may be excavated, temporarily stockpiled, graded, or moved during and after future intrusive activities on Parcel C. Any future intrusive activity conducted on Parcel C is subject to the procedures contained in the ELUR and this SMP. It should be clarified that the procedures contained in this SMP are only necessary for impacted soils and the placed sediments located on Parcel C. Clean fill material imported as part of the Parcel C final capping remedy would not be subject to the SMP requirements. However, any clean soil that is disturbed within or removed from the clean cap soil of Parcel C, must be replaced with soil that is consistent in quality and composition with the existing clean soil cap.

## **2.0 GOALS**

The goal of and the requirements set forth in this SMP are intended for the handling, stockpiling, and tracking of impacted soil material during future intrusive activities on Parcel C so that the soil is managed properly and handled in a safe manner. Anticipated future Property activities that will require soil management include: excavation for utility installation and repair; landscaping; and maintenance of components of the Parcel C engineered soil cap.

During all future intrusive activities on Parcel C, the integrity of the engineered soil cap must be maintained. Any landscaping and soil re-grading activities must maintain the marker fabric and a minimum of 1 foot of clean soil. Construction of any structure is prohibited on Parcel C without prior approval from the RIDEM as described in the ELUR.

## **3.0 HEALTH AND SAFETY**

An environmental inspector shall be on Property during any future activity that disturbs (grading, excavation, trenching, drilling, etc.) impacted soil and sediment at the Property. Soil or sediment that is disturbed during these activities will be physically observed and screened for signs of potential contamination. The environmental inspector will document the soil/sediment management actions, perform perimeter and breathing-zone air monitoring (primarily for dust and VOCs), maintain the operating log, and summarize construction activities into the required progress reports (see Section 5.0 of this SMP).

Worker protection shall be maintained during intrusive activities through air monitoring, dust control measures, and the use of appropriate personal protective equipment (e.g., chemically-resistant gloves).

Standard dust control measures (i.e., water spray) will be instituted during all intrusive activities that have the potential to generate airborne dust. If airborne dust levels cannot be controlled, the intrusive activity generating the dust shall cease until adequate mitigation measures are implemented and dust levels reduced.



### **3.1 Air Monitoring**

Perimeter and breathing-zone monitoring shall be performed during any earthmoving activities involving impacted soil/sediment that have the potential to generate airborne dust. Monitoring will primarily focus on dust monitoring to address respirable dust containing non-volatile contaminants (e.g., PAHs, metals [lead, arsenic], and dioxin). Although considered to be unlikely based on prior investigation and remedial construction activities, exposure to methane is possible from impacted soil or soil vapor at the center of Parcel C, and shall be monitored to prevent respiratory exposure. The monitoring will be performed using a hand-held real-time dust meter to measure concentrations of respirable dust, a photo-ionization detector (PID) to measure the concentration of VOCs, and a combustible gas meter to ensure the protection of the health of the workers on the Property. The PID shall be equipped with an electron volt (eV) lamp that is capable of detecting the Property contaminants. The combustible gas meter will be calibrated to respond to methane.

Standard breathing zone and perimeter action levels for VOCs, dust, and combustible gases shall be developed considering Property-specific contaminant levels in soil and be established in the Health and Safety Plan developed for the intrusive activity.

### **3.2 Security**

During site work, the appropriate precautions will be taken to restrict unauthorized access to the Property.

## **4.0 FUTURE SOIL DISTURBANCE ACTIVITIES**

In accordance with **Section A iii and v** of the Parcel C ELUR, no soil or sediment at the Property is to be disturbed in any manner without prior written permission of the Department's Office of Waste Management, except for minor inspections, maintenance, and landscaping activities that do not disturb the contaminated soil and sediment at the Property.

### **4.1 Notification**

This SMP serves to supplement, and will be initiated by, the RIDEM notification requirement established by the ELUR for the property. The notification shall be submitted to the Department no later than 30 days prior to the proposed initiation of the start of property activities.

4.1.1 As part of the notification process, the Property owner shall provide a brief written description of the anticipated Property activity involving soil or sediment excavation. The description will include an estimate of the volume of soil or sediment to be excavated, the duration of the construction project, a list of the known and anticipated contaminants of concern, a figure clearly identifying the proposed areas to be excavated/disturbed, the proposed location of any temporary storage of the soil/sediment, and the proposed disposal location of the soil/sediment.

4.1.2 Following written Notification, the Department will determine the post closure reporting requirements. Significant disturbances of regulated soil/sediment will require submission of a Closure Report for Department review and approval documenting that the activities were performed in accordance with this SMP and the Department approved ELUR. Minor disturbances of regulated soil/sediment may be documented through the annual certification submitted in accordance with **Section H** (Inspection & Non- Compliance) of the Department approved ELUR. The Department will also make a determination

regarding the necessity of performing Public Notice to abutting property owners/tenants concerning the proposed activities. Work associated with the Notification will not commence until written Department approval has been issued. Once Department approval has been issued, the Department will be notified a minimum of two (2) days prior to the start of activities on the Property. Shall any significant alterations to the Department approved plan be necessary, a written description of the proposed deviation, will be submitted to the Department for review and approval prior to initiating such changes.

- 4.1.3 Health and safety procedures will be followed as described in Section 3.0 above and be incorporated into a Property-specific health and safety plan developed for the activity. Excavation or moving of impacted soils or sediment will also require that dust suppression measures be available, and that perimeter and breathing-zone monitoring be performed during the course of the activity.

**4.2 Material Handling and Tracking**

The environmental inspector shall keep accurate records of the volumes of soil and sediment moved about the Property, the initial location of those volumes of soil/sediment, and the final location of the volumes of soil/sediment.

- 4.2.1 The excavated soils/sediment will either be re-entered to their original location (returned to the excavation) the same day of the removal and will be placed below the applicable engineered control cap, or will be properly stored in a secured location of the Property.
- 4.2.2 To the extent it is necessary during excavation activities, the clean fill material of the engineered cap will be segregated from the regulated soil/sediment beneath the cap and stored separately and securely on and under polyethylene sheeting as described in Section 4.3. Best management practices will be utilized to minimize and control generation of dust during excavation, movement or storage of regulated soils and sediment in accordance with this SMP and the health and safety plan developed for the activity. Any regulated soil/sediment being re-entered will be placed below a RIDEM approved engineered control cap.
- 4.2.3 If the soil/sediment cannot be returned to the excavation the same day, then the segregated soils/sediment will either be stockpiled separately on polyethylene sheeting (Section 4.3), or stored separately in roll-off type containers. In either case, the segregated material in storage will be covered with secured polyethylene sheeting at the end of each workday. Stockpiled materials will be maintained with appropriate controls and best management practices to limit the loss of the cover and protect against stormwater or wind erosion.
- 4.2.4 If the regulated soil/sediment cannot be returned to the original location, then a qualified environmental professional will collect samples of the excavated soils/sediment (either during excavation or from stockpiles) for laboratory testing. In the event that regulated soils/sediment are generated for which the only effective method of management is off-site disposal, then the testing program will also address the data requirements of the anticipated disposal facility.
- 4.2.5 In the event that certain soils/sediment on regulated portions of the Property were not previously characterized, these soils are presumed to be regulated until such time that it

is demonstrated to the Department, through sampling and laboratory analysis that they are not regulated.

- 4.2.6 Excavated soils/sediment will be staged and temporarily stored in a designated area of the Property. Within reason, the storage location will be selected to limit the unauthorized access to the materials (i.e., away from public roadways/walkways). No regulated soil/sediment will be stockpiled on-property for greater than 60 days without prior Department approval.
- 4.2.7 In the event that stockpiled soils/sediment pose a risk or threat of leaching hazardous materials, a proper leak-proof container (i.e., drum or lined roll-off) or secondary containment will be utilized.
- 4.2.8 Soils/sediment excavated from the Property may not be re-used as fill on residential property.
- 4.2.9 Soils/sediment, which are to be disposed of off-property must be disposed of at a licensed facility in accordance with all local, state, and federal laws. Copies of the material shipping records associated with the disposal of the material shall be maintained by the Property owner and included in the annual inspection report for the Property.
- 4.2.10 Best soil management practices should be employed at all times and regulated soils/sediment should be segregated into separate piles (or cells or containers) as appropriate based upon the results of analytical testing, when multiple reuse options are planned (i.e., reuse on-site or disposal at a Department-approved licensed facility).
- 4.2.11 All non-disposable equipment used during the soil/sediment disturbance activities will be properly decontaminated as appropriate prior to removal from the Property. All disposable equipment used during the soil/sediment disturbance activities will be properly containerized and disposed of following completion of the work. All vehicles utilized during the work shall be properly decontaminated as appropriate prior to leaving the Property as described in the health and safety plan developed for the activity.
- 4.2.12 At the completion of site work, all exposed soils/sediment are required to be recapped with Department approved engineered controls consistent or better than the Property surface conditions prior to the work that took place. These measures must also be consistent with the Department approved ELUR recorded on the property.

#### **4.3 *Polyethylene Barrier***

A polyethylene barrier shall be used to isolate stockpiles (if necessary) from the underlying soils/sediment. The polyethylene shall be a minimum of 6-mil (0.006 inches) thick. At least two layers of polyethylene shall be used to protect the ground surface. At least one layer of 6-mil polyethylene will be used to cover stockpiles at all times; except when modifying stockpiles.

#### **4.4 *Stockpile Criteria***

Stockpiles of soil/sediment exceeding the applicable RIDECS shall be placed on polyethylene sheeting, shall be covered with polyethylene sheeting meeting the requirements of Section 4.3 above, and the sheeting anchored to prevent blowing dust and runoff.

## **5.0 REPORTING AND SUBMITTALS**

An annual certification report, and closure report for major activities, will be prepared for all soil/sediment management activities at Parcel C.

### **5.1 Annual Certification Report**

The qualified environmental professional will evaluate the compliance status of the Property on an annual basis. Upon completion of the evaluation, the environmental professional will prepare and simultaneously submit to the Department and to the Property owner / or future holder of any interest in the Property, an evaluation report detailing the findings of the inspection, and noting any compliance violations at the Property. If the Property is determined to be out of compliance with the terms of the ELUR, the owner / or future holder of any interest in the Property, shall submit a corrective action plan in writing to the Department within ten (10) days of receipt of the evaluation report, indicating the plans to bring the Property into compliance with the ELUR, including, at a minimum, a schedule for implementation of the plan.

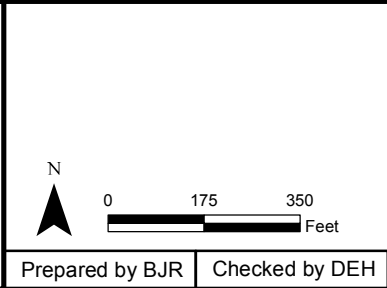
In the event of any violation of the terms of this Restriction, which remains unresolved more than ninety (90) days after written notice of violation, all Department approvals and agreements relating to the Property may be voided at the sole discretion of the Department.

### **5.2 Post-Closure Report**

The post closure reporting requirements will be determined by the Department based on the scope of the proposed activity (Section 4.1.2).

In general, a closure report shall contain the following information:

- i. Summary of material handling and tracking (Section 4.0);
- ii. All analytical results;
- iii. Sampling dates, sample locations with depths;
- iv. Performing Party certification specifying the specific remedial measures completed (i.e., Rule #), and date;
- v. Performing Party certification that public notice to abutters was completed; and
- vi. Details of institutional controls required (ELUR's per Rule 12.06 if required).

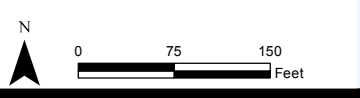
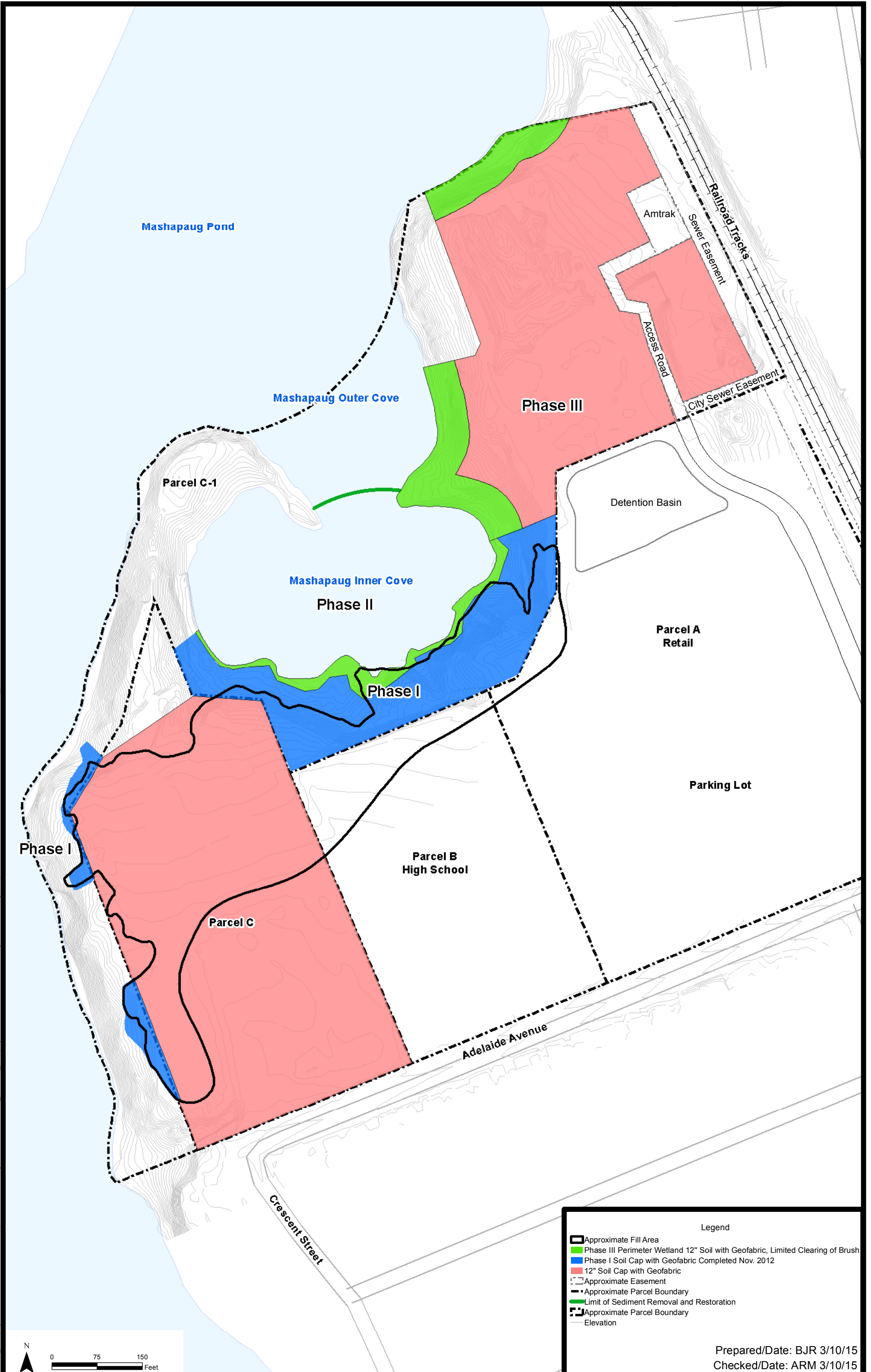


**Legend**  
 - - - Approximate Parcel Boundaries

Exhibit B  
 Figure 1  
 Parcel C  
 333 Adelaide Avenue  
 Providence, RI



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- Legend**
- Approximate Fill Area
  - Phase III Perimeter Wetland 12" Soil with Geofabric, Limited Clearing of Brush
  - Phase I Soil Cap with Geofabric Completed Nov. 2012
  - 12" Soil Cap with Geofabric
  - Approximate Easement
  - Approximate Parcel Boundary
  - Limit of Sediment Removal and Restoration
  - Approximate Parcel Boundary
  - Elevation

Prepared/Date: BJR 3/10/15  
 Checked/Date: ARM 3/10/15

Former Gorham Manufacturing Site  
 333 Adelaide Avenue  
 Providence, RI



Parcel C Cap  
 Project 3652-14-0032  
 Exhibit B Figure 2