

ROXBURY

Parcel P-3 Tremont + Whittier Sts

3-15009

order 1 - 1977

10 OR 5/97

SCANNED

## Deering, Paegan (DEP)

---

**From:** prvs=19424b510e=kathleen.pedersen.bra@cityofboston.gov on behalf of Pedersen, Kathleen [Kathleen.Pedersen.bra@cityofboston.gov]  
**Sent:** Monday, November 29, 2010 5:09 PM  
**To:** 'Deering, Paegan (DEP)'  
**Subject:** RE:  
**Attachments:** 11.29.10 Site Plan.pdf

Paegan,

On October 12, 2010, the Boston Redevelopment Authority (BRA) voted to extend the tentative designation to Elma Lewis Partners, LLC as the Redeveloper of Parcel P-3 and a Portion of P3-H for a period of ninety (90) days. Elma Lewis Partners, LLC, was granted tentative designation as the redeveloper of Parcels P-3 and a portion of P-3H, as a result of their response to the Request for Proposals issued by the BRA on December 2, 2005. To date, Elma Lewis Partners, LLC, has simply been granted a tentative designation not ownership.

At the time of acquisition, Elma Lewis Partners, LLC will be required to conduct response actions as well as related cleanup activities to address environmental conditions associated with the property's prior uses (prior to BRA ownership). It is anticipated (as has been the case with the portion of the site that the Whittier Street Health Center is developing) that the remediation and MCP response actions will occur in conjunction with the proposed development (1,398,889 gross square feet of cultural, residential, office, retail, medical, and art educational uses, and a 1,044 space parking garage).

On June 23, 2005, the BRA received a petition requesting designation of Parcel P-3 as a PIP site in accordance with the MCP. In response to the petition, the BRA acknowledged the PIP request and designated Parcel P-3 as a PIP site in correspondence dated July 12, 2005. The BRA has voluntarily undertaken actions and has agreed to oversee the PIP process until such a time as a new owner undertakes all response actions required pursuant to Ch. 21E and its implementing regulations. The Massachusetts Contingency Plan (MCP), 310 CMR 40.0000. Accordingly, the BRA prepared the PIP to: 1) Outline the process for the public comment and how those comments will be incorporated into future response actions as appropriate and 2) communicate site conditions to the public. Over the last five years, the BRA has met monthly (and more often if requested) with the members of the community and the Roxbury Master Plan Oversight Committee to discuss the ongoing status and conditions of the Parcel P-3 and a Portion of the P3-H site. In addition, the Elma Lewis Partners, LLC, will be required to continue the PIP process and in anticipation of this have already hired GEI Consultants Inc., as their LSP to oversee all required response actions pursuant to Ch. 21E and the MCP including response actions through Site closure (including submitting the design and methods for remediation in the Phase IV report).

The BRA has taken measures to prevent exposure to soil in Area 1 (as shown on attached Site Plan) including the installation of a security fence around Area 1. The BRA has also installed concrete barriers and fencing to prevent dumping Area 1.

Below please find a chronology of the activities related to the Elma Lewis Partners, LLC:

\*On June 21, 2007, the BRA granted tentative designation to the Elma Lewis Partners, LLC as the redeveloper of Parcels P-3 and a Portion of P-3H for 360 days for the construction of the "Ruggles Place Project" (containing 1,398,889 gross square feet of cultural, residential, office, retail, medical, and art educational uses, and 1,044 space parking garage, including the renovation of 34,000 square feet in the existing and former Whittier Street Health Center building, in four building blocks whose heights range from 4 to 20 stories).

\*On June 3, 2008, the BRA voted to extend the Tentative Designation Resolution of Elma Lewis Partners, LLC until September 21, 2008 to allow time for the Redeveloper to complete the requirements and again on September 9, 2008, the BRA voted to extend for one additional month, or until October 21, 2008. On October 21, 2008, the Original Tentative Designation Resolution, as extended, expired in accordance with its terms.

\*On April 28, 2009 the BRA voted to re-adopt the tentative designation to Elma Lewis Partners, LLC as the Redeveloper of Parcel P-3 and a Portion of P3-H for a period of eighteen (18) months for the construction of the Ruggles Place Project.

\*On October 12, 2010, the BRA voted to extend the tentative designation to Elma Lewis Partners, LLC as the Redeveloper of Parcel P-3 and a Portion of P3-H for a period of ninety (90) days.

\*Attached please find for the site plan for P-3.

Thank you,

Katie

**From:** Deering, Paegan (DEP) [mailto:Paegan.Deering@state.ma.us]  
**Sent:** Monday, November 22, 2010 1:37 PM  
**To:** Pedersen, Kathleen  
**Subject:** RE:

I will be around tomorrow if that works for you

**From:** prvs=19227b03a0=kathleen.pedersen.bra@cityofboston.gov  
[mailto:prvs=19227b03a0=kathleen.pedersen.bra@cityofboston.gov] **On Behalf Of** Pedersen, Kathleen  
**Sent:** Tuesday, November 09, 2010 12:33 PM  
**To:** 'Deering, Paegan (DEP)'; 'Bhunia, Prasanta'  
**Subject:** RE:

Paegan,

I apologize for the delay in my response to you and will do so later today.

Thank you,  
Katie

**From:** Deering, Paegan (DEP) [mailto:Paegan.Deering@state.ma.us]  
**Sent:** Monday, November 01, 2010 12:51 PM  
**To:** 'Bhunia, Prasanta'; Paegan Deering - DEP  
**Cc:** Pedersen, Kathleen  
**Subject:** RE:

I can see that a portion of PARCEL 3 was addressed under another RTN. Let me know what if anything is being done under 3-15009? We can discuss the NON later this week.

Paegan

road trip?

**Deering, Paegan (DEP)**

---

**From:** prvs=18661e1837=hugues.monestime.bra@cityofboston.gov on behalf of Monestime, Hugues [Hugues.Monestime.bra@cityofboston.gov]  
**Sent:** Tuesday, September 14, 2010 1:30 PM  
**To:** paegan.deering@state.ma.us  
**Subject:** Notice of Noncompliant  
**Attachments:** Kevin Morrison.vcf; Pedersen Kathleen.vcf

**Kevin Morrison**

BRA  
General Counsel BRA  
LGL

(617) 918-4277 Work  
Kevin.Morrison.bra@cityofboston.gov  
One City Hall Square  
Boston MA 02201

**Pedersen, Kathleen**

BRA  
Senior Project Manager  
ECD

(617) 722-4300 Work  
Kathleen.Pedersen.bra@cityofboston.gov

Ms. Deering,

I received your voice mail regarding the Notice of Noncompliance for parcels abutting the Roxxe Home in Roxbury. I have attached contact information for our legal and environmental staff who will better assist you. If you need further assistance, please feel free to contact me.

Thank you,

*Hugues Monestime*

Senior Planner for Community Planning  
One City Hall Square  
Boston MA 02201-1007  
Tel 617.918.4320  
Fax 617.367.6087  
Email: [hugues.monestime.bra@cityofboston.gov](mailto:hugues.monestime.bra@cityofboston.gov)

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**Deering, Paegan (DEP)**

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**From:** Pedersen, Kathleen [Kathleen.Pedersen.bra@cityofboston.gov]  
**Sent:** Wednesday, January 16, 2013 11:08 AM  
**To:** Deering, Paegan (DEP)  
**Subject:** Tremont Crossing

Paegan,  
Good morning, hope all is well since we last spoke.

I spoke to both the attorney assigned to the project as well as the site manager and have been told that there has been no recent activity at that the site, nor is there any planned for the immediate future. However, should this change, I will immediately notify you. As far as cleanup is concerned, it is slated to be part of the proposed development.

Please let me know if you have questions or concerns.

Thank you and have a great day.  
katie

*Kathleen R. Pedersen, LEED AP*  
Senior Project Manager/Environmental Review Specialist  
Boston Redevelopment Authority  
One City Hall Square  
Boston, Massachusetts 02201-1007  
Phone: 617-918-4294  
Fax: 617-742-7783

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*web shows huge development @ this address*

## Deering, Paegan (DEP)

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**From:** Deering, Paegan (DEP)  
**Sent:** Friday, October 15, 2010 12:03 PM  
**To:** 'Bhunias, Prasanta'  
**Subject:** RE:

Thank you, Paegan

**From:** Bhunia, Prasanta [<mailto:bhuniap@wseinc.com>]  
**Sent:** Friday, October 15, 2010 12:00 PM  
**To:** Paegan Deering - DEP  
**Cc:** Kathleen Pedersen - BRA  
**Subject:** FW:

Hi, Paegan,

Please find attached some information regarding Parcel P-3. As discussed during our recent conversation, the City of Boston received a notice of non-compliance (NON-NE-07-3A146) for RTN 3-15009. We wanted to talk to you about the NON, but you indicated that you need to review site specific information before discussing the NON. Please call us after you have an opportunity to review the information.

Thank you.

Prasanta

Prasanta K. Bhunia, Ph.D., LSP  
Vice President  
Weston & Sampson  
5 Centennial Drive  
Peabody, Massachusetts 01960-7985  
Tel: (978) 532-1900  
Fax: (978) 977-0100

---

**From:** Pedersen, Kathleen [<mailto:Kathleen.Pedersen.bra@cityofboston.gov>]  
**Sent:** Thursday, October 14, 2010 6:02 PM  
**To:** Bhunia, Prasanta  
**Subject:**

**\*The Elma Lewis Partners, LLC and the Whittier Street Health Center** have been designated as the redevelopers of Parcel P-3 and a portion of P-3H.

\*On June 21, 2007, the Boston Redevelopment Authority granted tentative designation to the Elma Lewis Partners, LLC as the redeveloper of Parcels P-3 and a Portion of P-3H for 360 days for the construction of the "Ruggles Place Project" (containing 1,398,889 gross square feet of cultural, residential, office, retail, medical, and art educational uses, and 1,044 space parking garage, including the renovation of 34,000 square feet in the existing and former Whittier Street Health Center building, in four building blocks whose heights range from 4 to 20 stories).

\*On June 3, 2008, the BRA voted to extend the Tentative Designation Resolution of Elma Lewis Partners, LLC until September 21, 2008 to allow time for the Redeveloper to complete the requirements and again on September 9, 2008, the BRA voted to extend for one additional month, or until October 21, 2008. On October 21, 2008, the Original Tentative Designation Resolution, as extended, expired in accordance with its terms.

\*On April 28, 2009 the BRA voted to re-adopt the tentative designation to Elma Lewis Partners, LLC as the Redeveloper of Parcel P-3 and a Portion of P3-H for a period of eighteen (18) months for the construction of the Ruggles Place Project.

\*On September 1, 2009, both parties entered into a Site Designation Agreement providing for Whittier Street Health Center to independently redevelop on a portion of Parcel P-3 for a period of thirteen (13) months or until October 28, 2010 consisting of approximately 26,595 square feet of land to construct an approximately 70,000 gross square feet health center facility and temporary parking for seventy-five (75) vehicles.

\*Attached please find 2 site plans sent per your request, one is of the portion of the P-3 site that the Whittier Street Health Center will be developing and the other is of the entire P-3 site (including the portions to be developed by both Elma Lewis Partners, LLC and the Whittier Street Health Center). In addition, please find the Release Notification Form that was submitted in July of this year.

Please let me know if you think anything else would be useful in your review.

Thank you,

Katie

Kathleen R. Pedersen, LEED AP

Senior Project Manager/Environmental Review Specialist

Boston Redevelopment Authority

One City Hall Square

Boston, Massachusetts 02201-1007

3-15009

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**BBJRE DAILY**

REAL ESTATE NEWS, INFORMATION AND INSIGHT FOR GREATER BOSTON.

**BBJ Real Estate**

**Daily**

## **1M square-foot 'Tremont Crossing' proposed for Roxbury**

**Boston Business Journal by Thomas Grillo, Real Estate Editor**

Date: Friday, April 20, 2012, 2:27pm EDT - Last Modified: Friday, April 20, 2012, 3:29pm EDT



Thomas Grillo

Real Estate Editor- *Boston Business Journal*

Email

Elma Lewis Partners and Feldco Development have proposed "Tremont Crossing," a 1-million-square-foot, mixed-use development in Boston's Roxbury neighborhood.

If approved by the city, the \$300 million project would include 500,000 square feet of retail with smaller shops and boutiques along Tremont Street, 200,000 square feet of office space, an 11-story apartment building with 240 units, and a new museum for the National Center for Afro-American Artists. The development will also include a large public plaza and a multi-level parking garage with 1,700 spaces.

Located on an 8-acre parcel bounded by Tremont, Whittier and Downing streets, the project seeks to integrate its mix of uses in a "highly-functional, urban context creating a vibrant, pedestrian-friendly environment that is conducive to the success of its commercial and cultural tenants, as well as



### Assessing On-Line

Map	New search
<b>Parcel ID:</b>	0902980100
<b>Address:</b>	TREMONT ST BOSTON MA 02119
<b>Property Type:</b>	Exempt
<b>Lot Size:</b>	334,546 sq ft
<b>Owner on Sunday, January 01, 2012:</b>	BOSTON REDEVELOPMENT AUTH
<b>Owner's Mailing Address:</b>	TREMONT ST ROXBURY MA 02119
<b>Residential Exemption:</b>	No
<b>Personal Exemption:</b>	No

**Value/Tax  
Assessment as of Sunday,  
January 01, 2012, statutory  
lien date.**

<b>FY2013 Building value:</b>	\$0.00
<b>FY2013 Land Value:</b>	\$5,871,300.00
<b>FY2013 Total Assessed Value:</b>	\$5,871,300.00
<b>FY2013 Tax Rates</b> (per thousand):	
- Residential:	\$13.14
- Commercial:	\$31.96
<b>FY2013 Gross Tax:</b>	\$0.00
- Residential Exemption:	\$0.00
- Personal Exemption:	\$0.00
<b>FY2013 Net Tax:</b>	\$0.00

**Abatements/Exemptions**

To file an **Abatement Application** for FY2013 [click here](#)

This type of parcel is not eligible for a Residential or Personal Exemption

**Current Owners**

1 BOSTON REDEVELOPMENT AUTH

Ownership information last updated by City of Boston Assessing on December 26, 2012, and will not reflect changes made since then.

**Value History**

Fiscal Year	Property Type	Assessed Value *
2013	Exempt	\$5,871,300.00
2012	Exempt	\$5,637,100.00
2011	Exempt	\$0.00

\* Actual Billed Assessments

*Kathleen Redusen  
BRA  
617 918 4294*

View **Quarterly Tax Bill and Payment Information** for this parcel for FY2012 and FY2013.

Visit **My Neighborhood** for information on city services related to this parcel.

**Questions?** For **CURRENT** fiscal year tax bill Questions, contact the **Taxpayer Referral & Assistance Center**. For **PRIOR** fiscal year tax payments, interest charges & fees, etc. contact the Collector's office at 617-635-4131.

# **Report**

## **Proposed Whittier Street Health Center**

ASTM Phase I Environmental Site  
Assessment

Portion of Parcel P-3  
Tremont Street  
Boston, MA

February 2010

***Weston&Sampson***

Weston & Sampson Engineers,  
Inc.  
Five Centennial Drive  
Peabody, MA 01960-7985  
[www.westonandsampson.com](http://www.westonandsampson.com)  
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Appendix D	Sanborn Maps and City Directories
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## EXECUTIVE SUMMARY

Weston & Sampson, on behalf of the Whittier Street Health Center, performed a Phase I Environmental Site Assessment (ESA) of a 0.74 acre vacant parcel of land located on Tremont Street in Boston, Massachusetts (the "Site"). This ESA was performed in general accordance with American Society for Testing and Materials (ASTM) standard E1527-05 and to meet EPA's proposed All Appropriate Inquiry (AAI) standard.

The major findings of the Phase I ESA are as follows:

- The "Site" consists of a 0.74 acre parcel of land located along Tremont Street in Boston, Massachusetts. There are no buildings located on the Site. The Site is developed with a paved parking and landscaped areas. The Site is not a listed site with the Massachusetts Department of Environmental Protection (DEP).
- A pile of concrete debris was observed in an approximately 20 x 20 foot area of the Site. The concrete debris contained rebar and the majority of the concrete debris appears to be greater than 6 inches in size.
- Historic atlas maps indicate that the Site was developed with numerous buildings from the late 1800's to the 1980's. The Site buildings were historically utilized for residential and/or commercial/retail uses including warehouses, stores, a vending machine business, and two former gasoline stations.
- Historic documents indicate that the northwestern portion of the Site was occupied by a gasoline filling station from 1926 to the 1941. In 1941, the gasoline filling station was replaced with a second gasoline filling station which occupied the Site from 1941 through to the 1970's. Historic building plans indicate that two fuel oil underground storage tanks (USTs), one waste oil UST, and multiple gasoline USTs, were located on-Site. Documentation regarding the removal of these historic USTs was not identified during the ESA.
- A previous environmental investigation performed at the Site between 1996 and 2001 identified fill material to a depth of approximately 13.5 feet below grade surface (bgs). Groundwater was encountered at approximately 17 feet bgs. Laboratory analysis of a soil sample collected from the fill material did not identify detectable concentrations of contaminants exceeding the applicable DEP Reportable Concentrations.

This assessment has revealed the following concerns which are considered potential Recognized Environmental Conditions (RECs) associated with the Site:

- Evidence of on-Site dumping of concrete debris and fill materials at the Site.
- The historic use of the northwestern portion of the Site as two separate gasoline filling stations with associated fuel oil, waste oil, and gasoline USTs.

Based on these findings, Weston & Sampson recommends: (1) a geophysical survey to determine if USTs remain at the Site and (2) a Phase II Limited Subsurface Investigation. In addition, a comprehensive field investigation in the area of the former gasoline filling station should be performed.



## 1.0 INTRODUCTION

Weston & Sampson was contracted by the Whittier Street Health Center to perform a Phase I Environmental Site Assessment (ESA) of a .74 acre vacant parcel of land located along Tremont Street in Boston, Massachusetts (hereinafter referred to as the "Site"), see Figure 1 and 2. Weston & Sampson performed the ESA in January 2010.

The ESA was performed in general accordance with the Phase I ESA Process (Standard Practice E 1527-05), as developed by the American Society for Testing and Materials (ASTM), the Oil and Hazardous Material Release Prevention and Response Act, Massachusetts General Law Chapter 21E (MGL c. 21E) and in general accordance with EPA's All Appropriate Inquiry (AAI) standard. The ESA included an environmental database search, review of local, state, and federal regulatory agency files, and a limited reconnaissance of the Site and vicinity for potential off-Site contamination sources. This Phase I ESA did not include a chain of title search. A user questionnaire and Site inspection checklist are included in Appendix A, the database search in Appendix B, municipal records in Appendix C, historical information in Appendix D, topographic maps in Appendix E, and Site photos in Appendix F.

### 1.1 Purpose

The purpose of this environmental site assessment is to evaluate business environmental risk, defined as a risk which can have an impact on the business associated with the current or planned use of a parcel of commercial real estate.

This assessment utilized the general quality principals and practices towards the preparation of this report that incorporated suggested methods under the ASTM. The term "recognized environmental condition" (REC) referenced in the ASTM refers to "the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property." The ASTM definition does not include "de minimis" conditions, which generally do not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of the appropriate government agencies. Therefore, de minimis conditions are not considered RECs.

The ESA includes the following tasks:

- Review of an environmental database search report for Sites identified on databases including National Priorities List (NPL); Comprehensive Environmental Response Compensation and Liability Act (CERCLA); Resource Conservation and Recovery Act (RCRA); emergency response notification Sites; and state spill, release, and landfill Sites.
- Review of files at the City of Boston Assessor's Office, Building Department, Engineering Department, Fire Department, Planning Department, Archives Office, and Public Library.

- Site reconnaissance to observe conditions exposed at ground surface for evidence of previous and current property usage, and indications of environmental impact (e.g., stressed vegetation, staining, etc.).
- Reconnaissance of surrounding properties to identify potential off-Site sources of contamination.

In accordance with the approved scope of work, Weston & Sampson did not conduct any subsurface sampling and analysis at the Site or collect samples for suspect asbestos-containing material (ACM), lead-based paint (LBP), or radon gas. This ESA was performed in accordance with the limitations and exceptions identified in Section 1.1.0 of this report.

## 2.0 SITE DESCRIPTION

### 2.1 Site Ownership and Location

Site Owner:	Boston Redevelopment Authority
Site Occupants:	Vacant
Site Location:	Tremont Street
County:	Suffolk County
Parcel ID:	0902980010
Latitude/Longitude:	42° 19' 58" North 72° 05' 31" West
UTM Coordinates:	327,646 meters East 4,688,839 meters North
Size:	~0.74 Acres

### 2.2 Current Use of the Property

The Site is approximately 0.74 acres of vacant land located along Tremont Street in Boston, Massachusetts. Currently, the central portion of the Site is utilized as a parking area for the adjacent Boston Police Department Madison Park High School. A Site Plan is provided as Figure 2 and an aerial photograph depicting the Site is provided as Figure 3.

### 2.3 Description of Structures, Roads, Other Improvements on the Site

There are no buildings located on Site. A paved parking area is located across the central portion of the Site. Landscaped areas are located on the northern and southern portions of the Site. Topography of the Site is generally flat with the exception of a raised landscaped area on the southern portion of the Site. This area is mounded and is approximately 6 feet higher in elevation than the remainder of the Site. It is likely that fill material was utilized to construct this landscaped area. During the Site visit a pile of concrete debris was observed dumped on the ground surface in an approximately 20 x 20 foot area within a landscaped area of the southeastern portion of the Site. The concrete debris contained rebar and the majority of the concrete debris was greater than 6 inches in size.

### 2.4 Current Uses of Adjoining Properties

The Site is located on the south side of Tremont Street directly opposite of the intersection of Prentice Street and Tremont Street. The Site is located in a residential and commercial area. According to the City of Boston Planning Department the Site is zoned as Community Facilities and Open Space. Tremont Street borders the Site to the north across which is a park, Prentice Street, and a City of Boston Police Station. The Site is bordered to the east by a parking lot for the Madison Park High School. Madison Park High School borders the Site to the south. The Site is bordered to the southwest by a Boston Edison electric substation building. A paved parking area borders the Site to the west, beyond which is a building occupied by Roxbury Community College.

### **3.0 USER PROVIDED INFORMATION**

A User Questionnaire was completed by Ms. Frederica Williams, President of the Whittier Street Health Center. A summary of the information obtained by Ms. Williams is provided below. A copy of the completed User Questionnaire is provided in Appendix A. Historical information is provided in Sections 4.0 and 5.0 of this report. The information in this section was based primarily on the information collected from Ms Williams.

#### **3.1 Environmental Liens**

The user reported that she is unaware of any environmental cleanup liens against the property (the Site) that are filed or recorded under federal, tribal, state or local law.

#### **3.2 Activity and Use Limitations**

The user reported that she is unaware of any Activity and Use Limitations on the property.

#### **3.3 Specialized Knowledge**

The user reported no specialized knowledge related to the property or nearby properties.

#### **3.4 Commonly Known or Reasonable Ascertainable Information**

The user reported that she is aware of no commonly known or reasonably ascertainable information about the property that would help the environmental professional to identify conditions indicative of releases or threatened releases.

#### **3.5 Valuation Reduction for Environmental Issues**

This task was beyond the scope of the Phase I.

#### **3.6 Degree of Obviousness of Contamination**

The user indicated that she has no knowledge of any obvious indicators that point to the presence or likely presence of contamination at the property.

## 4.0 DATABASE SEARCH REPORT AND MUNICIPAL RECORDS

### 4.1 Standard Environmental Record Sources

Weston & Sampson contracted Environmental Data Resources, Inc. (EDR) to perform an on-line radius search (based on ASTM standards) of applicable State and Federal environmental databases. The EDR report is included in Appendix B. A summary of the EDR database information is provided below.

<b>EDR REGULATORY DATABASE SEARCH SUMMARY</b>			
<b>Database</b>	<b>Radius</b>	<b>Target Property</b>	<b>Surrounding Facilities</b>
National Priorities List (NPL)/De-listed NPL	1 Mile	-	0
Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Sites	1 Mile	-	0
CERCLIS No Further Remedial Action Planned (NFRAP) Sites	½ Mile	-	2
Corrective Action Report (CORRACTS)	1 Mile	-	0
Resource Conservation and Recovery Act (RCRA) Corrective Action Treatment, Storage, and Disposal (TSD) Facilities	½ Mile	-	0
RCRA Waste Quantity Generators	¼ Mile	-	0
RCRA Conditionally Exempt Small Quantity Generators (CESQG)	¼ Mile	-	1
Emergency Response Notification System (ERNS) Sites	TP	-	0
State Hazardous Waste Sites (SHWS)	1 Mile	-	229
Solid Waste Facilities/Landfills (SWF/LF)	1 Mile	-	0
Leaking Underground Storage Tank (LUST)	½ Mile	-	28
Underground Storage Tank (UST)	¼ Mile	-	6
Above Ground Storage Tank (AST) Sites	¼ Mile	-	0
Leaking ASTs (LASTs) Sites	½ Mile	-	4
Institutional Control Sites	½ Mile	-	6
US Brownfields	½ Mile	-	4
MA Release Sites	1 Mile	-	300

In general terms, surrounding properties identified in the above table were evaluated to determine if they might pose a risk to the Site based on characteristics such as proximity, elevation, type of contaminant, and regulatory status. Whether or not an off-Site source has the potential to impact the Site depends on the distance of the source from the Site, its direction from

the Site relative to groundwater flow direction, magnitude of release, contaminant type, and location. The presumed direction of groundwater flow for the Site is to the south.

On-Site Listings from Database Search

The Site was not listed on the databases searched by EDR.

Off-Site Listings from EDR Database Search

As indicated in the table above, a review of regulatory records identified two CERLCIS sites, one RCRA site, two hundred and twenty-nine SHWS sites, twenty eight LUST sites, six UST sites, 4 LAST sites, 6 Institutional Control sites, four US Brownfield sites, and three hundred MA Release Site facilities within ASTM-standard search distances of the Site. Of these, only nine facilities are located within 1,000 feet of the subject Site. Based on distance, facilities located greater than 1,000 feet from the Site are not considered a concern. The facilities located within 1,000 feet of the Site are discussed in the table below.

OFF-SITE LISTINGS FROM EDR DATABASE SEARCH		
Facility	Distance/Direction	Regulatory Status
Southwest Corridor Parcel #18, Tremont & Ruggles Street	990 feet Northeast / Crossgradient	CERCLA No Further Action Facility. No further remedial action planned by USEPA
Foreign Car Specialists, 3 Center Street	910 feet South / Downgradient	RCRA Conditionally Exempt Small Quantity Generator. No violations.
Factory Utilities FMR, New Dudley Street	365 feet West Southwest / Crossgradient	SHWS. DEP determined No Further Action required.
MBTA Station at Roxbury Crossing, 1400 Tremont Street	954 feet West Southwest / Crossgradient	SHWS and Release Site. Response Action Outcome (RAO) Statement submitted in support of regulatory closure.
MBTA Parcel 22, 1177-1229 Tremont Street	991 feet Northeast / Crossgradient	SHWS and Release Site. RAO Statement submitted in support of regulatory closure.
Boston Housing Authority Property, 10 Whittier Street	1,000 feet East / Crossgradient	SHWS and Release Site. RAO Statement submitted in support of regulatory closure.
Abandoned Building, 133 Halleck Street	863 feet West / Crossgradient	LUST and Release Site. RAO Statement submitted in support of regulatory closure.
Corner Ruggles, 1170 Tremont Street	1,000 feet Northeast / Crossgradient	LUST and Release Site. RAO Statement submitted in support of regulatory closure.
Corner Ruggles, 1170 Tremont Street	1,000 feet Northeast / Crossgradient	LUST and Release Site. RAO Statement submitted in support of regulatory closure.

Based on factors such as assumed groundwater flow direction in the Site vicinity (south), and/or regulatory status (i.e., no reported violations, regulatory closure, etc.), Weston & Sampson considers the above facilities to have a low potential to adversely impact the Site.

A listed DEP SHWS is also located approximately 400 feet east of the Site and is not identified in the EDR report. This SHWS is identified in the DEP database as Parcel P-3, Tremont and Whittier Streets, Release Tracking Number (RTN) 3-15009. Weston & Sampson performed investigations at this site on behalf of the Boston Redevelopment Authority (BRA) between 1996 and 2001. The investigations identified a release of petroleum hydrocarbons, PAHs, and lead in soil above DEP reportable concentrations. Impacted groundwater was not identified above

reportable concentrations. The source of the impacted soil was fill material identified during the investigations. Results of a groundwater elevation survey performed as part of the investigations indicated that the general groundwater flow direction was to the south. Based on groundwater flow direction and the fact that impacted groundwater was not identified above standards, this SWHS is not considered a concern to the subject Site.

#### **4.2 Municipal Records**

Weston & Sampson conducted a file review at City of Boston municipal offices. Files were reviewed for the historic street addresses for the Site depicted in historic atlas maps. The historic addresses for the Site included 1268, 1270, 1272, 1274, 1278, 1280, 1290 and 1292 Tremont Street; 125, 127, 129 Linden Park Street; and 119A, 119B, and 121 Hampshire Street. Significant information pertaining to the Site are included in Appendix C and discussed below.

##### City of Boston Assessor's Office

A representative of Weston & Sampson performed a file review at the City of Boston Assessor's Office on January 8, 2010. The assessor's office provided a field card, an assessor map, and property parcel information for the Site. The assessor's records indicate that the Site parcel is a 0.74 acre portion of a larger (8.3 acre) parcel of land listed as Parcel ID # 0902980010. The assessor's field card indicates that Site is owned by the Boston Redevelopment Authority (BRA). The 8.3 acre BRA Parcel is also known as BRA Parcel P-3. The field card and assessor map are included in Appendix C of this report.

##### City of Boston Fire Department

Weston & Sampson requested records for the Site at the City of Boston Fire Department. The Fire Department did not have any records of USTs, ASTs, or storage of oil and/or hazardous materials at the Site.

##### City of Boston Building Department

Weston & Sampson performed a file review at the City of Boston Building Department on January 8, 2010. The Building Department had records of multiple building permits for the take down/demolition of historic buildings that were located at the Site addresses. Specifically the following permits were identified and reviewed for the Site:

**City of Boston Building Department – Building Permits**

<b>Address</b>	<b>Permit Date</b>	<b>Proposed Work</b>	<b>Building Use</b>
1290 Tremont St.	1921	Building Take Down	Stable
1280 Tremont St.	1929	Building Construction	Two car garage
1280 Tremont St.	1973	Building Take Down	Warehouse
1274-1278 Tremont St.	1974	Building Take Down	Not Indicated
1274 Tremont St.	1932	Building Take Down	Tenant
125 Linden Park St.	1936	Building Construction	One car garage

Building plans for the construction of the historic two car garage at 1280 Tremont Street and one car garage at 125 Linden Park Street were not identified in City Archives or at the Boston Public Library.

City of Boston Environmental Health Department

A representative of Weston & Sampson visited the City of Boston Environmental Health Department on January 8, 2010. The Environmental Health Department had no records on file for the Site.

City of Boston Clerk's Office

Weston & Sampson visited the City of Boston Clerks Department on January 8, 2010. The Clerks Department had no records on file for the Site.

City of Boston Archives Department

Weston & Sampson visited the City of Boston Archives Department on January 12, 2010. The Archives Department had the following records on file relative to licenses for the storage of oil and/or hazardous material at the Site.



**City of Boston Archives Records – OHM Licenses**

<b>Address</b>	<b>Date</b>	<b>License</b>
1292 Tremont St.	1926	Storage of 2,000-gallons of gasoline underground.
1280 Tremont St.	1929	Storage of gasoline in tanks of cars.
1292 Tremont St.	1934	Storage of 2,000-gallons of additional gasoline underground.
1290 Tremont St.	1935	Storage of 110-gallons of alcohol, 100-gallons of Kerosene, and 200-gallons of Lube Oil.
1292 Tremont St.	1958	Document pertaining to a licensing hearing to potentially revoke 1926 and 1934 licenses for storage of gasoline.

As indicated below a former gasoline service station was located on-Site at 1290- 1292 Tremont Street in between 1926 and 1941. The licenses above pertain to the former service station activities.

The City of Boston Archives Department also had the following records on file for building permits for the Site.

**City of Boston Archives Records – Building Permits**

<b>Address</b>	<b>Permit Date</b>	<b>Proposed Work</b>	<b>Building Use</b>
1292 Tremont St.	1926	Construction of service station building.	Service station.
1292 Tremont St.	1936	Erect new sign for gas station.	Gasoline station.
1280 Tremont St.	1940	Erect and build poster unit.	One store and seven apartments.
1292 Tremont St.	1941	Remove building for new station.	Gasoline station.
1292 Tremont St.	1941	Construction of service station building.	Service station.
1280 Tremont St.	1947	Sign construction	Not indicated.

As shown in the table above, permits were obtained to construct a gasoline service station at the Site at 1292 Tremont Street in 1926 and a second station at 1292 Tremont Street in 1941. Based on a review of the above permits, it appears that an initial service station occupied the Site from 1926 to 1941 when the service station was removed and a new service station building was constructed.

### City of Boston Public Library

Weston & Sampson visited the City of Boston Public Library on January 14, 2010 to review available historic building plans for the Site. The library had the following building plans for review. Copies of the building plans are provided in Appendix C.

#### ***1926 Building Plan for Gasoline Filling Station:***

A 1926 building plan for the proposed construction of a gasoline filling station at the Site was reviewed. The plan indicates that the on-Site filling station was located adjacent and southeast of the intersection of Tremont Street and Linden Park Street. The plan includes details pertaining to the construction of a filling station office building and two in ground 1,000-gallon gasoline storage tanks with an associated pump island. The plan also indicates that four buried 55-gallon drums of lube oil were to be installed adjacent to the northeastern and northwestern corners of the service station building and a below grade concrete greasing pit was to be installed adjacent and east of the building. The plans indicate that the Site building was to be serviced with water and sewer from Linden Park Street.

#### ***1941 Existing Condition Plans:***

These plans show existing Site conditions in 1941. The plans indicated that the proposed gasoline filling station shown in the 1926 building plan was constructed and existed at the Site in 1941. The 1941 existing conditions plans indicates that four gasoline USTs were previously located on the northwestern corner of the Site adjacent to the intersection of Tremont and Linden Park Street. A service station office building was located approximately 45 feet southeast of the USTs and a pump island was located between the USTs and building. The plan also indicates that a 500-gallon buried waste oil UST was located approximately 25 feet west of the service station building. The plan also indicates that a lift oil tank was located adjacent to the southwestern portion of the former service station building. A concrete greasing pit is also shown adjacent and northeast of the former building.

#### ***1941 Building Plans for Proposed Service Station:***

These plans are for a new gasoline service station that was constructed on the northwestern portion of the Site in 1941. The previous service station was removed from the Site and a new service station was constructed. This new station is also depicted in historic Sanborn atlas maps, as discussed below. The new service station building was constructed in the general area of the previous building. According to the building plans, the previous gasoline USTs and waste oil UST at the Site were to be removed as part of construction. The plans indicate that four new 1,000-gallon gasoline USTs were to be installed in a location approximately 20 feet south of the previous gasoline UST locations. A pump island for the gasoline tanks was located approximately 10 feet north of the new gasoline USTs. The plans indicate that a 550-gallon fuel oil UST was to be installed adjacent to the southwest corner of the service station building and a 550-gallon waste oil UST was to be installed at the southeast corner of the building in a service bay. An automobile service bay with a hydraulic lift was located in the eastern portion of the service station building.

### 4.3 Site and Area History

#### 4.3.1 Sanborn® Maps

Weston & Sampson obtained Sanborn® Fire Insurance Maps from EDR in order to gain knowledge of the Site and area history. Sanborn® Fire Insurance Maps were available for the years 1888, 1897, 1919, 1950, 1964, 1988, 1990, 1992, 1993, 1994, 1995, 1998, and 2002. Copies of the Sanborn® Fire Insurance Map are provided in Appendix D. The following table summarizes information obtained from the atlas maps:

Sanborn Atlas Maps

Year	Summary On-Site	Summary Off-Site	Concerns
1888	The Site is developed with numerous unlabeled buildings. Tenement buildings are depicted at 1280 Tremont Street on the northern portion of the Site and at 119 Hampshire Street on the southern portion of the Site.	The Site is bound to the north by Tremont Street, to the west by Linden Park Street, and to the south by Hampshire Street. St. John's Church is east of the Site. The Roxbury Carpet Company is to the south and the Boston Belting Company is to the west.	None
1897	The Site is shown as in the 1888 atlas map with the following exceptions: The Site buildings at 1268-1270 and 1274 Tremont Street, and 125 Linden Park Street are labeled as dwellings.	The surrounding area is depicted as in the 1888 map. Buildings north of the Site across Tremont Street are labeled as a furniture store and a department store.	None
1919	The 1919 Atlas Map depicts the Site as in the 1897 Map. The Site building at 1290 Tremont Street is labeled as a hardware store.	The surrounding area is depicted as in the 1897 map. A transformer house is shown adjacent and south of the Site.	None
1950	A gasoline service station with three gas tanks is depicted on the northwestern portion of the Site at 1290-1292 Tremont Street. A dwelling with two automobile garages is depicted at 125 Linden Park Street to the south of the service station. The remainder of the Site is undeveloped.	The current Boston Edison Company building is southwest of the Site. Tremont Street and multiple unlabeled buildings are to the north. St. Johns Church is east of the Site. General Thread Mills is to the south. Boston Showcase Wood Finishing Company is west of the Site.	Former on-Site gasoline station
1964	The Site is depicted as in the 1950 Map. The gasoline filling station remains on the northwestern portion of the Site. A vending machine business occupies the Site building at 1280 Tremont Street. A building labeled as a Post Office is shown at 1274-1278 Tremont Street.	The surrounding area is depicted as in the 1950 map. Buildings north of the Site across Tremont Street are occupied by a wholesale dry good store and a paint store.	Former on-Site gasoline station
1988 through 2002	These maps depict the Site as undeveloped land.	Tremont Street and undeveloped land is depicted north of the Site. Undeveloped land is north, east and west of the Site. The current Boston Edison structure is southwest of the Site. The current Roxbury Community College building is west of the Site in the 2002 map.	None

#### 4.3.2 City Directories

Weston & Sampson reviewed historic City Directories for the Site at the City of Boston Public Library. Additionally, City Directories for the Site and surrounding area were ordered from EDR. The City Directories obtained from EDR are provided as Appendix D. The following is a summary of the City Directory research.

City Directories			
Year	Summary On-Site	Summary Off-Site	Concerns
1946	1280 Tremont St. - Furniture Co. and Residents 1282 Tremont St. - Residents 1292 Tremont St. - Albert Bros. Texaco 125 Linden Park St. - Resident	No properties off concern noted.	Former gasoline station on-Site.
1951	Listed as in 1946 directory.	No properties off concern noted.	None
1956	1280 Tremont St. - American Muffler Auto Supply Co. 1282 Tremont St. - Residents 1292 Tremont St. - Albert Bros. Texaco 125 Linden Park St. - Resident	No properties off concern noted.	Former gasoline station on-Site.
1961	1274 Roxbury Crossing Post Office 1280 Tremont St. - Dumont Record Distribution Co. 1282 Tremont St. - Residents 1292 Tremont St. - Albert Bros. Texaco 125 Linden Park St. - Resident	No properties off concern noted.	Former gasoline station on-Site.
1966	1274 Roxbury Crossing Post Office 1280 Tremont St. - Beaver Vending Machine Supply Co. 1282 Tremont St. - Resident 1292 Tremont St. - Albert Bros. Texaco 125 Linden Park St. - Resident	No properties off concern noted.	Former gasoline station on-Site.
1970	1274 US Post Office 1292 Albert Bros. Texaco	No properties of concern noted	Former gasoline station on-Site.
1971	1274 Roxbury Crossing Post Office 1280 Tremont St. - Vacant 1292 Tremont St. - Albert Bros. Texaco 125 Linden Park St. - Vacant	No properties off concern noted.	Former gasoline station on-Site.
1976	1280 Tremont St. - Vacant 1292 Tremont St. - Albert Bros Texaco 125 Linden Park St. - Resident	No properties off concern noted.	Former gasoline station on-Site.
1981 to 2005	No Listing	No properties off concern noted.	None

#### 4.3.3 Aerial Photographs

Weston & Sampson obtained historical aerial photographs from EDR in order to gain knowledge of the Site and area history. EDR provided aerial photographs from the years 1938, 1946, 1955, 1958, 1960, 1969, 1978, 1980, 1985, and 1995. Copies of the aerial photographs are included in Appendix D. A summary of the information obtained from the aerial photograph review is provided below.

Aerial Photographs			
Year	Summary On-Site	Summary Off-Site	Concerns
1938, 1946, 1958, 1960 and 1969	These photos depict the Site as being developed with multiple buildings. Due to the scale of the photos, additional details cannot be ascertained.	The properties surrounding the Site are development with numerous buildings.	None
1978, 1980, 1985, and 1995	These photographs depict the Site as undeveloped land.	A building is shown south of the Site in the area of the current Boston Edison building. Madison Park High School appears to be located further south of the Site. The current Roxbury Community College building is shown to the west of the Site in the 1995 photograph.	None

#### 4.3.4 Topographic Maps

Weston & Sampson obtained historical topographic maps from EDR in order to gain knowledge of the Site and area history. EDR provided aerial photographs from the years 1903, 1946, 1956, 1958 and 1979. Copies of the historic topographic maps are included in Appendix D. A summary of the information obtained from the historic topographic map review is provided below.

Topographic Maps			
Year	Summary On-Site	Summary Off-Site	Concerns
1903, 1946, and 1956	Due to the scale of these maps, on-Site details could not be discerned.	Due to the scale of these maps, off-Site details could not be discerned.	None
1958 and 1979	These photographs depict the Site and surrounding area as generally flat. The maps do not show any buildings on-Site	There are no buildings depicted adjacent to the Site. The current existing roadways and infrastructure surrounding the Site appears to be developed as it is today.	None

#### 4.3.5 Flood Insurance Rate Map Information

According to a Flood Insurance Rate Map for the Site (Panel # 2502860010C) the Site is located in an area that is above the 100-year and 500-year flood plain.

## 5.0 EXISTING ENVIRONMENTAL INFORMATION

### 5.1 State Records

The Site is not a listed site with DEP.

### 5.2 Off-Site Data Review

Based on groundwater flow direction, nature of contamination, regulatory status, and proximity of the properties to the Site, the sites listed in the EDR database report appear to have no adverse impact to the Site. A DEP file review was not conducted.

### 5.3 Previous Environmental Investigations

Weston & Sampson performed an environmental investigation at the Site between 1996 and 2001. The investigation was performed as part of an investigation of BRA Parcel P-3 for DEP RTN 3-15009 (discussed in Section 4.1). The subject Site occupies the northwestern portion of Parcel P-3 but is not located within the boundaries of RTN 3-15009. The majority of Western & Sampson's investigation at Parcel P-3 was performed outside the boundary of the subject Site.

Weston & Sampson's investigation within the boundaries of the subject Site included advancement of two soil borings (WS-11 and B-207) within the eastern portion of the Site. Boring WS-11 was advanced to 22 feet below ground surface on December 5, 1996 and was completed as a groundwater monitoring well. This monitoring well was observed at the Site during the Site visit on January 8, 2010 and was observed to be damaged. Boring B-207 was advanced on January 10, 2001 to a depth of 5 feet below ground surface.

Soil samples collected from the borings were logged by a Weston & Sampson geologist. Soil encountered during advancement of borings consisted of fine to coarse silt and sand fill material with trace gravel and pieces of red brick. The fill material was identified to a depth of approximately 13.5 feet bgs. Native medium to coarse sand was identified beneath the fill material. Groundwater was encountered at approximately 17 feet bgs. A fill material soil sample collected from boring B-207 at 3-5' bgs was submitted for laboratory analysis of Extractable Petroleum Hydrocarbons (EPH) with targeted Polynuclear Aromatic Hydrocarbons (PAHs) and total Lead. Laboratory analysis did not identify detectable concentrations of EPH. PAH compounds and Lead were detected below applicable DEP Reportable Concentrations. A soil sample collected from boring MW-11 at 20-22' bgs was submitted for laboratory analysis of Volatile Organic Compounds (VOCs), Total Petroleum Hydrocarbons (TPH), PAHs and 8 RCRA Metals. Laboratory analysis did not identify detectable concentrations of VOCs, TPH, or PAHs. Various metals were detected well below applicable DEP Reportable Concentrations.

A groundwater sample collected from monitoring well WS-11 in 1996. Analysis of the groundwater samples did not identify detectable concentrations of petroleum hydrocarbons, VOCs, or metals. Results of a groundwater elevation survey performed as part of the previous investigation indicates that the general groundwater flow direction in the area of the Site is to the south.

## 6.0 SITE RECONNAISSANCE

On January 8, 2010, Weston & Sampson personnel performed a visual reconnaissance of the Site. The Site was observed by walking around the property and the surrounding properties. At the time of the Site visit, the majority of the Site was covered with snow. Therefore, a complete inspection of the ground surface of the Site could not be completed. The purpose of the Site reconnaissance was to observe current Site conditions and assess based on visual observations, if there were release(s) of oil and/or hazardous materials (OHM) to the surface or subsurface. In addition, the purpose of the Site reconnaissance was to determine Site accessibility and to evaluate potential sources of contamination to be assessed during a Phase II ESA (limited Site subsurface investigation). Photographs taken at the Site are provided in Appendix F.

### 6.1 Physical Setting

#### 6.1.1 Site Setting and Topography

The physical setting of the Site is discussed in Section 2.0 of this report and is shown in Figure 1, 2 and 4. Topography of the Site is generally flat with the exception of a raised landscaped area on the southern portion of the Site. This area is mounded and is approximately 6 feet higher in elevation than the remainder of the Site.

#### 6.1.2 Groundwater Characteristics

As discussed in Section 5.3, groundwater was encountered at approximately 17 feet bgs during a previous investigation at the Site. Results of a groundwater elevation survey performed as part of the previous investigation discussed indicates that the general groundwater flow direction in the area of the Site is to the south. There are no wetlands or water bodies located on the Site. The closest surface water body and associated wetlands to the Site is the Muddy River which is located approximately ½ mile north of the Site.

#### 6.1.3 Bedrock Characteristics

According to the USGS Bedrock Geologic Map of Massachusetts (Zen *et al.*, 1983) the Site is underlain by Roxbury Conglomerate. The unit is typically a conglomerate, sandstone, siltstone, argillite, and melaphyre, consisting of Brookline, Dorchester, Squantum members. During the installation of monitoring well WS-11, overburden soils encountered consisted of silt and sand fill material to a depth of 13.5 feet bgs followed by native medium to coarse sand to the maximum depth of investigation of 22 feet bgs. Groundwater was encountered at approximately 17 feet bgs.

#### 6.1.4 Potential Environmental Receptors

According to the Area Receptors Map (Figure 4) prepared using the MassGIS Environmental Receptors Database, the Site is not located within an Interim Well Protection Area (IWPA), Potentially Productive Aquifer, or within a Current or Potential Drinking Water Source Area. There are no wetlands or water bodies located on the Site.

### 6.2 Physical Characteristics

The following is a list of observations made during the reconnaissance of the Site. Photographs of the Site visit can be found in Appendix F.



### 6.2.1 Land Area

There are no buildings currently at the Site. A paved parking and drive area is located across the central portion of the Site. Landscaped areas are located on the northern and southern portions of the Site. The topography of the Site is generally flat with the exception of a raised landscaped area on the southern portion of the Site. This area is mounded and is approximately 6 feet higher in elevation than the remainder of the Site. During the Site visit a pile of concrete debris was observed in an approximately 20 x 20 foot area within this landscaped area. The concrete debris contained rebar and the majority of the concrete debris was greater than 6 inches in size.

### 6.2.3 Buildings

There are currently no buildings constructed at the Site.

## **6.3 OHM Storage and Use**

The Site is currently vacant and utilized for the parking of automobiles. There is no current OHM storage or usage at the Site.

## **7.0 INTERVIEWS**

### **7.1 User**

A representative of Weston & Sampson conducted an interview with Ms. Frederica Williams, the President of the Whittier Street Health Center. Ms. Williams indicated that she has no knowledge of any obvious indicators that point to the presence or likely presence of contamination at the Site.

### **7.2 Boston Redevelopment Authority**

Weston & Sampson discussed the presence or likely presence of contamination at the Site with Ms. Kathleen Pedersen. Ms. Pedersen indicated that she has no knowledge of any obvious indicators that point to the presence of contamination at the Site; however, she knows of former gasoline filling stations at the northwestern portion of the Site.

### **7.3 State Government Officials**

Weston & Sampson personnel conducted interviews with the City of Boston Fire Department, Building Department, Environmental Health Department, and Assessor's Office. Information provided by these officials is presented in Section 4.2, Town Records.

### **7.4 Others**

No other interviews were performed as part of the assessment. Previous owners of the Site were not available for interview.

## 8.0 DATA GAPS

Weston & Sampson identified the following data gaps during Site reconnaissance and records review:

- During the Site visit, the surface of the Site was covered with snow and was not able to be completely inspected.
- The City of Boston did not have any building permits, building plans, or demolition permits for the majority of the historic Site buildings.
- A Site property chain of title search was not conducted as part of this ESA. However, numerous additional historic sources were consulted to establish the historical use of the property.

Due to the significant volume of information obtained relative to the historic and current use of the Site, these data gaps, as defined by ASTM 1527-05, are not considered to have significantly affected the ability of Weston & Sampson to identify recognized environmental conditions in connection with the Site and do not alter the conclusion of this report.

## 9.0 FINDINGS AND CONCLUSIONS

Based on the information gathered during our review of local, state, and federal files, Site reconnaissance, and reconnaissance of the Site vicinity for potential off-Site contamination sources, Weston & Sampson's findings and conclusions are as follows:

- The "Site" consists of a 0.74 acre parcel of land located along Tremont Street in Boston, Massachusetts. There are no buildings located on the Site. The Site is developed with a paved parking area and landscaped areas. The Site is not a listed with the Massachusetts Department of Environmental Protection (DEP).
- During the Site visit a pile of concrete debris was observed in an approximately 20 x 20 foot area within a landscaped area. The concrete debris contained rebar and the majority of the concrete debris appears to be greater than 6 inches in size.
- Historic atlas maps indicate that the Site was developed with numerous buildings from the late 1800's to the 1980's. The Site buildings were historically utilized for residential and/or commercial/retail uses including warehouses, stores, a vending machine business, and two former gasoline stations.
- Historic documents indicate that the northwestern portion of the Site was occupied by a gasoline filling station from 1926 to the 1941. In 1941 this gasoline filling station was removed and replaced with a second gasoline filling station which occupied the Site from 1941 through to the 1970's. Historic building plans indicate that two fuel oil USTs, one waste oil UST, and multiple gasoline USTs, were located on-Site as part of the gasoline stations. Documentation regarding the removal of these historic USTs was not identified during the ESA.
- A previous environmental investigation performed at the Site between 1996 and 2001 identified fill material at the Site. The fill material was observed to a depth of approximately 13.5 feet below grade surface (bgs) at the Site and consisted of fine to coarse silt and sand with trace gravel and pieces of red brick. Native medium to coarse sand was identified beneath the fill material. Groundwater was encountered at approximately 17 feet bgs. Laboratory analysis of a soil sample collected from the fill material did not identify detectable concentrations of EPH, PAHs, or Lead above applicable DEP Reportable Concentrations. However, documentation regarding the source of the fill material was not identified during the ESA and additional characterization data for the fill was not identified.

This assessment has revealed the following concerns which are considered potential Recognized Environmental Conditions (RECs) associated with the Site:

- Evidence of on-Site dumping of concrete debris and fill materials at the Site; and
- The historic use of the northwestern portion of the Site as two separate gasoline filling stations with associated fuel oil, waste oil, and gasoline USTs

## 10.0 RECOMMENDATIONS

Based on the results of the Phase I ESA, Weston & Sampson recommends the following:

- Based on the evidence of dumping of concrete debris, the historical use as two separate gasoline filling stations, and the identification of fill material at the Site, Weston & Sampson recommends that a Phase II Limited Subsurface Investigation be conducted at the Site. In addition, a geophysical survey should be conducted to determine if USTs remain at the Site. Also, field activities including soil and groundwater sampling and analysis from the area of the former gasoline stations should be performed to assess the *magnitude and extent of contamination*.

## 11.0 LIMITATIONS

This report was prepared exclusively for the use of the Whittier Street Health Center. The findings provided by Weston & Sampson in this report are based solely on the information reported in this document. Future investigations, and/or information that were not available to Weston & Sampson at the time of the investigation, may result in a modification of the findings stated in this report.

Should additional information become available concerning this Site, or neighboring properties that could directly impact the Site in the future, that information should be made available to Weston & Sampson for review so that, if necessary, conclusions presented in this report may be modified. The conclusions of this report are based on Site conditions observed by Weston & Sampson personnel at the time of the investigation and information provided by federal, state and local agencies. This report has been prepared in accordance with generally accepted engineering and geological practices. No other warranty, express or implied, is made.

Weston & Sampson did not conduct a chain-of-title search at the County Registry of Deeds. Additionally, it should be noted that during the Site visit, the surface of the Site was covered with snow and was not able to be completely inspected.

## 12.0 REFERENCES

ASTM. 2000, E 1527-05. Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process.

Massachusetts Department of Environmental Protection (MADEP). June 26, 2009, *Massachusetts Contingency Plan*. 310 CMR 40.0000, Bureau of Waste Site Cleanup.

Zen, E-an (Editor), 1983, United States Geological Survey Bedrock Geologic Map of Massachusetts.

**13.0 SIGNATURE AND QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONAL**

This ESA was prepared by a Qualified Environmental Professional (EP) as defined in ASTM E1527-05 and EPA's proposed AAI. The EP is a Licensed Site Professional (LSP) in Massachusetts and has over 10 years of environmental experience with degrees in relevant disciplines. Please note that the signatory is not acting in his LSP capacity or as an LSP of Record under the Massachusetts Contingency Plan, 310 CMR 40.0000.



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Sean F. Healey, LSP

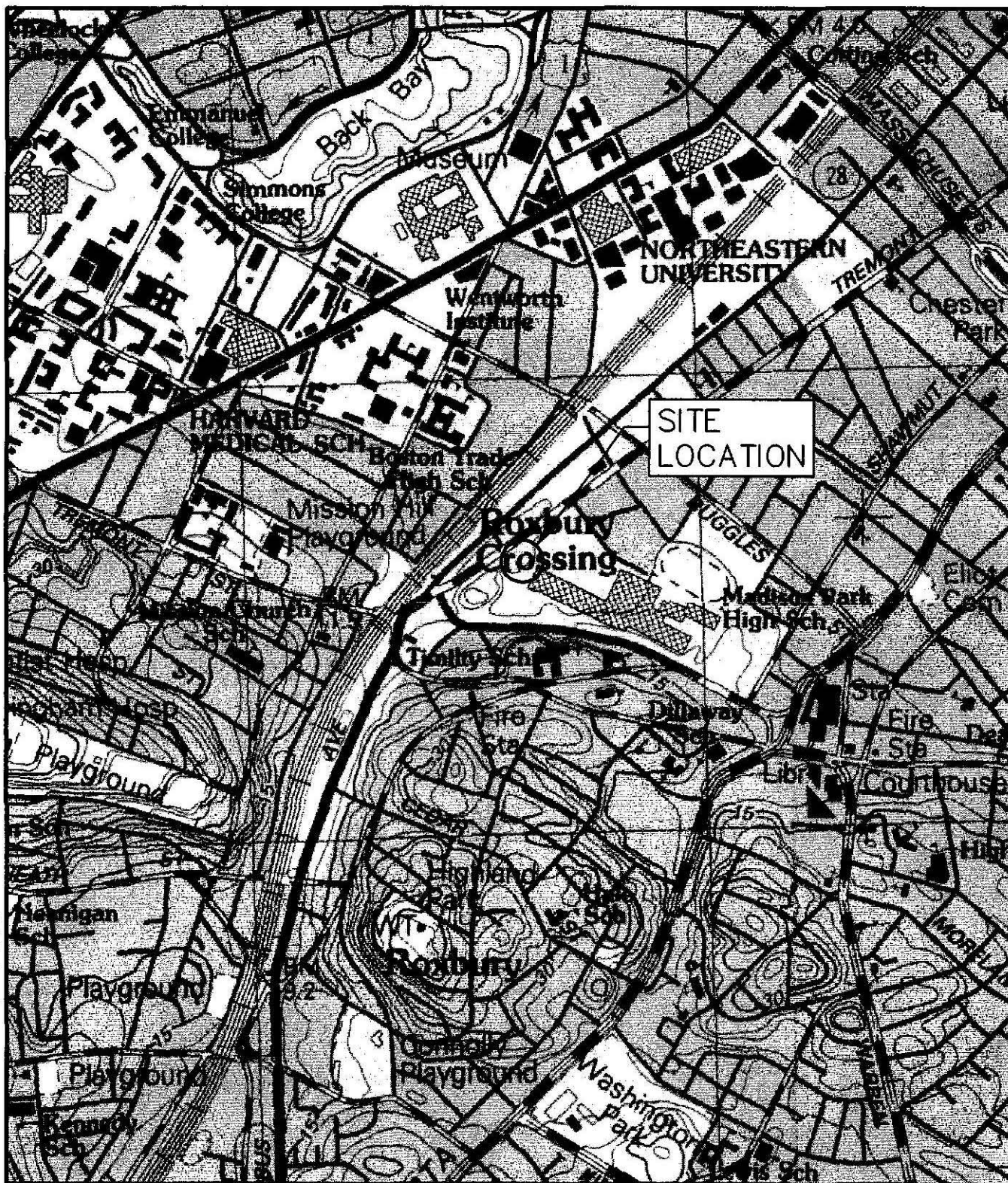
2/11/10

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Date



## FIGURES

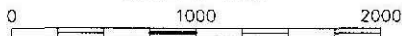


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FIGURE 1  
 PROPOSED WHITTIER STREET HEALTH CENTER  
 TREMONT STREET, BOSTON, MASSACHUSETTS

LOCUS MAP

SCALE: 1"=1000'



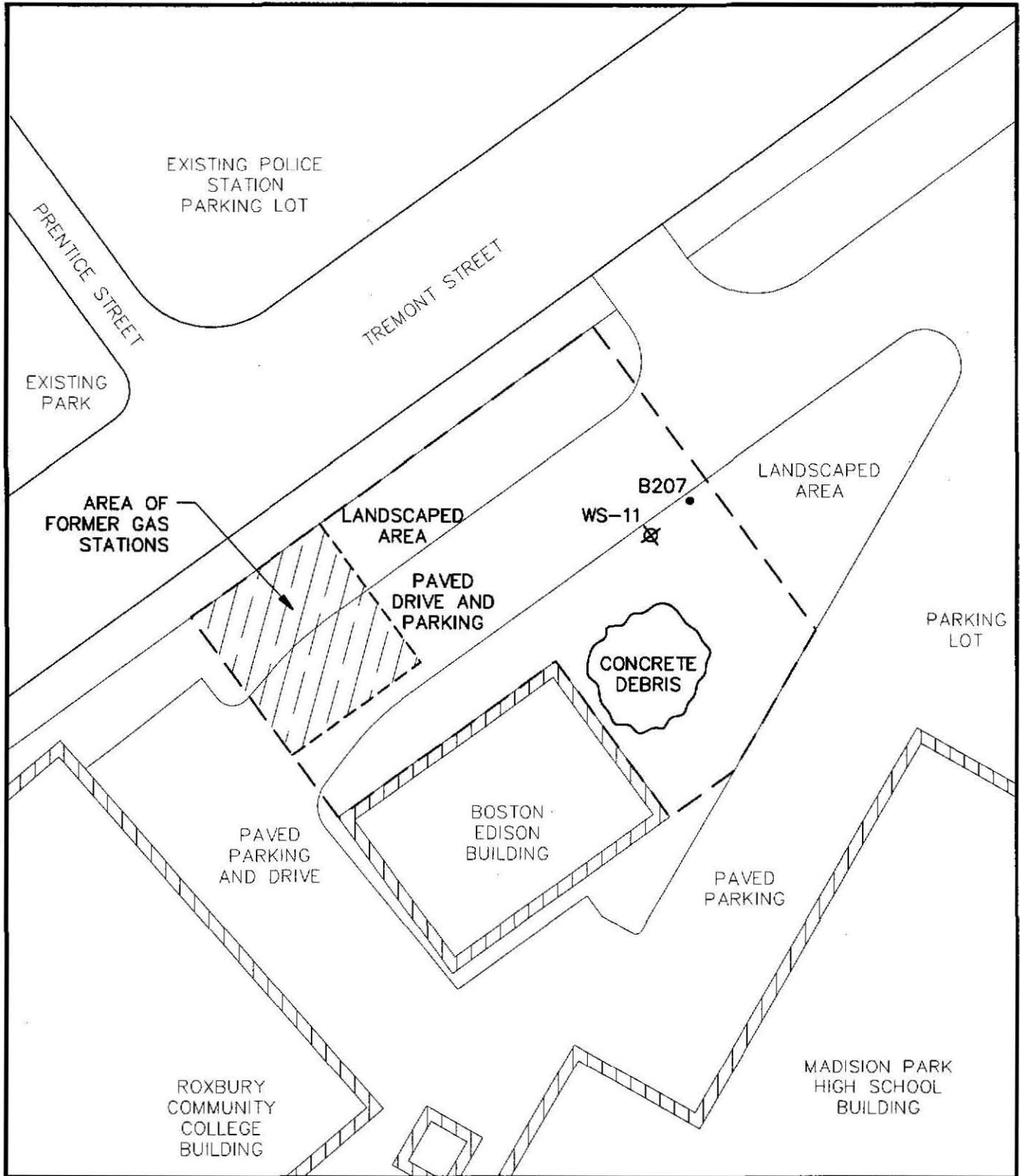
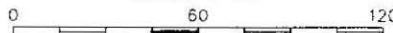


FIGURE 2  
 PROPOSED WHITTIER STREET HEALTH CENTER  
 TREMONT STREET, BOSTON, MASSACHUSETTS  
 SITE PLAN

SCALE: 1"=60'



F:\SH ESS Projects\Whittier Health Center Phase I-II\CAD\dwg\Site Plan.dwg

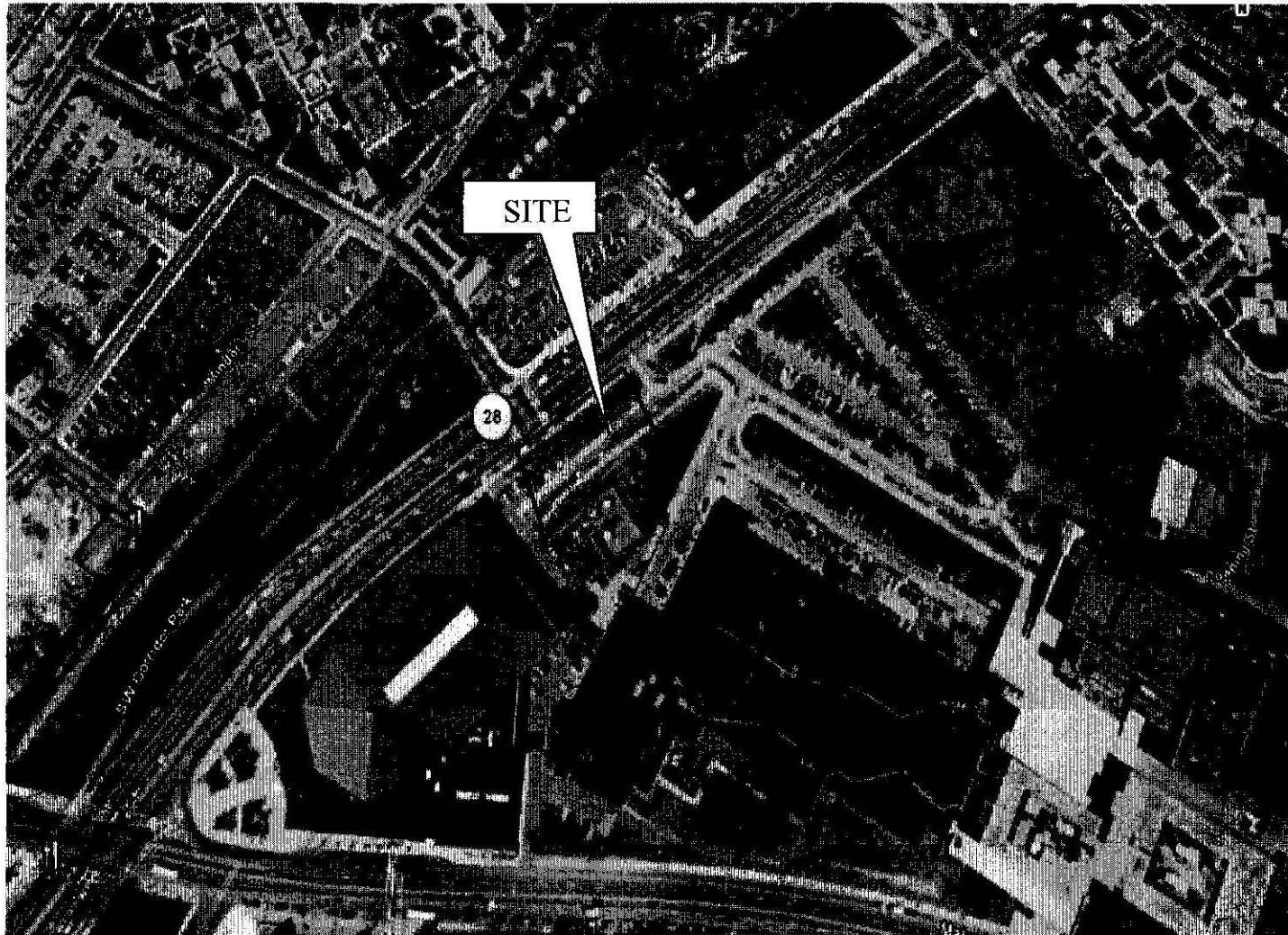
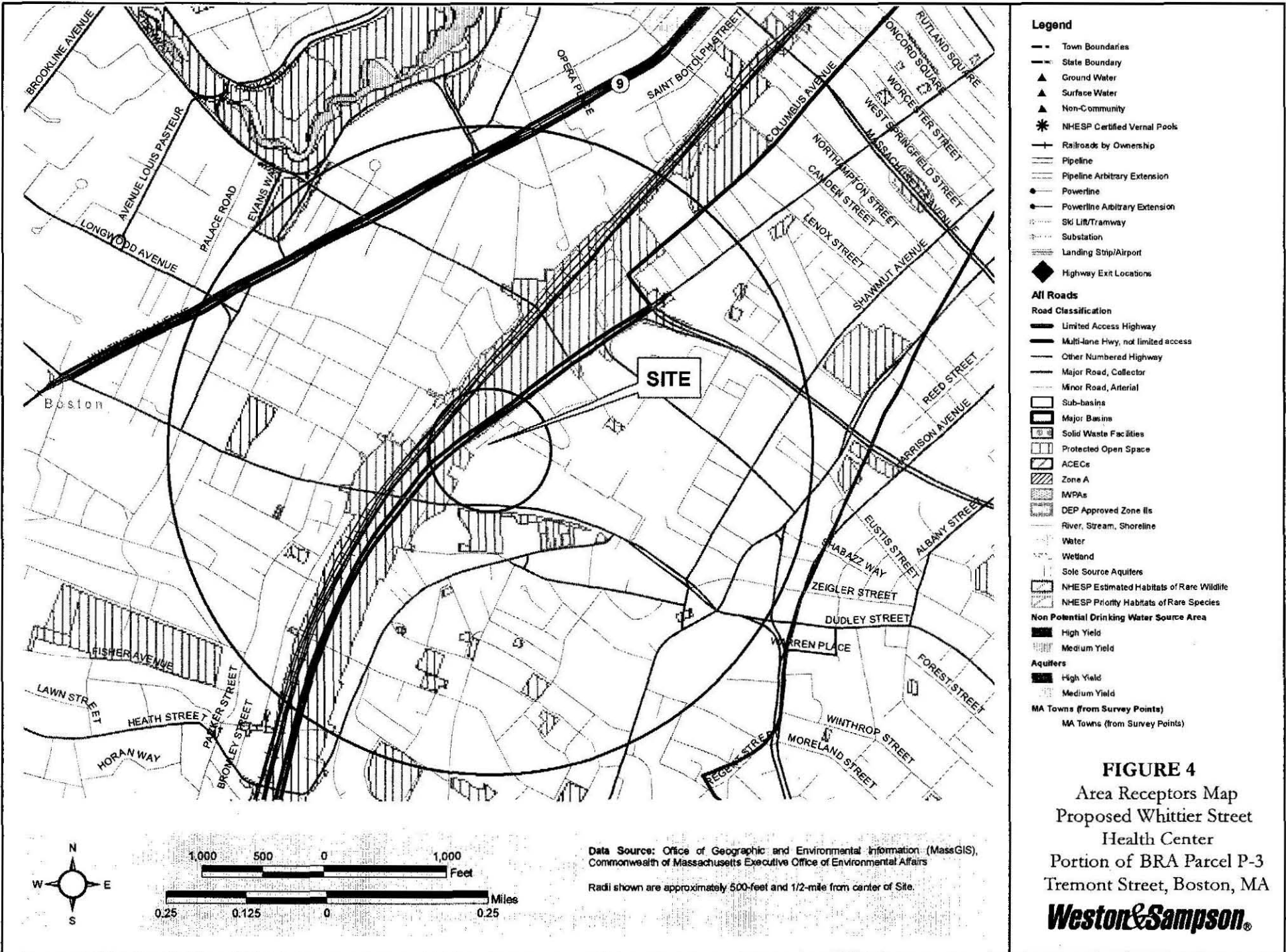


Figure 3  
Aerial Photograph  
Proposed Whittier Street Health Center  
Portion of BRA Parcel P-3  
Tremont Street, Boston, MA



- Legend**
- Town Boundaries
  - State Boundary
  - ▲ Ground Water
  - ▲ Surface Water
  - ▲ Non-Community
  - \* NHESP Certified Vernal Pool
  - Railroads by Ownership
  - Pipeline
  - Pipeline Arbitrary Extension
  - Powerline
  - Powerline Arbitrary Extension
  - Ski Lift/Tramway
  - Substation
  - Landing Strip/Airport
  - ◆ Highway Exit Locations
- All Roads**
- Road Classification**
- Limited Access Highway
  - Multi-lane Hwy, not limited access
  - Other Numbered Highway
  - Major Road, Collector
  - Minor Road, Arterial
- Sub-basins
  - Major Basins
  - Solid Waste Facilities
  - Protected Open Space
  - ACECs
  - Zone A
  - MPAs
  - DEP Approved Zone IIs
  - River, Stream, Shoreline
  - Water
  - Wetland
  - Sole Source Aquifers
  - NHESP Estimated Habitats of Rare Wildlife
  - NHESP Priority Habitats of Rare Species
- Non Potential Drinking Water Source Area**
- High Yield
  - Medium Yield
- Aquifers**
- High Yield
  - Medium Yield
- MA Towns (from Survey Points)**
- MA Towns (from Survey Points)

Data Source: Office of Geographic and Environmental Information (MassGIS), Commonwealth of Massachusetts Executive Office of Environmental Affairs

Radii shown are approximately 500-feet and 1/2-mile from center of Site.

**FIGURE 4**  
 Area Receptors Map  
 Proposed Whittier Street  
 Health Center  
 Portion of BRA Parcel P-3  
 Tremont Street, Boston, MA  
**Weston & Sampson**



COMMONWEALTH OF MASSACHUSETTS  
EXECUTIVE OFFICE OF ENERGY & ENVIRONMENTAL AFFAIRS  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
NORTHEAST REGIONAL OFFICE

205B Lowell Street, Wilmington, MA 01887 • (978) 694-3200

DEVAL L. PATRICK  
Governor

TIMOTHY P. MURRAY  
Lieutenant Governor

IAN A. BOWLES  
Secretary

LAURIE BURT  
Commissioner

October 22, 2007

Certified Mail # 7007 0220 0002 1500 5436

Boston Redevelopment Authority  
One City Hall Plaza  
Boston, MA 02201

RE: Roxbury  
Parcel P-3, Tremont and Whittier  
RTN 3-15009

Attention: Noah Luskin

**NOTICE OF NONCOMPLIANCE WITH THE MCP**  
**NON-NE-07-3A146**

**THIS IS AN IMPORTANT NOTICE. FAILURE TO TAKE ADEQUATE ACTION IN RESPONSE TO THIS NOTICE COULD RESULT IN SERIOUS LEGAL CONSEQUENCES.**

The Department of Environmental Protection's (MassDEP's) records indicate that the Boston Redevelopment Authority (hereinafter referred to as "you" or "your") is a Potentially Responsible Party (PRP) for the site referenced above which is classified Tier II pursuant to 310 CMR 40.0501(3). As you are aware, the Tier II Classification authorizes you to undertake response actions at the subject site in order to address a release of oil and/or hazardous material. This Notice of Noncompliance (NON) informs you that you are not in compliance with the Massachusetts Contingency Plan (MCP), 310 CMR 40.0000. An Administrative Penalty may be assessed for every day from now on that you remain in noncompliance.

As of the date of this NON, you are not in compliance with each regulation checked below:

**Violation 2:** You have failed to submit to MassDEP a Phase IV Remedy Implementation Plan. A Phase IV Plan, if applicable, was due within three years of the effective date of your initial Tier II Classification as is required by 310 CMR 40.0560(2)(c);

**Violation 3:** You have failed to submit to MassDEP a Response Action Outcome (RAO) Statement pursuant to 310 CMR 40.1000. An RAO was due within five years of the effective date of your initial Tier II Classification as is required by 310 CMR 40.0560(1) and 40.0560(2)(d).

Notice of Noncompliance

Boston, Parcel P-3, Tremont and Whittier; RTN 3-15009

Your Tier II Classification expired on April 10, 2003 and you failed to obtain a Tier II Classification Extension as is required at 310 CMR 40.0170(5)(a) and 40.0560(7). You are subject to significant penalties if (1) you fail to conduct all necessary and required response actions required to ensure that a level of No Significant Risk exists or has been achieved in compliance with M.G.L. c. 21E and the MCP and/or (2) you continue to conduct response actions without a valid Tier II Classification Extension. You also failed to submit a Tier II Classification Extension to MassDEP at least 45 days prior to its expiration as is required at 310 CMR 40.0560(7)(b). You should also be aware that a Tier II Classification Extension *does not forgive* noncompliance for failing to achieve an RAO by the 5-year deadline, failing to submit Phase submittals to MassDEP, or providing Phase submittals late.

**To return to compliance and avoid an Administrative Penalty that could exceed \$1,000 per day per violation, you must submit to MassDEP within 60 days of your receipt of this NON:**

- 1. A Tier II Classification Extension Submittal in accordance with 310 CMR 40.0560(7);**  
**and**
- 2. all documents, information and/or forms that are missing for each violation checked above.**

Notwithstanding this NON, MassDEP reserves the right to exercise the full extent of its legal authority to obtain full compliance with all applicable requirements, including but not limited to, criminal prosecution, civil action including court-imposed civil penalties, and administrative penalties issued by MassDEP.

The enclosures contain information about the regulations you are violating and more information about the actions you must take to return to compliance. If you have any questions, please contact Paegan Deering at (978) 694-3382.

---

Stephen M. Johnson  
Deputy Regional Director  
Bureau of Waste Site Cleanup

cc: Data entry C&E NON/file  
Boston Board of Health, by electronic mail  
Prasanta K. Bhunia, LSP, by electronic mail

NIAL

**Boston Redevelopment Authority Parcel P-3 Public Involvement  
Weston & Sampson Project No. 205294.A**

February 1, 2006

PIP Mailing List

Parcel P-3 Tremont Whittier ST  
Re: Final Public Involvement Plan (PIP)  
Boston Redevelopment Authority (BRA) Parcel P-3  
Roxbury, Massachusetts  
Release Tracking Number 3-15009

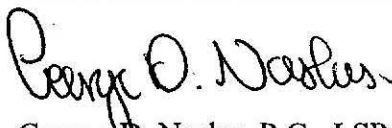
Dear Sir or Madam:

As discussed at the public meeting on September 12, 2005, Weston & Sampson Engineers, Inc., on behalf of the Boston Redevelopment Authority (BRA), prepared a Public Involvement Plan (PIP) for the above-referenced site. The draft PIP was presented publicly at the September 12 meeting and was made available at public repositories. Comments on the draft PIP were accepted through October 27, 2005. The PIP was then finalized, incorporating both comments made at the September 12 meeting and written comments submitted during the public comment period. The final PIP was submitted to the Department of Environmental Protection in Wilmington, and to the following repositories established for the site, where it is available for public review:

- Dudley Branch Library, 65 Warren Street, Roxbury, 617-442-6186
- South End Branch Library, 685 Tremont Street, Boston, 617-536-8241
- Uphams Corner Branch Library, 500 Columbia Road, Dorchester, 617-265-0139
- Egleston Square Branch Library, 2044 Columbia Avenue, Roxbury, 617-445-4340
- Grove Hall Branch Library, 5 Crawford Street, Roxbury, 617-427-3337
- Whittier Street Housing Management Office, 1158 Tremont Street, Roxbury, 617-988-5059

Very truly yours,

WESTON & SAMPSON ENGINEERS, INC.



George D. Naslas, P.G., LSP  
Associate

cc: John Walser, BRA  
File

O:\BRA MA\P-3 PIP 205294\PIP\Final PIP avail ltr 020106.doc

RECEIVED

FEB 03 2006

DEP  
NORTHEAST REGIONAL OFFICE



NIA-L

**Weston & Sampson**  
ENGINEERS, INC.

Weston & Sampson Engineers, Inc. KC  
Five Centennial Drive  
Peabody, MA 01960-7985  
www.westonandsampson.com  
Tel: 978-532-1900 Fax: 978-977-0100

*Innovative Solutions since 1899*

**Boston Redevelopment Authority Parcel P-3 Public Involvement  
Weston & Sampson Project No. 205294.A**

October 13, 2005

PIP Mailing List

Re: Public Comments on Draft Public Involvement Plan (PIP)  
Boston Redevelopment Authority (BRA) Parcel P-3 Tremont & Whittier St  
Roxbury, Massachusetts  
Release Tracking Number 3-15009

Dear Sir or Madam:

As requested by residents at the public meeting on September 12, 2005, the Boston Redevelopment Authority (BRA), has extended the public comment period on the draft Public Involvement Plan (PIP) to 45 days, which places the close of the comment period on October 27, 2005. Copies of the draft PIP are available for review at the following public repositories:

- Dudley Branch Library, 65 Warren Street, Roxbury, 617-442-6186
- South End Branch Library, 685 Tremont Street, Boston, 617-536-8241
- Uphams Corner Branch Library, 500 Columbia Road, Dorchester, 617-265-0139
- Egleston Square Branch Library, 2044 Columbia Avenue, Roxbury, 617-445-4340

Written comments on the draft PIP should be mailed to Ms. Sandy Metcalf, Weston & Sampson Engineers, Inc., 5 Centennial Drive, Peabody MA 01960, or e-mailed to [metcalfs@wseinc.com](mailto:metcalfs@wseinc.com). Any questions regarding the comment period may also be directed to Ms. Metcalf at (978) 532-1900, x2261.

Very truly yours,

WESTON & SAMPSON ENGINEERS, INC.

*Sandra J. Metcalf for GDN*  
George D. Naslas, P.G., LSP  
Associate

**RECEIVED**  
OCT 17 2005  
DEP  
NORTHEAST REGIONAL OFFICE

O:\BRA MA\P-3 PIP 205294\PIP\End of comment period ltr.doc

**Massachusetts (HQ)**

Five Centennial Drive  
Peabody, MA 01960-7985

**Massachusetts**

100 Foxborough Blvd, Suite 250  
Foxborough, MA 02035

**Connecticut**

273 Dividend Rd.  
Rocky Hill, CT 06067

**Rhode Island**

2348 Post Road, Suite 8  
Warwick, RI 02886-2271

**New Hampshire**

195 Hanover Street, Suite 28  
Portsmouth, NH 03801

**Maine**

PO Box 189  
York, ME 03909

**Vermont**

PO Box 189  
Waterbury, VT 05676

NIA-L

**Boston Redevelopment Authority Parcel P-3 Public Involvement  
Weston & Sampson Project No. 205294.A**

September 7, 2005

PIP Mailing List

Re: Public Meeting to Review Draft Public Involvement Plan (PIP)  
Boston Redevelopment Authority (BRA) Parcel P-3 Tremont Whittier ST  
Roxbury, Massachusetts  
Release Tracking Number 3-15009

Dear Sir or Madam:

Weston & Sampson Engineers, Inc., on behalf of our client, the Boston Redevelopment Authority (BRA), is hereby notifying you of a public meeting to be held from 6:00 to 7:45 pm on Monday, September 12, 2005, at the Dudley Branch Library at 65 Warren Street in Roxbury, Massachusetts, to present the draft Public Involvement Plan (PIP) for the above-referenced site. Additional information is included in the attached notice, which was published in the *Bay State Banner*, *South End News*, *Jamaica Plain Gazette*, *Mission Hill Gazette*, and *La Semana* on or about August 25, 2005. This notification is provided in accordance with the public involvement requirements of the Massachusetts Contingency Plan (MCP).

Should you have any questions regarding the meeting, please refer to the contact information on the attached notice.

Very truly yours,

WESTON & SAMPSON ENGINEERS, INC.

*George D. Naslas*

George D. Naslas, P.G., LSP  
Associate

Encl.

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**RECEIVED**

SEP 08 2005

DEP

NORTHEAST REGIONAL OFFICE

**NOTICE OF A PUBLIC INVOLVEMENT PLAN MEETING**

**PARCEL P-3  
WHITTIER AND TREMONT STREETS  
ROXBURY, MASSACHUSETTS  
RTN 3-15009**

The Boston Redevelopment Authority (BRA) received a petition from residents in Roxbury, Massachusetts requesting this location be designated as a Public Involvement Plan site, in accordance with MGL c.21E 14(a). This law requires that, upon receiving such a petition, a plan for involving the public in decisions regarding remedial response actions must be prepared and a public meeting to present the proposed plan held.

BRA designated this site as a Public Involvement Plan (PIP) site on July 12, 2005. A public meeting will be held at The Dudley Branch Library at 65 Warren Street in Roxbury, Massachusetts, on Monday, September 12, 2005, at 6.00 p.m. to present the draft Public Involvement Plan which will include the process for public comment. Copies of the draft Public Involvement Plan will be made available prior to the meeting at the Dudley Branch Library and during the public comment period after the meeting, or through the contact information below.

Any questions regarding this meeting or the Public Involvement Plan should be directed to Mr. John Walser, Senior Project Manager, Boston Redevelopment Authority, 9<sup>th</sup> Floor City Hall, One City Hall Square, Boston Massachusetts, 02201 at telephone (617) 918 4319, or Ms. Sandra Metcalf, Technical Project Coordinator, Weston & Sampson Engineers, Inc., Five Centennial Drive, Peabody, Massachusetts 01960 at telephone (978) 532-1900.

# Boston Redevelopment Authority

Boston's Planning & Economic  
Development Office

Thomas M. Menino, *Mayor*  
Clarence J. Jones, *Chairman*  
Mark Maloney, *Director*

One City Hall Square  
Boston, MA 02201-1007  
Tel 617-722-4300  
Fax 617-248-1937

KC

N/A-L RECEIVED

JUL 13 2005

DEP  
NORTHEAST REGIONAL OFFICE

July 12, 2005

key  
pet.

(Anne S. Rogers, Esquire  
Alternatives for Community & Environment  
2181 Washington Street, Suite 301  
Roxbury, MA 02119)

Subject: Designation of Public Involvement Plan Site *Roxbury*  
Parcel P-3, Tremont and Whittier Streets, Boston, RTN 3-15009

Dear Ms. Rogers,

On (June 23, 2005) the Boston Redevelopment Authority (received a petition) signed by 11 residents to request that the above reference site be designated as a Public Involvement Plan Site. In accordance with the Massachusetts Contingency Plan at 310 CMR 40.1404(4), this letter has been prepared to formally notify you that the site has been designated as a Public Involvement Plan site.

As required by 310 CMR 40.1405, a draft site-specific Public Involvement Plan (the "Plan") will be prepared and presented at a public meeting within 60 days of the date of this letter. We will provide you with information regarding the date and time of that meeting at least 14 days in advance. We will also be interviewing key community officials and the key petitioner (assumed to be you unless we are notified otherwise) during the next month regarding local concerns that will be addressed in developing the draft Plan.

If you have any questions, please feel free to call myself, or Ms. Maria Faria (Assistant Director of Housing – Boston Redevelopment Authority) at 617-918-4319 and 617-918-4366, respectively.

Sincerely,



John Walser  
Senior Project Manager/Environmental Review Specialist  
Boston Redevelopment Authority



Weston & Sampson Engineers, Inc.  
Five Centennial Drive  
Peabody, MA 01960-7985  
www.westonandsampson.com  
Tel: (978) 532-1900 Fax: (978) 977-0100

**SCANNED**  
Innovative Solutions since 1899

**Boston Redevelopment Authority  
WSE Project Number 200317.A**

April 19, 2002

Department of Environmental Protection  
Northeast Regional Office  
Bureau of Waste Site Cleanup  
205A Lowell Street  
Wilmington, Massachusetts 01887

*WIA-L*  
*Parcel P-3 Tremont  
Roxbury  
3-15009*

**Re: Phase II Comprehensive Site Assessment and Phase III Remedial Action Plan  
Boston Redevelopment Authority  
Parcel P-3, Roxbury, Massachusetts  
Release Tracking Number (RTN) 3-15009**

Dear Sir or Madam:

Please find enclosed the Phase II Comprehensive Site Assessment and Phase III Remedial Action Plan Report prepared by Weston & Sampson Engineers, Inc. for a portion of Boston Redevelopment Authority's (BRA's) Parcel P-3 property located at Tremont and Whittier Streets in Roxbury, Massachusetts (the Site). The Site is identified as release tracking number (RTN) 3-15009 and is classified as Tier II.

This report was prepared in accordance with the Massachusetts Contingency Plan (MCP, 310 CMR 40.0000). Included in Appendix G of this report are the original BWSC transmittal form (BWSC-108) and copies of public notification letters.

If you have any questions regarding the report or the project, please do not hesitate to contact us at (978) 532-1900.

Very truly yours,  
WESTON & SAMPSON ENGINEERS, INC.

Prasanta K. Bhunia, Ph.D., LSP  
Vice President

Enclosure

cc: File  
Mr. Noah Luskin, Boston Redevelopment Authority

G:\Hazwaste\BRA\200317\Correspondence\Final PhII-III Cover Letter.doc

04/19/02

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APR 19 2002

DEP

NORTHEAST REGIONAL OFFICE



Weston & Sampson Engineers, Inc.  
Five Centennial Drive  
Peabody, MA 01960-7985  
www.westonandsampson.com  
Tel: (978) 532-1900 Fax: (978) 977-0100  
Innovative Solutions since 1899

**Boston Redevelopment Authority**  
**WSE Project No. 200157.A**

Roxbury  
Parcel P-3 Tremont  
3-15009

April 13, 2000

Mr. Steve Johnson, Chief  
Bureau of Waste Site Cleanup  
Department of Environmental Protection  
205A Lowell Street  
Wilmington, Massachusetts 01887

Re: Notification of Delay in Completing Phase II and Phase III Reports  
BRA Parcel P-3  
RTN 3-15009



Dear Mr. Johnson:

Weston & Sampson Engineers, Inc. (Weston and Sampson) is writing this letter on behalf of the Boston Redevelopment Authority (BRA), to notify you of the delay in completing the Phase II - Comprehensive Site Assessment Report and Phase III - Identification, Evaluation and Selection of Comprehensive Remedial Action Alternatives Plan for the above-referenced Tier II site. This notification is prepared in accordance with 310 CMR 40.0560 (5). The Phase II report and Phase III-Remedial Action Plan are due to the Department of Environmental Protection (DEP) on April 14, 2000. We are unable to submit either a Response Action Outcome (RAO) Statement, Phase II report and/or Phase III Remedial Action Plan because based on the data collected an RAO cannot be submitted at this time. The site will be developed in the near future, however at this time the development options have not been selected. The development options under consideration for the site will significantly impact the Phase III remedial options.

**Background**

In 1998, Weston & Sampson conducted a subsurface investigation that included installation of twelve borings/monitoring wells. Results of the investigation identified total petroleum hydrocarbons (TPH), lead and several polynuclear aromatic hydrocarbons (PAHs) exceeding reportable concentrations (RCs).

Following the initial fieldwork, 17 additional soil borings were advanced to further characterize the extent of contamination in fill in the areas where RCS-1 standards were exceeded. Fifteen of the 17 soil borings were advanced in a topographically elevated fill area in one portion of Parcel P-3. TPH, several PAHs and lead concentrations in soil from the top 9 feet in this area exceeded applicable Method 1 cleanup standards. In addition, PAH concentrations exceeded applicable Method 1 cleanup standards in all 15 soil borings in this area.

Massachusetts (HQ)

Massachusetts

Connecticut

Rhode Island

New Hampshire

Maine

DEP APR 14 2000



Mr. Steve Johnson

April 13, 2000

Page 2

Several PAHs also exceeded Method 1 cleanup standards in fill between 0 and 3 feet below pavement in a second area of P-3. Select soil samples containing the highest lead concentrations were analyzed for the Toxicity Characteristics Leaching Procedure (TCLP); TCLP lead concentrations were below the RCRA action level of 5 milligram per liter (mg/l). Concentrations of TPH, PAHs, and lead do not exceed Upper Concentration Limits (UCLs). The Phase I report and Tier Classification submittal was issued to DEP on April 14, 1998. The site was classified as a Tier II site.

Based on the data collected to date, contamination does not appear to have impacted all of P-3, and the "disposal site" is delineated as two separate non-contiguous parcels. The disposal site occupies approximately 2.5 acres of the entire 9-acre parcel. Consequently, the areal and vertical extent of contamination is fairly well understood at the site.

Access to the 1.5-acre portion of the disposal site is restricted by the presence of a 6-foot high chain-link fence, installed by the BRA to restrict access to this portion of P-3. Exposure to contaminated soils in the 1-acre portion of the disposal site is eliminated due to paving. Currently there are no on-site workers at the disposal site.

### ***Reasons for Delay***

BRA has considered a number of options for site development and is working closely with the surrounding community regarding the type of development for the area. Consequently the various development options have not yet been finalized. Similarly, it is likely that an RAO will require an Activity and Use Limitation (AUL). Without knowing the future development options for this property, it is difficult to prepare an AUL without being too restrictive to the whole of the P-3 site. Despite the extensive soil boring program conducted to date, there are a few data gaps that need to be addressed prior to the finalization of a Phase II or RAO. Consequently, additional data and further discussion of development options are required prior to completion of the Phase II/III and/or RAO.

### ***Measures Taken to Minimize Delay and Schedule***

Weston and Sampson has submitted to the BRA a scope of work (SOW) to perform the following:

- Collect additional subsurface data;
- Perform a Method 3 Risk Characterization;
- Evaluate Remedial Alternatives; and
- Prepare a Phase II/III Report.

Mr. Steve Johnson

April 13, 2000

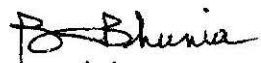
Page 3

BRA has verbally approved the SOW and we anticipate completing these tasks during the next six months. In addition, we will discuss future development options with BRA in order to evaluate the various Remedial Options and, should the data be favorable, prepare an RAO Statement (instead of the Phase II/III Report).

Should you have any questions, please do not hesitate to contact our office at (978) 532-1900.

Very truly yours,

WESTON & SAMPSON ENGINEERS, INC.



Prasanta K. Bhunia, Ph.D., LSP  
Associate

cc: Mr. Thomas Ahern, Boston Redevelopment Authority  
Mr. Richard Mertens, Boston Redevelopment Authority  
Mr. Paul Osborn, Boston Redevelopment Authority  
File

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**RECEIVED**

APR 14 2000

DEP

NORTHEAST REGIONAL OFFICE

# Boston Redevelopment Authority

Boston's Planning & Economic  
Development Office

Thomas M. Menino, *Mayor*  
Clarence J. Jones, *Chairman*  
Thomas N. O'Brien, *Director*

Boston Marine Industrial Park  
10 Drydock Avenue  
South Boston, MA 02210  
Tel 617-635-3300  
Fax 617-635-3789

April 8, 1998

Bureau of Waste Site Cleanup  
Department of Environmental Protection  
10 Commerce Way  
Woburn, MA 01801

Re: Phase I Initial Investigation/Tier Classification  
Parcel P-3  
RTN 3-15009

To whom it may concern:

In accordance with M.G.L. c. 21E, and the Massachusetts Contingency plan, 310 CMR 40.000 the Boston Redevelopment Authority and Weston & Sampson Engineers, Inc., is pleased to submit the attached Phase I Initial Investigation Report and Tier Classification for the Parcel P-3 site in Roxbury, MA.

If you have any questions with the site or the attached document, you may call Weston & Sampson Engineers, Inc. at (617) 532-1900 or myself at (617) 635-3820.

Sincerely,



Paul Osborn  
Sr. Project Engineer

xc: R. Mertens/BRA  
G. Naslas/WSE  
H. Carlson/BRA  
L. Mammoli/BRA  
File 5013 CF

Roxbury  
Parcel P-3 Tremont & Whittier St  
3-15009

pro/P3/DEP1

Celebrating Our Fortieth Anniversary

Equal Opportunity/ Affirmative Action Employer / Equal Housing Opportunity



TIER CLASSIFICATION, TIER II EXTENSION &  
TIER II TRANSFER TRANSMITTAL FORM

Release Tracking  
Number

3 - 15009

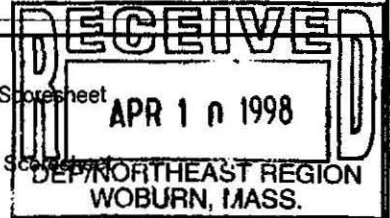
Pursuant to 310 CMR 40.0510 and 40.0560 (Subpart E)

A. DISPOSAL SITE LOCATION:

Disposal Site Name: Parcel P-3  
Street: Tremont and Whittier Streets Location Aid: UTM's: 4688700 mN, 327800 mE  
City/Town: Boston (Roxbury) ZIP Code: 02120-0000  
Related Release Tracking Numbers That This Submittal Will Address: \_\_\_\_\_

B. THIS FORM IS BEING USED TO: (check all that apply)

- Submit a new or revised Tier Classification Submittal for a Tier I Site, including a Numerical Ranking Scoresheet (complete Sections A, B, C, I, J, K and L).
- Submit a new or revised Tier Classification Submittal for a Tier II Site, including a Numerical Ranking Scoresheet (complete Sections A, B, C, F, G, I, J, K and L).
- Submit a Notice that an additional Release Tracking Number(s) is (are) being linked to this Tier Classified Site and rescoring is not required at this time (complete Sections A, B, J, K and L). If this submittal is for a Tier I Site, you must also submit a Minor Permit Modification Transmittal Form (BWSC-109).  
List Additional Release Tracking Number(s): \_\_\_\_\_
- Submit a Phase I Completion Statement supporting a Tier Classification Submittal (complete Sections A, B, I, J, K and L).
- Submit a Tier II Extension Submittal for Response Actions at a Tier II Site (complete Sections A, B, D, F, G, I, J, K and L).
- Submit a Tier II Extension Submittal for Response Actions taken after expiration of a Waiver, pursuant to 310 CMR 40.0630(4) (complete Sections A, B, D, F, J, K and L, and also complete Sections G and I or Section H).\*
- Submit a Tier II Transfer Submittal for a change in person(s) undertaking Response Actions at a Tier II Site (complete Sections A, B, E, F, G, I, J, K, L, M, N and O).
- Submit a Tier II Transfer Submittal for a change in person(s) undertaking Response Actions at a Waiver Site, pursuant to 310 CMR 40.0630(6) (complete Sections A, B, E, F, J, K, L, M, N and O, and also complete Sections G and I or Section H).\*



You must attach all supporting documentation required for each use of form indicated, including copies of any Legal Notices and Notices to Public Officials required by 310 CMR 40.1400.

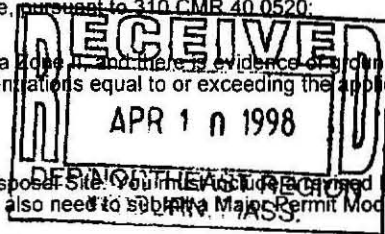
\*NOTE: The Waiver expires on the effective date of this submittal and all further Response Actions must be taken as a Tier II Site.

C. TIER CLASSIFICATION SUBMITTAL:

Numerical Ranking Score for Disposal Site: (from Numerical Ranking Scoresheet) 143  
Proposed Tier Classification of Disposal Site: (check one)  Tier IA  Tier IB  Tier IC  Tier II

Check which, if any, of the Tier I inclusionary criteria are met by the Disposal Site, pursuant to 310 CMR 40.0520:

- Groundwater is located within an Interim Wellhead Protection Area or a Zone II and there is evidence of groundwater contamination by an Oil or Hazardous Material at the time of Tier Classification at concentrations equal to or exceeding the applicable RCGW-1 Reportable Concentration set forth in 310 CMR 40.0360.
- An Imminent Hazard is present at the time of Tier Classification.
- Check here if this Tier Classification revises a previous submittal for this Disposal Site. You must also include a revised Numerical Ranking Scoresheet with this submittal. If a Tier I Permit has been issued, you may also need to submit a Major Permit Modification Application (BWSC 10).



If incorporating additional Release(s) into the Disposal Site, list Release Tracking Number(s): \_\_\_\_\_

D. TIER II EXTENSION SUBMITTAL

REQUIREMENTS:

State the expiration date of the Tier II Classification or Waiver for the Disposal Site, whichever is applicable: \_\_\_\_\_

Attach a statement summarizing why a Permanent or Temporary Solution has not been achieved at the Disposal Site. A Tier II Extension is effective for a period of one year beyond the current expiration date of the Tier II Classification or Waiver.

E. TIER II TRANSFER SUBMITTAL REQUIREMENTS:

State the proposed effective date of the change in person(s) undertaking Response Actions at the Disposal Site: \_\_\_\_\_

Attach a statement summarizing the reasons for the proposed change in person(s) undertaking the Response Actions. All Response Actions must be completed by the deadline applicable to the person who first filed either a Tier Classification Submittal for the Disposal Site or received a Waiver of Approvals.



**TIER CLASSIFICATION, TIER II EXTENSION &  
TIER II TRANSFER TRANSMITTAL FORM**

Release Tracking  
Number

3 - 15009

Pursuant to 310 CMR 40.0510 and 40.0560 (Subpart E)

**F. DISPOSAL SITE COMPLIANCE HISTORY SUMMARY:**

- > If providing either a Tier Classification Submittal for a Tier II Site or a Tier II Extension Submittal for a Waiver Site, the person named in Section J must provide a Compliance History.
- > If providing a Tier II Extension Submittal for a Tier II Site, the person named in Section J must update their Compliance History since the effective date of the Tier II Classification.
- > If providing a Tier II Transfer Submittal for a Tier II or Waiver Site, the person named in Section M must provide a Compliance History.

Compliance History for (provide only one name per History): Boston Redevelopment Authority

Check here if there has been no change to the Compliance History of the person named above (Extension Submittal for a Tier II Site ONLY).

List all permits or licenses that have been issued by the Department that are relevant to this Disposal Site:

PROGRAM:	PERMIT NUMBER:	PERMIT CATEGORY:	FACILITY ID:
Air Quality	NA	NA	NA
Hazardous Waste (M.G.L. c. 21C)	NA	NA	NA
Solid Waste	NA	NA	NA
Industrial Wastewater Management	NA	NA	NA
Water Supply	NA	NA	NA
Water Pollution Control/Surface Water	NA	NA	NA
Water Pollution Control/Groundwater	NA	NA	NA
Water Pollution Control/Sewer Connection	NA	NA	NA
Wetland & Waterways	NA	NA	NA

List all other Federal, state or local permits, licenses, certifications, registrations, variances, or approvals that are relevant to this Disposal Site:

ISSUING AUTHORITY OR PROGRAM, OR DOCUMENTATION TYPE:	IDENTIFICATION NUMBER:	DATE ISSUED:
NA	NA	NA

If needed, attach to this Transmittal Form a statement further describing the Compliance History of this Disposal Site. This statement must describe the compliance history of the person named above with the following:

- (1) DEP regulations; and
- (2) other laws for the protection of health, safety, public welfare and the environment administered or enforced by any other government agency.

Such a statement should identify information such as:

- (1) actions relevant to the Disposal Site taken by the Department to enforce its requirements including, but not limited to, a Notice of Noncompliance (NON), Notice of Intent to Assess Civil Administrative Penalty (PAN), Notice of Intent to Take Response Action (NORA), and an administrative enforcement order;
- (2) administrative consent orders;
- (3) judicial consent judgements;
- (4) similar administrative actions taken by other Federal, state or local agencies;
- (5) civil or criminal actions relevant to the Disposal Site brought on behalf of the DEP or other Federal, state, or local agencies; and
- (6) any additional relevant information.

For each action identified, provide the following information:

- (1) name of the issuing authority, type of action, identification number and date issued;
- (2) description of noncompliance cited;
- (3) current status of the matter; and
- (4) final disposition, if any.



**TIER CLASSIFICATION, TIER II EXTENSION &  
TIER II TRANSFER TRANSMITTAL FORM**

Release Tracking  
Number

3 - 15009

Pursuant to 310 CMR 40.0510 and 40.0560 (Subpart E)

**G. CERTIFICATION OF ABILITY AND WILLINGNESS:**

- > If providing either a Tier II Classification Submittal or a Tier II Extension Submittal, the person who signs this certification **MUST** be the person named in Section J, or that person's agent.
- > If providing a Tier II Transfer Submittal, the person who signs this certification **MUST** be the person named in Section M, or that person's

I attest under the pains and penalties of perjury that (i) I/the person(s) or entity(ies) on whose behalf this submittal is made has/have personally examined and am/is familiar with the requirements of M.G.L. c. 21E and 310 CMR 40.0000; (ii) based upon my inquiry of the/those Licensed Site Professional(s) employed or engaged to render Professional Services for the disposal site which is the subject of this Transmittal Form and of the person(s) or entity(ies) on whose behalf this submittal is made, and my/those person's(s') or entity's(ies') understanding as to the estimated costs of necessary response actions, that/those person(s) or entity(ies) has/have the technical, financial and legal ability to proceed with response actions for such site in accordance with M.G.L. c. 21E, 310 CMR 40.0000 and other applicable requirements; and (iii) that I am fully authorized to make this attestation on behalf of the person(s) or entity(ies) legally responsible for this submittal. I/the person(s) or entity(ies) on whose behalf this submittal is made is aware of the requirements in 310 CMR 40.0172 for notifying the Department in the event that I/the person(s) or entity(ies) on whose behalf this submittal is made learn(s) that it/they is/are unable to proceed with the necessary response actions.

By:   
(signature)

Title: Director

For: Boston Redevelopment Authority  
(print name of person or entity recorded in Section J or M, as appropriate)

Date: APR 7 1998

If you are submitting either a Tier II Extension Submittal for a Waiver Site or a Tier II Transfer Submittal for a Waiver Site, you may choose to sign the alternative Ability and Willingness Certification found in Section H in place of providing the certification in Section G and the LSP Opinion in Section I.

**H. ALTERNATIVE CERTIFICATION OF ABILITY AND WILLINGNESS:**

- > If providing a Tier II Extension Submittal for a Waiver Site, the person who signs this certification **MUST** be the person named in Section J, or that person's agent
- > If providing a Tier II Transfer Submittal for a Waiver Site, the person who signs this certification **MUST** be the person named in Section M, or that person's agent

I attest under the pains and penalties of perjury that (i) I/the person(s) or entity(ies) on whose behalf this submittal is made has/have personally examined and am/is familiar with the requirements of M.G.L. c. 21E and 310 CMR 40.0000; (ii) based upon my inquiry of the Consultant-of-Record for the disposal site which is the subject of this Transmittal Form and of the person(s) or entity(ies) on whose behalf this submittal is made, and my/those person's(s') or entity's(ies') understanding as to the estimated costs of necessary response actions, that/those person(s) or entity(ies) has/have the technical, financial and legal ability to proceed with response actions for such site in accordance with M.G.L. c. 21E, 310 CMR 40.0000 and other applicable requirements; and (iii) that I am fully authorized to make this attestation on behalf of the person(s) or entity(ies) legally responsible for this submittal. I/the person(s) or entity(ies) on whose behalf this submittal is made is aware of the requirements in 310 CMR 40.0172 for notifying the Department in the event that I/the person(s) or entity(ies) on whose behalf this submittal is made learn(s) that it/they is/are unable to proceed with the necessary response actions.

By: \_\_\_\_\_  
(signature)

Title: \_\_\_\_\_

For: \_\_\_\_\_  
(print name of person or entity recorded in Section J or M, as appropriate)

Date: \_\_\_\_\_

**I. LSP OPINION:**

I attest under the pains and penalties of perjury that I have personally examined and am familiar with this transmittal form, including any and all documents accompanying this submittal. In my professional opinion and judgment based upon application of (i) the standard of care in 309 CMR 4.02(1), (ii) the applicable provisions of 309 CMR 4.02(2) and (3), and (iii) the provisions of 309 CMR 4.03(5), to the best of my knowledge, information and belief,

> if Section B of this form indicates that a Tier I or Tier II Classification Submittal which relies upon a previously submitted Phase I Completion Statement is being submitted, this Tier Classification Submittal has been developed in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000;

> if Section B of this form indicates that a Phase I Completion Statement or a Tier I or Tier II Classification Submittal which does not rely upon a previously submitted Phase I Completion Statement is being submitted, the response action(s) that is (are) the subject of this submittal (i) has (have) been developed and implemented in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, and (iii) complies(y) with the identified provisions of all orders, permits, and approvals identified in this submittal;

SECTION I IS CONTINUED ON THE NEXT PAGE



TIER CLASSIFICATION, TIER II EXTENSION &  
TIER II TRANSFER TRANSMITTAL FORM

Pursuant to 310 CMR 40.0510 and 40.0560 (Subpart E)

Release Tracking  
Number

3 - 15009

I. LSP OPINION: (continued)

> if Section B of this form indicates that a Tier II Extension Submittal or a Tier II Transfer Submittal is being submitted, the response action(s) that is (are) the subject of this submittal (i) is (are) being implemented in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, and (iii) complies(y) with the identified provisions of all orders, permits, and approvals identified in this submittal.

I am aware that significant penalties may result, including, but not limited to, possible fines and imprisonment, if I submit information which I know to be false, inaccurate or materially incomplete.

Check here if the Response Action(s) on which this opinion is based, if any, are (were) subject to any order(s), permit(s) and/or approval(s) issued by DEP or EPA. If the box is checked, you MUST attach a statement identifying the applicable provisions thereof.

LSP Name: Dr. Prasanta K. Bhunia LSP #: 2999 Stamp:

Telephone: 978-532-1900 Ext.: 2287

FAX: 978-977-0110  
(optional)

Signature: *P. Bhunia*

Date: 4/10/98



J. PERSON MAKING SUBMITTAL:

Name of Organization: Boston Redevelopment Authority

Name of Contact: Mr. Thomas N. O'Brien (c/o Mr. Richard Title: Director Mertens)

Street: 1 City Hall Plaza

City/Town: Boston State: MA ZIP Code: 02201-1007

Telephone: 617-722-9950 Ext.: 4283 FAX: 617-742-7783  
(optional)

K. RELATIONSHIP TO DISPOSAL SITE OF PERSON MAKING SUBMITTAL: (check one)

RP or PRP Specify  Owner  Operator  Generator  Transporter Other RP or PRP: \_\_\_\_\_

Fiduciary, Secured Lender or Municipality with Exempt Status (as defined by M.G.L. c. 21E, s. 2)

Agency or Public Utility on a Right of Way (as defined by M.G.L. c. 21E, s. 5(j))

Any Other Person Making Submittal Specify Relationship: \_\_\_\_\_

L. CERTIFICATION OF PERSON MAKING SUBMITTAL:

I, Thomas O'Brien, attest under the pains and penalties of perjury (i) that I have personally examined and am familiar with the information contained in this submittal, including any and all documents accompanying this transmittal form, (ii) that, based on my inquiry of those individuals immediately responsible for obtaining the information, the material information contained in this submittal is, to the best of my knowledge and belief, true, accurate and complete, and (iii) that I am fully authorized to make this attestation on behalf of the entity legally responsible for this submittal. I/the person or entity on whose behalf this submittal is made am/is aware that there are significant penalties, including, but not limited to, possible fines and imprisonment, for willfully submitting false, inaccurate, or incomplete information.

By: *[Signature]* Title: Director  
(signature)

For: Boston Redevelopment Authority Date: APR 7 1998  
(print name of person or entity recorded in Section J)

Enter address of the person providing certification(s), including Ability and Willingness Certification where applicable, if different from address recorded in Section J:

Street: \_\_\_\_\_

City/Town: \_\_\_\_\_ State: \_\_\_\_\_ ZIP Code: \_\_\_\_\_

Telephone: \_\_\_\_\_ Ext.: \_\_\_\_\_ FAX: \_\_\_\_\_  
(optional)

**YOU MUST COMPLETE ALL RELEVANT SECTIONS OF THIS FORM OR DEP MAY RETURN THE DOCUMENT AS INCOMPLETE. IF YOU SUBMIT AN INCOMPLETE FORM, YOU MAY BE PENALIZED FOR MISSING A REQUIRED DEADLINE, AND YOU MAY INCUR ADDITIONAL COMPLIANCE FEES.**



MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION  
Bureau of Waste Site Cleanup

NUMERICAL RANKING SYSTEM SCORESHEET  
(310 CMR 40.1511)

CLASSIFICATION SUBMITTAL	
Initial Submittal	Re-Classification
<input checked="" type="checkbox"/>	<input type="checkbox"/>

DISPOSAL SITE SCORE					
II	III	IV	V	VI	TOTAL
<u>15</u>	<u>73</u>	<u>35</u>	<u>20</u>	<u>0</u>	<u>143</u>

Disposal Site Tier Classification	I			(II)
Permit Category (Tier I Only)	A	B	C	

\*\*\*\*\*

I. DISPOSAL SITE INFORMATION

DEP Release Tracking Number(s)	3-15009
DEP Disposal Site Number(s)	

UTM Coordinates	N: 4,688,700 m
	E: 327,800 m

Disposal Site Name:	Parcel P-3		
Disposal Site Address:	Tremont and Whittier Street		
	City: Boston/Roxbury	Zip:	

Is the Disposal Site classified Tier I because it is located within the boundaries of a Zone II or Interim Wellhead Protection Area and groundwater concentrations equal or exceed RCGW-1 at the time of Tier Classification pursuant to 310 CMR 40.0520(2)(a)1.?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Is the Disposal Site classified Tier I because an Imminent Hazard is present at the time of Tier Classification pursuant to 310 CMR 40.0520(2)(a)2.?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>

I attest under the pains and penalties of perjury that I have personally completed this Numerical Ranking System Scoresheet, and have personally examined and am familiar with the information contained in this submittal, including any and all documents accompanying this submittal, and in my professional opinion and judgment based upon: (i) the standard of care in 309 CMR 4.02(1), (ii) the applicable provisions of 309 CMR 4.02(2) and (3), and (iii) the provisions of 309 CMR 4.03(5), to the best of my knowledge, information and belief, this Scoresheet was developed in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000. I am aware that significant penalties may result, including, but not limited to, possible fines and imprisonment, if I submit information which I know to be false, inaccurate or materially incomplete.

Prasanta K. Bhunia  
Licensed Site Professional Signature  
Prasanta K. Bhunia  
LSP Name (Printed)

2999  
LSP Registration Number  
Weston & Sampson Engineers, Inc.  
Company Name

4/10/98  
Date  
(978) 532-1900  
Telephone Number

Responsible Party, Potentially Responsible Party, or Other Person who will provide certification in accordance with 310 CMR 40.0009.



40.1511 (Continued)

II. EXPOSURE PATHWAYS

II. EXPOSURE PATHWAYS				
<i>Score according to 40.1512 - Exposure Pathway Designation Criteria</i>				
MEDIA	DESIGNATION			
	NONE or NOT APPLICABLE	EVIDENCE OF CONTAMINATION	POTENTIAL EXPOSURE PATHWAY	LIKELY OR CONFIRMED EXPOSURE PATHWAY
A. SOIL (Includes Sediment)	0	15	100	150
B. GROUNDWATER	0	20	100	150
C. SURFACE WATER (Includes Wetlands)	0	20	100	150
D. AIR	0	15	100	200

Note: Score only the highest value for each media, i.e., score None or Not Applicable or Evidence of Contamination or Potential Exposure Pathway or Likely or Confirmed Exposure Pathway.

II. (A - D) Summary Rationale for Section II A - D Values and Phase I Report References	
A.	OHM in soil >RCs, site access restricted. See p. 5-1, 5-2, 6-1, Tables 3 & 4
B.	Contaminants in groundwater were below RCs. p. 5-2, 6-1, Table 5
C.	There are no surface water bodies at the site. p. 2-5, Figure 3
D.	No VOCs detected in air; background concentrations were <0.2 ppm on the PID. p. 5-1, Table 2

II.E. OHM SOURCES			
Number of OHM Sources	1	2	≥ 3
	0	25	50

SECTION II SCORE (A. + B. + C. + D. + E.)					
A.	B.	C.	D.	E.	TOTAL: (15 - 700)
15	0	0	0	0	15

Check here if Section VI has been used to amend the score for this Section of the NRS.	<input type="checkbox"/>
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40.1511 (Continued)

III. DISPOSAL SITE CHARACTERISTICS

<b>III.A. OHM TOXICITY SCORE</b>	
<i>Highest OHM Toxicity Score From Table III.A. or Worksheet III.A.1. on Following Pages.</i>	
OHM Scored: <u>Lead</u>	Toxicity Score (1 - 80)
Concentration and Media: <u>total lead soil, 5,000 ug/g</u>	<u>40</u>

<b>III.B. MULTIPLE OHMs</b>		
More Than One OHM With an OHM Toxicity Score of $\geq 30$	No	Yes
	<input checked="" type="radio"/> 0	30

<b>III.C. OHM MOBILITY and PERSISTENCE</b>	
<i>Score according to 40.1514 - OHM Mobility and Persistence</i>	
OHM Scored: <u>Lead</u>	Score (0 - 50)
	<u>25</u>

<b>III.D. DISPOSAL SITE HYDROGEOLOGY</b>			
<i>Score according to 40.1515 - Soil Permeability</i>			
DEPTH TO GROUNDWATER (in feet)	SOIL PERMEABILITY		
	Low	Medium	High
> 25	2	4	8
10.1 - 25	4	<input checked="" type="radio"/> 8	12
5.1 - 10	8	12	16
0 - 5	12	16	20

SECTION III SCORE (A + B + C + D)				
A.	B.	C.	D.	TOTAL: (3.- 180)
<u>40</u>	<u>0</u>	<u>25</u>	<u>8</u>	<u>73</u>

Check here if Section VI has been used to amend the score for this Section of the NRS.	<input checked="" type="checkbox"/>
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40.1511 (Continued)

Table III.A. OHM TOXICITY SCORE							
OHM	CONCENTRATION (soil/sediment: µg/g; surface/groundwater µg/l)						
	≤ 99	100 - 999	1,000 - 9,999	10,000 - 100,000	> 100,000 NAPL < 0.5"	NAPL 0.5" - 12"	NAPL > 12"
Arsenic	20	30	40	50	60		
Benzene	15	25	35	45	55	65	75
Bis(2-ethylhexyl)phthalate	10	20	30	40	50	60	70
Cadmium	10	20	30	40	50		
Carbon Tetrachloride	20	30	40	50	60	70	80
Chlorobenzene	5	15	25	35	45	55	65
Chromium III	1	10	20	30	40		
Chromium VI	10	20	30	40	50		
Coal Tar	5	15	25	35	45	55	65
Cyanide	5	15	25	35	45		
1,1 Dichloroethane	10	20	30	40	50	60	70
1,2 Dichloroethane	10	20	30	40	50	60	70
Ethylbenzene	5	15	25	35	45	55	65
Ethylene Dibromide	20	30	40	50	60	70	80
#2 Fuel Oil (virgin product)	5	15	25	35	45	55	65
Gasoline (virgin product)	10	20	30	40	50	60	70
Lead	20	30	40	50	60		
Mercury	20	30	40	50	60	70	80
Methylene Chloride	10	20	30	40	50	60	70
Methyl Ethyl Ketone	5	15	25	35	45	55	65
Methyl Tert Butyl Ether	10	20	30	40	50	60	70
Nickel	5	15	25	35	45		
Phenol	1	10	20	30	40	50	60
PAHs	10	20	30	40	50	60	70
PCBs	20	30	40	50	60	70	80
Tetrachloroethylene	10	20	30	40	50	60	70
Toluene	1	10	20	30	40	50	60
1,1,1 Trichloroethane	5	15	25	35	45	55	65

Table III.A. OHM TOXICITY SCORE							
OHM	CONCENTRATION (soil/sediment: $\mu\text{g/g}$ ; surface/groundwater $\mu\text{g/l}$ )						
	$\leq 99$	100 - 999	1,000 - 9,999	10,000 - 100,000	$> 100,000$ NAPL $< 0.5''$	NAPL 0.5" - 12"	NAPL $> 12''$
Tetrachloroethylene	15	25	35	45	55	65	75
Vinyl Chloride	15	25	35	45	55	65	75
Xylenes	1	10	20	30	40	50	60
Zinc	1	10	20	30	40		

40.1511 (Continued)

Use Worksheet III.A.1. to determine the OHM Toxicity Score for OHM not listed in Table III.A.  
See 40.1513 for Human Health-Based Toxicity Values for each OHM.

Worksheet III.A.1		OHM TOXICITY SCORE					
HUMAN HEALTH-BASED TOXICITY VALUE	CONCENTRATION						
	Use pg/g for Soil and pg/l for Surface Water and Groundwater						
	≤ 99	100 - 999	1,000 - 9,999	10,000 - 100,000	> 100,000 NAPL < 0.5"	NAPL 0.5" - 12"	NAPL > 12"
< 5	1	10	20	30	40	50	60
5 - 19	5	15	25	35	45	55	65
20 - 29	10	20	30	40	50	60	70
30 - 39	15	25	35	45	55	65	75
40 - 50	20	30	40	50	60	70	80

III.A.1. OHM and Concentrations Used in Section III A.1.				
OHM	Human Health-Based Toxicity Value	Concentration (Soil - pg/g)	Concentration (Water - pg/l)	OHM Toxicity Score
Naphthalene	18	82	--	5
2-Methylnaphthalene	25**	23		10
Benzo(a)anthracene	28	39	--	10
Chrysene	28	44		10
Benzo(b)fluoranthene	28	34		10
Benzo(k)fluoranthene	28	35		10
Benzo(a)pyrene	44	39		20
Dibenzo(a,h)anthracene	25**	47		10
Indeno(1,2,3-cd)pyrene	25**	14		10
Phenanthrene	25	110		20

\*\* Assumed value

40.1511 (Continued)

IV. HUMAN POPULATION AND LAND USES

IV.A. HUMAN POPULATION				
Residential Population Within 1/2 Mile	None 0	1 - 99 5	100 - 999 10	≥ 1,000 15
Institutions Within 500 feet	None 0		One or More 10	
On-Site Workers	None 0	1 - 99 5	100 - 999 10	≥ 1,000 15

IV.B. AQUIFERS		
Sole Source Aquifer Name: _____	No 0	Yes 25
Potentially Productive Aquifer	No 0	Medium or High 15

IV.C. WATER USE					
Proximity of Disposal Site to Public Drinking Water Supply Source	Not Applicable (NA) 0			Zone A 20	Zone II, IWPA, or SW Intake ≤ 400' 50
Persons Served by Public Drinking Water Supply	NA 0	25 - 999 5	1,000 - 4,999 10	5,000 - 49,999 20	≥ 50,000 25
Private Water Supplies Within 500 Feet	None 0	Commercial Industrial 10	Agriculture Residential (Not Ingested) 15	Drinking Food Processing 25	
Alternative Public Water Supply Available (Viable Public Water Supply in Disposal Site Community and Public Water Connection ≤ 500 Feet from Site)	Yes 0			No 25	

SECTION IV SCORE (A + B + C)			
A. 35	B. 0	C. 0	TOTAL: (0 - 205) 35

Check here if Section VI has been used to amend the score for this Section of the NRS.

40.1511 (Continued)

V. ECOLOGICAL POPULATION

V.A. ENVIRONMENTAL RESOURCE AREAS			
RESOURCE	LOCATION		
Area of Critical Environmental Concern	> 500' from Site 0	≤ 500' from Site 20	On-Site 30
Species of Special Concern, Threatened or Endangered Species Habitat	> 500' from Site 0	On-Site or ≤ 500' from Habitat 30	
Wetlands, Certified Vernal Pool, or Outstanding Resource Water	> 100' from Site 0	≤ 100' from Site 20	On-Site 30
Fish Habitat	> 500' from Site 0	≤ 500' from Site 20	On-Site 30
Protected Open Space (Local/State/Federal/Trustee)	> 500' from Site 0	≤ 500' from Site 20	On-Site 30

SCORE SECTION V.B. ONLY IF SECTION V.A. SCORE IS ≥ 30.

V.B. ENVIRONMENTAL TOXICITY SCORE	
<i>Highest Environmental Toxicity Score From Table V.B. or Worksheet V.B.I. on Following Pages.</i>	
OHM Scored: _____	Toxicity Score (1 - 35)
Concentration and Media: _____	
	N/A

SECTION V. SCORE (A. + B.)		
A. <u>20</u>	B. <u>N/A</u>	TOTAL: (0 - 185) <u>20</u>

Check here if Section VI has been used to amend the score for this Section of the NRS.	<input type="checkbox"/>
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40.1511 (Continued)

Table V.B. ENVIRONMENTAL TOXICITY SCORE					
OHM	CONCENTRATION (soil/sediment: µg/g; surface/groundwater µg/l)				
	< 1	1 - 99	100 - 999	1,000 - 9,999	≥ 10,000
Arsenic	5	10	15	20	25
Benzene	0	1	5	10	15
Bis(2-ethylhexyl)phthalate *	5	10	15	20	25
Cadmium	10	15	20	25	30
Carbon Tetrachloride	0	1	5	10	15
Chlorobenzene *	5	10	15	20	25
Chromium III	1	5	10	15	20
Chromium VI	5	10	15	20	25
Coal Tar *	5	10	15	20	25
Cyanide	5	10	15	20	25
1,1 Dichloroethane *	5	10	15	20	25
1,2 Dichloroethane	0	1	5	10	15
Ethylbenzene	0	1	5	10	15
Ethylene Dibromide *	5	10	15	20	25
#2 Fuel Oil (virgin product) *	1	5	10	15	20
Gasoline (virgin product) *	5	10	15	20	25
Lead	5	10	15	20	25
Mercury	15	20	25	30	35
Methylene Chloride *	5	10	15	20	25
Methyl Ethyl Ketone *	5	10	15	20	25
Methyl Tert Butyl Ether *	1	5	10	15	20
Nickel	1	5	10	15	20
Phenol	0	1	5	10	15
PAHs *	5	10	15	20	25
PCBs	15	20	25	30	35
Tetrachloroethylene	0	1	5	10	15
Toluene	0	1	5	10	15
1,1,1 Trichloroethane	0	1	5	10	15
Trichloroethylene	0	1	5	10	15

Table V.B. ENVIRONMENTAL TOXICITY SCORE					
OHM	CONCENTRATION (soil/sediment: µg/g; surface/groundwater µg/l)				
	< 1	1 - 99	100 - 999	1,000 - 9,999	≥ 10,000
Vinyl Chloride *	5	10	15	20	25
Xylenes *	5	10	15	20	25
Zinc	1	5	10	15	20

\* Scores derived by default methods 40.1516(2).

NON-TEXT PAGE

40.1511 (Continued)

Use Worksheet V.B.1. to determine Environmental Toxicity Scores for OHM not listed in Table V.B.  
See 40.1516 for Environmental Toxicity Values for each OHM.

Worksheet V.B.1 ENVIRONMENTAL TOXICITY SCORE					
ENVIRONMENTAL TOXICITY VALUE	CONCENTRATION				
	Use µg/g for Soil and µg/l for Surface Water or Groundwater				
	< 1	1 - 99	100 - 999	1,000 - 9,900	≥ 10,000
10	0	1	5	10	15
20	1	5	10	15	20
30	5	10	15	20	25
40	10	15	20	25	30
50	15	20	25	30	35

V.B.1. OHM and Concentrations Used in Section V.B.1.				
OHM	Environmental Toxicity Value	Concentration (Soil - µg/g)	Concentration (Water - µg/l)	Environmental Toxicity Score



40.1512(3) Surface Water

I.I.C. SURFACE WATER EXPOSURE CRITERIA		
DEFINITION	As defined by 310 CMR 40.0006, including rivers, streams, lakes, ponds, springs, impoundments, estuaries, wetlands, coastal waters and vernal pools.	
DESIGNATION	CRITERIA	POINTS
NONE or NOT APPLICABLE	<ul style="list-style-type: none"> <li>▶ OHM likely attributable to the disposal site has not been identified in, and is not anticipated to be identified in, surface waters.</li> </ul>	0
EVIDENCE OF CONTAMINATION (Assumes No Exposure Pathway)	<p style="text-align: center;"><i>Any of the Following</i></p> <ul style="list-style-type: none"> <li>▶ A release (past or on-going) of OHM to surface water has been identified. <i>or</i></li> <li>▶ Qualitative evidence of a release.                             <ul style="list-style-type: none"> <li>• OHM-attributable visible sheen or discoloration; <i>or</i></li> <li>• OHM entering surface water; <i>or</i></li> <li>• OHM-attributable stained soils in contact with surface water; <i>or</i></li> <li>• There is a reasonable likelihood that OHM will be identified in surface water as a result of OHM migration.</li> </ul> </li> <li><i>or</i></li> <li>▶ OHM, likely attributable to the disposal site, has been identified in groundwater at concentrations that are likely to result in detectable concentrations in surface water.</li> </ul>	20
POTENTIAL EXPOSURE PATHWAY	<p style="text-align: center;"><i>Either of the Following</i></p> <ul style="list-style-type: none"> <li>▶ OHM, likely to be attributable to the disposal site, has been identified in a surface water known to be used for drinking, swimming, boating or fishing. <i>or</i></li> <li>▶ OHM, likely to be attributable to the disposal site, has been identified at concentrations <math>\geq</math> Ambient Water Quality Criteria (AWQC) pursuant to 40.1505(2) and 40.1516(1).</li> </ul>	100
LIKELY or CONFIRMED EXPOSURE PATHWAY	<p style="text-align: center;"><i>Any of the Following</i></p> <ul style="list-style-type: none"> <li>▶ There is a reasonable likelihood that a surface public drinking water supply has been or may be impacted by OHM from the disposal site. <i>or</i></li> <li>▶ OHM, possibly attributable to the disposal site, has been identified at the entry point to a public drinking water supply distribution system. <i>or</i></li> <li>▶ A fish advisory likely attributable to the disposal site is in effect. <i>or</i></li> <li>▶ OHM likely attributable to the disposal site present has been identified at concentrations <math>\geq</math> Ambient Water Quality Criteria (AWQC) pursuant to 40.1505(2) and 40.1516(1), and the disposal site is located in or contains: an Area of Critical Environmental Concern (ACEC); a mapped habitat of a Species of Special Concern, Endangered or Threatened Species; a Certified Vernal Pool; a Restricted Wetland; an Outstanding Resource Water; a fish habitat; or a Protected Open Space.</li> </ul>	150

## 40.1512(2) Groundwater

II.B. GROUNDWATER EXPOSURE CRITERIA		
DEFINITION	Score source area and extent of plume(s) as defined by most recent field studies.	
DESIGNATION	CRITERIA	POINTS
NONE or NOT APPLICABLE	<p><i>Either of the Following</i></p> <ul style="list-style-type: none"> <li>▶ OHM likely attributable to the disposal site has not been identified in, and is not anticipated to be identified in, groundwater.</li> <li style="text-align: center;"><i>or</i></li> <li>▶ OHM has not been identified in groundwater at concentrations <math>\geq</math> applicable groundwater RCs. This criteria may be met by conducting a response action, in accordance with these regulations, to reduce groundwater concentrations.</li> </ul>	0
EVIDENCE OF CONTAMINATION  (Assumes No Exposure Pathway)	<p><i>Any of the Following</i></p> <ul style="list-style-type: none"> <li>▶ A release of OHM to groundwater has been identified but no laboratory analysis has been conducted.</li> <li style="text-align: center;"><i>or</i></li> <li>▶ A non-aqueous phase liquid (NAPL) has been identified in or on the groundwater.</li> <li style="text-align: center;"><i>or</i></li> <li>▶ OHM has been identified in groundwater at concentrations <math>\geq</math> applicable groundwater RCs.</li> </ul>	20
POTENTIAL EXPOSURE PATHWAY	<p><i>Either of the Following</i></p> <ul style="list-style-type: none"> <li>▶ A private drinking water well is located within 500' of any portion of a disposal site where OHM has been identified in groundwater at concentrations <math>\geq</math> 310 CMR 40.0974(2).</li> <li style="text-align: center;"><i>or</i></li> <li>▶ The disposal site is located within a Zone II or upgradient of a public well within an Interim Wellhead Protection Area and OHM has been identified in groundwater at concentrations <math>\geq</math> 310 CMR 40.0974(2).</li> </ul>	100
LIKELY or CONFIRMED EXPOSURE PATHWAY	<p><i>Either of the Following</i></p> <ul style="list-style-type: none"> <li>▶ OHM, possibly attributable to the disposal site, has been identified in a public or private drinking water supply well. Drinking water samples shall be taken prior to treatment or blending.</li> <li style="text-align: center;"><i>or</i></li> <li>▶ A reasonable likelihood exists that a public or private drinking water supply well has been or is likely to be impacted by OHM from the disposal site.</li> </ul>	150

## 40.1512(3) Surface Water

II.C. SURFACE WATER EXPOSURE CRITERIA		
DEFINITION	As defined by 310 CMR 40.0006, including rivers, streams, lakes, ponds, springs, impoundments, estuaries, wetlands, coastal waters and vernal pools.	
DESIGNATION	CRITERIA	POINTS
NONE or NOT APPLICABLE	<ul style="list-style-type: none"> <li>▶ OHM likely attributable to the disposal site has not been identified in, and is not anticipated to be identified in, surface waters.</li> </ul>	0
EVIDENCE OF CONTAMINATION (Assumes No Exposure Pathway)	<p style="text-align: center;"><i>Any of the Following</i></p> <ul style="list-style-type: none"> <li>▶ A release (past or on-going) of OHM to surface water has been identified.</li> <li style="text-align: center;"><i>or</i></li> <li>▶ Qualitative evidence of a release.               <ul style="list-style-type: none"> <li>• OHM-attributable visible sheen or discoloration; <i>or</i></li> <li>• OHM entering surface water; <i>or</i></li> <li>• OHM-attributable stained soils in contact with surface water; <i>or</i></li> <li>• There is a reasonable likelihood that OHM will be identified in surface water as a result of OHM migration.</li> </ul> </li> <li style="text-align: center;"><i>or</i></li> <li>▶ OHM, likely attributable to the disposal site, has been identified in groundwater at concentrations that are likely to result in detectable concentrations in surface water.</li> </ul>	20
POTENTIAL EXPOSURE PATHWAY	<p style="text-align: center;"><i>Either of the Following</i></p> <ul style="list-style-type: none"> <li>▶ OHM, likely to be attributable to the disposal site, has been identified in a surface water known to be used for drinking, swimming, boating or fishing.</li> <li style="text-align: center;"><i>or</i></li> <li>▶ OHM, likely to be attributable to the disposal site, has been identified at concentrations <math>\geq</math> Ambient Water Quality Criteria (AWQC) pursuant to 40.1505(2) and 40.1516(1).</li> </ul>	100
LIKELY or CONFIRMED EXPOSURE PATHWAY	<p style="text-align: center;"><i>Any of the Following</i></p> <ul style="list-style-type: none"> <li>▶ There is a reasonable likelihood that a surface public drinking water supply has been or may be impacted by OHM from the disposal site.</li> <li style="text-align: center;"><i>or</i></li> <li>▶ OHM, possibly attributable to the disposal site, has been identified at the entry point to a public drinking water supply distribution system.</li> <li style="text-align: center;"><i>or</i></li> <li>▶ A fish advisory likely attributable to the disposal site is in effect.</li> <li style="text-align: center;"><i>or</i></li> <li>▶ OHM likely attributable to the disposal site present has been identified at concentrations <math>\geq</math> Ambient Water Quality Criteria (AWQC) pursuant to 40.1505(2) and 40.1516(1), and the disposal site is located in or contains: an Area of Critical Environmental Concern (ACEC); a mapped habitat of a Species of Special Concern, Endangered or Threatened Species; a Certified Vernal Pool; a Restricted Wetland; an Outstanding Resource Water; a fish habitat; or a Protected Open Space.</li> </ul>	150



## 40.1512(4) Air

II.D. AIR EXPOSURE CRITERIA		
DEFINITION	Air contamination includes both vapors, particularly focusing on indoor air, and particulates. Score only releases regulated under C. 21E; do not score permitted releases associated with on-going commercial or industrial processes.	
DESIGNATION	CRITERIA	POINTS
NONE or NOT APPLICABLE	<ul style="list-style-type: none"> <li>▶ OHM likely attributable to the disposal site has not been identified in, and is not anticipated to be identified in, air.</li> </ul>	-0
EVIDENCE OF CONTAMINATION (Assumes No Exposure Pathway)	<p style="text-align: center;"><i>Any of the following</i></p> <ul style="list-style-type: none"> <li>▶ A release, or potential release, of OHM to air has been identified.</li> <li style="text-align: center;"><i>or</i></li> <li>▶ OHM that may be released to air as particulate material has been identified in the top 6" of the ground surface. Unbroken paved/concrete slab surfaces may be interpreted as preventing release of particulates to air.</li> <li style="text-align: center;"><i>or</i></li> <li>▶ OHM that may be released to air as a vapor has been identified in an open container or surface impoundment that is part of the disposal site.</li> <li style="text-align: center;"><i>or</i></li> <li>▶ An odor that is reasonably attributable to a release of OHM at the disposal site has been identified.</li> </ul>	15
POTENTIAL EXPOSURE PATHWAY	<p style="text-align: center;"><i>Any of the Following</i></p> <ul style="list-style-type: none"> <li>▶ OHM releases, likely attributable the disposal site, have been repeatedly identified in ambient air within 100' of a residence, school, hospital, nursing home, or playground when such releases are above ambient background concentrations and are not related to permitted releases.</li> <li style="text-align: center;"><i>or</i></li> <li>▶ Total volatile organic compounds have been identified in groundwater at concentrations <math>\geq 5</math> mg/l within 30 feet of a school or occupied residence where the depth to groundwater is <math>\leq 15</math> feet. Soil gas surveys or indoor air sampling may be conducted to demonstrate no exposure to OHM.</li> <li style="text-align: center;"><i>or</i></li> <li>▶ A reasonable likelihood exists that the indoor air quality of an occupied building will be impacted by OHM likely attributable to the disposal site.</li> </ul>	100
LIKELY or CONFIRMED EXPOSURE PATHWAY	<p style="text-align: center;"><i>Either of the Following</i></p> <ul style="list-style-type: none"> <li>▶ OHM has been identified in indoor air in an occupied building, above background concentrations, when the OHM is likely attributable to a non-permitted release at the disposal site.</li> <li style="text-align: center;"><i>or</i></li> <li>▶ A reasonable likelihood exists that OHM likely attributable to the disposal site is affecting air quality in an occupied building.</li> </ul>	200

## 40.1513 Human Health-Based Toxicity Values and Scores

(1) The Human Health-Based Toxicity Values found in 310 CMR 40.1513(2) shall be used to score OHM not included in Table III.A. of the Scoresheet. If a site-related OHM is not listed in 310 CMR 40.1513(2) use the Relative Toxicity Value Matrix [310 CMR 40.1513(3)] to derive a OHM-specific Toxicity Value. Correlate the value derived using 310 CMR 40.1513(3) with the OHM concentration to determine the OHM Toxicity Score using Worksheet III.A.1. in the Scoresheet. Record each OHM name, Toxicity Value, concentration and Toxicity Score in Table III.A.1 of the Scoresheet.

## (2) Human Health-Based Toxicity Values

40.1513(2) Human Health-Based Toxicity Values and Scores							
OHM	CAS Number	Chronic Oral RfD mg/kg/d	Oral Cancer Slope Factor 1/(mg/kg/d)	CLASS	Inhalation Cancer Slope Factor 1/(mg/kg/d)	CLASS	HUMAN TOXICITY VALUE
Acenaphthene	83329	6.0e-02					8
Acenaphthylene	208968			D		D	25
Acephate	30560191	4.0e-03	8.7e-03	C		ND	30
Acetaldehyde	75070						25
Acetone	67641	1.0e-01		D		D	8
Acetone Cyanohydrin	75865	7.0e-02					8
Acetonitrile	75058	6.0e-03		D			25
Acetophenone	98862	1.0e-01		D		D	8
Acetyl Chloride	75365			D		D	25
Acrolein	107028	2.0e-02		C		C	25
Acrylamide	79061	2.0e-04	4.5e+00	B2	4.5e+00	B2	46
Acrylic acid	79107	8.0e-02					8
Acrylonitrile	107131		5.4e-01	B1	2.4e-01	B1	28
Alachlor	15972608	1.0e-02	8.0e-02	B2		B2	25
Aldicarb	116063	2.0e-04		D		D	40
Aldrin	309002	3.0e-05	1.7e+01	B2	1.7e+01	B2	50
Alkanes/Alkenes							25
Allyl Alcohol	107186	5.0e-03					25
Allyl Chloride	107051	5.0e-02		C		C	22
Aluminum phosphide	20859738	4.0e-04					40
Ametryn	834128	9.0e-03					18
Aminopyridine, 4-	504245	2.0e-05		D		D	40
Ammonia	7664417						25
Ammonium Acetate	631618			D		D	25
Aniline	62533		5.7e-03	B2		B2	22
Anthracene	120127	3.0e-01		D		D	4

## REFERENCES

- \* Solubility of 1,000,000 mg/l assigned because of reported "infinite solubility" in the literature.
- <sup>1</sup> "Superfund Public Health Evaluation Manual", Office of Emergency and Remedial Response Office of Solid Waste and Emergency Response, U.S. Environmental Protection Agency, 1986.
    - a. Environmental Criteria and Assessment Office (ECAO), EPA, Health Effects Assessments for Specific Chemicals, 1985.
    - b. Mabey, W.R., J.H. Smjth, R.T. Rodoll, H.L. Johnson, T. Mill, T.W. Chou, J. Gates, I.W. Patridge, H. Jaber, and D. Vanderberg. "Aquatic Fate Process Data for Organic Priority Pollutants," EPA Contract Nos. 68-01-3867 and 68-03-2981 by SRA International for Monitoring and Data Support Division, Office of Water Regulations and Standards, Washington, DC, 1982.
    - c. Dawson, et al., Physical/Chemical Properties of Hazardous Waste Constituents, by Southeast Environmental Research Laboratory for US EPA, 1980.
    - d. Jaber, et al., "Data Acquisition for Environmental Transport and Fate Screening", Office of Health and Environmental Assessment, US EPA, Washington DC, EPA 600/6-84-009, 1984.
    - e. ORD, US EPA, "Treatability Manual, Volume 1", EPA 600/2-82-001a.
    - f. Verschueren K., "Handbook of Environmental Data for Organic Chemicals", Van Nostrand Reinhold Co., New York, 2nd ed., 1983.
  - <sup>2</sup> US EPA, "Basics of Pump-and-Treat Ground-Water Remediation Technology," EPA/600/8-901003, Robert S. Kerr Environmental Research Laboratory, March 1990.
  - <sup>3</sup> Manufacturer's data; Texas Petrochemicals Corp., Gasoline Grade Methyl-tert-butyl-ether Shipping Specifications and Technical Data, 1986.
  - <sup>4</sup> CRC Handbook of Chemistry and Physics, 71st Edition, CRC Press, Ohio, 1990.
  - <sup>5</sup> Lyman W.J. et al., "Research and Development of Methods for Estimating Physicochemical Properties of Organic Compounds of Environmental Concern," June 1981.
  - <sup>6</sup> EPA Draft Document, "Hazardous Waste Treatment, Storage and Disposal Facilities (TSDF) Air Emissions Model," April 1989.
  - <sup>7</sup> Citations compiled in E.K. Nyer, "Groundwater Treatment Technology," 2nd edition, in production.
  - <sup>8</sup> Dragun J., "The Soil Chemistry of Hazardous Materials," The Hazardous Materials Control Research Institute, 1988, pp.366-367.
  - <sup>9</sup> Bedard D.L., "Bacterial Transformations of Polychlorinated Biphenyls," In: "Biotechnology and Biodegradation", D. Kancly, A. Chakrabarty, G.S. Omenn (eds.) Advances in Applied Biotechnology Series, Vol. 4, Portfolio Pub. Co., The Woodlands, Texas, 1990.
  - <sup>10</sup> "Characterization and Laboratory Soil Treatability Studies for Creosote and Pentachlorophenol Sludges and Contaminated Soil," EPA: Washington DC, EPA/600/2-88/055, 1988.
  - <sup>11</sup> Pitter P.J., Chudoba J., "Biodegradability of Organic Substances in the Aquatic Environment," CRC Press, 1990.
  - <sup>12</sup> Vogel T.M., McCarty P.L., "Transformations of Halogenated Aliphatic Compounds," Env. Sci. Tech., 21, 722-736, 1987.
  - <sup>13</sup> Volskay V.T., Grady C.P., "Toxicity of Selected RCRA Compounds to Activated Sludge Microorganisms," Journal WPCF, Vol 60, No. 10, 1850, 1988.
  - <sup>14</sup> Klecka G.M., Gonsoir S.J., "Removal of 1,4-Dioxane from Wastewater," Journal of Hazardous Materials, 13, 161-168, 1986.
  - <sup>15</sup> Nyer D., Boettcher G., and Morello B., "Using the Properties of Organic Compounds to Help Design a Treatment System," Groundwater Monitoring Review, Fall, 1991, pp. 81-86.
  - <sup>16</sup> Dean, J.A. ed., "Lange's Handbook of Chemistry", 11th edition, McGraw-Hill Book Co., New York, 1973.
  - <sup>17</sup> Weiss, G., "Hazardous Chemicals Data Book", 2nd edition, Noyes Data Corp., New York, 1986.
  - <sup>18</sup> US Public Health Service, Agency for Toxic Substances and Disease Registry, "Draft Toxicological Profile for Selected PCBs," November 1987.
  - <sup>19</sup> US Public Health Service, Agency for Toxic Substances and Disease Registry, "Draft Toxicological Profile for Benzo(a)pyrene," October 1987.
  - <sup>20</sup> Merck Index, 9th edition, Merck and Co. Inc., New Jersey, 1976.

## 40.1514(3) Metals

METAL	Mobility	Score
Arsenic - $H_2AsO_4$	Slowly mobile	15
Asbestos - > 2 $\mu$	Immobile	5
Asbestos - < 2 $\mu$	Slowly mobile	15
Beryllium - $Be^{2+}$	Moderately mobile	25
Cadmium - $Cd^{2+}$	Slowly mobile	15
Chromium - $Cr^{3+}$ or $Cr^{6+}$	Slowly mobile	15
Copper - $Cu^{2+}$	Moderately mobile	25
Cyanide - $CN^-$	Relatively mobile	35
Lead - $Pb^{2+}$	Moderately mobile	25
Mercury - $Hg^{2+}$	Slowly mobile	15
Selenium - $HSeO_4^-$ & $SeO_3^{2-}$	Relatively mobile	35
Zinc - $Zn^{2+}$	Moderately mobile	25

<sup>1</sup> Fuller, "Movement of Selected Metals, Asbestos, and Cyanide in Soils: Application to Waste Disposal Problems," EPA-600/2-77-020, April 1977.

40.1514(4) OHM Mobility and Persistence Factors for Other Organic Compounds

OHM MOBILITY AND PERSISTENCE FACTORS			
Organic Compounds			
FACTOR	RANGE and VALUE		
	LOW (Value)	MEDIUM (Value)	HIGH (Value)
Solubility (mg/L)	< 1 (0)	1 - 1,000 (5)	> 1,000 (10)
Vapor Pressure (mm Hg)	< 0.01 (0)	0.01 - 1 (5)	> 1 (10)
K <sub>ow</sub>	> 10,000 (0)	10 - 10,000 (5)	< 10 (10)
Degradation Potential	Non-Persistent (NP) (0)		Persistent (P) (10)
Specific Gravity (20° C)	< 1 (0)		> 1 (10)
<b>Radionuclides</b>			
Radionuclides present in quantities greater than their federal Reportable Quantity ( 40 CFR Part 302.4, Appendix B) where the quantity is known or in concentrations greater than background where the quantity is not known shall be assigned a <i>Mobility and Persistence Score</i> equal to 40.			

40.1515 Soil Permeability Criteria

SOIL PERMEABILITY	
VALUES	CRITERIA
LOW	Permeability: < 10E-7 cm/s Soil or Bedrock Type: clay; shale; compact till; unfractured metamorphic and igneous rocks.
MEDIUM	Permeability: 10E-7 to < 10E-3 cm/s Soil or Bedrock Type: silt, fine sand and silty sand; loess; silty clays; clay loams, silty loams, sandy loams, and loamy sands; less to moderately permeable limestones, dolomites, and sandstone; moderately permeable to coarse till; moderately fractured igneous and metamorphic rocks. Fill is considered moderately permeable unless disposal site-specific condition indicate otherwise.
HIGH	Permeability: ≥ 10E-3 cm/s Soil or Bedrock Type: gravel, sand; highly fractured igneous and metamorphic rocks; permeable basalt and lavas; karst limestone and dolomite.

OHM MOBILITY FOR:-

PHENANTHRENE NOT VOLATILE \* (0) SG 179 (0) Assume Persistence (0)

BENZO (a) PYRENE NOT VOLATILE \* (0) ASSUME > 1 (10) — (0)

\* DEP SHORTFORM

XX Chemical Engineers Handbook.

1/13/95 (Effective 2/1/95)

## 40.1516 Environmental Toxicity Values

## (1) Environmental Toxicity Values

40.1516(1) ENVIRONMENTAL TOXICITY VALUES					
<i>(for OHM with Ambient Water Quality Criteria)</i>					
OHM	AMBIENT WATER QUALITY CRITERIA				
	FRESH WATER ACUTE	FRESH WATER CHRONIC	MARINE ACUTE	MARINE CHRONIC	TOXICITY VALUE
	µg/l	µg/l	µg/l	µg/l	
Acenaphthene	1700	520	970	710	20
Acrolein	68	21	55		50
Acrylonitrile	7550	2600			10
Aldrin	30		1.3		40
Antimony	88	30	1500	500	50
Arsenic	850		2319		50
Benzene	5300		5100	700	10
Benzidine	2500				20
Beryllium	130	5.3			50
Benzene Hexachloride	100		0.34		50
Cadmium	3.9	1.1	43	9.3	40
Carbon Tetrachloride	35200		50000		10
Chlordane	2.4	0.0043	0.09	0.004	50
Chloroform	28900	1240			10
Chlorophenol, 2-	4380				20
Chlorophenol, 4-			29700		10
Chlorpyrifos	0.083	0.041	0.011	0.0056	40
Chromium III	1700	210	10300		20
Chromium VI	16	11	1100	50	50
Copper	18	12	2.9		50
Cyanide	22	5.2	1		30
DDT	1.1	0.001	0.13	0.001	50
DDE	1050		14		30
Demeton		0.1		0.1	40
Di-2-Ethylhexyl Phthalate	400	360	400	360	20
Dichlorobenzene	1120	763	1970		10
Dichloroethane, 1,2-	118000	20000	113000		10
Dichloroethylenes	11600		224000		10
Dichlorophenol, 2,4-	2020	365			20
Dichloropropane	23000	5700	10300	3040	10
Dichloropropene	6060	244	790		20
Dieldrin	2.5	0.0019	0.71	0.0019	50
Dimethylphenol, 2,4-	2120				20
Dinitrotoluene			590	370	10
Dinitrotoluene, 2,4-	330	230			20
Diphenylhydrazine, 1,2-	270				30
Endosulfans	0.22	0.056	0.034	0.0087	40

40.1516(1) ENVIRONMENTAL TOXICITY VALUES					
(for OHM with Ambient Water Quality Criteria)					
OHM	AMBIENT WATER QUALITY CRITERIA				
	FRESH WATER ACUTE	FRESH WATER CHRONIC	MARINE ACUTE	MARINE CHRONIC	TOXICITY VALUE
	µg/l	µg/l	µg/l	µg/l	
Endrin	0.18	0.0023	0.037	0.0023	50
Ethylbenzene	32000		430		10
Fluoranthene	3980		40	16	20
Guthion		0.01		0.01	50
Heptachlor	0.52	0.0038	0.053	0.0036	50
Heptachlor Epoxide	0.52	0.0038	0.053	0.0036	50
Hexachlorobenzene	6	3.68			10
Hexachlorobutadiene	90	9.3	32		10
Hexachlorocyclohexane, gamma-	2	0.08	0.16		40
Hexachlorocyclopentadiene	7	5.2	7		50
Hexachloroethane	980	540	940		20
Hydrogen Sulfide		2		2	40
Isophorone	117000		12900		10
Lead	83	3.2	220	8.5	40
Lindane	2	0.08	0.16		40
Malathion		0.1		0.1	40
Mercury	2.4	0.012	2.1	0.025	50
Methoxychlor		0.03		0.03	50
Methyl Mercury	2.4	0.012	2.1	0.025	40
Mirex		0.001		0.001	50
Naphthalene	2300	620	2350		20
Nickel	1400	160	75	8.3	20
Nitrobenzene	27000		6680		10
Nitrophenols	230	150	4850		20
Parathion	0.065	0.013			50
PCBs	2	0.014	10	0.03	50
Pentachloroethane	7240	1100	390	281	10
Pentachlorophenol	20	13	13	7.9	30
Phenanthrene	30	6.3	7.7	4.6	50
Phenol	10200	2560	5800		10
Phosphorus (elemental)				0.1	40
Phthalate esters	940	3	2944	3.4	30
Selenium	20	5	300	71	30
Silver	0.92	0.12	7.2	0.92	40
TCDD, 2,3,7,8-	0.01	0.00001			50
TDE (DDT Metabolite)	0.6		3.6		50
Tetrachloroethane, 1,1,2,2-		2400	9020		10
Tetrachloroethanes	9320				10
Tetrachloroethylene	5280	840	10200	450	10
Tetrachlorophenol, 2,3,5,6-			440		30

40.1516(1)

## ENVIRONMENTAL TOXICITY VALUES

(for OHM with Ambient Water Quality Criteria)

OHM	AMBIENT WATER QUALITY CRITERIA				
	FRESH WATER ACUTE	FRESH WATER CHRONIC	MARINE ACUTE	MARINE CHRONIC	TOXICITY VALUE
	µg/l	µg/l	µg/l	µg/l	
Thallium	1400	40	2130		30
Tolene	17500		6300	5000	10
Toxaphene	0.73	0.0002	0.21	0.0002	50
Trichloroethane, 1,1,1-			31200		10
Trichloroethane, 1,1,2-		9400			10
Trichloroethanes	18000				10
Trichloroethylene	45000	21900	2000		10
Trichlorophenol, 2,4,5-	100	63	240	11	20
Trichlorophenol, 2,4,6-		970			10
Zinc	120	110	95	86	20



## 40.1516(2) Default Environmental Toxicity Values

ENVIRONMENTAL TOXICITY DEFAULT VALUES	
Default values shall be assigned for all OHMs not listed in 310 CMR 40.1516(1) according to the following criteria.	
CHEMICAL CLASS	ENVIRONMENTAL TOXICITY VALUE
Alcohol	20
Aldehydes	30
Alkanes	20
Alkenes	30
Amines	20
Aromatics	30
Esters	40
Ethers	20
Halogenated Hydrocarbons (except Ethers)	30
Ketones	30
Organic Acids	40
Pesticides	40
Metals	20

**NOTE:** Use the HIGHEST Default Value applicable to the OHM under consideration.

**Example:** A halogenated pesticide would be assigned a default value of 40.  
A halogenated alkane would be assigned a default value of 30.

**NOTE:** For radionuclides, no Environmental Toxicity Value has been established. Radionuclides present in quantities greater than their federal Reportable Quantity (40 CFR Part 302.4, Appendix B) where the quantity is known or in concentrations greater than background where the quantity is not known shall be assigned an *Environmental Toxicity Score* equal to 30. This score shall be entered directly in Worksheet V.B.1.

40.1516(3) ENVIRONMENTAL TOXICITY VALUE MATRIX					
AMBIENT WATER QUALITY CRITERIA (AWQC)	ENVIRONMENTAL TOXICITY VALUE RANGES In µg/l				
	Fresh Water Chronic	< 0.03	0.03 ≤ X < 2.8	2.8 ≤ X < 70	70 ≤ X < 620
Marine Chronic	< 0.005	0.005 ≤ X < 0.3	0.3 ≤ X < 8	8 ≤ X < 200	> 200
Fresh Water Acute	< 3	3 ≤ X < 85	85 ≤ X < 1,200	1,200 ≤ X < 8,000	> 8,000
Marine Acute	< 1.1	1.1 ≤ X < 33	33 ≤ X < 490	490 ≤ X < 27,000	> 27,000
ENVIRONMENTAL TOXICITY VALUE	50	40	30	20	10



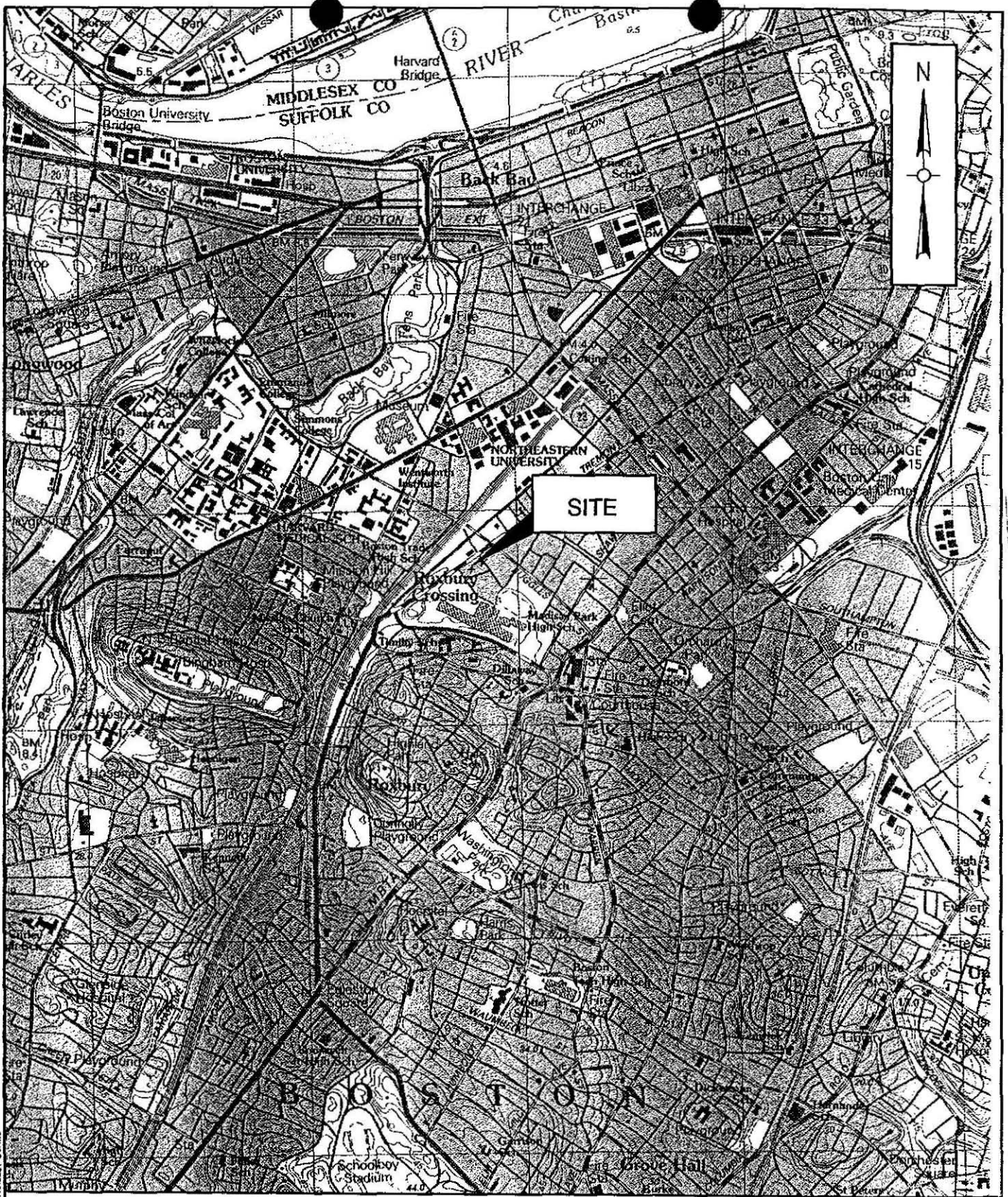
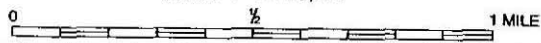


FIGURE 1  
 BRAEDIC -- PARCEL P-3; ROXBURY, MASSACHUSETTS  
 LOCUS MAP

SOURCE: USGS 7.5 x 15 MINUTE SERIES BOSTON SOUTH, MASS. QUAD, 1987

SCALE: 1 : 25,000



MapWorks - MUNICIPAL Locus Map/BRAEDIC PARCEL P-3 3.4.88

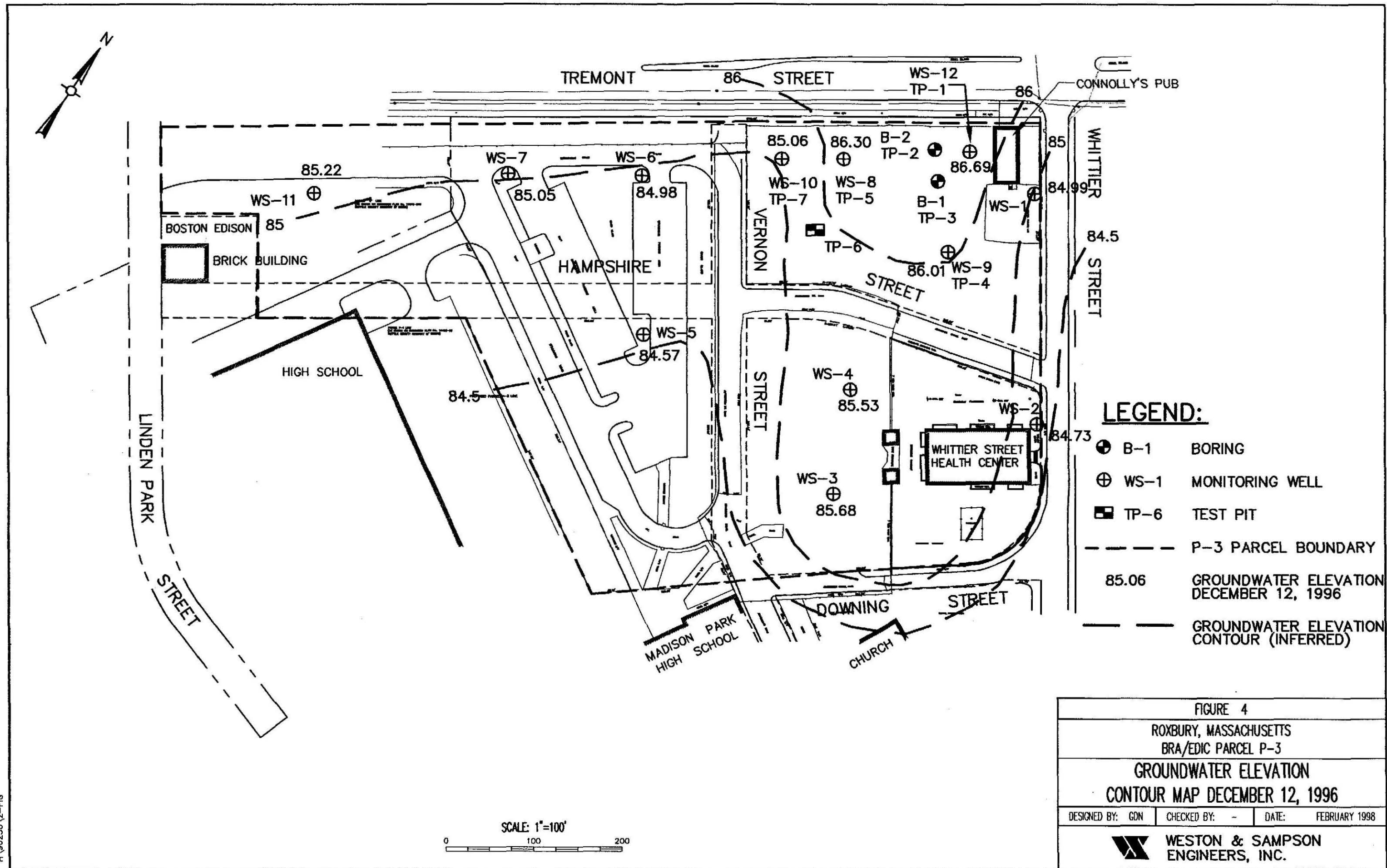


FIGURE 4  
 ROXBURY, MASSACHUSETTS  
 BRA/EDIC PARCEL P-3  
 GROUNDWATER ELEVATION  
 CONTOUR MAP DECEMBER 12, 1996  
 DESIGNED BY: GDN | CHECKED BY: - | DATE: FEBRUARY 1998  
**WESTON & SAMPSON ENGINEERS, INC.**

H\96230\2-FIG

SCALE: 1"=100'  
 0 100 200

# MA DEP - Bureau of Waste Site Cleanup

## Site Scoring Map: 500 feet & 0.5 Mile Radii

**SITE NAME:**  
4688700n 327800ew



The information shown on this map is the best available at the date of printing. Please refer to the data source descriptions document.

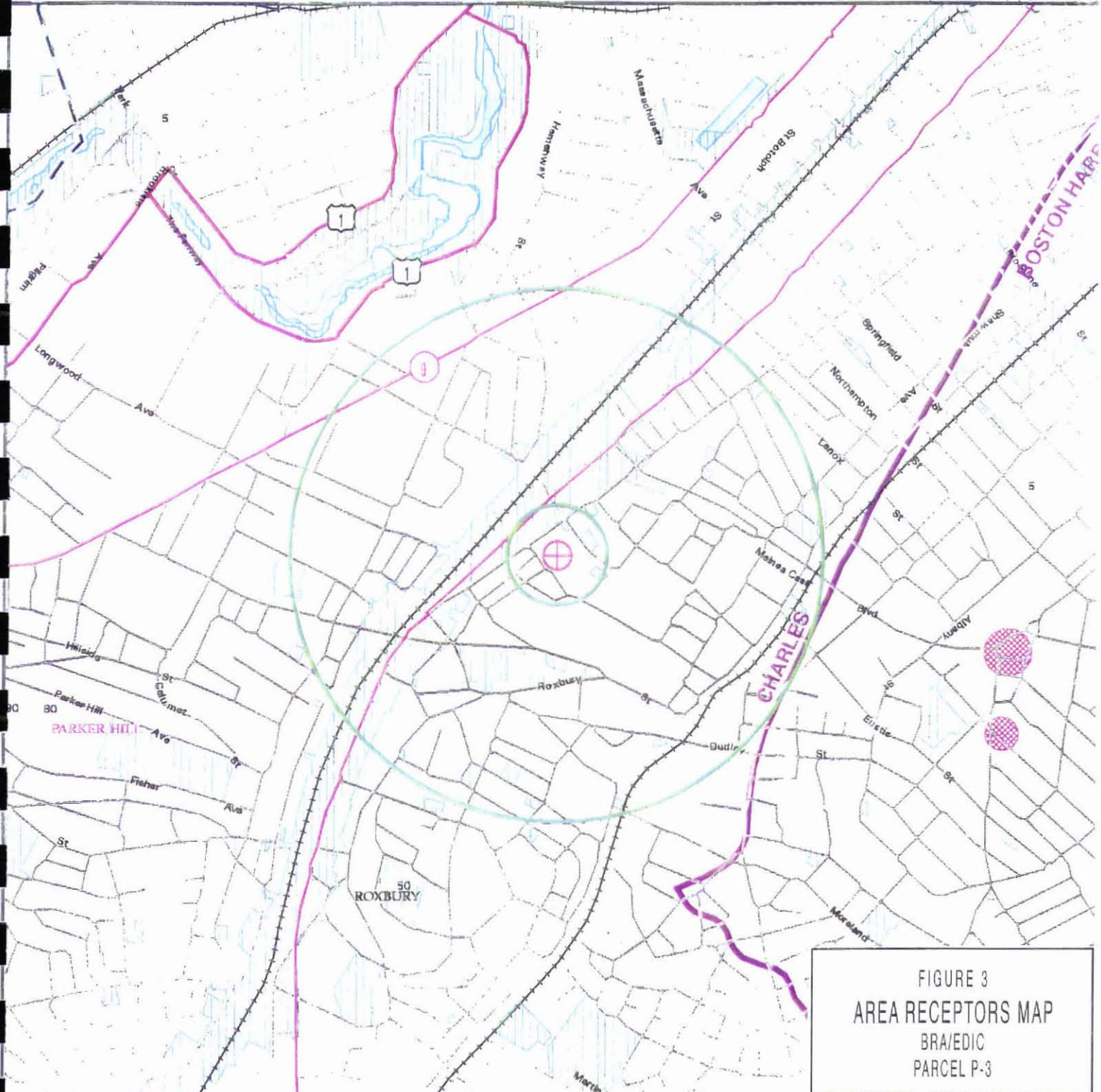


FIGURE 3  
AREA RECEPTORS MAP  
BRA/EDIC  
PARCEL P-3

- |                                             |                                                              |                                                              |
|---------------------------------------------|--------------------------------------------------------------|--------------------------------------------------------------|
| Roads: Interstate, US, State, Street, Trail | EPA Designated Sole Source Aquifer                           | Public Water Supplies: Ground, Surface, Non Community        |
| Boundaries: Municipal, County, DEP Region   | Approved Zone 2; MWPA                                        | Hydrography: Water Features, Public Surface Water Supply     |
| Train; Powerline; Pipeline                  | Wetlands: Fresh, Salt, NHESP Wetlands Habitat                | Protected Open Space; ACEC                                   |
| Drainage Basins: Major, Sub                 | Potentially Productive Aquifers: Medium Yield, High Yield    | DEP Permitted Solid Waste Facilities; Certified Vernal Pools |
| Streams: Perennial, Intermittent, Aqueduct  | Non-Potential Drinking Water Source Area: Medium, High Yield |                                                              |



SCALE 1:15000

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January 07, 1997

**Boston Redevelopment Authority**  
**WSE Job # 96230.A**

April 6, 1998

The Honorable Thomas M. Menino, Mayor  
Boston City Hall  
1 City Hall Square  
Boston, Massachusetts 02201

Re: Public Notification – Phase I Initial Site Investigation and Tier II Classification  
RTN 3-15009  
BRA Parcel P-3  
Whittier and Tremont Streets  
Roxbury, Massachusetts

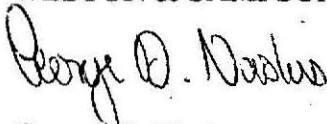
Dear Mayor Menino:

Weston & Sampson Engineers, Inc. (WSE) was contracted by the Boston Redevelopment Authority (BRA) to perform a Phase I Initial Site Investigation and Tier Classification (PHI/TC) at the above referenced site. Results of this investigation required that the site be classified as a Tier II disposal site in accordance with the Massachusetts Contingency Plan (MCP), 310 CMR 40.0000. A legal notice for the Initial Site Investigation and Tier II Classification will be published in the Boston Herald newspaper.

The PHI/TC report is being submitted to the Department of Environmental Protection Northeast Regional Office (DEP-NERO) in Woburn where it will be available for public review. If you have any questions regarding this site, please feel free to call WSE at (978) 532-1900 or Richard Mertens at BRA at (617) 722-4300, ext 4283.

Very truly yours,

WESTON & SAMPSON ENGINEERS, INC.



George D. Naslas  
Project Manager

cc: Ms. Lillian Shirley, City of Boston, Board of Health  
Mr. Paul Osborn, BRA  
Mr. Richard Mertens, BRA  
DEP-NERO, Woburn, MA.

File  
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TIER II CVR LTR.DOC

**NOTICE OF AN INITIAL SITE INVESTIGATION AND  
TIER II CLASSIFICATION**

**BOSTON REDEVELOPMENT AUTHORITY  
PARCEL P-3, WHITTIER & TREMONT STREET  
ROXBURY, MASSACHUSETTS  
RTN 3-15009**

Pursuant to the Massachusetts Contingency Plan (310 CMR 40.0480), an Initial Site Investigation has been performed at the above referenced location. A release of oil and/or hazardous materials has occurred at this location which is a disposal site (defined by M.G.L. c. 21E, Section 2). This site has been classified as Tier II, pursuant to 310 CMR 40.0500. Response actions at this site will be conducted by The Boston Redevelopment Authority who has employed Mr. Prasanta K. Bhunia, L.S.P., Weston & Sampson Engineers, Inc. to manage response actions in accordance with the Massachusetts Contingency Plan (310 CMR 40.0000).

M.G.L. c. 21E and the Massachusetts Contingency Plan provide additional opportunities for public notice of and involvement in decisions regarding response actions at disposal sites: 1) The Chief Municipal Officer and Board of Health of the community in which the site is located will be notified of major milestones and events, pursuant to 310 CMR 40.1403; and 2) Upon receipt of a petition from ten or more residents of the municipality in which the disposal site is located, or of a municipality potentially affected by a disposal site, a plan for involving the public in decisions regarding response actions at the site will be prepared and implemented, pursuant to 310 CMR 40.1405.

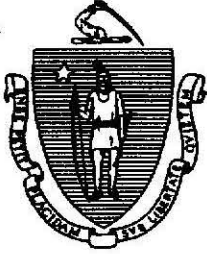
To obtain more information on this disposal site and the opportunities for public involvement during its remediation, please contact Mr. Richard Mertens, Environmental Review Office, Boston Redevelopment Authority, 1 City Hall Square, Boston, Massachusetts 02201 at (617) 722-4300 ext 4283.



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COMMONWEALTH OF MASSACHUSETTS  
EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
Northeast Regional Office, One Commerce Way, Woburn, MA 01801

ARGEO PAUL CELLUCCI  
Governor

TRUDY COXE  
Secretary

DAVID B. STRUHS  
Commissioner

BOSTON REDEVELOPMENT AUTHORITY  
ONE CITY HALL SQ  
BOSTON, MA 02201-1007

Attn: RICHARD MERTENS

February 23, 1998

RTN: 3-0015009  
ROXBURY  
PARCEL P-3 TREMONT/WHITTIER ST

RE: 310 CMR 40.0000, Notice of Due  
Date for Tier Classification Submittal.

Dear RICHARD MERTENS,

On 04/14/1997 the Department of Environmental Protection (DEP) was notified of a release or threat of release of Oil and Hazardous Material at PARCEL P-3 TREMONT/WHITTIER ST, ROXBURY. This release constitutes a 120 DY release condition pursuant to 310 CMR 40.0000, the Massachusetts Contingency Plan (MCP), and Chapter 21E of the Massachusetts General Laws.

The purpose of this letter is to remind you that the one year period, following the date of notification, for you to submit either a Response Action Outcome (RAO) Statement, a Downgradient Property Status Submittal or a Tier Classification Submittal is about to expire. This letter describes the significance of this deadline so that you can take appropriate action to minimize your cleanup costs, maintain compliance with the MCP, and avoid possible DEP enforcement action for failing to submit an RAO Statement, a Downgradient Property Status Submittal or a Tier Classification Submittal to DEP.

PLEASE BE ADVISED that, as of the date of this letter, DEP has not received either a RAO Statement, a Downgradient Property Status Submittal or a Tier Classification Submittal for the above listed site. The one year period for submitting one of these documents will expire on 04/14/1998.

The MCP requires, among other provisions, that a location affected by a release (i. e., the site) meet one of the following milestones within one year of notification:

February 23, 1998

Page 2

- Conditions at the site meet the requirements of a Response Action Outcome, and an RAO Statement and supporting documentation are submitted to the appropriate regional office. If you submit an RAO Statement more than 120 days after the date of notification and prior to Tier Classification, you must also pay DEP an RAO Compliance Fee of \$750.00; or
- A Downgradient Property Status is established for the site, and a Downgradient Property Status Transmittal Form and supporting documentation are submitted to the appropriate regional office. You must also pay DEP a Downgradient Property Status Compliance Fee of \$1000.00; or
- The site is Tier Classified as either a Tier I or Tier II site, and a Tier Classification Transmittal Form and supporting documentation are submitted to the appropriate regional office. For Tier I sites, you must also include a Tier I Initial Permit Application and pay a Permit Application Fee of \$3,550; Tier II sites do not require a Permit and do not pay a Permit Application Fee. If a site is Tier Classified within one year of notification, the DEP will not assess an Annual Compliance Fee for the first year. After Tier Classification, Comprehensive Response Actions must then be undertaken to assess and clean up that site.

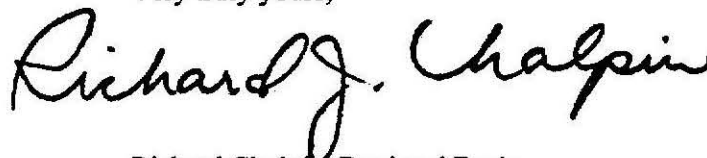
**Please note that if you fail to submit either an RAO Statement, a Downgradient Property Status Submittal or a Tier Classification Submittal to DEP by 04/14/1998, the above referenced site will be categorically classified as a Tier IB Disposal Site and, if not otherwise exempt, you will be assessed a Tier IB Annual Compliance Fee for the first year, for response actions which you carried out.**

Licensed Site Professional (LSP):

In order to clean up and/or address a release or threat of release, the services of a Licensed Site Professional (LSP) are required. LSPs are professionals licensed by the Commonwealth of Massachusetts to issue Waste Site Cleanup Activity Opinions in connection with response actions at sites. The MCP requires the preparation of one or more Waste Site Cleanup Activity Opinions for every release reported to DEP. For a list of LSP names please contact the Board of Registration at (617) 556-1145.

You and your Licensed Site Professional (LSP) may obtain copies of all DEP forms and applications by contacting your regional service center at (617) 932-7677 or 7678. You may direct other questions concerning this letter to the regional service center, as well.

Very truly yours,



Richard Chalpin, Regional Engineer  
Northeast Regional Office  
Bureau of Waste Site Cleanup



COMMONWEALTH OF MASSACHUSETTS  
EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
ONE WINTER STREET, BOSTON, MA 02108 617-292-5500

WILLIAM F. WELD  
Governor

ARGEO PAUL CELLUCCI  
Lt. Governor

TRUDY COXE  
Secretary

DAVID B. STRUHS  
Commissioner

December 1, 1997

Egleston Square Development Corporation  
c/o Richard Mason, Senior Project Manager  
2010 Columbus Avenue  
Roxbury, MA 02119

Release Tracking No.: 3-0003938  
Release City: Boston (Roxbury)  
Release Addr: 3060-3070 Washington Street  
Covenant Not to Sue - Certificate of Completion

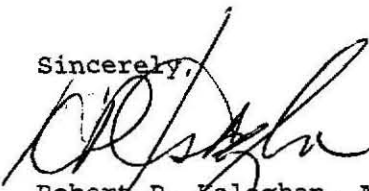
Dear Mr. Mason,

I am pleased to announce the issuance of a Certificate of Completion for the above-referenced Covenant Not to Sue project based upon the receipt of a Class A-3 Response Action Outcome Statement on October 6, 1997. Please find enclosed the original signed Certificate copy.

Should you have any further questions concerning this application, please feel free to contact me personally at (617) 292-5941.

Thank you for your interest and participation in this important pilot project.

Sincerely,

  
Robert P. Kalaghan, Acting Director  
Division of Fiscal Management, Cost Recovery, Revenues and Administration  
Bureau of Waste Site Cleanup

cc: Mr. Dennis P. Crimmins, Esq., PLCPT, 585 Commercial Street,  
Boston, MA 02109  
Margaret Stolfa, Chief Counsel, BWSC  
Nancy Harper, Assistant Attorney General, OAG, EPD  
✓ DEP NERO, BWSC  
DEP Boston, BWSC, CNTS File



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Commonwealth of Massachusetts  
Executive Office of Environmental Affairs

## Department of Environmental Protection

William F. Weld  
Governor

Trudy Cox  
Secretary, EOE

Thomas B. Powers  
Acting Commissioner

### EXHIBIT C

CERTIFICATE OF COMPLETION  
PILOT COVENANT NOT TO SUE PROGRAM  
M.G.L. c. 21E, s. 3A(j)

From: The Department of Environmental Protection  
To: Egleston Sq. Development Corp. ("Applicant")  
Date of Issuance: December 1, 1997  
DEP Release Tracking No(s). 3-3938  
City(ies)/Town(s) Roxbury/Boston

This Certificate of Completion ("Certificate") is issued in accordance with a certain Agreement entered into by DEP and the Commonwealth of Massachusetts with Applicant, dated August 25, 1995, to signify only that the Department has received (i) a Class A or Class B Response Action Outcome Statement for the release(s) identified by the DEP Release Tracking Number(s) referenced above, and (ii) payment in full of the sum set forth in the Agreement, such sum representing all or a portion of the past costs and fees owing the Commonwealth for the release(s).

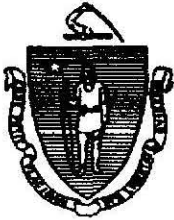
This Certificate shall not be deemed or construed to imply the Department's approval of the adequacy of any response action(s) undertaken at the subject property, nor shall issuance of this Certificate operate to bar the Department from auditing any person, site or response action, or from requesting any person to provide information to the Department, or to relieve any person of his/her obligation to comply with any such request.

Issued by:

James C. Palma  
Assistant Commissioner, Bureau of Waste Site Cleanup



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COMMONWEALTH OF MASSACHUSETTS  
EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
METROPOLITAN BOSTON - NORTHEAST REGIONAL OFFICE

WILLIAM F. WELD  
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Lt. Governor

TRUDY COXE  
Secretary

DAVID B. STRUHS  
Commissioner

URGENT LEGAL MATTER: PROMPT ACTION NECESSARY  
CERTIFIED MAIL: RETURN RECEIPT REQUESTED MAY 28 1997

Boston Redevelopment Authority  
1 City Hall Plaza  
Boston, MA 02201-1007

RE: Boston/Roxbury  
Parcel P-3  
Tremont & Whittier St.  
RTN #3-15009

NOTICE OF RESPONSIBILITY;  
M.G.L. c. 21E & 310 CMR  
40.0000

Attention: Mr. Richard Mertens

Dear Mr. Mertens:

Information contained in a Release Notification Form (RNF) submitted to the Department of Environmental Protection (the Department or DEP) on April 14, 1997 and submitted by Boston Redevelopment Authority indicates that there is or has been a release of oil and/or hazardous material at the above-referenced property which exceeds a "120 day" reporting threshold (310 CMR 40.0315) and which requires one or more response actions.

Based on this information, the Department has reason to believe that the subject property or portion(s) thereof is a disposal site as defined in the Massachusetts Oil and Hazardous Material Release Prevention and Response Act, M.G.L. c. 21E, and the Massachusetts Contingency Plan, 310 CMR 40.0000 (the MCP). The assessment and cleanup of disposal sites is governed by M.G.L. c. 21E and the MCP.

The purpose of this notice is to inform you of your legal responsibilities under state law for assessing and/or remediating the subject release. For purposes of this notice, the terms and phrases used herein shall have the meaning ascribed to them by the MCP unless the text clearly indicates otherwise.

**STATUTORY LIABILITIES**

The Department has reason to believe that you (as used in this letter, "you" refers to Boston Redevelopment Authority) are

a Potentially Responsible Party (a PRP) with liability under M.G.L. c. 21E, § 5, for response action costs. Section 5 makes the following parties liable to the Commonwealth of Massachusetts: current owners or operators of a site from or at which there is or has been a release/threat of release of oil or hazardous material; any person who owned or operated a site at **the time hazardous material was stored or disposed of**; any person who arranged for the transport, disposal, storage or treatment of hazardous material to or at a site; any person who transported hazardous material to a transport, disposal, storage or treatment site from which there is or has been a release/threat of release of such material; and any person who otherwise caused or is legally responsible for a release/threat of release of oil or hazardous material at a site.

This liability is "strict", meaning it is not based on fault, but solely on your status as an owner, operator, generator, transporter or disposer. It is also joint and several, meaning that you may be liable for all response action costs incurred at the site, regardless of the existence of any other liable parties.

The MCP requires responsible parties to take necessary response actions at properties where there is or has been a release or threat of release of oil and/or hazardous material. If you do not take the necessary response actions, or fail to perform them in an appropriate and timely manner, the Department is authorized by M.G.L. c. 21E to have the work performed by its contractors. By taking such actions, you can avoid liability for response action costs incurred by the Department and its contractors in performing these actions, and any sanctions which may be imposed for failure to perform response actions under the MCP.

You may be liable for up to three (3) times all response action costs incurred by the Department. Response action costs include, without limitation, the cost of direct hours spent by Department employees arranging for response actions or overseeing work performed by persons other than the Department or their contractors, expenses incurred by the Department in support of those direct hours, and payments to the Department's contractors. (For more detail on cost liability, see 310 CMR 40.1200.)

The Department may also assess interest on costs incurred at the rate of twelve percent (12%), compounded annually. To secure payment of this debt, the Commonwealth may place liens on all of your property in the Commonwealth. To recover the debt, the Commonwealth may foreclose on these liens or the Attorney General may bring legal action against you.

In addition to your liability for up to three (3) times all



response action costs incurred by the Department, you may also be liable to the Commonwealth for damages to natural resources caused by the release. Civil and criminal liability may also be imposed under M.G.L. c. 21E, § 11, and civil administrative penalties may be imposed under M.G.L. c. 21A, § 16 for each violation of M.G.L. c. 21E, the MCP, or any order, permit or approval issued thereunder.

#### **NECESSARY RESPONSE ACTIONS**

The subject site shall not be deemed to have had all the necessary and required response actions taken unless and until all substantial hazards presented by the site have been eliminated and a level of No Significant Risk exists or has been achieved in compliance with M.G.L. c. 21E and the MCP. In addition, the MCP requires persons undertaking response actions at disposal sites to perform Immediate Response Actions (IRAs) in response to "sudden releases", Imminent Hazards and Substantial Release Migration. Such persons must continue to evaluate the need for IRAs and notify the Department immediately if such a need exists.

You must employ or engage a Licensed Site Professional (LSP) to manage, supervise or actually perform the necessary response actions at the subject site. In addition, the MCP requires persons undertaking response action at a disposal site to submit to the Department a Response Action Outcome Statement (RAO) prepared by an LSP in accordance with 310 CMR 40.1000 upon determining that a level of No Significant Risk already exists or has been achieved at a disposal site or portion thereof. [You may obtain a list of the names and addresses of these licensed professionals from the Board of Registration of Hazardous Waste Site Cleanup Professionals at (617) 556-1091].

The Department has determined that the following response actions are necessary at the subject site:

Initial site investigation activities in accordance with 310 CMR 40.0405 are necessary. In addition, unless an RAO is submitted earlier, a completed Tier Classification Submittal pursuant to 310 CMR 40.0510, and, if appropriate, a completed Tier I Permit Application pursuant to 310 CMR 40.0700, must be submitted to DEP within one year of the initial date notice of a release is provided to the Department pursuant to 310 CMR 40.0300 or from the date the Department issues a Notice of Responsibility (NOR), whichever occurs earlier.

It is important to note that you must dispose of any Remediation Waste generated at the subject location in accordance with 310 CMR 40.0030 including, without limitation, contaminated

soil and/or debris. Any Bill of Lading accompanying such waste must bear the seal and signature of an LSP or, if the response action is performed under the direct supervision of the Department, the signature of an authorized representative of the Department.

**However, please be advised that if information is obtained after making a oral or written notification to indicate that the release or threat of release didn't occur, failed to meet the reporting criteria at 310 CMR 40.0311 through 40.0315, or is exempt from notification pursuant to 310 CMR 40.0317, a Notification Retraction must be submitted within 60 days of the initial notification pursuant to 310 CMR 40.0335.**

The Department encourages parties with liabilities under M.G.L. c. 21E to take prompt action in response to releases and threats of release of oil and/or hazardous material. By taking prompt action, you may significantly lower your assessment and cleanup costs and avoid the imposition of, or reduce the amount of, certain permit and annual compliance fees for response actions payable under 310 CMR 4.00.

If you have any questions relative to this notice, you should contact Lilla Dick at the letterhead address or (617) 932-7600. All future communications regarding this release must reference the Release Tracking Number (RTN #3-15009) contained in the subject block of this letter.

Very truly yours,



Kingsley Ndi  
Chief, Notification Branch

KN/LD

cc: Boston Board of Health  
Boston Fire Department

Weston & Sampson Engineers, inc.  
5 Centennial Drive  
Peabody, MA 01960  
Attn: Mr. Prasanta K. Bhunia

DEP data base/file



RELEASE NOTIFICATION & NOTIFICATION RETRACTION  
FORM

Pursuant to 310 CMR 40.0335 and 310 CMR 40.0371 (Subpart

Release Tracking  
Number

3-15009  
If assigned by DEP

A. RELEASE OR THREAT OF RELEASE LOCATION:

Street: Parcel P-3, Tremont and Whittier Streets Location Aid: UTM's: 4688700 mN, 327800 mE  
City/Town: Boston (Roxbury) ZIP Code: 02120-0000

B. THIS FORM IS BEING USED (check one)

- TO:
 Submit a Release Notification (complete all sections of this form).
 Submit a Retraction of a Previously Reported Notification of a Release or Threat of Release (complete Sections A, B, E, F and G of this form). You MUST attach the supporting documentation required by 310 CMR 40.0335.

C. INFORMATION DESCRIBING THE RELEASE OR THREAT OF RELEASE (TOR):

Date and time you obtained knowledge of the Release or TOR. 12/18/96 Time: Specify: AM PM

The date you obtained knowledge is always required. The time you obtained knowledge is not required if reporting only 120 Day Conditions.

IF KNOWN, record date and time release or TOR occurred. Time: Specify: AM PM

Check here if you previously provided an Oral Notification to DEP (2 Hour and 72 Hour Reporting Conditions only).

Provide date and time of Oral Notification. Time: Specify: AM PM

Check all Notification Thresholds that apply to the Release or Threat of Release: (for more information see 310 CMR 40.0310 - 40.0315)

- 2 HOUR REPORTING CONDITIONS: Sudden Release, Threat of Sudden Release, Oil Sheen on Surface Water, Poses Imminent Hazard, Could Pose Imminent Hazard, Release Detected in Private Well, Release to Storm Drain, Sanitary Sewer Release (Imminent Hazard Only)
72 HOUR REPORTING CONDITIONS: Subsurface Non-Aqueous Phase Liquid (NAPL) Equal to or Greater than 1/2 Inch, Underground Storage Tank (UST) Release, Threat of UST Release, Release to Groundwater near Water Supply, Release to Groundwater near School or Residence
120 DAY REPORTING CONDITIONS: Release of Hazardous Material(s) to Soil or Groundwater Exceeding Reportable Concentration(s), Release of Oil to Soil Exceeding Reportable Concentration(s) and Affecting More than 2 Cubic Yards, Release of Oil to Groundwater Exceeding Reportable Concentration(s), Subsurface Non-Aqueous Phase Liquid (NAPL) Equal to or Greater than 1/8 Inch and Less than 1/2 Inch

List below the Oils or Hazardous Materials that exceed their Reportable Concentration or Reportable Quantity by the greatest amount. If necessary, attach a list of additional Oil and Hazardous Material substances subject to reporting.

Name and Quantities of Oils (O) and Hazardous Materials (HM) Released:

Table with columns: O or HM Released, O HM (check one), CAS # (if known), Amount or Concentration, Units, Reportable Concentrations Exceeded, if Applicable (RCS-1, RCS-2, RCGW-1, RCGW-2). Rows include PAHs, TPH, and Lead.

D. ADDITIONAL INVOLVED PARTIES:

- Check here if attaching names and addresses of owners of properties affected by the Release or Threat of Release, other than an owner who is submitting this Release Notification (required).
 Check here if attaching Licensed Site Professional (LSP) name and address (optional).

You may write in names and addresses on the bottom of the second page of this form.



RELEASE NOTIFICATION & NOTIFICATION RETRACTION  
FORM

Pursuant to 310 CMR 40.0335 and 310 CMR 40.0371 (Subpart C)

Release Tracking  
Number

3-15009

If assigned by DEP

E. PERSON REQUIRED TO NOTIFY:

Name of Organization: Boston Redevelopment Authority  
Name of Contact: Mr. Richard Mertens Title: Environmental Review Officer  
Street: 1 City Hall Plaza  
City/Town: Boston State: MA ZIP Code: 02201-1007  
Telephone: 617-722-4300 Ext.: 4283 FAX: 617-742-4464  
(optional)

F. RELATIONSHIP OF PERSON REQUIRED TO NOTIFY TO RELEASE OR THREAT OF RELEASE: (check one)

- RP or PRP Specify  Owner  Operator  Generator  Transporter Other RP or PRP: \_\_\_\_\_
- Fiduciary, Secured Lender or Municipality with Exempt Status (as defined by M.G.L. c. 21E, s. 2)
- Agency or Public Utility on a Right of Way (as defined by M.G.L. c. 21E, s. 5(j))
- Any Person Otherwise Required to Notify Specify Relationship: \_\_\_\_\_

G. CERTIFICATION OF PERSON REQUIRED TO NOTIFY:

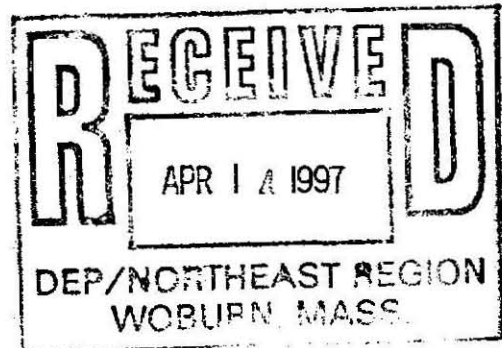
I, Thomas N. O'Brien, attest under the pains and penalties of perjury (i) that I have personally examined and am familiar with the information contained in this submittal, including any and all documents accompanying this transmittal form, (ii) that, based on my inquiry of those individuals immediately responsible for obtaining the information, the material information contained in this submittal is, to the best of my knowledge and belief, true, accurate and complete, and (iii) that I am fully authorized to make this attestation on behalf of the entity legally responsible for this submittal. I/the person or entity on whose behalf this submittal is made am/is aware that there are significant penalties, including, but not limited to, possible fines and imprisonment, for willfully submitting false, inaccurate, or incomplete information.

By: [Signature] Title: Director  
(signature)  
For: Boston Redevelopment Authority Date: 4/9/97  
(print name of person or entity recorded in Section E)

Enter address of the person providing certification, if different from address recorded in Section E:  
Street: \_\_\_\_\_  
City/Town: \_\_\_\_\_ State: \_\_\_\_\_ ZIP Code: \_\_\_\_\_  
Telephone: \_\_\_\_\_ Ext. \_\_\_\_\_ FAX: \_\_\_\_\_  
(optional)

YOU MUST COMPLETE ALL RELEVANT SECTIONS OF THIS FORM OR DEP MAY RETURN THE DOCUMENT AS INCOMPLETE. IF YOU SUBMIT AN INCOMPLETE FORM, YOU MAY BE PENALIZED FOR MISSING A REQUIRED DEADLINE.

Licensed Site Professional:  
Dr. Prasanta K. Bhunia, Ph.D.  
Weston & Sampson Engineers, Inc.  
5 Centennial Drive  
Peabody, Massachusetts 01960  
L.S.P. Number 2999  
(508) 532-1900



**TABLE 1**  
**SOIL HEADSPACE SCREENING AND SAMPLING RESULTS**  
**BRA/EDIC PARCEL P-3**  
**Test Pit and Soil Boring Samples**

Parameter	Units	Reportable Concs. RCS-1	Sample Identification and sample depth (feet)											
			WS-1	WS-2	WS-3	WS-4	WS-5	WS-6	WS-7	WS-8	WS-9	WS-10	WS-11	WS-12
			8.5-10.5	10-12	15-17	10-12	10-12	10-12	10-12	10-12	TP-5 17-17.5	TP-4 18.5-19	TP-7 17.5-18	20-22
<b>VOLATILE ORGANIC COMPOUNDS*</b>														
Benzene	ug/kg	10,000	ND	ND	ND	ND	ND	ND	ND	ND	87	ND	ND	ND
Isopropylbenzene	ug/kg	1,000,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	330
n-Propylbenzene	ug/kg	100,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	760
Xylene (total)	ug/kg	500,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	32
tert-Butylbenzene	ug/kg	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	36
sec-Butylbenzene	ug/kg	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	270
n-Butylbenzene	ug/kg	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	470
Napthalene	ug/kg	4,000	ND	ND	ND	ND	ND	ND	ND	150	ND	150	ND	160
1,2,4-Trimethylbenzene	ug/kg	1,000,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	70
Total BTEX	ug/kg	--	ND	ND	ND	ND	ND	ND	ND	ND	87	ND	ND	32
Total VOCs	ug/kg	--	ND	ND	ND	ND	ND	ND	ND	150	87	150	ND	2,128
<b>TOTAL PETROLEUM HYDROCARBONS**</b>														
Gasoline	mg/kg	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Kerosene	mg/kg	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Mineral Spirits	mg/kg	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fuel Oil #2/Diesel	mg/kg	--	ND	ND	ND	ND	ND	ND	ND	ND	150*	ND	8,400*	ND
Fuel Oil #4	mg/kg	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fuel Oil #6	mg/kg	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Motor Oil/Hydraulic Oil	mg/kg	--	ND	ND	ND	ND	ND	ND	ND	500	ND	920	ND	ND
Total TPH	mg/kg	500	ND	ND	ND	ND	ND	ND	ND	500**	ND	1070**	ND	8,400
<b>POLYNUCLEAR AROMATIC HYDROCARBONS ***</b>														
Napthalene	ug/kg	4,000	NA	ND	ND	NA	NA	NA	NA	8,200	130	NA	ND	1,000
2-Methylnapthalene	ug/kg	700	NA	ND	ND	NA	NA	NA	NA	4,300	60	NA	ND	23,000
Acenaphthylene	ug/kg	100,000	NA	ND	ND	NA	NA	NA	NA	2,000	ND	NA	ND	800
Acenaphthene	ug/kg	20,000	NA	ND	ND	NA	NA	NA	NA	12,000	180	NA	ND	3,400
Fluorene	ug/kg	400,000	NA	ND	ND	NA	NA	NA	NA	11,000	200	NA	ND	3,900
Phenanthrene	ug/kg	100,000	NA	ND	ND	NA	NA	NA	NA	93,000	1,500	NA	ND	11,000
Anthracene	ug/kg	1,000,000	NA	ND	ND	NA	NA	NA	NA	21,000	440	NA	ND	2,700
Fluoranthene	ug/kg	600,000	NA	ND	ND	NA	NA	NA	NA	92,000	1,600	NA	ND	4,100
Pyrene	ug/kg	500,000	NA	ND	ND	NA	NA	NA	NA	82,000	1,400	NA	ND	4,100
Benzo[a]anthracene	ug/kg	700	NA	ND	ND	NA	NA	NA	NA	38,000	630	NA	ND	1,500
Chrysene	ug/kg	7,000	NA	ND	ND	NA	NA	NA	NA	44,000	690	NA	ND	1,700
Benzo[b]fluoranthene	ug/kg	700	NA	ND	ND	NA	NA	NA	NA	34,000	580	NA	ND	1,200
Benzo[k]fluoranthene	ug/kg	7,000	NA	ND	ND	NA	NA	NA	NA	38,000	550	NA	ND	1,300
Benzo[a]pyrene	ug/kg	700	NA	ND	ND	NA	NA	NA	NA	39,000	610	NA	ND	1,400
Dibenzo[a,h]anthracene	ug/kg	700	NA	ND	ND	NA	NA	NA	NA	4,700	ND	NA	ND	ND
Benzo[g,h,i]perylene	ug/kg	100,000	NA	ND	ND	NA	NA	NA	NA	13,000	190	NA	ND	ND
Indeno[1,2,3-cd]pyrene	ug/kg	700	NA	ND	ND	NA	NA	NA	NA	14,000	200	NA	ND	ND
<b>METALS</b>														
Arsenic, Total	mg/kg	30	NA	7.1	7.5	NA	NA	NA	NA	7.3	7.8	NA	8.1	4.4
Barium, Total	mg/kg	1,000	NA	62	57	NA	NA	NA	NA	240	160	NA	53	72
Cadmium, Total	mg/kg	30	NA	<5.5	<4.2	NA	NA	NA	NA	4.5	<2.7	NA	<2.4	<3.3
Chromium, Total	mg/kg	1,000	NA	54	84	NA	NA	NA	NA	23	14	NA	11	27
Lead, Total	mg/kg	300	NA	13	9.8	NA	NA	NA	NA	620	980	NA	51	120
Mercury, Total	mg/kg	10	NA	<0.033	0.059	NA	NA	NA	NA	3.07	0.204	NA	<0.015	<0.022
Selenium, Total	mg/kg	300	NA	<5.5	<4.2	NA	NA	NA	NA	<2.6	<2.7	NA	<2.4	<3.3
Silver, Total	mg/kg	100	NA	<5.2	<4.1	NA	NA	NA	NA	<2.8	<2.6	NA	<2.4	<3.3

**NOTES:**

- ND = Not detected
- NA = Not analyzed
- NS = No standard
- = Not applicable
- mg/kg = milligrams per kilogram (parts per million)
- ug/kg = micrograms per kilogram (parts per billion)
- \* = weathered TPH
- \*\* PAHs present
- Bold/Shaded = Exceeds applicable reportable concentration

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**Boston Redevelopment Authority**  
**WSE Job Number 96230.G**

April 4, 1997

Bureau of Waste Site Cleanup  
Department of Environmental Protection  
10 Commerce Way  
Woburn, Massachusetts 01801

Re: Release Notification Form  
Parcel P-3  
Tremont & Whittier Streets

To whom it may concern:

On behalf of our client, the Boston Redevelopment Authority (BRA), Weston & Sampson Engineers, Inc. (WSE) is pleased to submit the Release Notification Form (RNF) for the 120-day notification condition at the above referenced site.

Please note that the Licensed Site Professional will be Dr. Prasanta K. Bhunia, Ph.D., Weston & Sampson Engineers, Inc., 5 Centennial Drive, Peabody, Massachusetts 01960, L.S.P. Number 2999.

If you have any questions, please do not hesitate to contact this office at (508) 532-1900.

Very truly yours,

WESTON & SAMPSON ENGINEERS, INC.

Prasanta K. Bhunia, Ph.D., L.S.P.  
Associate

Enclosures

cc: Mr. Paul Osborn, BRA/EDIC  
File

PKB/GDN:gdn

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