



McPHAIL
ASSOCIATES, INC.
Geotechnical Engineers

ENVIRONMENTAL SITE ASSESSMENT SUMMARY

143-147 AND 153-159 PUTNAM AVENUE
12-26 ELMER STREET

CAMBRIDGE

MASSACHUSETTS

August 29, 1986

PROJECT NO. 1897



Geotechnical Engineers

August 29, 1986

Mr. Joseph Raduano, Owner-Developer
#3 Partridge Hill Road
Dover, MA 02030

Attention: Mr. Joseph Raduano

Reference: 143-147 and 153-159 Putnam Avenue; 12-26 Elmer Street
Cambridge, Massachusetts
Environmental Site Assessment Summary

Gentlemen:

The purpose of this letter report is to document the results of an environmental site assessment for the presence of oil and hazardous materials as defined by M.G.L. Chapter 21E at the above referenced site. A Locus Plan is enclosed as Figure 1. The scope of the work included a visual inspection of the site and surrounding property, visual inspection of soil samples obtained from four (4) soil test borings completed at the site, chemical testing of a water sample, and an investigation into the history of the site.

The U-shaped site is bounded by Elmer Street to the west and Putnam Avenue to the east, and is located within a mixed residential, retail and commercial area of Cambridge, Massachusetts. The site is bounded on the north and south by residential wood frame and brick structures. Located at the center of the U-shaped site is a three story brick structure which is not part of the property under consideration.

The relatively flat site is currently occupied by a one-story concrete block structure which occupies a 50 foot by 140 foot plan area along Elmer Street. The remainder of the site is covered by an asphalt parking surface.

Our investigation into the site history at the Cambridge Historical Commission indicates that since 1894 several wood frame residential structures have occupied this property. The concrete block structure currently occupying the site was constructed between 1919 and 1927. Originally it was utilized as a parking garage until the 1930's, at which time it was converted to a laundry and dry cleaner. Charlesbank Cleaners operated the laundry and dry cleaning service at the premises until 1981 when a fire severely damaged the structure. Subsequently, the Coolidge Bank and Trust Company foreclosed on the property.



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The four (4) soil borings indicate that the site is underlain by a fairly uniform 5 foot thickness of granular fill consisting of a dark brown mixture of sand, gravel, ashes, cinders and brick chips. Our visual examination of the fill samples obtained from the borings did not indicate the presence of oil or hazardous material. The samples are believed to be typical of fill materials found on most urban building sites.

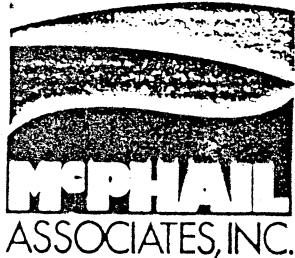
Underlying the fill is very stiff to hard silty clay deposit in which Borings B-2, B-3 and B-4 were terminated at depths ranging from 12 to 27 feet. Boring B-1 penetrated the clay stratum at a depth of 25 feet below existing ground surface and was terminated in the underlying glacial outwash consisting of a dense sand and gravel with some silt.

Due to the relatively shallow depth to the surface of the impervious silty clay stratum, no groundwater was observed within the completed boreholes immediately after completion of drilling operations. Based upon experience of nearby similar sites, it is believed that the groundwater level is on the order of 10 to 12 feet below existing ground surface.

Our visual site inspection involved an engineer from our staff walking through the existing structure and around the site noting present conditions. The existing structure contains a boiler room, a wash room, a drying room, a dry cleaning room, and a shipping and receiving room. A storage area is located between the block structure and the 3 story brick structure abutting the site to the east.

In the storage area, several steel drums were present at the time of our investigation. They included one 30 gallon drum of Surfactant-Rich detergent (a bio-degradable alkaline), two 30 gallon drums of LSI (a stain remover containing hypochlorous acid), as well as three 100 pound drums of Fyberfluf and three 100 pound drums of Fyberfluf G+ (a fabric softener concentrate for use in commercial and industrial laundries).

In the dry cleaning room, seven steel drums were observed. Two 55 gallon drums contained perchloroethylene and the contents of four 55 gallon drums and one 40 gallon drum are unknown. In the wash room area, one 40 gallon drum of unknown contents, two 200 pound drums of Oakite Cryscoat 747 (moderately acidic industrial product containing fluorides as minor constituents and biodegradable surfactants), and one 5 gallon drum of methanol were observed. In the drying room, numerous 50 pound drums containing unknown substances are present. Two abandoned trucks owned by Charlesbank Cleaners are present in the parking area at 153-159 Putnam Avenue.



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Inquiry of the Commonwealth of Massachusetts Department of Environmental Quality Engineering indicates that no formal complaints from the project site are on their records. In addition, our inquiry of the Cambridge Department of Health and Hospitals indicates no recorded complaints of hazardous waste discharges from the referenced site. However, we were informed that the Massachusetts Department of Environmental Quality Engineering has verbally directed Mr. Robert Winn, the previous owner of the Charlesbank Cleaners, to remove the barrels containing perchloroethylene and other unknown substances from the site as they pose a threat of release of hazardous waste.

The structure is serviced by city utilities including both water and sanitary sewer. The wastewater from the wash room drained into the City of Cambridge sanitary sewer system. Prior to entry into the sewer system, the water discharged from the washing machines was filtered and passed through a heat exchanger. The approximate 2000 gallon concrete underground filtration tank is approximately 10 feet long, 5 feet wide, and 7.5 feet deep and is located under the parking surface at 153-159 Putnam Avenue. A water sample was obtained from the tank and delivered to GHR Analytical Inc. in Lakeville, Massachusetts for detailed chemical analysis.

The chemical testing was oriented toward detection of purgeable halocarbons in the water sample since these are generally associated with sites where past site activities include laundering and dry cleaning. The chemical analysis detected only a relatively low (2.0 ppb) concentration of vinyl chloride in the water obtained from the filtration tank. The present acceptable limit for vinyl chloride in drinking water is 0 ppb. The results of the chemical analysis of the water sample are presented in the Appendix of this report.

The Cambridge Fire Department records indicate the presence of two underground oil storage tanks on the subject site. A 2500 gallon fuel oil storage tank is reported to be located at 143-147 Putnam Avenue and a 5000 gallon fuel oil storage tank is reported to be located at 20-24 Elmer Street. There is no record at the Fire Department of tank removal.

Based upon the above findings, some remedial measures are recommended at the subject site to reduce the threat of release of hazardous materials into the environment. The recommended remedial measures include the following:

1. All abandoned steel drums present on the site should be removed from the site and disposed of in a legal manner;



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2. The water present within the underground filtration chamber which was found to contain a detectable concentration of vinyl chloride should be removed from the site and disposed of in a legal manner.
3. The two underground fuel storage tanks should be removed from the site during the initial stages of the proposed site development.

With the exception of the items specifically discussed above, we find no current indication that hazardous materials or oil as defined by M.G.L. Chapter 21E, are present above normal background levels or have a present impact on the site. Our findings don't preclude the presence of hazardous materials or oil in the existing fill but do indicate a relatively low probability of a significant quantity of hazardous materials or oil being encountered at the time of construction.

This study and report have been prepared on behalf of and for the exclusive use of Mr. Joseph Raduano solely for use in an environmental evaluation of the site. This report and the findings contained herein shall not, in whole or in part, be disseminated or conveyed to any other party, nor used in whole or in part by any other party, without prior written consent of McPhail Associates, Inc. However, McPhail Associates, Inc. acknowledges and agrees that this report may be conveyed to the Title Insurer associated with the financing of the project for which McPhail Associates, Inc. has currently been engaged. This report has been prepared in accordance with generally accepted geotechnical practices. No other warranty, expressed or implied, is made.

The above observations were made under the conditions stated in this report. The conclusions presented above were based on these observations. If variations in the nature and extent of subsurface conditions between the widely spaced subsurface explorations become evident in the future, it will be necessary to re-evaluate the conclusions presented herein after performing on-site observations and noting the characteristics of any variations.

Although groundwater was not observed on the site at the time of our investigation, it is anticipated that in the future groundwater may be observed across the site due to factors such as normal seasonal variations, periods of heavy precipitation, and alterations of existing drainage patterns.

The conclusions submitted in this report are based in part upon chemical test data and are contingent upon their validity. These data have been reviewed and interpretations have been made in the text. It should also be noted that fluctuations



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in the types and levels of contaminants and variations in their flow paths may occur due to changes in seasonal water table, past practices used in disposal, and other factors.

The purpose of this report was to assess the physical characteristics of the site with regard to the presence of hazardous material or oil, as defined in Massachusetts General Laws, Chapter 21E. No attempt was made to check on the compliance of present or past owners of the site with federal, state or local laws and regulations.

We trust that this report satisfies your present requirements. Should you have any questions or comments, please do not hesitate to call us.

Very truly yours,

McPHAIL ASSOCIATES, INC.

Ambrose J. Donovan

Ambrose J. Donovan

Robert E. McPhail

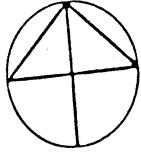
Robert E. McPhail, P.E.

Enclosures

1897

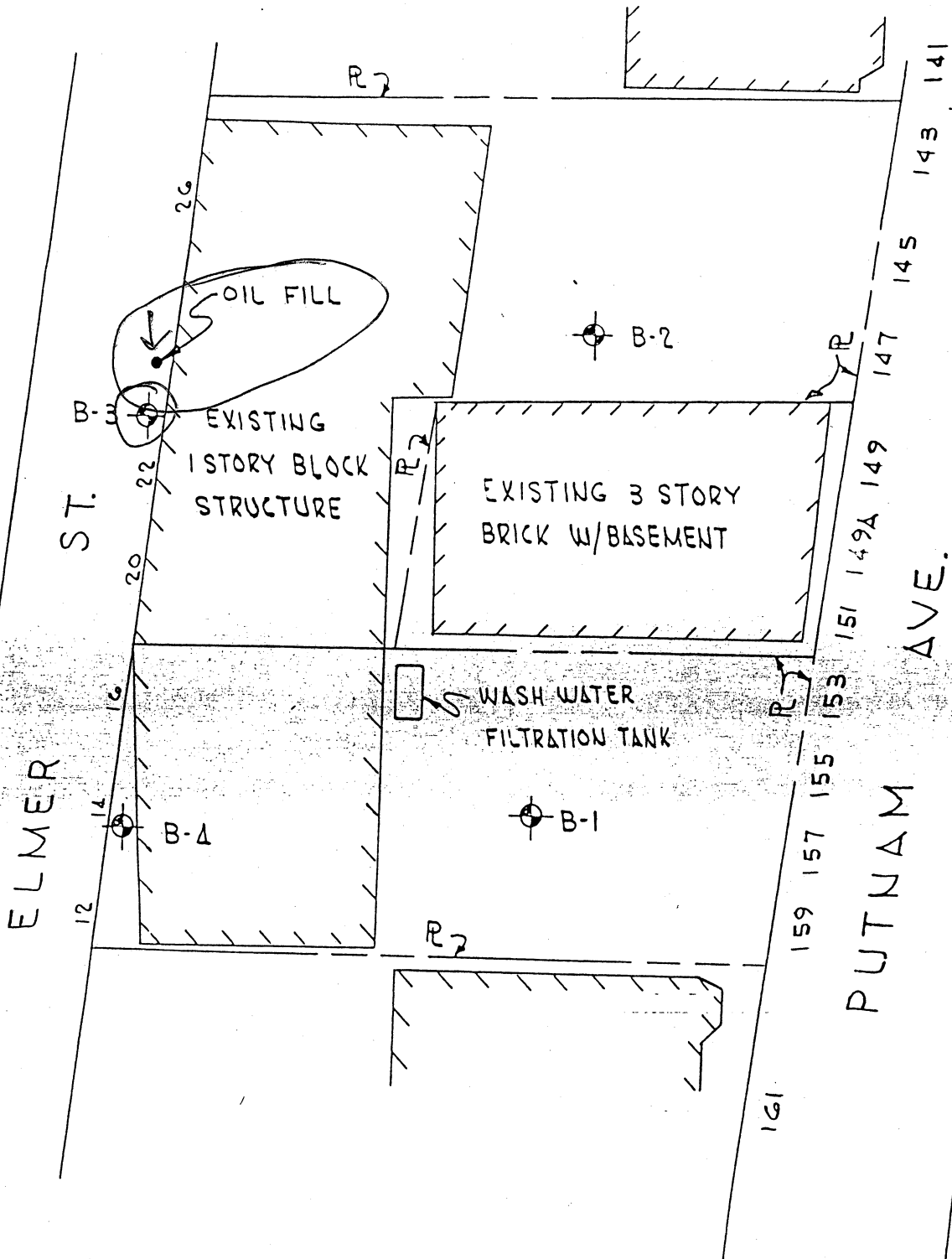
REM/jmg

NORTH




SUBSURFACE EXPLORATION PLAN

FIGURE 2



LEGEND

 LOCATION OF BOREHOLES PERFORMED BY A. SHINER TEST BORING INC. FOR M^CPHAIL ASSOCIATES ON JULY 8 & 23, 1986.

SCALE: 1"=30'-0"

GHR ANALYTICAL INC.
26 MAIN STREET
LAKEVILLE, MA 02347
(617) 947-5077

REPORT OF ANALYSIS

EPA METHOD 601 - Purgeable Halocarbons

Client: McPhail Associates
Project: Putnam Avenue P.O. #1897

Job No.: 30-006
Date: July 16, 1986

Date Collected: July 8, 1986
Collected by: A. Donovan

Date Analyzed: July 15, 1986
Analyzed by: J.P.

Sample Location: Sample A
GHR Lab ID: Water
57110

Parameter	Concentration in ug/l (ppb) (1)
Chloromethane	
Bromomethane	
Dichlorodifluoromethane	
Vinyl Chloride	2.0
Chloroethane	
Methylene Chloride	
Trichlorofluoromethane	
1,1-Dichloroethene	
1,1-Dichloroethane	
Trans-1,2-Dichloroethene	
Chloroform	
1,2-Dichloroethane	
1,1,1-Trichloroethane	
Carbon Tetrachloride	
Bromodichloromethane	
1,2-Dichloropropane	
Cis-1,3-Dichloropropene	
Trichloroethene	
Dibromochloromethane	
1,1,2-Trichloroethane	
Trans-1,3-Dichloropropene	
2-Chloroethylvinyl Ether	
Bromoform	
1,1,2,2-Tetrachloroethane	
Tetrachloroethene	

1. Concentrations less than the detection limit are left blank.
Detection Limit = 2.0 ug/l.
See attached sheet for GC Operating Conditions.

Approved by: Leanne E.S. Cobb
Leanne E.S. Cobb, Laboratory Manager
GHR Analytical Inc.

MEMORANDUM FOR THE RECORD

TO: File

FROM: Dan Ottenheimer, Sr. Sanitary Engineer Aide, Emergency Response, NERO DO

DATE: July 1, 1987

SUBJECT: CAMBRIDGE - ERB-N87-882

The writer responded to 12-26 Elmer Street, Cambridge, Massachusetts on the above date. At this time one third of the structure had been demolished by G. Greene Co., Inc., 240 Lincoln Street, Allston, Massachusetts. Five (5) drums had been removed from this section of the building prior to demolition and were placed on the side. During demolition prior to the above date, the building debris were sprayed with water and the runoff from this appeared to be blue/green. Evidence of this colored runoff was still present in the street.

In the other two building sections various drums of unknown material were found. Asha Shah from the DEQE Enforcement Section responded to the scene to take samples and to document evidence.

The current owner, Joseph Raduano, 3 Partridge Hill Road, Dover, Massachusetts arrived at the site at approximately 10:30 a.m. Mr. Raduano presented the Department with an Environmental Site Assessment Summary written by McPhail Associates. This report documented evidence of underground tanks on site. Mr. Raduano was presented with a summary of M.G.L. Chapter 21E and consequently retained Jet Line Services Inc. to perform the necessary clean up.

Asha Shah stated that her office would supervise the clean up and contact the Emergency Response Section if contaminated soil is encountered.

DO/ae



The Commonwealth of Massachusetts

Department of Environmental Quality Engineering

Metropolitan Boston - Northeast Region

5 Commonwealth Avenue

Woburn, Massachusetts 01801

S. RUSSELL SYLVA
Commissioner

935-2160

RECEIVED

SEP 11 1987

September 10, 1987

COMMISSIONER

Mr. Joseph Raduano
3 Partridge Hill Road
Dover, MA 02030

Health & Hospitals

RE: CAMBRIDGE - ERB-N87-882
Hazardous Material Release at
12-26 Elmer Street, Cambridge

WRITTEN CONFIRMATION OF NOTICE OF
RESPONSIBILITY/SUMMARY OF RESPONSE
ACTIONS TAKEN/REQUEST FOR INFORMATION

Dear Sir:

As a result of an investigation conducted by the Department of Environmental Quality Engineering (DEQE) on June 27, 1987, the Department has determined that there has been a release of various materials from an abandoned laundromat you own at 143-147, 153-159 Putnam Avenue, and 12-26 Elmer Avenue, Cambridge, Massachusetts.

The Department's investigation found that abandoned drums, underground storage tanks and asbestos insulation existed at your facility which was being razed. One section of the building had been demolished prior to the Department's arrival and a chemical substance had been released from the rubble. Prior to demolishing that section, four 55 gallon drums of material were removed from the building and placed in the parking lot. Inside the rest of the building were many drums of different sizes containing various substances. Many of these drums were labeled "corrosive" and some had released their contents. The floor of the building was covered with detergent, clothes and powdered chemicals. Over fifty 55 gallon drums of material from inside the building was removed for proper disposal.

There exists at least three underground storage tanks on site, each containing an unknown amount of product. One tank is believed to contain petroleum naphtha and another vinyl chloride. The asbestos surrounding the above ground heating tank was broken and there existed the potential for release of material into the environment. This asbestos has since been removed for proper disposal.

To date, contaminated material has been removed from inside the building. The four drums outside the building have also been removed for proper disposal. The cleaning and removal of the underground tanks will occur after the building has been demolished. Such incident is governed by Chapter 21E of the General Laws of Massachusetts (hereinafter "M.G.L. Chapter 21E"), the Massachusetts Oil and Hazardous Material Release Prevention and Response Act, which was enacted on March 24, 1983.

The Department has reason to believe based on available information that you are, under the provisions of M.G.L. Chapter 21E, Section 5(a), responsible for the occurrence of such release.

Mr. Raduano

Page 2.

On June 27, 1987, at approximately 1:00 p.m., Department personnel verbally notified you of your responsibility for such release and gave you one copy of a document prepared by the Department and entitled "Brief Synopsis of M.G.L. Chapter 21E, the Massachusetts Oil and Hazardous Material Release Prevention and Response Act." You accepted such responsibility at that time.

Your acceptance of responsibility for such release means that you have entered into a contract with cleanup contractor, approved by the Department, named Jet Line Services, Inc. of Stoughton, MA to take all necessary remedial actions (i.e. assessment, containment and/or removal actions) relative to such release and to pay for all response costs incurred by the Department due to such release.

The Department hereby requests that you submit to the undersigned, Richard Chalpin, the following information:

- (1) a brief account of why, how and where such release occurred; and
- (2) a description of all assessment, containment and/or removal actions that have been and/or will be taken relative to such release; and
- (3) an estimate, to the best of your knowledge, of the quantity and types of hazardous material released; and
- (4) copies of all hazardous waste manifests for the hazardous material released; and
- (5) laboratory results of all samples taken from the underground tanks, drums of material and contaminated debris; and
- (6) any other information that is pertinent to the assessment, containment and/or removal of such release; and
- (7) written notification stating your intent to remove the underground storage tanks, which must be received by this office at least two business days prior to removal.

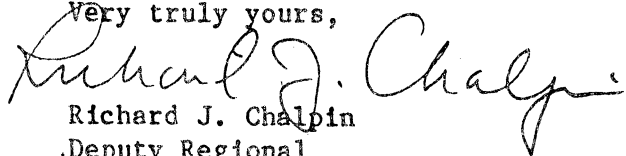
Failure to comply, in a timely manner with the above-stated request will constitute a violation of M.G.L. Chapter 21E.

A copy of the text of M.G.L. Chapter 21E is available, upon written request from the Bookstore, Rm. 116, State House, Boston, MA 02133. If you have any questions, please contact Dan Ottenheimer, at 935-2160 and refer to case N87-882.

Mr. Raduano
Page 3.

Thank you for your cooperation regarding this urgent matter.

Very truly yours,



Richard J. Chalpin
Deputy Regional
Environmental Engineer

RJC/DO/ae

cc: Frank Sciannameo, DEQE, OIR, 1 Winter St., Boston, MA 02108
Asha Shah, DEQE, Enforcement, 1 Winter St., Boston, MA 02108
BOH, Cambridge Hospital, 1493 Cambridge St., Rm. 715, Cambridge, MA 02139
Attn: Dr. Chalfen, Director



CITY OF CAMBRIDGE

491 BROADWAY, CAMBRIDGE, MASSACHUSETTS 02138 • TEL. 876-0125

RECEIVED
SEP 24 3 52 PM '87
OFFICE OF THE
CITY MANAGER

FIRE DEPARTMENT HEADQUARTERS

THOMAS V. SCOTT
Chief of Department

September 24, 1987

Mr. Robert W. Healy,
Cambridge City Manager

Dear Mr. Healy:

At 1905 hours on July 2, 1987, Captain Cornelius O'Brien, who was Acting Deputy Chief on that particular shift, responded to the area of the Charles Bank Laundry to investigate a blue like substance which was lying on top of some rain water near that particular location.

A young lady who described herself as a nearby tenant appeared quite concerned about this condition. She also explained to Captain O'Brien that she was a chemist of some sort and apparently had taken a sample of this colored water.

After Captain O'Brien looked at the location he considered the discoloring of the rain water to be due, possibly, to some dye or material used when the laundry was in active business. He could not detect any odor. At the time he spoke to the young lady and suggested that she should go home. The particular person apparently was the young lady who appeared at the Council meeting on September 14, 1987, and stated that the responding chief in the red car was very sharp and rude.

I spoke to Captain O'Brien on the morning of September 15, 1987, and he remembered the incident quite well. He stated that she was a soft, well spoken and polite young lady who was concerned about the condition. Captain O'Brien stated that in telling this person to go home he was trying to reassure her that in his opinion everything was alright.

I can assure you, Mr. Healy, that I have known and worked with Captain O'Brien for many years and to my knowledge I can honestly state that he has never treated the public with disrespect.

Sincerely,

Chief Thomas V. Scott



CITY OF CAMBRIDGE

CAMBRIDGE, MASSACHUSETTS 02139
TEL. 498-9011

EXECUTIVE DEPARTMENT
ROBERT W. HEALY
City Manager

RICHARD C. ROSSI
Deputy City Manager

September 28, 1987

To the Honorable, the City Council:

With respect to Awaiting Report Item No. 26, the following is a progress report on the Charlesbank Laundry site:

1. D.E.Q.E. is still actively involved in the case and will enforce their Notice of Responsibility (copy enclosed).
2. A 21E assessment was done by a certified geotechnical engineering firm (copy enclosed).
3. The abandoned laundry truck was towed from the site on orders from the City under Chapter 90, Section 22C.
4. The property was fenced by the owner.
5. The responsibility for removing the tanks rests with the owner; if any of the tanks are under public property, it will be the responsibility of the owner to repair any damage to the public way.
6. The broken sanitary line has been repaired and the costs will be billed to the owner.
7. A Registered Land Surveyor has been authorized to proceed with a survey to determine the limits of the public way or Elmer Street as it relates to underground tank location.
8. The chemical analysis of both the "blue" liquid and the storm/sanitary overflow will not be ready for at least one more week.
9. The ownership issue has been researched indicating the following:

On March 10, 1987, Robert R. Winn, Trustee of Winn Realty Trust conveyed 149-151 Putnam Avenue for the sum of \$100,000 to the 149-151 Putnam Corporation.

A search of records at Middlesex South District Registry of

Deeds shows the deed recorded in Book 17928, page 336. A title rundown from this deed shows that the Corporation is still the present owner.

The Officers of the Corporation are shown in Articles of Organization on file with the Secretary of State as Frederick J. Conroy, President, Treasurer, Clerk and Director.

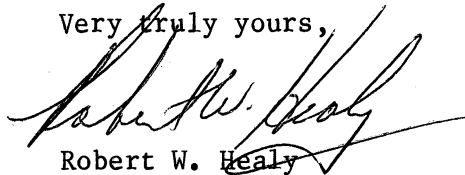
On September 22, 1987, a Certificate of Change of Directors or Officers of Domestic Business Corporation was filed:

President/Treasurer	Michael Moxley
Clerk	Frederick J. Conroy
Directors	Michael Moxley
	Robert Bray

None of the above-named is employed by the City of Cambridge.

10. The legal documents have been drafted for filing on Monday, but the City will continue to pursue these cases.
11. Also enclosed is a copy of a response of the Fire Chief relative to an allegation of rudeness.

Very truly yours,



Robert W. Healy
City Manager

RWH/mbf

Re: response to Awaiting Report Item 26 on the former Charlesbank Laundry site.

In City Council,
September 28, 1987

Placed on file