Shaw Environmental, Inc.

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Shaw® Shaw Environmental, Inc.

June 29, 2006

MAG910246

Mr. Victor Alvarez
U.S. Environmental Protection Agency
RGP-NOC Processing, Municipal Assistance Unit (CMU)
One Congress Street, Suite 1100
Boston, Massachusetts, 02114-2023

Re: NOI for RGP Under NPDES
Former L.E. Mason Company Facility
98 Business Street, Hyde Park, Massachusetts

Dear Mr. Alvarez:

Shaw Environmental, Inc. (Shaw), on behalf of our client Thomas & Betts Corporation (T&B), is pleased to submit this Notice of Intent (NOI) for a Remediation General Permit (RGP) Under the National Pollutant Discharge Elimination System (NPDES) for Discharges in Massachusetts for the U.S. Environmental Protection Agency's (EPA's) review. This application package includes the completed NOI form and a supplemental information document with figures.

If you need additional information, please contact me at (508) 497-6151.

Respectfully,
Shaw Environmental, Inc.

Andrea E. Steele
Environmental Scientist

Cc: P. Hogan, MADEP
C. Busch, City of Boston Con. Com.
O. Chopra, T&B
J. Mitchell, Shaw
File

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B. Suggested Form for Notice of Intent (NOI) for the Remediation General Permit

1. General site information. Please provide the following information about the site:

a) Name of **facility/site**: Former L.E. Mason Company Facility		**Facility/site** address:		
Location of **facility/site**: longitude: 71-07'-40" latitude: 42-15'-06"	Facility SIC code(s): 4214	Street: 98 Business Street		
b) Name of **facility/site owner:** Thomas & Betts L.L.C.		Town: Boston		
Email address of owner: om_chopra@tnb.com		State: MA	Zip: 02136	County: Suffolk
Telephone no.of facility/site **owner**: (901) 252-5937				
Fax no. of facility/site **owner**: (901) 252-1340		**Owner** is (check one): 1. Federal____ 2. State/Tribal_____ 3. Private ✓ 4. other, if so, describe:		
Address of **owner** (if different from site):				
Street: 8155 T&B Boulevard				
Town: Memphis	State: TN	Zip: 38125	County: Shelby	
c) Legal name of **operator**: Shaw Environmental, Inc.	**Operator** telephone no: (508) 497-6118			
	Operator fax no.: (508) 435-9641	**Operator** email: john.brassard@shawgrp.com		
Operator contact name and title: John R. Brassard, Jr., Field Engineer III				

Address of **operator** (if different from owner):	Street: 88C Elm Street		
Town: Hopkinton	State: MA	Zip: 01748	County: Middlesex

d) Check "yes" or "no" for the following:
1. Has a prior NPDES permit exclusion been granted for the discharge? Yes___ No_✓_, if "yes," number:
2. Has a prior NPDES application (Form 1 & 2C) ever been filed for the discharge? Yes___ No_✓_, if "yes," date and tracking #:
3. Is the discharge a "new discharge"as defined by 40 CFR 122.2? Yes ✓ No___
4. For sites in Massachusetts, is the discharge covered under the MA Contingency Plan (MCP) and exempt from state permitting? Yes_✓_No__

e) Is site/facility subject to any State permitting or other action which is causing the generation of discharge? Yes_✓_ No___
If "yes," please list:
1. site identification # assigned by the state of NH or MA:
2. permit or license # assigned:
3. state agency contact information: name, location, and telephone number:
See Section 1.0 of the Supplemental Information Document

f) Is the site/facility covered by any other EPA permit, including:
1. multi-sector storm water general permit? Y___ N_✓_, if Y, number:
2. phase I or II construction storm water general permit? Y___ N_✓_, if Y, number:
3. individual NPDES permit? Y___ N_✓_, if Y, number:
4. any other water quality related permit? Y___ N_✓_, if Y, number:

2. Discharge information. Please provide information about the discharge, (attaching additional sheets as needed) including:

a) Describe the discharge activities for which the owner/applicant is seeking coverage:

Discharge of liquid from dewatering of excavated contaminated soil beneath the concrete slab of the former Aluminum Die Cast (ADC) Building at the Site in accordance with a multi-phase remediation program. The dewatering liquid will be collected from the soil drying beds and pumped through a treatment system. The water level within the excavation pit will be controlled through pumping and will also be pumped through the treatment system.

b) Provide the following information about each discharge:	1) Number of discharge points: 1	2) What is the **maximum** and **average flow rate** of discharge (in cubic feet per second, ft^3/s)? Max. flow 0.66 Average flow 0.22 Is maximum flow a **design value**? Y ✓ N___ For average flow, include the units and appropriate notation if this value is a design value or estimate if not available. average flow in units of cubic feet per second is an estimate

3) Latitude and longitude of each discharge within 100 feet: pt.1:long.71-07-39 lat.42-15-05; pt.2: long.____ lat.____; pt.3: long.____ lat.____; pt.4:long.____ lat.____; pt.5: long.____ lat.____; pt.6:long.____ lat.____; pt.7: long.____ lat.____; pt.8:long.____ lat.____; etc.

4) If hydrostatic testing, total volume of the discharge (gals): N/A	5) Is the discharge intermittent_____ or seasonal ✓ ? Is discharge ongoing Yes ____ No ✓ ?
c) Expected dates of discharge (mm/dd/yy): start 07/10/06 end 09/01/06	
d) Please attach a line drawing or flow schematic showing water flow through the facility including: 1. sources of intake water, 2. contributing flow from the operation, 3. treatment units, and 4. discharge points and receiving waters(s).	

3. Contaminant information. In order to complete this section, the applicant will need to take a minimum of one sample of the untreated water and have it analyzed for **all** of the parameters listed in Appendix III. Historical data, (i.e., data taken no more than 2 years prior to the effective date of the permit) may be used if obtained pursuant to: i. Massachusetts' regulations 310 CMR 40.0000, the Massachusetts Contingency Plan ("Chapter 21E"); ii. New Hampshire's Title 50 RSA 485-A: Water Pollution and Waste Disposal or Title 50 RSA 485-C: Groundwater Protection Act; or iii. an EPA permit exclusion letter issued pursuant to 40 CFR 122.3, provided the data was analyzed with test methods that meet the requirements of this permit. Otherwise, a new sample shall be taken and analyzed.

a) Based on the analysis of the sample(s) of the untreated influent, the applicant must check the box of the sub-categories that the potential discharge falls within.

Gasoline Only	VOC Only	Primarily Metals	Urban Fill Sites	Contaminated Sumps	Mixed Contaminants	Aquifer Testing
Fuel Oils (and Other Oils) only	VOC with Other Contaminants ✓	Petroleum with Other Contaminants	Listed Contaminated Sites	Contaminated Dredge Condensates	Hydrostatic Testing of Pipelines/Tanks	Well Development or Rehabilitation

b) Based on the analysis of the untreated influent, the applicant must indicate whether each listed chemical is **believed present** or **believed absent** in the potential discharge. Attach additional sheets as needed.

PARAMETER	**Believe Absent**	**Believe Present**	**# of Samples (1 min-imum)**	**Type of Sample (e.g., grab)**	**Analytical Method Used (method #)**	**Minimum Level (ML) of Test Method**	**Maximum daily value**		**Avg. daily value**	
							concentration (ug/l)	**mass (kg)**	**concentration (ug/l)**	**mass (kg)**
1. Total Suspended Solids		✓	1	Grab	160.2	5 mg/L	15000	--	15000	--
2. Total Residual Chlorine	✓									
3. Total Petroleum Hydrocarbons		✓	1	Grab	8015B	200ug/L	760	--	760	--
4. Cyanide	✓									
5. Benzene	✓									
6. Toluene	✓									
7. Ethylbenzene	✓									
8. (m,p,o) Xylenes	✓									
9. Total BTEX[4]	✓									

[4] BTEX = Sum of Benzene, Toluene, Ethylbenzene, total Xylenes.

PARAMETER	Believe Absent	Believe Present	# of Samples (1 min-imum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Avg. daily value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
10. Ethylene Dibromide (1,2- Dibromo-methane)	✓									
11. Methyl-tert-Butyl Ether (MtBE)		✓	1	Grab	8260B	20 ug/L	110	--	110	--
12. tert-Butyl Alcohol (TBA)	✓									
13. tert-Amyl Methyl Ether (TAME)		✓	1	Grab	8260B	20 ug/L	190	--	190	--
14. Naphthalene	✓									
15. Carbon Tetra-chloride	✓									
16. 1,4 Dichlorobenzene	✓									
17. 1,2 Dichlorobenzene	✓									
18. 1,3 Dichlorobenzene	✓									
19. 1,1 Dichloroethane	✓									
20. 1,2 Dichloroethane	✓									
21. 1,1 Dichloroethylene		✓	5	Grab	8260B	1 ug/L	3	--	1.9	--
22. cis-1,2 Dichloro-ethylene		✓	33	Grab	8260B	2 ug/L	40000	--	4929	--
23. Dichloromethane (Methylene Chloride)	✓									
24. Tetrachloroethylene	✓									

PARAMETER	Believe Absent	Believe Present	# of Samples (1 min-imum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Avg. daily Value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
25. 1,1,1 Trichloroethane	✓									
26. 1,1,2 Trichloroethane	✓									
27. Trichloroethylene		✓	25	Grab	8260B	2 ug/L	390	--	60	--
28. Vinyl Chloride		✓	31	Grab	8260B	2 ug/L	21000	--	3079	--
29. Acetone	✓									
30. 1,4 Dioxane	✓									
31. Total Phenols	✓									
32. Pentachlorophenol	✓									
33. Total Phthalates [5] (Phthalate esthers)	✓									
34. Bis (2-Ethylhexyl) Phthalate [Di-(ethylhexyl) Phthalate]	✓									
35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)										
a. Benzo(a) Anthracene	✓									
b. Benzo(a) Pyrene	✓									
c. Benzo(b)Fluoranthene	✓									
d. Benzo(k) Fluoranthene	✓									
e. Chrysene	✓									

[5] The sum of individual phthalate compounds.

PARAMETER	Believe Absent	Believe Present	# of Samples (1 min-imum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Average daily value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
f. Dibenzo(a,h) anthracene	✓									
g. Indeno(1,2,3-cd) Pyrene	✓									
36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)										
h. Acenaphthene		✓	2	Grab	EPH	0.5ug/L	0.5	--	0.5	--
i. Acenaphthylene	✓									
j. Anthracene		✓	1	Grab	EPH	0.5ug/L	0.6	--	0.6	--
k. Benzo(ghi) Perylene	✓									
l. Fluoranthene		✓	6	Grab	EPH	0.5ug/L	1.4	--	0.9	--
m. Fluorene		✓	3	Grab	EPH	0.5ug/L	0.9	--	0.8	--
n. Naphthalene-	✓									
o. Phenanthrene	✓									
p. Pyrene		✓	4	Grab	EPH	0.5ug/L	0.9	--	0.8	--
37. Total Polychlorinated Biphenyls (PCBs)		✓	31	Grab	8082A	0.3ug/L	240	--	28	--
38. Antimony		✓	1	Grab	6010B	6 ug/L	8	--	8	--
39. Arsenic	✓									
40. Cadmium	✓									
41. Chromium III	✓									
42. Chromium VI	✓									

PARAMETER	Believe Absent	Believe Present	# of Samples (1 min-imum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Avg. daily value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
43. Copper		✓	1	Grab	6010B	0.05 mg/L	50	--	50	--
44. Lead		✓	1	Grab	6010B	0.01 mg/L	20	--	20	--
45. Mercury	✓									
46. Nickel	✓									
47. Selenium	✓									
48. Silver	✓									
49. Zinc		✓	1	Grab	6010B	0.05 mg/L	1300	--	1300	--
50. Iron		✓	1	Grab	6010B	0.05 mg/L	6700	--	6700	--
Other (describe):										

c) For discharges where **metals** are believed present, please fill out the following:

Step 1: Do any of the metals in the influent have a **reasonable potential** to exceed the effluent limits in Appendix III (i.e., the limits set at zero to five dilutions)? Y ✓ N____	If yes, which metals? copper, lead, zinc and iron
Step 2: For any metals which have **reasonable potential** to exceed the **Appendix III** limits, calculate the **dilution factor (DF)** using the formula in Part I.A.3.c) (step 2) of the NOI instructions or as determined by the State prior to the submission of this NOI. What is the dilution factor for applicable metals? Metals: copper, lead, zinc and iron DF: 14.8	Look up the limit calculated at the corresponding dilution factor in **Appendix IV.** Do any of the metals in the **influent** have the potential to exceed the corresponding **effluent** limits in Appendix IV (i.e., is the influent concentration above the limit set at the calculated dilution factor)? Y ✓ N____ If "Yes," list which metals: lead, zinc and iron

4. Treatment system information. Please describe the treatment system using separate sheets as necessary, including:

a) A description of the treatment system, including a schematic of the proposed or existing treatment system:

See Section 4.0 and Figure 3 of the Supplemental Information Document.

b) Identify each applicable treatment unit (check all that apply):	Frac. tank ✓	Air stripper ✓	Oil/water separator	Equalization tanks ✓	Bag filter ✓	GAC filter ✓
	Chlorination	Dechlorination	Other (please describe): sand filters and organoclay filters			

c) Proposed **average** and **maximum flow rates** (gallons per minute) for the discharge and the **design flow rate**(s) (gallons per minute) of the treatment system:
Average flow rate of discharge 100 Maximum flow rate of treatment system 300 Design flow rate of treatment system 300

d) A description of chemical additives being used or planned to be used (attach MSDS sheets):

No chemical additives will be used in the treatment process.

5. Receiving surface water(s). Please provide information about the receiving water(s), using separate sheets as necessary:

a) Identify the discharge pathway:	Direct ✓	Within facility__	Storm drain____	River/brook ✓	Wetlands_____	Other (describe):

b) Provide a narrative description of the discharge pathway, including the name(s) of the receiving waters:

The Site is adjacent to Mother Brook, a channel between the Charles and Neponset Rivers. Treated water will be discharged directly to Mother Brook at the downstream edge of the Site just upstream of the MBTA railroad bridge crossing. See Figure 2 for Site Layout.

c) Attach a detailed map(s) indicating the site location and location of the outfall to the receiving water:
1. For multiple discharges, number the discharges sequentially.
2. For indirect dischargers, indicate the location of the discharge to the indirect conveyance and the discharge to surface water
The map should also include the location and distance to the nearest sanitary sewer as well as the locus of nearby sensitive receptors (based on USGS topographical mapping), such as surface waters, drinking water supplies, and wetland areas.

d) Provide the state water quality classification of the receiving water B,

e) Provide the reported or calculated seven day-ten year low flow (7Q10) of the receiving water 9.1 cfs
Please attach any calculation sheets used to support stream flow and dilution calculations. lowest average monthly mean using data from http://waterdata.usgs.gov/ma/nwis/sw

f) Is the receiving water a listed 303(d) water quality impaired or limited water? Yes ✓ No____ If yes, for which pollutant(s)?
nutrients; organic enrichment/low DO; flow alteration (non-pollutant); pathogens; and taste, odor and color.

Is there a TMDL? Yes ✓ No____ If yes, for which pollutant(s)?
nutrients; organic enrichment/low DO; flow alteration (non-pollutant); pathogens; and taste, odor and color.

6. Results of Consultation with Federal Services: Please provide the following information according to requirements of Part I.B.4 and Appendices II and VII.

a) Are any listed threatened or endangered species, or designated critical habitat, in proximity to the discharge? Yes____ No ✓
Has any consultation with the federal services been completed ? No ✓ or is consultation underway? Yes No ✓
What were the results of the consultation with the U.S. Fish and Wildlife Service and/or National Marine Fisheries Service (~~check~~ one):
a "no jeopardy" opinion? _____ or written concurrence____ on a finding that the discharges are not likely to adversely affect any endangered species or critical habitat?

b) Are any historic properties listed or eligible for listing on the National Register of Historic Places located on the facility or site or in proximity to the discharge?
Yes_____ No ✓ Have any state or tribal historic preservation officer been consulted in this determination (Massachusetts only)? Yes ✓ No_____

7. Supplemental information. :

Please provide any supplemental information. Attach any analytical data used to support the application. Attach any certification(s) required by the general permit.

Refer to the attached Supplemental Information Document.

8. Signature Requirements: The Notice of Intent must be signed by the operator in accordance with the signatory requirements of 40 CFR Section 122.22, including the following certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, I certify that the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I certify that I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Facility/Site Name: Former L.E. Mason Company Facility, ADC Building

Operator signature:

Title: John R. Brassard, Jr., Field Engineer III, Shaw Environmental, Inc.

Date: 6/27/06

Notice of Intent
Remediation General Permit (RGP) Under the National Pollutant Discharge Elimination System (NPDES) For Discharges in Massachusetts

Former L.E. Mason Company Facility
Aluminum Die Cast (ADC) Building
98 Business Street, Boston, Massachusetts 02136

Submitted To:

U.S. Environmental Protection Agency
One Congress Street, Suite 1100
RGP-NOC Processing, Municipal Assistance Unit (CMU)
Boston, Massachusetts 02114-2023

Prepared for:

Thomas & Betts

Thomas & Betts Corporation
8155 T&B Boulevard
Memphis, Tennessee 38125

Prepared by:

Shaw® Shaw Environmental, Inc.

Shaw Environmental, Inc.
88C Elm Street
Hopkinton, Massachusetts 01748

June 2006

NOTICE OF INTENT - SUPPLEMENTAL INFORMATION DOCUMENT
REMEDIATION GENERAL PERMIT (RGP) UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) FOR DISCHARGES IN MASSACHUSETTS

FORMER L. E. MASON COMPANY FACILITY
ALUMINUM DIE CAST (ADC) BUILDING
98 BUSINESS STREET, BOSTON, MASSACHUSETTS, 02136

Note: This document was organized according to the categories in the Remediation General Permit (RGP) - Notice of Intent (NOI) Form such that each numbered item in the form corresponds to the same numbered item in this document.

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FIGURES

Figure 1 USGS (Site Location) Map
Figure 2 Site Layout
Figure 3 Process Flow Diagram

1. GENERAL SITE INFORMATION

The Former L.E. Mason Company Facility (the "Site") is located at 98 Business Street in the Hyde Park neighborhood of the City of Boston, Suffolk County, Massachusetts. The Site location (latitude 42° 15' 06" and longitude 71° 07' 40") is depicted on the U.S. Geological Survey (USGS) topographical map in **Figure 1**. The Site is owned by Thomas & Betts L.L.C. (T&B) of 8155 T&B Boulevard, Memphis, Shelby County, Tennessee. Shaw Environmental, Inc. (Shaw) was retained by T&B to carry out remediation activities at the Site.

The facility was used for manufacture of aluminum and zinc components for electrical wiring systems until its closure in 2002. Since 2002, the buildings on the Site have been used as office and storage space for a moving company and the headquarters of a small shipping company. Briggs Associates conducted an investigation at the Site in November 1986, in which they documented several releases reported between 1983 and 1988 and oil and hazardous material (OHM) impaction in soil and groundwater (Briggs, 1987).

Remediation activities at the Site are being conducted as part of a Phase IV Comprehensive Remedial Action (CRA), a multi-phase effort to achieve regulatory closure for specific areas of the Site being regulated under the Massachusetts Contingency Plan (MCP) – 310 CMR 40.0000. The required building demolition was completed in April 2006 to allow for the sub-slab soil removal to begin as scheduled in the second week of July 2006. The remaining phase of the overall remediation effort, river sediment dredging and Boston Water and Sewer Commission (BWSC) drain pipe replacement, will be conducted in the fall of 2006.

Other Permits

The remediation activities are driven by the timeframe set by the Massachusetts Department of Environmental Protection (MADEP) in a Notice of Noncompliance (NON) letter dated February 7, 2005. MADEP assigned Release Tracking Number (RTN) 3-0730 to the Site in 1987. On January 3, 1996, the Site was classified as a Tier 1B Transition site (Permit No. 104178) and a Tier IB Extension was approved by MADEP extending the permit through March 21, 2007.

Several permits were obtained from local, State, and federal agencies for the overall remediation effort including building demolition, sub-slab soil removal and river sediment dredging as listed below. In response to Item 1(e) of the RGP-Notice of Intent (NOI) Form, the contact information for each issuing agency is also provided below:

- An Order of Conditions dated August 18, 2005 was received from the Boston Conservation Commission (BCC) in response to a NOI filed for the overall remediation effort at the Site. The BCC assigned MADEP File No. 006-1048 for building demolition and sub-slab soil removal only. CONTACT: Chris Busch, Boston Conservation Commission, Boston City Hall, Room 805, Boston, MA 02201, phone (617) 635-3850.
- A Certificate of The Secretary of Environmental Affairs on the Environmental Notification Form was issued on August 8, 2005 in response to a Massachusetts Environmental Policy Act (MEPA) review request with Executive Office of Environmental Affairs (EOEA) #13568 for the overall remediation effort. CONTACT: Stephan R. Pritchard, Executive Office of Environmental Affairs, 100 Cambridge Street, Suite 900, Boston, MA 02114-2524, phone (617) 626-1000.

- A Category II Massachusetts Programmatic General Permit (PGP) No. NAE 2005-2427 was issued on August 25, 2005 by the Army Corps of Engineers (ACOE) under Section 404 for in-stream work associated with the overall remediation effort. CONTACT: David Keddell, Army Corps of Engineers-New England District, 696 Virginia Road, Concord, MA 01742-2751, phone (978) 318-8692.
- A Water Quality Certification was issued on August 31, 2005 by MADEP under Section 401 for dredging activities with ACOE Application No. 2005-2427 and DEP Transmittal No. W065732. CONTACT: Glen Haas, MADEP-Division of Watershed Management, One Winter Street, Boston, MA 02108, phone (617) 292-5500.
- A Chapter 91 Waterways Permit No. 10728 was issued on November 8, 2005 under License Application No. W05-1382 by MADEP for in-stream work associated with the overall remediation effort. CONTACT: Ben Lynch, MADEP-Waterways Regulation Program, One Winter Street, Boston, MA 02108, phone (617) 292-5500.

2. DISCHARGE INFORMATION

The proposed discharge that requires a Remediation General Permit (RGP) Under the National Pollutant Discharge Elimination System (NPDES) is from an onsite water treatment system processing various input streams associated with the excavation of soil beneath the slab of the former Aluminum Die Cast (ADC) building (the "Project") as part of the remediation activities at the Site. In general, the Project involves the temporary isolation of the excavation area through the installation of sheet piling, localized groundwater table depression via pumping, removal of the existing concrete slab and sub-slab impacted soils, backfilling the excavation, removing the sheet piling and rebuilding the concrete slab. The untreated aqueous influent stream sent to the onsite water treatment system during the Project will include the following:

- Groundwater extracted in the area of the excavation;
- Liquid from soil dewatering pads; and
- Decontamination wash water.

Flow Rate of Discharge

According to existing data, the estimated area of proposed excavation will be approximately 4,800 square feet with a depth up to twenty feet. The water table in this area will be depressed from the documented 4 and 8 feet below the ground surface. Pumped water will be routed to the water treatment system, which will be capable of processing up to 300 gallons per minute (gpm) or 0.66 cubic feet per second (cfs) of influent. The water treatment system will be maintained and operated in accordance with the requirements of the MCP and the applicable water discharge permit.

Location of Discharge

The discharge location will be on the upstream side of the Massachusetts Bay Transportation Authority (MBTA) rail crossing of Mother Brook. The approximate location of the discharge is latitude 42° 15' 05" and longitude 71° 07' 39". The Site layout is depicted in **Figure 2**. The treatment flow diagram, including the contributing water sources to the ultimate discharge, is shown in **Figure 3**.

Expected Dates of Discharge

The Project is targeted to begin in the second week of July 2006 including slab removal, and sheet piling installation. The start date for water treatment and discharge is dependent on issuance of the discharge permit. The Project is expected to take approximately eight (8) weeks to complete.

3. CONTAMINANT INFORMATION

As previously stated, the untreated aqueous influent stream will have several components as follows:

- Groundwater extracted in the area of the excavation;
- Liquid from soil dewatering pads; and
- Decontamination wash water.

These component flows will be combined in a holding tank prior to treatment. The water quality of the combined untreated influent streams can not be determined until the construction begins. However, it is expected that the groundwater component will dominate the volume of flow contributed to the treatment system and groundwater is sampled quarterly at the Site. Thus, the table in Item 3(b) of the RGP-NOI Form was completed using groundwater data from wells located in the ADC area.

Groundwater

The contaminants of concern (COCs) detected in groundwater samples exceeding MCP Method 1 GW-2 standards collected from monitoring wells installed in the ADC building are 1,1-dichloroethene (1,1-DCE), vinyl chloride, *cis*-1,2-DCE and PCBs. Parameters detected in groundwater at the Site, including COCs, are identified in the table in Item 3(b) of the RGP-NOI Form. Prior to performing the sub-slab soil removal, a soil sampling event will be initiated to determine the horizontal and vertical extent of impacted soil to be excavated. The sampling event will consist of several new soil borings and the collection of additional geotechnical and hydrogeological information for the final design of the dewatering and water treatment systems.

Soil Dewatering Liquid

The drying beds will consist of a stone base, a geomembrane liner for water collection, a drainage layer of crushed stone and a runoff collection sump. The collected water will be pumped to a storage tank next to each drying bed and subsequently transferred to the treatment system. This component stream is expected to contribute the second most in volume to the onsite water treatment system. It is expected that this liquid will be similar in water quality to the groundwater.

Decontamination Wash Water

This component stream volume is expected to be minimal. No new contaminants are expected to be introduced to the untreated influent stream through the decontamination processes that are not in the groundwater.

Metals Supporting Calculations

In response to Item 3(c) of the RGP-NOI Form, an additional calculation when metals are present was required. Based on the recent groundwater sampling results, the untreated influent has the reasonable potential to contain concentrations of copper, lead, zinc and iron that exceed the effluent limitations for discharge to fresh water in Massachusetts (Appendix III of the RGP). Using the maximum discharge rate of 0.66 cubic feet per second (cfs) and receiving water flow of 9.1 cfs (refer to Section 5.0 for determination of

this value), the dilution factor 14.8 (formula per RGP Part I.A.3.c). The resulting effluent limitations for the dilution range of 10-50 are below the maximum concentration of metals in the untreated influent as listed in the NOI Item 3(b) with the exception of copper. The following table summarizes the data comparison.

Summary of Metals Data and Effluent Limitation Comparisons

Parameter	Influent Maximum Concentration (ug/L)	Appendix III Effluent Limitation for Fresh Water in Massachusetts (ug/L)	Appendix IV Metals Limitations at Dilution Range 10-50 (ug/L)
Copper	50	5.2	52
Lead	20	1.3	13
Zinc	1,300	66.6	666
Iron	6,700	1,000	5,000

4. TREATMENT SYSTEM INFORMATION

Influent water will be treated to remove contaminants that exceed effluent limitations. The water treatment system will include the components identified in **Figure 3** (as prepared by Charter Environmental, Drawing No. G-9-MO132-1-0).

Water piping from the excavation, containment pad and decontamination areas will be spliced together at the treatment area prior to entering the 21,000 gallon weir tanks. A pump will transfer liquid from the weir tanks through sand filters, bag filters, an air stripper, organoclay filters and carbon beds. Backwash water for the filter and liquid phase carbon filters will be supplied from potable on-site water. Dewatered fines from the weir tanks will be transferred to a pumper truck for proper transportation and off-site disposal. The water treatment system will discharge to Mother Brook upstream of the MBTA rail crossing.

The water treatment system will be sized to handle up to a total of 300 gallons per minute flow rate. The flow rate estimate was calculated based on anticipated seepage of groundwater into the excavation combined with a sustained precipitation of 0.25 inches per hour. The water treatment equipment will be operated and maintained by a licensed wastewater treatment system operator. The operator will regularly inspect all piping, valves, stormwater conduits and treatment system vessels to ensure that there are no leaks and that they are functioning properly.

System Sampling

Pursuant to the MCP, the initial samples will be collected from the wastewater treatment systems during their first minutes of operation. These samples will be sent to an analytical laboratory for expedited analysis to confirm the functionality of the systems. Likewise, post samples will be collected immediately prior to shut-down to ensure that the systems continued to successfully perform throughout their use. The results from these analyses will be documented along with the total volumes of water that were treated during their employment.

5. RECEIVING SURFACE WATER

The treated effluent will be discharged directly to Mother Brook downstream of the excavation area and just upstream of the MBTA rail crossing.

Mother Brook borders the southern perimeter of the former Site. The stream runs from the Charles River to the Neponset River through the heavily developed urban setting of eastern Massachusetts. Mother Brook functions as a stormwater conveyance channel for Greater Boston. During severe storm events, water from the Charles River is directed into the stream in order to prevent urban flooding.

7Q10

The seven day-ten year low flow (7Q10) of Mother Brook has not been calculated by USGS as indicated by their surface water database at http://waterdata.usgs.gov/ma/nwis/sw. Mother Brook has USGS Station ID 01104000. However, using the 72 years of data available for this station (October 1931 through present), the lowest monthly mean flow was determined to be 9.1 cfs. The mean peak monthly flow is 76.7 cfs.

Mother Brook Stream Flow Data												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Mean of Monthly Stream Flow												
(CFM)	94	108	171	159	88	56	22	21	20	26	52	85
(1000 GPM)	42.0	48.5	76.7	71.4	39.5	25.1	10.0	9.6	9.1	11.8	24.1	38.0

303(d) Listed Water

In the *Proposed Massachusetts Year 2004 Integrated List of Waters: Proposed Listing of the condition of Massachusetts' water pursuant to Sections 303(d) and 305(b) of the Clean Water Act, CN:175.0* dated April 2004, Mother Brook is listed as a Category 5 Water in the Boston Harbor: Neponset watershed. Mother Brook, described as a 3.6-mile waterway with headwaters at the Charles River Diversion, Dedham to the confluence with the Neponset River, Boston, is assigned number 7341180 and the segment identification MA73-28_2004. In this report prepared by the Massachusetts Division of Watershed Management, Category 5 is for waters that are impaired or threatened for one or more uses and requiring a total maximum daily load (TMDL). The pollutants needing TMDL for Mother Brook are nutrients; organic enrichment / low dissolved oxygen; flow alteration (non-pollutant); pathogens; and taste, odor and color. A TMDL plan for pathogens, document control number CN121.0, was approved by EPA on 6/21/2002.

6. RESULTS OF CONSULTATION WITH FEDERAL SERVICES

The Site is located within an area zoned for mixed industrial and residential use. The Site is neither located in, nor adjacent to any known Area of Critical Environmental Concern, nor any known habitat or rare wildlife or certified vernal pool. There are no listed or endangered species in proximity to the discharge. Consultation with USFWS and NMFS is not required as no endangered or threatened species or critical habitat are in proximity to the point where the proposed discharge reaches the receiving water (as listed in Appendix VII of the RGP Instructions).

There are no historic properties listed or eligible for listing on the National Register of Historic Places located on the facility or site in the proximity to the discharge. State and tribal (Wampanoag and Narragansett) historic preservation offices have been consulted in this determination.

7. SUPPLEMENTAL INFORMATION

Engineering controls will be employed to minimize the mobilization and transport of sediment, dust and runoff from the construction area.

Temporary erosion control measures will be implemented at the discharge structure to mitigate the potential for streambed scour and sediment resuspension. The erosion control measures have been designed to dissipate the augmented flow energy engendered by the pumping system. Long discharge openings and stone or articulated concrete energy dissipater mats will protect the bank and streambed at the downgradient outflow locations (**Figure 4**).

Silt fencing and straw bales will be employed as erosion and sediment control measures in the support areas. The type of erosion and control structure will depend on the construction activity, the existing or working surfaces and the potential for sediments to be impacted. For example, the sediment sorting areas and sediment drying beds will be lined with appropriate thickness polyethylene sheets to reduce impaction of the ground surface and to act as a visual limit to the staged and existing soils. Storm water catch basins in the work zones will be protected with straw bales or silt sacks during construction. The temporary erosion and sediment control measures will be checked on a daily basis, maintained as necessary and removed at the completion of the project phase or when restored areas have established vegetation that will allow for surface water run-on without excessive erosion.

REFERENCES:

Briggs Associates, Inc. January 29, 1987. M.G.L. 21E Site Assessment for the Property Located at 99 Business Street, Hyde Park, Massachusetts. Rockland, Massachusetts.

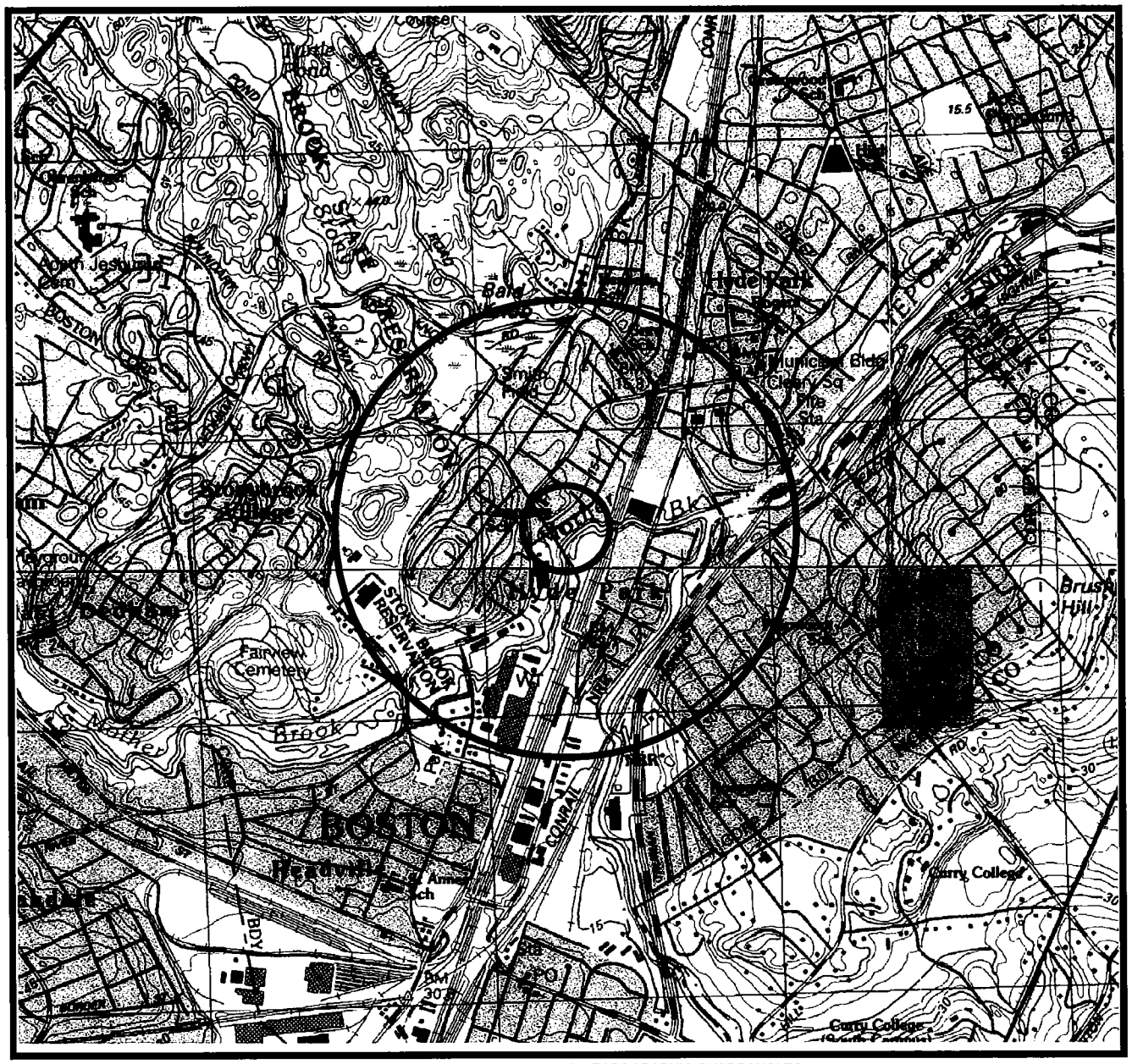
FDGTI - Fluor Daniel GTI. October 27, 1997. Phase II Comprehensive Site Assessment, L.E. Mason Co., 98 Business Street, Boston, Massachusetts, DEP Case No. 3-0730. Norwood, Massachusetts.

IT - Corporation. April 2002. Immediate Response Action Completion Report. Mother Brook L.E. Mason Co. 98 Business Street, Boston, MA, DEP Case 3-0730.

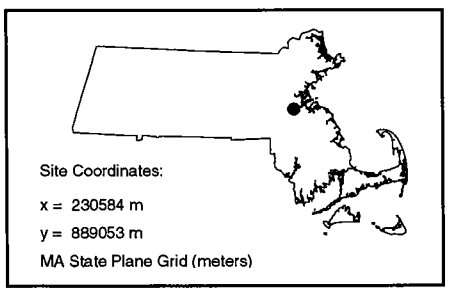
Massachusetts Division of Watershed Management. April, 2004. Proposed Massachusetts Year 2004 Integrated List of Waters: Proposed Listing of the condition of Massachusetts' water pursuant to Sections 303(d) and 305(b) of the Clean Water Act, CN:175.0. Worcester, Massachusetts.

Shaw Environmental, Inc. 2004. Phase II / III Comprehensive Site Assessment and Remedial Action Plan Addendum, Thomas and Betts Corporation, 98 Business Street, Boston, MA, DEP Case 3-0730. January 2004.

FIGURES



SOURCE: SCANNED USGS TOPOGRAPHIC QUADRANGLES
SUPPLIED BY THE MASSACHUSETTS EXECUTIVE OFFICE
OF ENVIRONMENTAL AFFAIRS, MASSGIS, JULY 1996

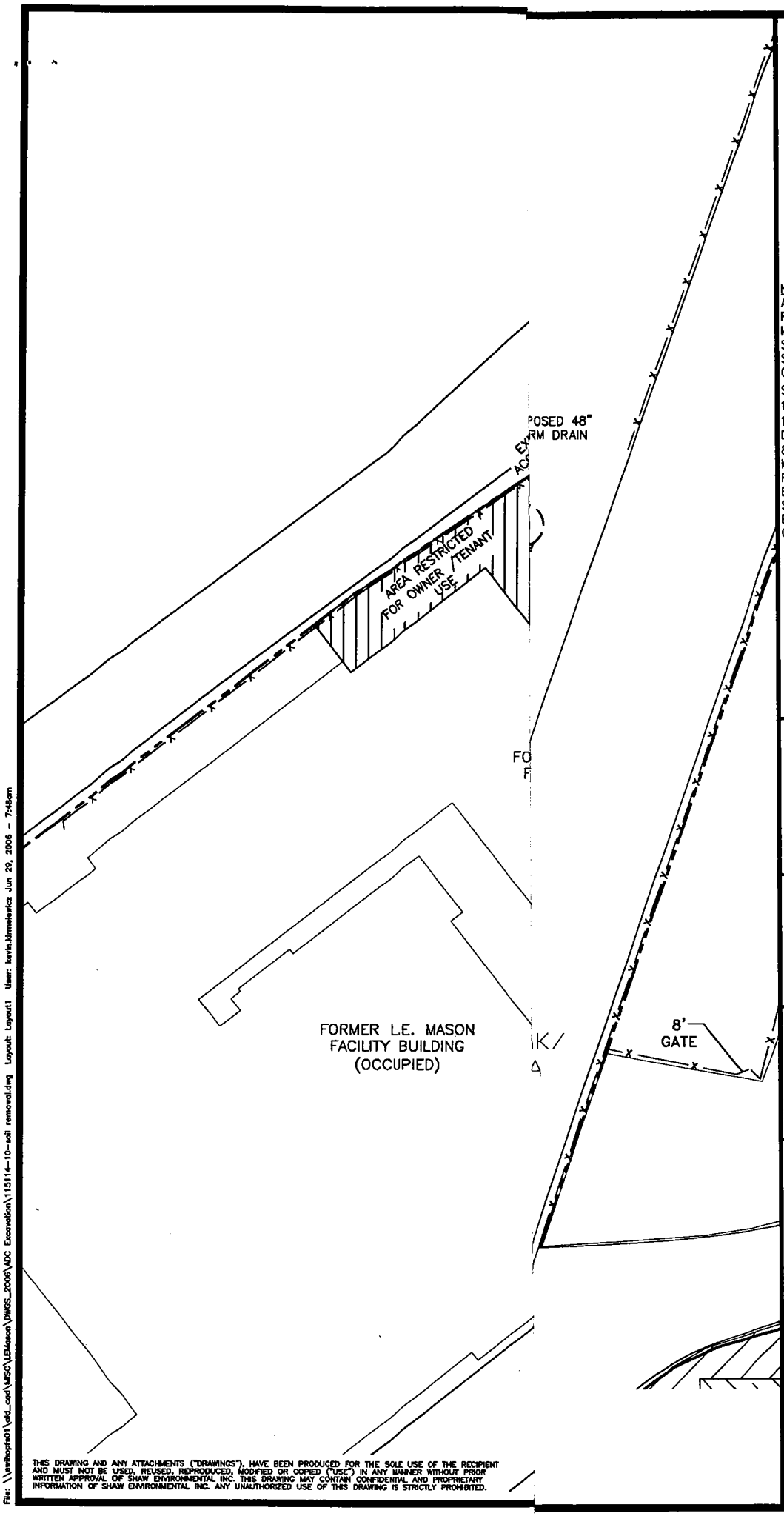


1000 0 1000 2000
SCALE FEET

N

Shaw Environmental Inc.	DESIGNED:	**SITE LOCATION MAP SHOWING 500' AND 1/2 MILE RADII**	
	DETAILED: KCK	CLIENT: **L.E. MASON**	DRAWING DATE: 06/05/03
	CHECKED:	LOCATION: **98 BUSINESS STREET BOSTON, MASSACHUSETTS**	FIGURE: 1

N:\ARCVIEW\SITELOC\MISC\LEMASON.PS



LEGEND

- MONITORING WELL
- SOIL BORING
- PROPOSED 48" STORM DRAIN
- GRANITE/CONCRETE RETAINING WALL
- FENCE
- **PROPERTY LINE**
- PARKING

NOTE:
ADC BUILDING DEMOLITION AND SOIL REMOVAL
MAIN POINTS:
SET NE BANK TO RETAINING WALL.
SET NW BANK TO FAR SIDE OF CANOPY.
SOURCE:
1] SHAW DATA COLLECTED 11/29/2000 AND 4/27/2001. BB&L DATA COLLECTED BETWEEN 8/14/2001 AND 8/15/2001. MEASUREMENTS BASED ON BB&L FIELD NOTES, AS TAKEN FROM BROOK BANK AND NEAREST TRANSECT. STORM WATER DIMENSIONS PROVIDED BY BOSTON WATER AND SEWER COMMISSION, MAY 12, 2005.

20 0 20 40
SCALE FEET

N

Shaw Environmental Inc.
88C ELM STREET
HOPKINTON, MA. 01748 (508) 435-9561

FORMER ADC BUILDING SOURCE REMOVAL ACTION

EXCAVATION PLAN

CLIENT: THOMAS & BETTS CORP.		
LOCATION: FORMER L.E. MASON FACILITY 98 BUSINESS STREET BOSTON, MASSACHUSETTS		
DESIGNED BY:	DETAILED BY: KCK/CD	CHECKED BY: JHM
DRAWING DATE: 06/15/06	ACAD FILE: 115114-10	
PROJECT NO.: 115114	SAMPLING DATES: NA	

FIGURE 2

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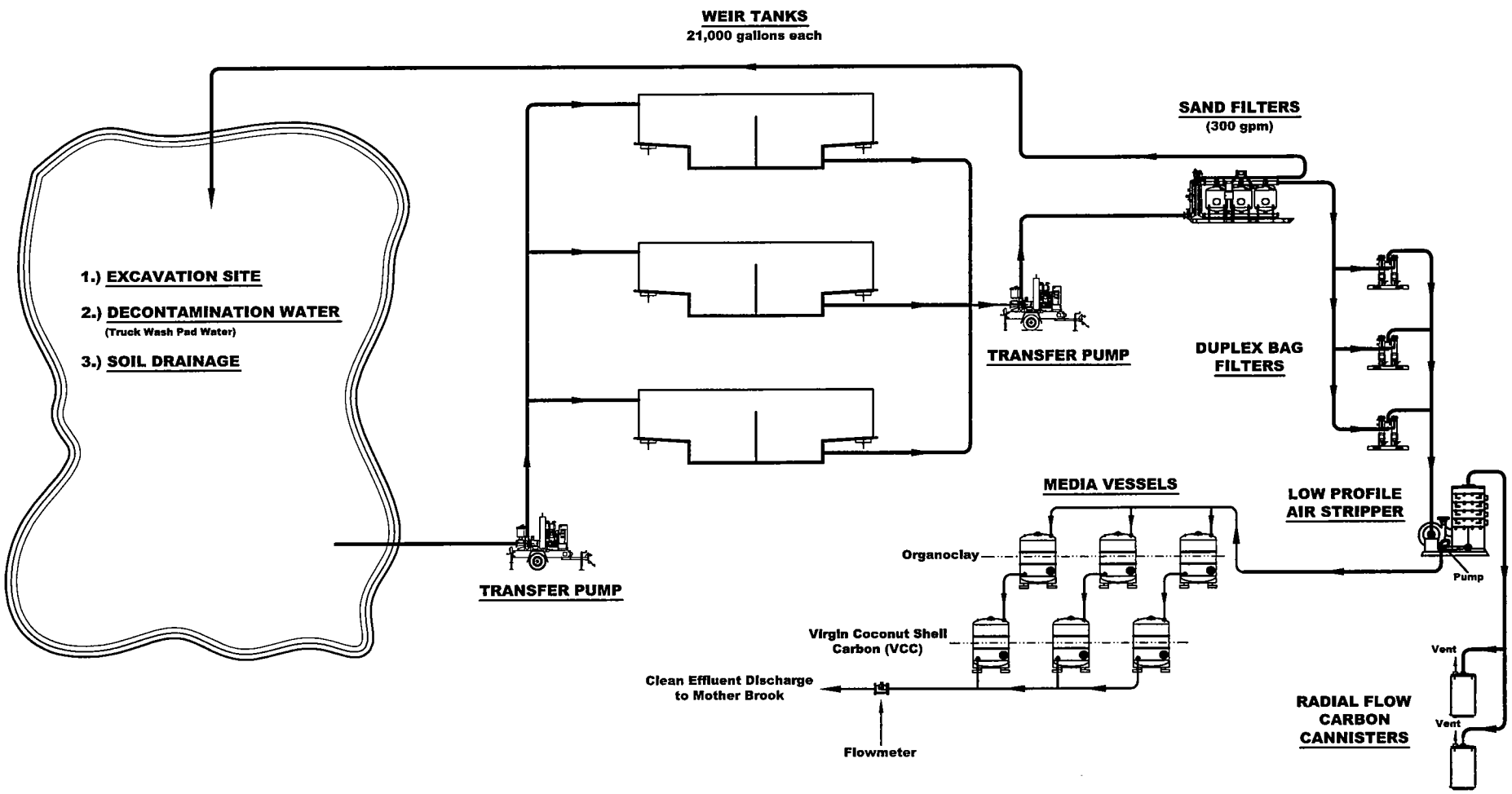
File: \\smhopfs01\old_cad\MSC\LEMason\DWGS_2006\ADC Excavation\115114-10-soil removal.dwg Layout: Layout1 User: kevin.kirmelewicz Jun 29, 2006 - 7:48am



NOTES:
1. This drawing represents a proposed conceptual layout. Final system may vary depending on ultimate customer requirements.

PROCESS FLOW DIAGRAM

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REV.	DESCRIPTION	DATE	BY
G			
F			
E			
D			
C			
B			
A	Added backwash line	6/28/06	PJB

BAKER FILTRATION
4306 W. 190th St.
TORRANCE, CA 90504

SCALE: N.T.S.	SIZE: A	ORIGINAL DWG. DATE: 25MAY06
DRAWN BY: P.J.B.	APPROVED BY: –	CAT/CLASS: NA
TITLE: CHARTER ENVIRONMENTAL		SHEET: 1 OF 1
DRAWING NO.: G–9–M0132–1–		REV.: A