

**To:**  
Joseph Martella

**CC:**  
Gregory Simpson

**Project name:**  
Textron Groundwater Extraction and Treatment  
System – Sewer Connection

333 Adelaide Avenue  
Providence, Rhode Island

**Project ref:**  
60646242

**From:**  
Rory Henderson  
Bryan MacDonald  
Patrick Haskell

**Date:**  
November 12, 2020

## Alterations to ELUR Area Plan

### Introduction

AECOM Technical Services, Inc. (AECOM), on behalf of Textron, Inc. (Textron) has prepared this work plan outlining proposed activities associated with the trenching and installation of a new underground drain line for the discharge of treated groundwater to the City of Providence/Narragansett Bay Commission sewer system. Currently, the groundwater treatment system discharges to a detention basin adjacent to Mashpaug Cove under a Rhode Island Pollutant Discharge Elimination System (RIPDES) Remediation General Permit RIG85E004. The work is being conducted at the request of the Rhode Island Department of Environmental Management (RIDEM) Office of Water Resources. Narragansett Bay Commission Pretreatment and Sewer Connection permits have been obtained, including Indirect Temporary Sewer Connection Permit SC200222 and Stormwater Management Plan SC200223. The installation of the discharge piping will involve disturbances to the existing engineered cap, including saw-cutting and removing asphalt, excavating soil, installing pipe, backfilling, disposal of excess soil, and repaving the asphalt surface.

### Summary of Work Activities

The trench proposed for the new drain line closely follows the existing corridor used by the groundwater extraction and treatment system (GWTS) for conveying untreated groundwater from three extraction wells to the treatment shed, as shown on the attached Construction Drawings included as **Attachment A**. The proposed sequence of work activities is as follows:

- Notice to Abutters;
- Contact DigSafe and perform a utility survey using ground penetrating radar to locate underground utilities;
- Sawcut asphalt pavement as wide as needed to accommodate the installation of the new drain line along the proposed trench path;
- Segregate removed asphalt from soil and recycle off-site;
- Excavate soil as needed to facilitate the installation of the new drain line as shown on the Construction Drawings;
- Stockpile excavated soil for re-use as backfill, after physically observing and screening for signs of contamination, including screening for volatile organic compounds with a photoionization detector (PID);
- Install the drainpipe and new bedding material if needed to the depth profile shown on the Construction Drawings – the new drain line varies in depth from approximately four feet below ground surface to approximately 10 feet below ground surface;

- Make connections to the existing GWTS and the City of Providence/Narragansett Bay Commission Sewer line via an existing sewer manhole located in the southern parking area at the locations shown on the Construction Drawings (**Attachment A**);
- Backfill and compact the trench, using excavated soil to the maximum extent practicable;
- If needed, certified clean soil will be brought in from off-site for use as backfill; and
- Install new asphalt pavement surface over disturbed areas.

Work is anticipated to occur over a five-week period starting the week of November 16<sup>th</sup> and ending by December 18<sup>th</sup>.

### **Soil Management Plan**

Work will be conducted in accordance with the Soil Management Plan (SMP) associated with the Environmental Land Use Restriction (ELUR), which is included as **Attachment B**. In general, contaminants that have been identified in some previously collected site soil samples include lead, arsenic, polycyclic aromatic hydrocarbons (PAHs) and dioxins at concentrations that exceed residential or commercial Rhode Island Direct Exposure Criteria (DEC) at various locations. Impacted groundwater and soil vapor are present in some locations in the subsurface that contain volatile organic compounds (VOCs) including tetrachloroethylene (PCE), trichloroethylene (TCE), DCE (dichloroethylene), and TCA (trichloroethane) in groundwater. Plans for following specific SMP requirements are detailed in the following sections.

### **Erosion Control**

Soil stockpiles will be stored on top of two sheets of 6-mil (minimum thickness) polyethylene sheeting and covered with another sheet of 6-mil (minimum thickness) polyethylene sheeting. The stockpile covers will be properly ballasted and constructed to minimize potential for contact with rainfall and surface water flow. Stockpiles will also be lined with haybales to prevent any run-off.

Nearby catch basins will be outfitted with filter bags to catch potential sediment runoff during trenching activities.

### **Air Monitoring and Dust Control**

Downwind perimeter and breathing-zone air monitoring will be performed using two DustTrak II Aerosol monitors and a MiniRAE 3000 photoionization detector (PID). If dust concentrations at the perimeter of the site or in the breathing zone measure 1 mg/m<sup>3</sup> for 15 minutes or longer or visible evidence of dust generation is observed, water spray will be used to suppress dust. Dust concentrations are not expected to be problematic at the site perimeter due to the location of the trench within the center of the site, but if needed a water truck may be brought in to supply potable water for dust suppression. If VOCs are detected at the site perimeter or in the breathing zone measuring 5 ppmv or greater for 15 minutes or longer, measures to minimize airborne VOCs will be implemented, including minimizing the open excavation area, covering the excavation and stockpiles, working upwind from the open excavation, and upgrading site workers to Level C PPE.

### **Soil Management**

An estimated total of 600 cubic yards of soil will be excavated for the drain line installation, most of which will be re-used as backfill. Any excess soil which cannot be placed back into the excavation due to the displacement of the pipe will be disposed of off-site at a licensed facility. Waste characterization sampling will be performed according to the required acceptance criteria of the disposal facility.

In addition, excavated soils will be physically observed and screened for signs of contamination, including by screening with a PID using a jar headspace method. Soils which exhibit headspace concentrations in excess of 10 ppmv will be segregated, stockpiled on their own, and arranged for off-site disposal at a licensed facility. To the maximum extent practicable, the clean fill material of the engineered cap will be segregated from the regulated soil beneath the cap, stored separately on and under polyethylene sheeting, and reused for the restoration of the engineered cap as described in the following section.

### **Restoration**

Following installation of the drain line, the existing engineered cap will be reconstructed by backfilling and compacting 8" of clean road base materials, and installing a new coat of asphalt pavement consisting of a 2-inch thick (minimum) binder course followed by a 2-inch thick (minimum) topcoat, conforming to the Rhode Island Department of Transportation's Standard Specifications for Road and Bridge Construction Section 401, reconstituting the engineered cap in the top 12 inches of the surface material. Only hot mix asphalt will be used. If weather does not permit the installation of hot mix asphalt pavement this year, then a temporary coat of cold patch asphalt will be applied at the conclusion of work, and a permanent hot mix asphalt pavement will be installed in the Spring of 2021.

### **Site Security**

Excavations which will remain open overnight or for longer than one workday will be secured using steel road plates as covering and by surrounding the area with temporary fencing, including adjacent soil piles.

### **Reporting**

Once work activities are complete, a written Alteration of ELUR Area Closure Report will be prepared in accordance with the ELUR/SMP, which will document that activities were completed in accordance with the approved plan and will include the following information:

- Certification that public notice to abutters was completed;
- Location of new drain line;
- Photograph log documenting excavation and restoration activities;
- Laboratory analytical reports for clean fill materials imported to the site for use as backfill;
- Laboratory analytical reports for characterization of soil being disposed off-site; and
- Documentation of the volume of material properly disposed of, such as bills of lading (BOLs) or non-hazardous waste manifests.

### **Attachments**

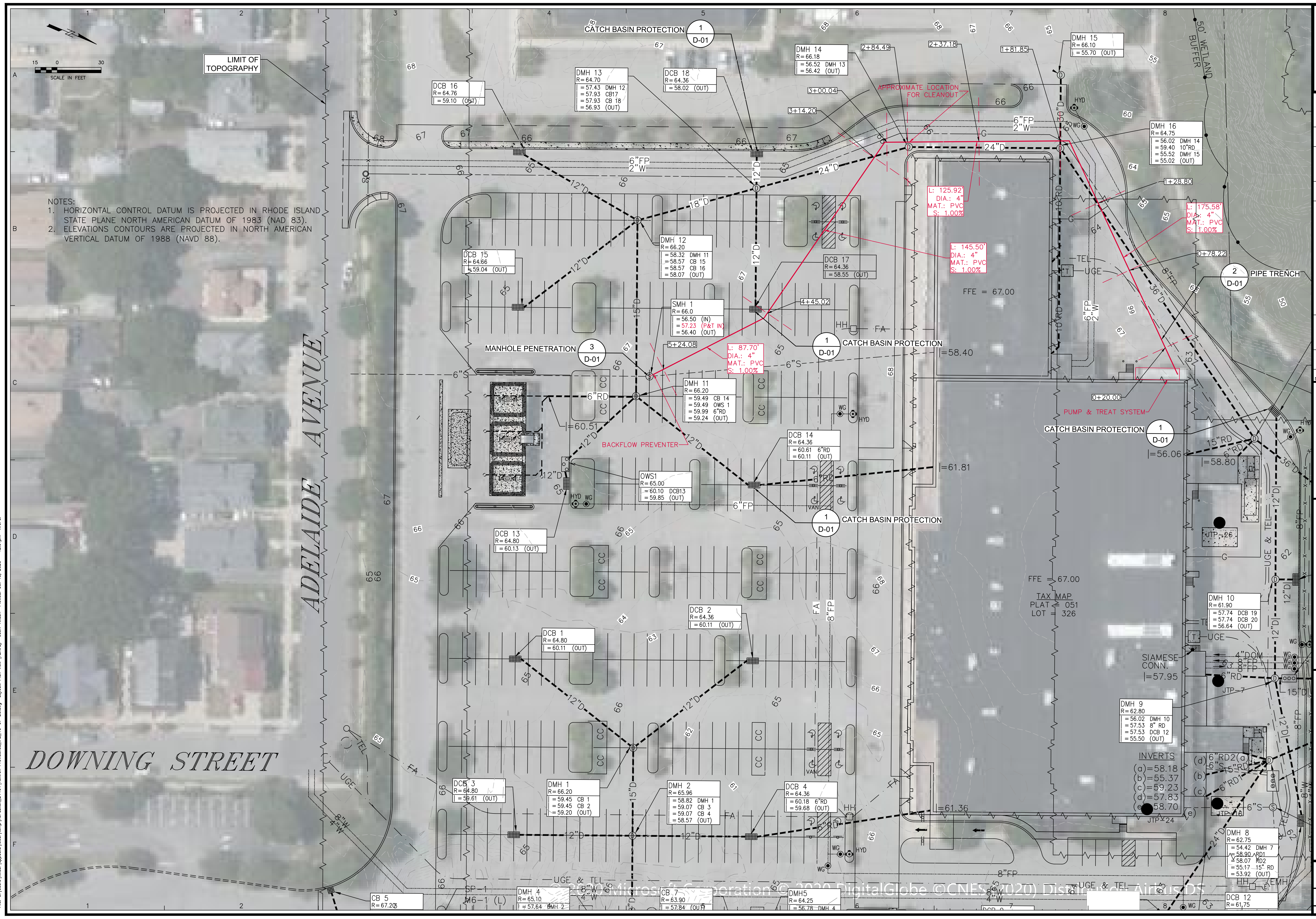
**Attachment A: Construction Drawings**

**Attachment B: Soil Management Plan**

**Attachment A: Construction Drawings**

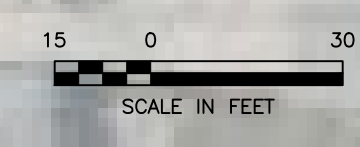


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NOTES:  
 1. HORIZONTAL CONTROL DATUM IS PROJECTED IN RHODE ISLAND STATE PLANE NORTH AMERICAN DATUM OF 1983 (NAD 83).  
 2. ELEVATIONS CONTOURS ARE PROJECTED IN NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).

ADELAIDE AVENUE  
 DOWNING STREET



LIMIT OF TOPOGRAPHY

**RANDALL M. TWISS**  
 No. 12480  
 REGISTERED PROFESSIONAL ENGINEER (P.E.)

NO.	DATE	REVISION
1	10/07/20	ISSUED FOR BID
2	10/07/20	RMT
3	09/03/20	ISSUED FOR PERMIT
4	09/03/20	RMT
5	09/03/20	RMT
6	09/03/20	RMT
7	09/03/20	RMT

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 Chelmsford, MA 01824  
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**TEXTRON, INC.**  
 333 ADELAIDE AVENUE  
 PROVIDENCE, RHODE ISLAND

**PLAN VIEW**

PROPOSED PUMP & TREAT SYSTEM  
 DISCHARGE POINT RELOCATION

PROJ. NO.: 60567801  
 DATE: 10/07/20

DRAWING NUMBER:  
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SHEET NUMBER:  
 1 OF 1

REVISION

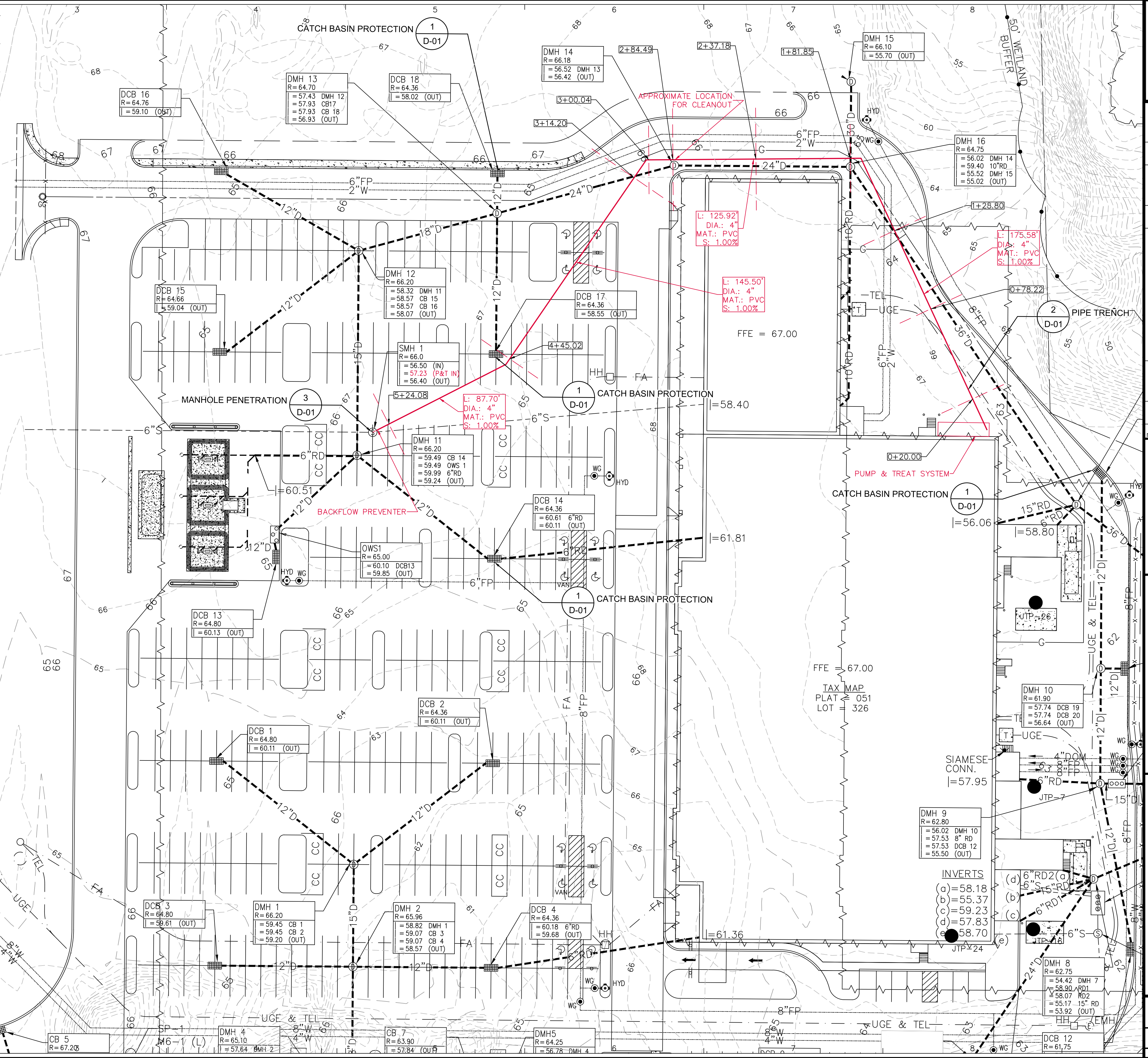
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- NOTES:**
- HORIZONTAL CONTROL DATUM IS PROJECTED IN RHODE ISLAND STATE PLANE NORTH AMERICAN DATUM OF 1983 (NAD 83).
  - ELEVATIONS CONTOURS ARE PROJECTED IN NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
  - THIS PROPERTY IS SUBJECT TO AN ENVIRONMENTAL LAND USAGE RESTRICTION AND A SOIL MANAGEMENT PLAN. CONTRACTOR SHALL ABIDE BY CONDITIONS SET FORTH IN THESE ATTACHED DOCUMENTS.
  - ALL WORK SHALL CONFORM TO THE RHODE ISLAND DEPARTMENT OF TRANSPORTATION MOST RECENT DETAILS AND SPECIFICATION.
  - CONTRACTOR SHALL IMPLEMENT ALL CITY, COUNTY, STATE, FEDERAL, JOB SITE SAFETY AND SITE-SPECIFIC REQUIREMENTS AS THEY RELATE TO DUST CONTROL, EQUIPMENT MOVEMENT, NOISE, HOURS OF WORK AND CONSTRUCTION HAZARDOUS MATERIALS AND SHALL MINIMIZE ANY INCONVENIENCE TO THE PUBLIC.
  - THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEARING THE PROPOSED WORK AREA OF ALL DELETERIOUS MATTER.
  - THE CONTRACTOR SHALL TAKE ALL NECESSARY AND PROPER PRECAUTIONS TO PROTECT ADJACENT PROPERTIES FROM ANY AND ALL DAMAGE THAT MAY OCCUR FROM STORM WATER RUNOFF AND/OR ANY DEPOSIT OF WATER RUNOFF AND/OR DEBRIS RESULTING FROM ANY AND ALL WORK IN CONNECTION WITH CONSTRUCTION.
  - TREES, FOLIAGE, SIGNS, AND OTHER IMPROVEMENTS SHALL BE PROTECTED IN PLACE AND ANY DAMAGE TO EXISTING IMPROVEMENTS SHALL BE REPAIRED OR REPLACED IN KIND TO THE SATISFACTION OF ENGINEER.
  - THE CONTRACTOR SHALL BE RESPONSIBLE DURING ALL PHASES OF THE WORK TO PROVIDE FOR PUBLIC SAFETY AND CONVENIENCE.
  - AN EXISTING UTILITY SURVEY WAS NOT COMPLETED AND THERE ARE NO GUARANTEE THE ACCURACY OR COMPLETENESS OF EXISTING UTILITIES. CONTRACTOR SHALL FIELD VERIFY SIZES AND LOCATIONS OF ALL POTENTIALLY IMPACTED UTILITIES PRIOR TO CONSTRUCTION.
  - WORK SHALL BE ACCOMPLISHED IN SUCH A MANNER THAT UNDERGROUND/OVERHEAD UTILITIES OR STRUCTURES ARE NOT DAMAGED. IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO RESTORE DAMAGE INCURRED TO UTILITIES AS A RESULT OF CONTRACTOR AND CONTRACTOR'S SUBCONTRACTOR OPERATIONS. THE CONTRACTOR SHALL IMMEDIATELY REPAIR ANY EXISTING PIPE OR UTILITY DAMAGED DURING WORK ACTIVITIES AS DIRECTED BY UTILITY OWNER AND AT NO COST TO THE OWNER.
  - THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING DIG SAFE AT A MINIMUM OF 72 HOURS IN ADVANCE OF SUBSURFACE WORK TO ARRANGE FOR THE MARK OUT OF EXISTING UNDERGROUND UTILITIES.
  - CONTRACTOR SHALL PROVIDE A CONSTRUCTION SCHEDULE THAT INCLUDES SEQUENCING OF WORK ACTIVITIES FOR ENGINEER'S APPROVAL.
  - ALL FUEL, OIL, PAINT OR ANY OTHER HAZARDOUS MATERIALS SHALL BE STORED IN ACCORDANCE WITH ALL FEDERAL, STATE AND LOCAL REGULATIONS AND IN SECONDARY CONTAINMENT SECURED WITHIN A LOCKED AREA DURING NON-WORK HOURS.
  - A SUPPLY OF ABSORBENT SPILL RESPONSE MATERIAL SUCH AS BOOMS OR BLANKETS SHALL BE MADE AVAILABLE AT THE CONSTRUCTION SITE AT ALL TIMES TO CLEAN UP POTENTIAL SPILLS OF HAZARDOUS MATERIALS SUCH AS GASOLINE AND OIL.
  - THE CONTRACTOR IS RESPONSIBLE FOR SECURING OPEN EXCAVATIONS FROM FALL IN AND CONSTRUCTION RELATED DISTURBED AREAS FROM EROSION AT THE END OF EACH CONSTRUCTION DAY.
  - NO WASHOUT MATERIALS OR WASTES SHALL BE RELEASED OR DISCHARGED ON-SITE.
  - EXISTING CONDITIONS, AS PRESENTED, ARE A REPRESENTATION OF BOUNDARY, TOPOGRAPHY, AND UTILITIES SURVEY COMPLETED BY GAROFALO & ASSOCIATES, INC. ON 01/31/2001. THE CONTRACTOR IS RESPONSIBLE FOR EXISTING CONDITION SURVEY AND FIELD VERIFICATION OF SITE CONDITIONS PRIOR TO THE START OF WORK.

ADELAIDE AVENUE

DOWNING STREET



**RANDALL M. TWISS**  
 No. 12480  
 REGISTERED PROFESSIONAL ENGINEER (G.V.)

NO.	DATE	REVISION
1	10/07/20	ISSUED FOR BID
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6	09/03/20	REVISION
7	09/03/20	REVISION

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**TEXTRON, INC.**  
 333 ADELAIDE AVENUE  
 PROVIDENCE, RHODE ISLAND

**PLAN VIEW**

PROPOSED PUMP & TREAT SYSTEM  
 DISCHARGE POINT RELOCATION

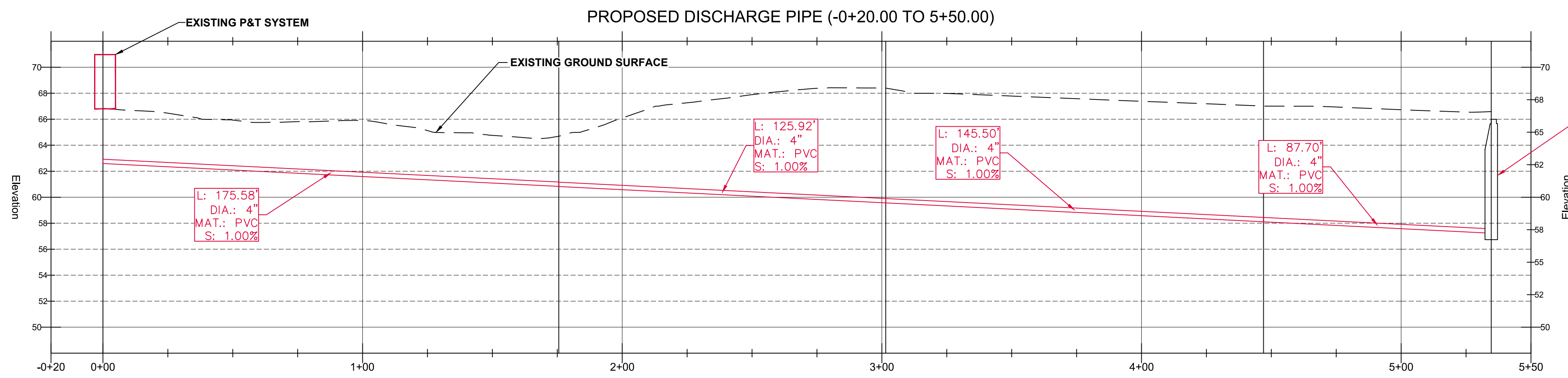
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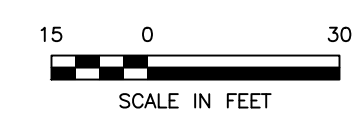
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**RANDALL M. TWISS**  
No. 12480  
REGISTERED  
PROFESSIONAL ENGINEER  
(GNL)

NO	DATE	REVISION	CHKD	DATE	APPVD	DATE
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TEXTRON, INC.  
333 ADELAIDE AVENUE  
PROVIDENCE, RHODE ISLAND

PROJ. NO.: 60567801 DATE: 10/07/20

**PIPE PROFILE VIEW**

PROPOSED PUMP & TREAT SYSTEM  
DISCHARGE POINT RELOCATION

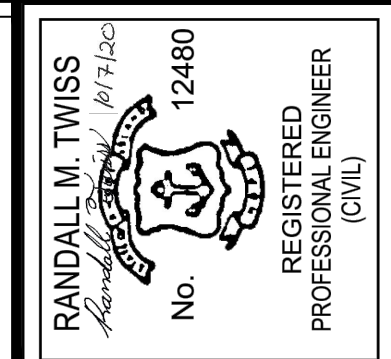
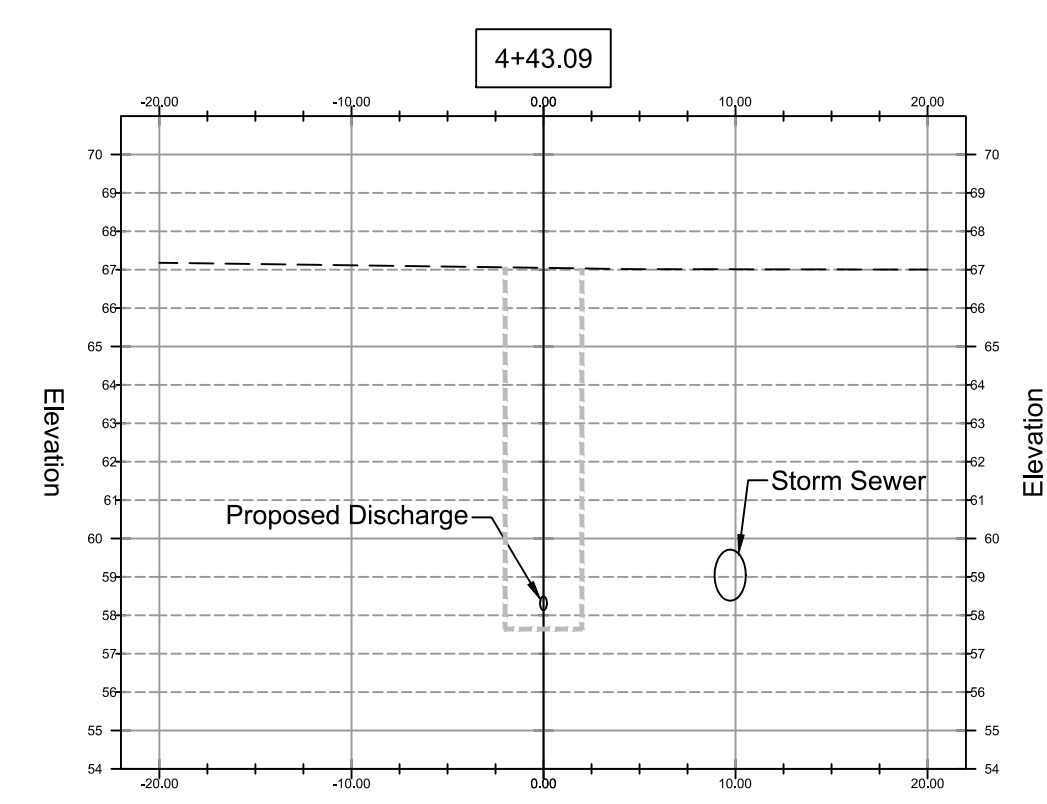
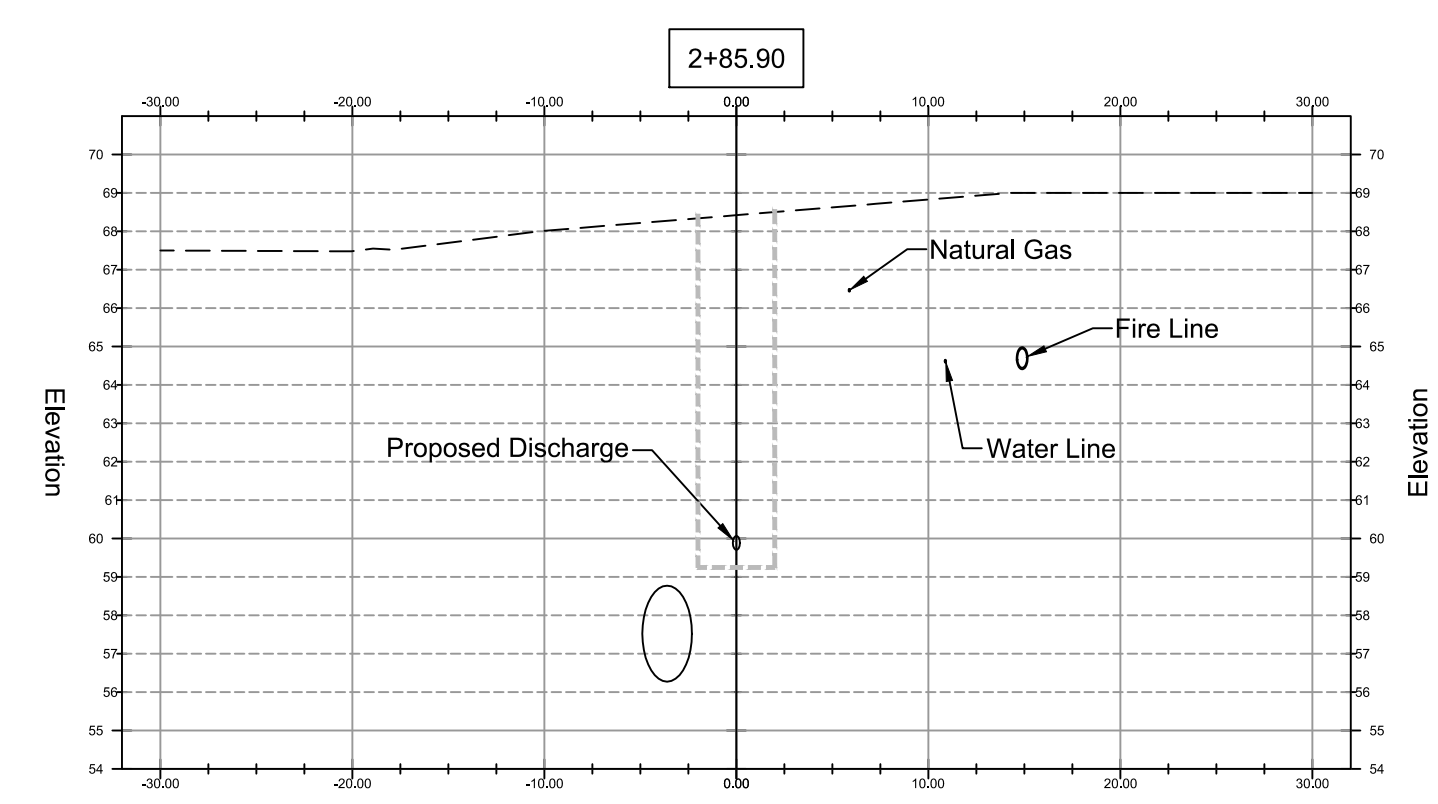
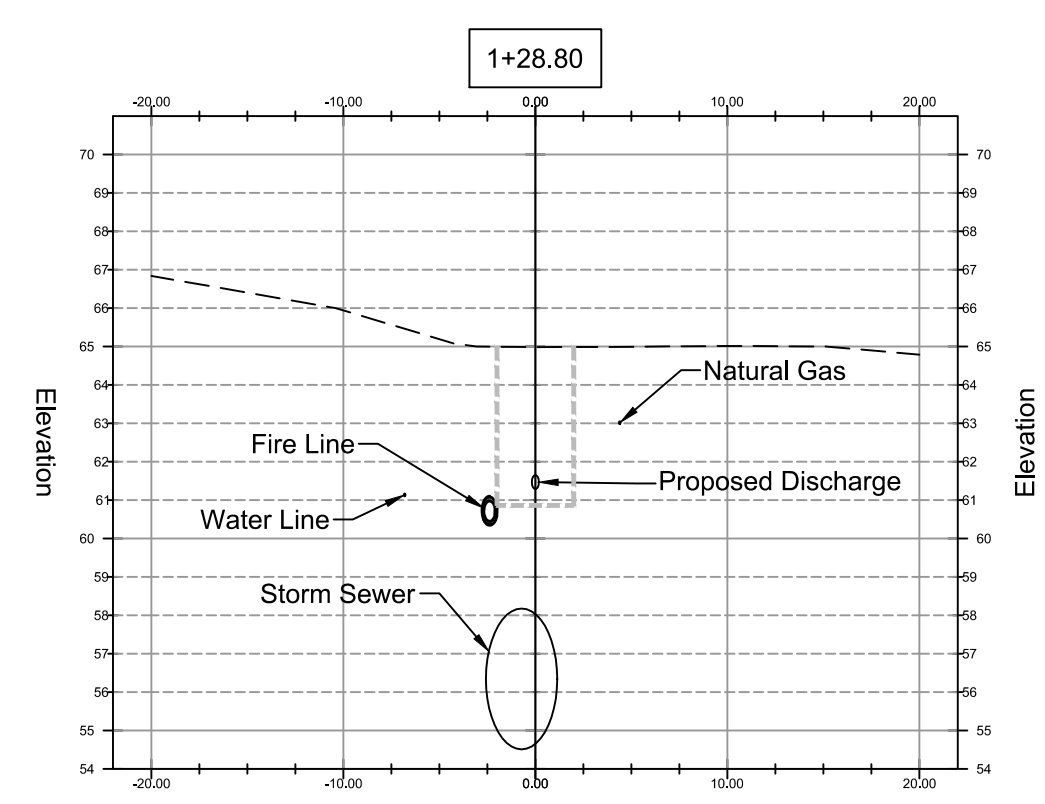
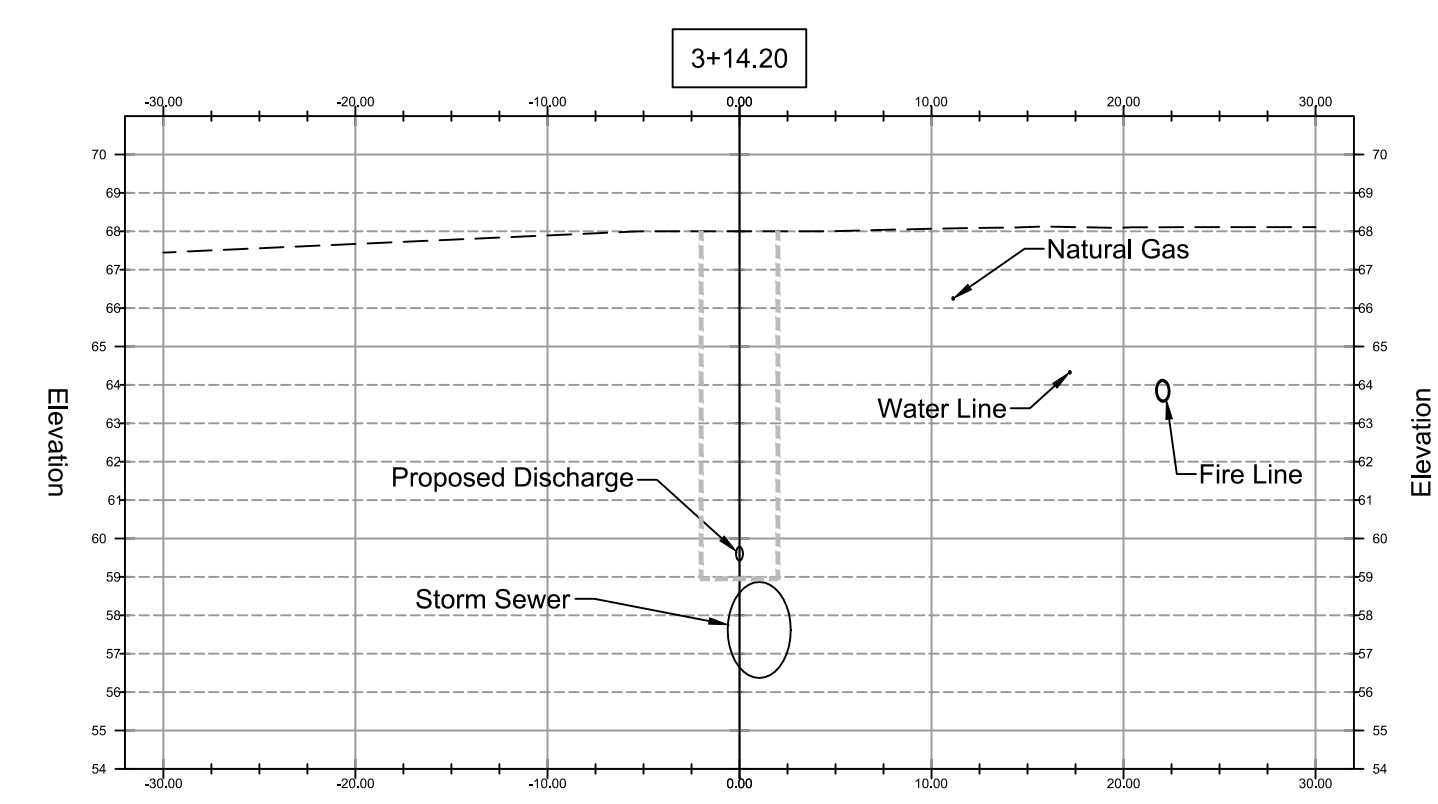
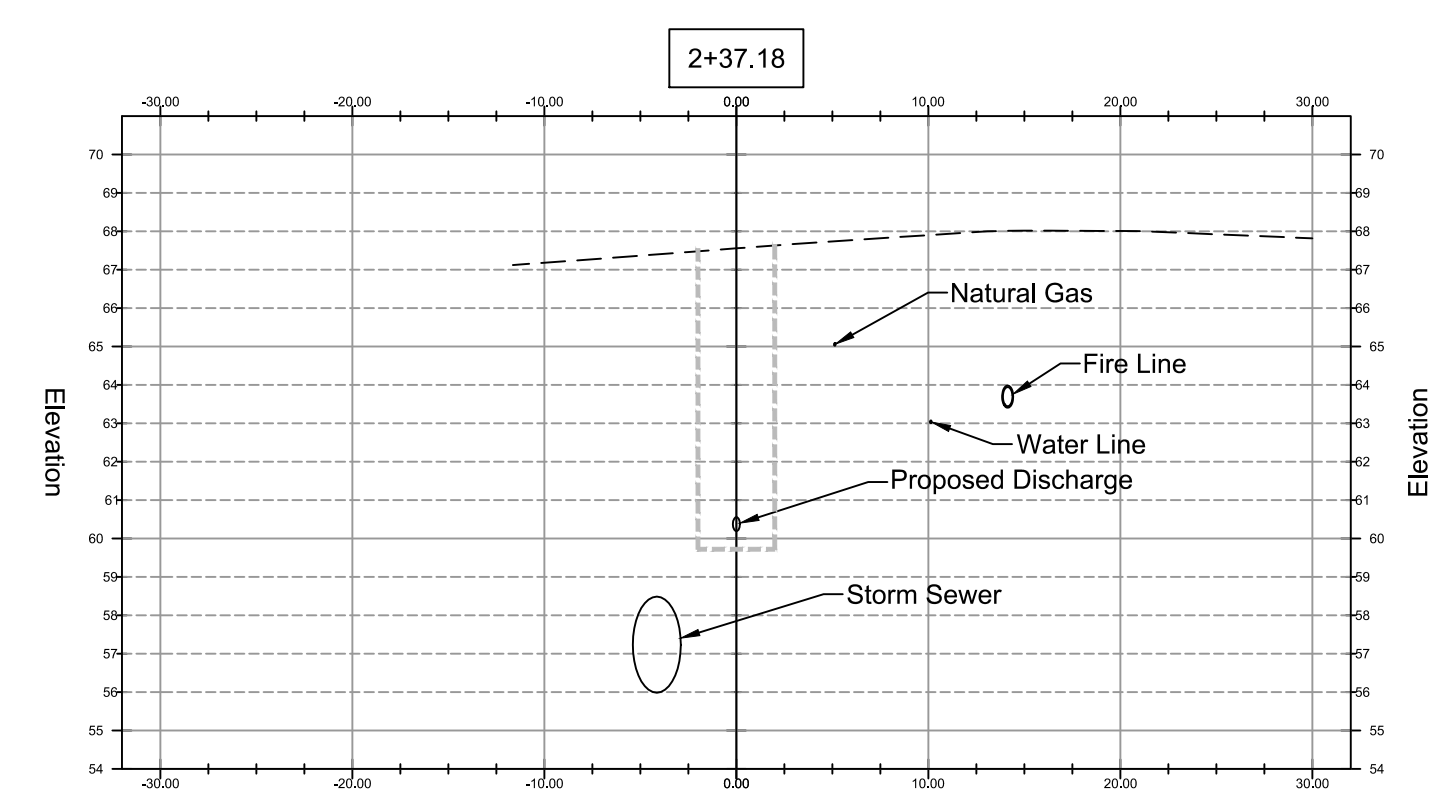
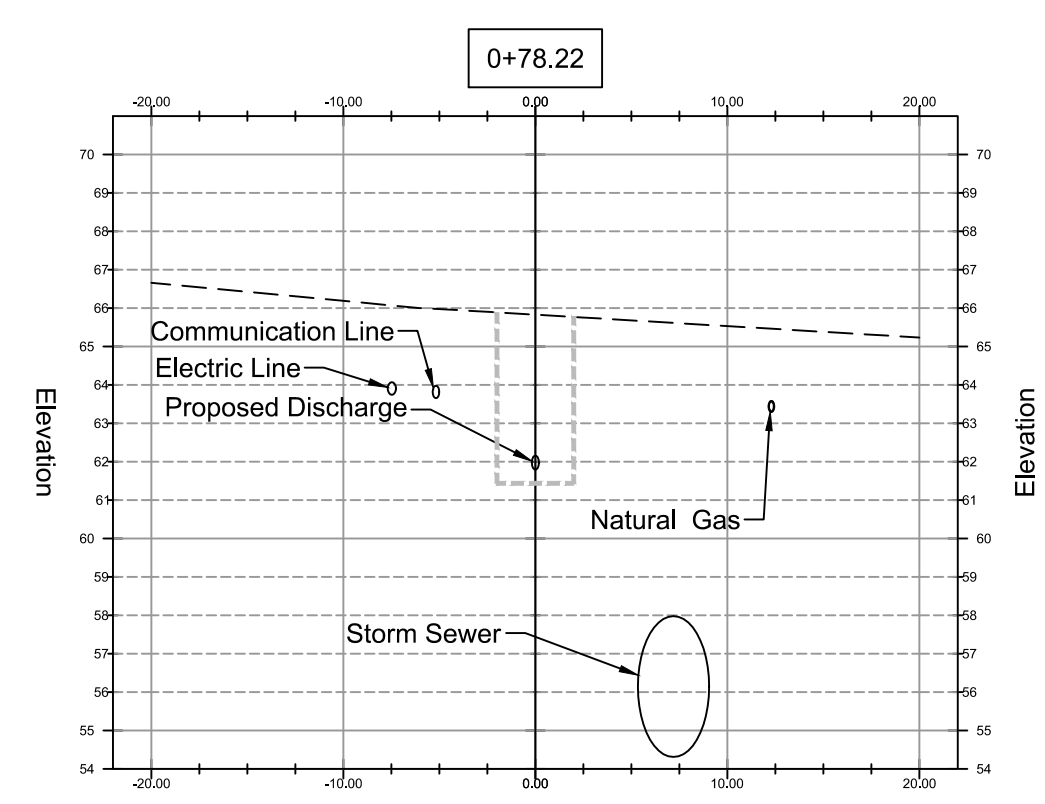
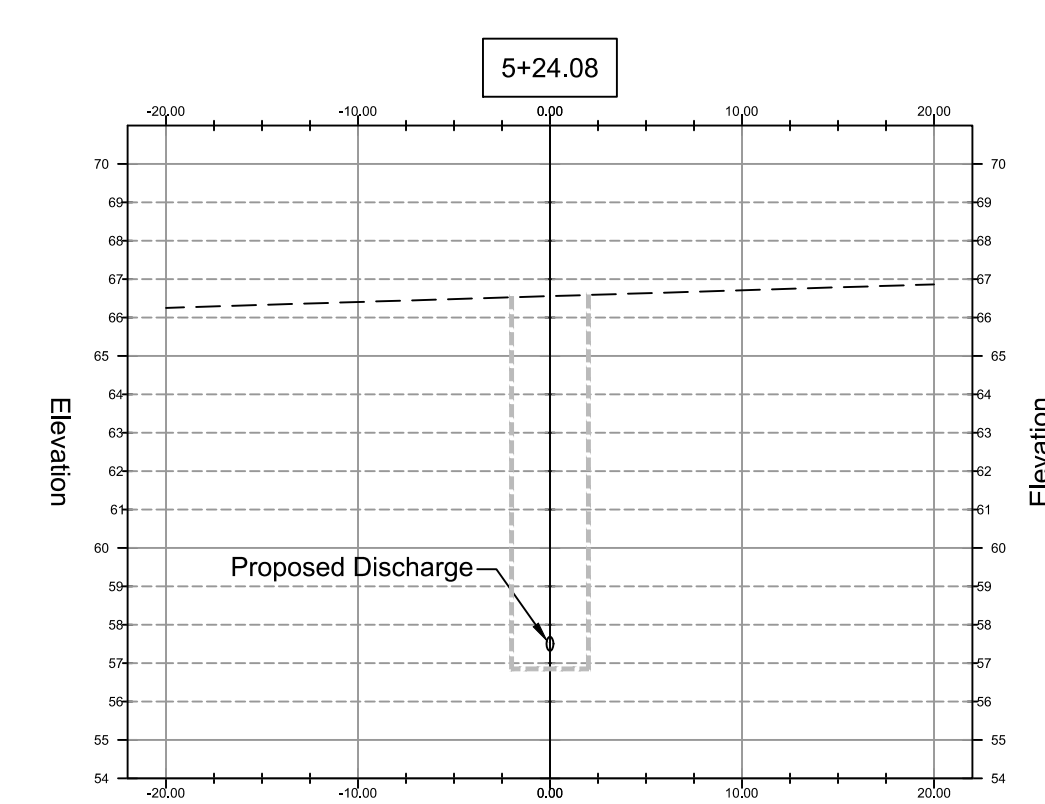
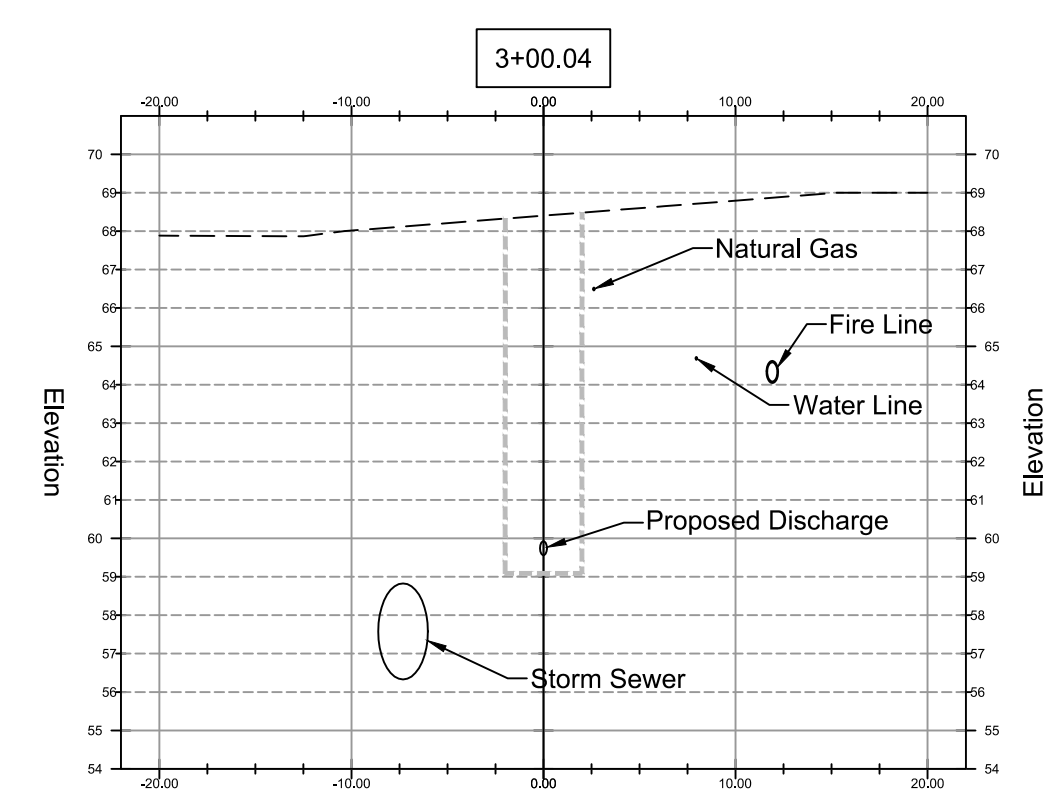
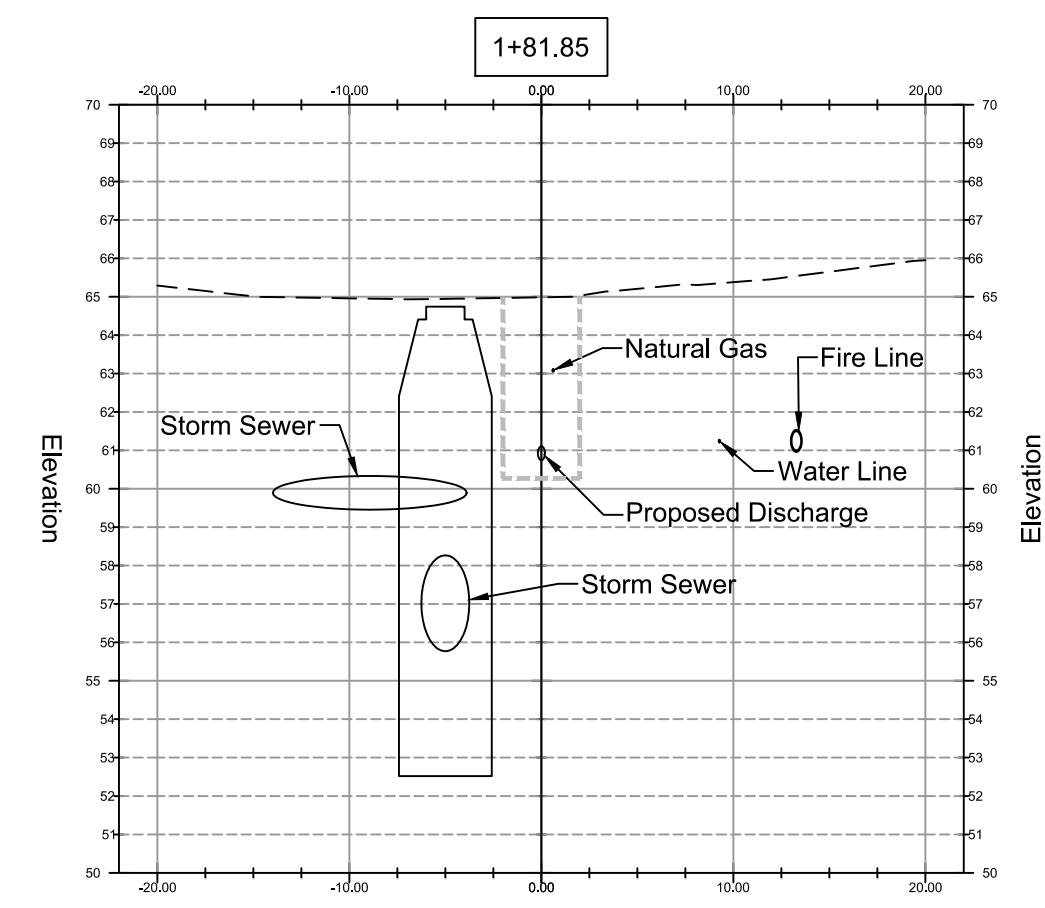
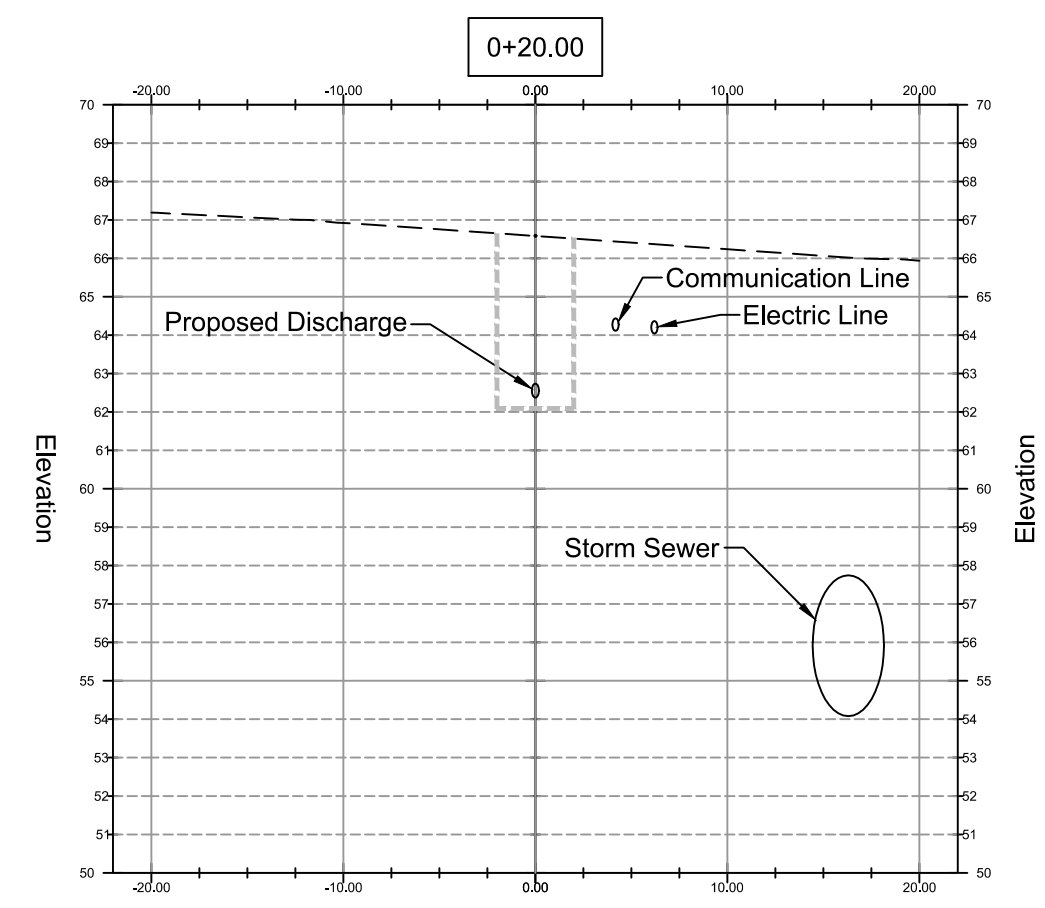
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TEXTRON, INC.  
333 ADELAIDE AVENUE  
PROVIDENCE, RHODE ISLAND

PROJ. NO.: 60567801

DATE: 10/07/20

**PIPE SECTION VIEWS**

PROPOSED PUMP & TREAT SYSTEM  
DISCHARGE POINT RELOCATION

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**Attachment B: Soil Management Plan**

### ENVIRONMENTAL LAND USAGE RESTRICTION

This Declaration of Environmental Land Usage Restriction ("Restriction") is made on this 11th day of May, 2015 by the Providence Redevelopment Agency, and its successors and/or assigns (hereinafter, the "Grantor").

#### WITNESSETH:

WHEREAS, the Grantor is the Owner in fee simple of certain real property identified as **Plat 51 Lot 326 (formerly Plat 51, Lot 322 and Portions of Lot 171, and abandoned portions of Alvin Street as depicted on the Class I Survey in Exhibit 2A), 77 Reservoir Avenue located in the City of Providence, Rhode Island (the "Property")**, more particularly described in Exhibit A (Legal Description) which is attached hereto and made a part hereof;

WHEREAS, the Property (or portion thereof identified in the Class I survey which is attached hereto as Exhibit 2A and is made a part hereof) has been determined to contain soil and/or groundwater which is contaminated with certain Hazardous Materials and/or petroleum in excess of applicable **residential and industrial/commercial Direct Exposure Criteria, and GB groundwater objective 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. § 23-19.141 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 June 15, 2001, Order of Approval – Short Term Response Action July 24, 2008, Order of Approval Addendum – Short Term Response Action August 7, 2008, and Order of Approval – Remedial Action Work Plan – Groundwater Pump and Treat System December 17, 2012, 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 June 15, 2001, Order of Approval – Short Term Response Action July 24, 2008, Order of Approval Addendum – Short Term Response Action August 7, 2008, and Order of Approval – Remedial Action Work Plan – Groundwater Pump and Treat System December 17, 2012, the Grantor desires to impose certain restrictions upon the use, occupancy, and activities of and at the **Property (Parcel A)**;

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 A):** In accordance with the Remedial Decision Letter June 15, 2001, Order of Approval – Short Term Response Action July 24, 2008, Order of Approval Addendum – Short Term Response Action August 7, 2008, and Order of Approval – Remedial Action Work Plan – Groundwater Pump and Treat System December 17, 2012, the use, occupancy and activity of and at the **Property (Parcel A)** is restricted as follows:

- i. No Residential and institutional (i.e., daycare, childcare, school including adult or college-level students) use of the **Property (Parcel A)** shall be permitted that is contrary to Department approvals and restrictions contained herein;
- ii. No groundwater at the **Property (Parcel A)** shall be used as potable water or non-potable water;
- iii. No soil at the **Property (Parcel A)** 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. Since soil in certain areas has been removed or is not contaminated, temporary disturbance of soil is allowed, and compliance with the SMP is not required, when encountering soil for simple maintenance performed in the following areas and depths:
  - Outside of Property (Parcel A) building footprint: from ground surface to a depth of one foot.

The disturbed area is to be returned to a similar condition as existed prior to the temporary disturbance;

- iv. Humans engaged in activities at the **Property (Parcel A)** 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;
- v. Water at the **Property (Parcel A)** shall be prohibited from discharging or infiltrating soils or fill containing Hazardous Materials and/or petroleum in concentrations exceeding the applicable Department approved leachability criteria set forth in the Remediation Regulations, in the area outside the existing building footprint as indicated on Figure 1 of Exhibit B, other than by natural precipitation and infiltration;
- vi. No subsurface structures shall be constructed on the **Property (Parcel A)** over groundwater containing Hazardous Materials and/or petroleum in concentrations exceeding the applicable Department approved GB Groundwater Objectives set forth in the Remediation Regulations;
- vii. The engineered controls at the **Property (Parcel A)** described in the SMP contained in Exhibit B attached hereto shall not be disturbed and shall be properly maintained to prevent humans engaged in **industrial/commercial** activity from being exposed to soils containing Hazardous Materials and/or petroleum in concentrations exceeding the

applicable Department-approved **industrial/commercial** Direct Exposure Criteria in accordance with the Remediation Regulations; and

- viii. The engineered controls at the **Property (Parcel A)** described in the **SMP** contained in Exhibit B 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 A Groundwater Remedial Action Work Plan (RAWP) dated 10/30/2012 and Addendum/Response to RAWP dated 12/5/2012. Further, the Grantor shall be required to prevent damage to wells, and if such damage does occur (such as during snow removal 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 A) 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 A)**, except as permitted in the Department-approved **SMP** contained in Exhibit B.

**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 A)** 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 A)**, emergency maintenance and repair of utility lines shall only require restoration of the **Property (Parcel A)** 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.

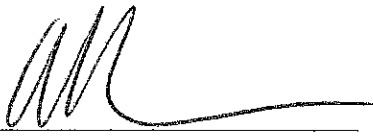
- D. Release of Restriction; Alterations of Subject Area:** The Grantor shall not make, or allow or suffer to be made, any alteration of any kind in, to, or about any portion of the **Property (Parcel A)** inconsistent with this Restriction unless the Grantor has received the Department's prior written 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 A)** from the provisions of this Restriction unless the Grantor demonstrates to the Department's satisfaction that Grantor has managed the **Property (Parcel A)** in accordance with applicable regulations.
- E. Notice of Lessees and Other Holders of Interests in the Property (Parcel A):** The Grantor, or any future holder of any interest in the **Site**, shall cause any lease, grant, or other transfer of any interest in the **Property (Parcel A)** 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 A)**.
- 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 A)** 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 A)**, to provide for annual inspections of the **Property (Parcel A)** for compliance with the ELUR in accordance with Department requirements. A qualified environmental professional will, on behalf of the Grantor or future holder of any interest in the **Property (Parcel A)**, evaluate the compliance status of the **Property (Parcel A)** on an annual basis. Upon completion of the evaluation, the environmental professional will prepare and simultaneously submit to the Department and to the Grantor or future holder of any interest in the **Property (Parcel A)** an evaluation report detailing the findings of the inspection, and noting any compliance violations at the **Property (Parcel A)**. If the **Property (Parcel A)** 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 A)** 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 A)** 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 uncured more than ninety (90) days after written notice of violation, all Department approvals and agreements relating to the **Property (Parcel A)** may be voided at the sole discretion of the Department.

**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

By:   
Grantor

DONALD D. GRALNEK  
Executive Director

STATE OF RHODE ISLAND  
COUNTY OF PROVIDENCE

In Providence, in said County and State, on the 4<sup>th</sup> day of June, 2015, 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 acknowledged said instrument by him executed to be his free act and deed.

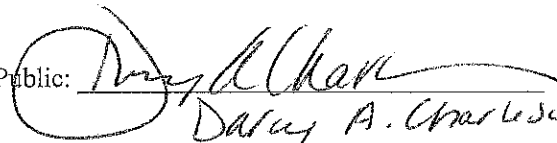
Notary Public:   
Daray A. Charleson  
My Comm. Expires: February 13, 2016



EXHIBIT A  
LEGAL DESCRIPTION

**EXHIBIT A  
LEGAL DESCRIPTION  
FOR PARCEL A REVISED  
A PORTION OF ASSESSOR'S PLAT 51 LOT 170& 171**

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 the intersection of the centerline of the abandoned portion of Adelaide Avenue with the westerly line of land now or formerly of National Railroad Passenger Corporation sixty-six (66') foot right of way;

Thence proceeding south  $67^{\circ} 27' 51''$  west along the center line of abandoned Adelaide Avenue a distance of fifty three and  $35/100$  (53.35') feet to a point, bounded southerly by land now or formerly of National Railroad Passenger Corporation;

Thence proceeding south  $25^{\circ} 49' 03''$  east a distance of one hundred seventy two and  $51/100$  (172.51') feet to a point on the northerly street line of Reservoir Avenue, bounded easterly by land now or formerly of National Railroad Passenger Corporation;

Thence proceeding south  $15^{\circ} 34' 51''$  west along the northerly street line of said Reservoir Avenue a distance of one hundred forty two and  $00/100$  (142.00') feet to a point;

Thence proceeding along the arc of a curve with a radius of fifty five and  $00/100$  (55.00') feet and a delta angle of  $57^{\circ} 18' 39''$  a distance of fifty five and  $01/100$  (55.01') feet to a point of reverse curve;

Thence proceeding along the arc of said curve with a radius of one hundred twenty and  $00/100$  (120.00') feet and a delta angle of  $59^{\circ} 20' 17''$  a distance of one hundred twenty four and  $28/100$  (124.28') feet to a point;

Thence proceeding north  $15^{\circ} 21' 27''$  a distance of one hundred nine and  $17/100$  (109.17') feet to a point;

Thence proceeding along the arc of a curve with a radius of sixty and  $00/100$  (60.00') feet and a delta angle of  $16^{\circ} 46' 19''$  a distance of seventeen and  $56/100$  (17.56') feet to a point, on the centerline of the abandoned Adelaide Avenue;

Thence proceeding south  $67^{\circ} 27' 51''$  west a distance of forty nine and  $05/100$  (49.05') feet to a point;

Thence proceeding north  $22^{\circ} 32' 09''$  west a distance of thirty and  $00/100$  (30.00') feet to a point said point being located at the intersection of the easterly street line of Downing Street with the northerly street line of Adelaide Avenue;

**Exhibit A**  
**Legal Description**  
**For Parcel A Revised**  
**A Portion Of Assessor's Plat 51 Lot 170& 171**

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Thence proceeding south  $67^{\circ} 27'49''$  west along the northerly street line of Adelaide Avenue a distance of four hundred seventy four and  $72/100$  (474.72') feet to the most southwesterly corner of the herein described parcel;

Thence proceeding north  $22^{\circ} 32'11''$  west a distance of two hundred ninety seven and  $36/100$  (297.36') feet to a point;

Thence proceeding north  $54^{\circ} 32'43''$  west a distance of fifty eight and  $49/100$  (58.49') feet to a point;

Thence proceeding north  $22^{\circ} 32'11''$  west a distance of one hundred seventy six and  $57/100$  (176.57') feet to a point, the last three courses bounded westerly and southwesterly by Parcel B herein after described;

Thence proceeding north  $64^{\circ} 49'45''$  east a distance of ninety one and  $93/100$  (91.93') feet to a point;

Thence processing north  $24^{\circ} 34'33''$  east a distance of one hundred fifty three and  $23/100$  (153.23') feet to a point;

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

Thence proceeding north  $67^{\circ} 33'52''$  east a distance of four hundred eleven and  $45/100$  (411.45') feet to a point on the westerly line of land now or formerly of National Railroad Passenger Corporation, the last four (4) courses bounded northerly, northwesterly, westerly and northerly by Parcel C herein after described;

Thence proceeding south  $25^{\circ} 49'03''$  east along the line of said railroad a distance of eight hundred forty six and  $29/100$  (846.29') feet to the point and place of beginning;

Said parcel contains 552,062 square feet or 12.6 acres more or less.

Said parcel is subject to easements and a cemetery of record and any rights there may be in that portion of abandoned Adelaide Avenue & Downing Street.

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EXHIBIT 2A  
CLASS I SURVEY



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EXHIBIT B  
SOIL MANAGEMENT PLAN

## EXHIBIT B - SOIL MANAGEMENT PLAN - PARCEL A

### 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 A (Plat 51, Lot 326 [formerly Plat 51 Lot 322, a portion of Lot 171, and a portion of abandoned Alvin Street]) located at 77 Reservoir Avenue (formerly identified as 333 Adelaide Avenue) in Providence, Rhode Island (the Property). The Property consists of approximately 12.6 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 1986. Operations included casting, rolling, polishing, lacquering, forging, plating, annealing, soldering, degreasing, machining and melting. Vapor degreasers reportedly used tetrachloroethylene (PCE), trichloroethylene (TCE) and trichloroethane (TCA) during various periods of operations.

Parcel A refers to the building and surrounding paved areas that are currently used for retail space and parking along the northern side of Adelaide Avenue in Providence, Rhode Island. Parcel A also includes abandoned portions of Alvin and Downing Streets 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 from prior land uses. 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 A soils are as follows:

1. Lead, arsenic, PAHs and dioxin at concentrations that exceed residential and commercial RIDEDEC at various locations.

Groundwater and soil vapor are present in the subsurface of Parcel A that contain volatile organic compounds (VOCs) including the following:

1. PCE, TCE, trichloroethylene (DCE) and TCA in groundwater exceed Remediation Regulation GB criteria.

To prevent exposure, the final remedial action for Parcel A included constructing an engineered barrier (i.e., soil, asphalt, and/or building) to cap all impacted soil, instituting an ELUR to eliminate the potential for direct exposure to contaminated soil, and installing an active sub-slab depressurization system (ASD) to reduce the potential for migration of soil vapor contamination into the on-site buildings via subsurface infiltration. The final remedial action for Parcel A also included the installation and operation of a groundwater remediation system designed to remove and treat VOC-impacted groundwater and to contain the impacted groundwater from migrating into Mashapaug Inner Cove, and implementation of a long-term groundwater monitoring program.

**EXHIBIT B - SOIL MANAGEMENT PLAN - PARCEL A**

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**1.2 Applicability and Purpose of SMP**

This SMP is a component of the ELUR for Parcel A and is intended to address management of impacted soils that may be excavated, temporarily stockpiled, graded, or moved during and after future intrusive activities on Parcel A. Any future intrusive activity conducted on Parcel A 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 located on Parcel A. Clean fill material imported as part of the Parcel A final capping remedy completed in 2002, would not be subject to the SMP requirements. In addition, because soil in certain areas of Parcel A has been removed (e.g., during the Short Term Soil Response Action conducted in 2008) or is not contaminated, the SMP is not required when encountering soil for simple maintenance performed from the ground surface to a depth of one foot below the landscaped or parking lot surface, as shown on the Figure 1 of this SMP. However, any clean soil that is disturbed within or removed from the clean cap soil of Parcel A, must be replaced with soil that is consistent in quality and composition with the existing clean soil cap. Exhibit B, Figure 1 identifies and provides a description of the cap constructed on Parcel A.

**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 A 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; re-paving; landscaping; building construction or expansion; and maintenance of components of the Parcel A engineered cap (i.e., soil, asphalt, and/or the building's concrete slab foundation), ASD, and groundwater remediation system.

During all future intrusive activities on Parcel A, the integrity of the engineered cap (i.e., soil, asphalt, and/or the building's concrete slab foundation) must be maintained. Any landscaping, re-paving, and soil re-grading activities must maintain a minimum of 1 foot of clean soil, and demolition of the building's concrete slab foundation is prohibited. Any future building construction or expansion must incorporate design specifications that meet the existing cap conditions, except as prohibited by ELUR Section A Restrictions Applicable to the Property (Parcel A).

**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 at the Property. Soil that is disturbed during these activities will be physically observed and screened for signs of potential contamination. The environmental inspector will document the soil management actions, perform perimeter and breathing-zone air monitoring (primarily for dust and volatile organics), 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,



## EXHIBIT B - SOIL MANAGEMENT PLAN – PARCEL A

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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 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., metals [lead, arsenic], and PAHs). Although considered to be unlikely based on prior investigation activities, inhalation of VOCs is possible from impacted soil or soil vapor 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 and a photo-ionization detector (PID) to measure the concentration of VOCs 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.

Standard breathing zone and perimeter action levels for VOCs and dust 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** of the Parcel A ELUR, no soil 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 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 60 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 excavation. The description will include an estimate of the volume of soil 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, and the proposed disposal location of the soil.

4.1.2 Following written Notification, the Department will determine the post closure reporting requirements. Significant disturbances of regulated soil 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 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

**EXHIBIT B - SOIL MANAGEMENT PLAN – PARCEL A**

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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 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 moved about the Property, the initial location of those volumes of soil, and the final location of the volumes of soil.

- 4.2.1 The excavated soils 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 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 in accordance with this SMP and the health and safety plan developed for the activity. Any regulated soil being re-entered will be placed below a RIDEM approved engineered control cap.
- 4.2.3 If the soil cannot be returned to the excavation the same day, then the segregated soils 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 cannot be returned to the original location, then a qualified environmental professional will collect samples of the excavated soils (either during excavation or from stockpiles) for laboratory testing. In the event that regulated soils 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 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.

**EXHIBIT B - SOIL MANAGEMENT PLAN – PARCEL A**

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- 4.2.6 Excavated soils 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 will be stockpiled on-property for greater than 60 days without prior Department approval.
- 4.2.7 In the event that stockpiled soils 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 excavated from the Property may not be re-used as fill on residential property.
- 4.2.9 Soils, 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 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 disturbance activities will be properly decontaminated as appropriate prior to removal from the Property. All disposable equipment used during the soil 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 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 and pavement. 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 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.

**5.0 REPORTING AND SUBMITTALS**

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

**EXHIBIT B - SOIL MANAGEMENT PLAN – PARCEL A**

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**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 uncured 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).

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EXHIBIT B - FIGURE 1

PARCEL A CAP

