UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 1
5 Post Office Square, Suite 100
BOSTON, MA 02109-3912

CERTIFIED MAIL RETURN RECEIPT REQUESTED

DEC 20 2011

William Czerepack
Project Manager
SPS New England, Inc.
98 Elm Street
Salisbury, MA 01952

Re: Authorization to discharge under the Remediation General Permit (RGP) – MAG910000.Alford Street Bridge site located at the Alford Street Bridge over the Mystic River in Boston Massachusetts, Suffolk County; Authorization # MAG910514

Dear Mr. Czerepack:

Based on the review of a Notice of Intent (NOI) submitted on behalf of Massachusetts Department of Transportation- Highway Division MDOT #62665, by the firm CLE Engineering, Inc., for the site referenced above, the U.S. Environmental Protection Agency (EPA) hereby authorizes you, as the named Operator, to discharge in accordance with the provisions of the RGP at that site. Your authorization number is listed above.

The checklist enclosed with this RGP authorization indicates the pollutants which you are required to monitor. Also indicated on the checklist are the effluent limits, test methods and minimum levels (MLs) for each pollutant. Please note that the checklist does not represent the complete requirements of the RGP. Operators must comply with all of the applicable requirements of this permit, including influent and effluent monitoring, narrative water quality standards, record keeping, and reporting requirements, found in Parts I and II, and Appendices I – VIII of the RGP. See EPA's website for the complete RGP and other information at: http://www.epa.gov/region1/npdes/mass.html#dgp.

Please note that due to the absence of information leading to a selection of the pollutants requiring treatment EPA have enclosed a checklist which includes all the parameters and effluent limits of pollutants in Appendix III of the Notice of Intent (NOI).

The checklist with this RGP authorization includes and sets monitoring requirements and effluent limits for all dewatering discharges from the project. Specifically both dewatering discharges described in item 3 on Page 3 of your letter are subject to the conditions of this authorization prior to discharging back into the river.

Also, please note that the metals included on the checklist are dilution dependent pollutants and subject to limitations based on selected dilution ranges and technology-based ceiling limitations. With the absence of dilution of freshwater into tidal water, EPA determined that the Dilution Factor Range (DFR) for each parameter for this site is in the one and five (1-5) range. (See the RGP Appendix IV for Massachusetts facilities). Therefore, the limits for antimony of 5.6ug/L, arsenic of 36ug/L, cadmium of 8.9ug/L, trivalent chromium of 100ug/L, hexavalent chromium of 50.3ug/L, copper of 3.7ug/L, lead of 8.5 ug/L, mercury of 1.1ug/L, nickel of 8.2ug/L, selenium of 71ug/L, silver of 2.2ug/L, zinc of 85.6ug/L and iron of 1,000ug/L, are required to achieve permit compliance at your site.

This general permit and authorization to discharge will expire on September 9, 2015. You have reported that this project will terminate on January 31, 2012. If for any reason the discharge terminates sooner you are required to submit a Notice of Termination (NOT) to the attention of the contact person indicated below within 30 days of project completion.

Thank you in advance for your cooperation in this matter. Please contact Victor Alvarez at 617-918-1572 or Alvarez.Victor@epa.gov, if you have any questions.

Sincerely,

David M. Webster, Chief
Industrial Permits Branch

Enclosure

cc: Kathleen Keohane, MassDEP
Jefrey Oakes, CLE Engineering

2010 Remediation General Permit
Summary of Monitoring Parameters[1]

NPDES Authorization Number:	**MAG910514**
Authorization Issued:	December, 2011
Facility/Site Name:	Alford Street Bridge- Mass DOT– Highway Division MDOT #62665
Facility/Site Address:	Alford Street bridge over the Mystic River, Boston, MA 02116, Suffolk County
	Email address of owner: Not Provided
Legal Name of Operator:	SPS New England, Inc.
Operator contact name, title, and Address:	William Czerepak, General Manager, 98 Elm Street, Salisbury, MA 01952, Essex County
	Email: bczerepak@spsne.com
Estimated Date of Completion:	January 31, 2012
Category and Sub-Category:	Category III. Contaminated Construction Dewatering. Sub-category A. General urban Fill Sites
RGP Termination Date:	September 9, 2015
Receiving Water:	Mystic River

Monitoring & Limits are applicable if checked. All samples are to be collected as grab samples

	Parameter	**Effluent Limit/Method#/ML** (All Effluent Limits are shown as Daily Maximum Limit, unless denoted by a **, in that case it will be a Monthly Average Limit)
√	1. Total Suspended Solids (TSS)	30 milligrams/liter (mg/L) **, 50 mg/L for hydrostatic testing **, Me#60.2/ML5ug/L
√	2. Total Residual Chlorine (TRC) [1]	Freshwater = 11 ug/L ** Saltwater = 7.5 ug/L **/ Me#330.5/ML 20ug/L
√	3. Total Petroleum Hydrocarbons (TPH)	5.0 mg/L/ Me# 1664A/ML 5.0mg/L
√	4. Cyanide (CN) [2, 3]	Freshwater = 5.2 ug/l ** Saltwater = 1.0 ug/L **/ Me#335.4/ML 10ug/L
√	5. Benzene (B)	5ug/L /50.0 ug/L for hydrostatic testing only/ Me#8260C/ML 2 ug/L
√	6. Toluene (T)	(limited as ug/L total BTEX)/ Me#8260C/ ML 2ug/L
√	7. Ethylbenzene (E)	(limited as ug/L total BTEX) Me#8260C/ ML 2ug/L
√	8. (m,p,o) Xylenes (X)	(limited as ug/L total BTEX) Me#8260C/ ML 2ug/L
√	9. Total Benzene, Toluene, Ethyl Benzene, and Xylenes (BTEX) [4]	100 ug/L/ Me#8260C/ ML 2ug/L

	Parameter	Effluent Limit/Method#/ML (All Effluent Limits are shown as Daily Maximum Limit, unless denoted by a **, in that case it will be a Monthly Average Limit)
√	10. Ethylene Dibromide (EDB) (1,2- Dibromoethane)	0.05 ug/l/ Me#8260C/ ML 10ug/L
√	11. Methyl-tert-Butyl Ether (MtBE)	70.0 ug/l/Me#8260C/ML 10ug/L
√	12.tert-Butyl Alcohol (TBA) (TertiaryButanol)	Monitor Only(ug/L)/Me#8260C/ML 10ug/L
√	13. tert-Amyl Methyl Ether (TAME)	Monitor Only(ug/L)/Me#8260C/ML 10ug/L
√	14. Naphthalene [5]	20 ug/L /Me#8260C/ML 2ug/L
√	15. Carbon Tetrachloride	4.4 ug/L /Me#8260C/ ML 5ug/L
√	16. 1,2 Dichlorobenzene (o-DCB)	600 ug/L /Me#8260C/ ML 5ug/L
√	17. 1,3 Dichlorobenzene (m-DCB)	320 ug/L /Me#8260C/ ML 5ug/L
√	18. 1,4 Dichlorobenzene (p-DCB)	5.0 ug/L /Me#8260C/ ML 5ug/L
	18a. Total dichlorobenzene	763 ug/L - NH only /Me#8260C/ ML 5ug/L
√	19. 1,1 Dichloroethane (DCA)	70 ug/L /Me#8260C/ ML 5ug/L
√	20. 1,2 Dichloroethane (DCA)	5.0 ug/L /Me#8260C/ ML 5ug/L
√	21. 1,1 Dichloroethene (DCE)	3.2 ug/L/Me#8260C/ ML 5ug/L
√	22. cis-1,2 Dichloroethene (DCE)	70 ug/L/Me#8260C/ ML 5ug/L
√	23. Methylene Chloride	4.6 ug/L/Me#8260C/ ML 5ug/L
√	24. Tetrachloroethene (PCE)	5.0 ug/L/Me#8260C/ ML 5ug/L
√	25. 1,1,1 Trichloro-ethane (TCA)	200 ug/L/Me#8260C/ ML 5ug/L
√	26. 1,1,2 Trichloro-ethane (TCA)	5.0 ug/L /Me#8260C/ ML 5ug/L
√	27. Trichloroethene (TCE)	5.0 ug/L /Me#8260C/ ML 5ug/L
√	28. Vinyl Chloride (Chloroethene)	2.0 ug/L /Me#8260C/ ML 5ug/L
√	29. Acetone	Monitor Only(ug/L)/Me#8260C/ML 50ug/L
√	30. 1,4 Dioxane	Monitor Only /Me#1624C/ML 50ug/L
√	31. Total Phenols	300 ug/L Me#420.1&420.2/ML 2 ug/L/ Me# 420.4 /ML 50ug/L
√	32. Pentachlorophenol (PCP)	1.0 ug/L /Me#8270D/ML 5ug/L,Me#604 &625/ML 10ug/L
√	33. Total Phthalates (Phthalate esters) [6]	3.0 ug/L ** /Me#8270D/ML 5ug/L, Me#606/ML 10ug/L& Me#625/ML 5ug/L
√	34. Bis (2-Ethylhexyl) Phthalate [Di- (ethylhexyl) Phthalate]	6.0 ug/L /Me#8270D/ML 5ug/L,Me#606/ML 10ug/L & Me#625/ML 5ug/L
√	35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)	10.0 ug/L
√	a. Benzo(a) Anthracene [7]	0.0038 ug/L /Me#8270D/ ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L

	Parameter	Effluent Limit/Method#/ML (All Effluent Limits are shown as Daily Maximum Limit, unless denoted by a **, in that case it will be a Monthly Average Limit)
√	b. Benzo(a) Pyrene [7]	0.0038 ug/L /Me#8270D/ ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
√	c. Benzo(b)Fluoranthene [7]	0.0038 ug/L /Me#8270D/ ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
√	d. Benzo(k)Fluoranthene [7]	0.0038 ug/L /Me#8270D/ ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
√	e. Chrysene [7]	0.0038 ug/L /Me#8270D/ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
√	f. Dibenzo(a,h)anthracene [7]	0.0038 ug/L /Me#8270D/ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
√	g. Indeno(1,2,3-cd) Pyrene [7]	0.0038 ug/L /Me#8270D/ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML5ug/L
√	36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)	100 ug/L
√	h. Acenaphthene	X/Me#8270D/ML 5ug/L,Me#610/ML 5ug/L & Me#625/ML 5ug/L
√	i. Acenaphthylene	X/Me#8270D/ML 5ug/L,Me#610/ML 5ug/L & Me#625/ML 5ug/L
√	j. Anthracene	X/Me#8270D/ML 5ug/L,Me#610/ML 5ug/L & Me#625/ML 5ug/L
√	k. Benzo(ghi) Perylene	X/Me#8270D/ML 5ug/L,Me#610/ML 5ug/L & Me#625/ML 5ug/L
√	l. Fluoranthene	X/Me#8270D/ML 5ug/L,Me#610/ML 5ug/L & Me#625/ML 5ug/L
√	m. Fluorene	X/Me#8270D/ML 5ug/L,Me#610/ML 5ug/L & Me#625/ML 5ug/L
√	n. Naphthalene [5]	20 ug/l / Me#8270/ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
√	o. Phenanthrene	X/Me#8270D/ML 5ug/L,Me#610/ML 5ug/L & Me#625/ML 5ug/L
√	p. Pyrene	X/Me#8270D/ML5ug/L,Me#610/ML 5ug/L & Me#625/ML 5ug/L
√	37. Total Polychlorinated Biphenyls (PCBs) [8, 9]	0.000064 ug/L/Me# 608/ ML 0.5 ug/L
√	38. Chloride	Monitor only/Me# 300.0/ ML 0.1ug/L

	Metal parameter	Total Recoverable Metal Limit @ H [10]= 50 mg/l CaCO3 for discharges in Massachusetts (ug/l) [11/12]		Minimum level=ML	
			Saltwater		
√	39. Antimony	5.6/ML 10			
√	40. Arsenic **		36/ML 20		

	Metal parameter	Total Recoverable Metal Limit @ H [10]= 50 mg/l CaCO3 for discharges in Massachusetts (ug/l) [11/12]		Minimum level=ML	
			Saltwater		
√	41. Cadmium **		8.9/ML 10		
√	42. Chromium III (trivalent) **		100/ML 15		
√	43. Chromium VI (hexavalent) **		50.3/ML 10		
√	44. Copper **		3.7/ML 15		
√	45. Lead **		8.5/ML 20		
√	46. Mercury **		1.1/ML 0.2		
√	47. Nickel **		8.2/ML 20		
√	48. Selenium **		71/ML 20		
√	49. Silver		2.2/ML 10		
√	50. Zinc **		85.6/ML 15		
√	51. Iron	1,000/ML 20			

	Other Parameters	Limit
√	52. Instantaneous Flow	Site specific in CFS
√	53. Total Flow	Site specific in CFS
	54. pH Range for Class A & Class B Waters in MA	6.5-8.3; 1/Month/Grab[13]
√	55. pH Range for Class SA & Class SB Waters in MA	6.5-8.3; 1/Month/Grab[13]
	56. pH Range for Class B Waters in NH	6.5-8; 1/Month/Grab[13]
	57. Daily maximum temperature - Warm water fisheries	83°F; 1/Month/Grab[14]
	58. Daily maximum temperature - Cold water fisheries	68°F; 1/Month/Grab[14]
	59. Maximum Change in Temperature in MA - Any Class A water body	1.5°F; 1/Month/Grab[14]
	60. Maximum Change in Temperature in MA - Any Class B water body- Warm Water	5°F; 1/Month/Grab[14]
	61. Maximum Change in Temperature in MA – Any Class B water body - Cold water and Lakes/Ponds	3°F; 1/Month/Grab[14]
	62. Maximum Change in Temperature in MA – Any Class SA water body - Coastal	1.5°F; 1/Month/Grab[14]
	63. Maximum Change in Temperature in MA – Any Class SB water body - July to September	1.5°F; 1/Month/Grab[14]
	64. Maximum Change in Temperature in MA –Any Class SB water body - October to June	4°F; 1/Month/Grab[14]

Footnotes:

[1] Although the maximum values for TRC are 11ug/l and 7.5 ug/l for freshwater, and saltwater respectively, the compliance limits are equal to the minimum level (ML) of the test method used as listed in Appendix VI (i.e., Method 330.5, 20 ug/l).
[2] Limits for cyanide are based on EPA's water quality criteria expressed as micrograms per liter. There is currently no EPA approved test method for free cyanide. Therefore, total cyanide must be reported.
[3] Although the maximum values for cyanide are 5.2 ug/l and 1.0 ug/l for freshwater and saltwater, respectively, the compliance limits are equal to the minimum level (ML) of the Method 335.4 as listed in Appendix VI (i.e., 10 ug/l).
[4] BTEX = sum of Benzene, Toluene, Ethylbenzene, and total Xylenes.
[5] Naphthalene can be reported as both a purgeable (VOC) and extractable (SVOC) organic compound. If both VOC and SVOC are analyzed, the highest value must be used unless the QC criteria for one of the analyses is not met. In such cases, the value from the analysis meeting the QC criteria must be used.
[6] The sum of individual phthalate compounds(not including the #34, Bis (2-Ethylhexyl) Phthalate . The compliance limits are equal to the minimum level (ML) of the test method used as listed in Appendix VI.
Total values calculated for reporting on NOIs and discharge monitoring reports shall be calculated by adding the measured concentration of each constituent. If the measurement of a constituent is less than the ML, the permittee shall use a value of zero for that constituent. For each test, the permittee shall also attach the raw data for each constituent to the discharge monitoring report, including the minimum level and minimum detection level for the analysis.
[7] Although the maximum value for the individual PAH compounds is 0.0038 ug/l, the compliance limits are equal to the minimum level (ML) of the test method used as listed in Appendix VI.
[8] In the November 2002 WQC, EPA has revised the definition of Total PCBs for aquatic life as total PCBs is the sum of all homologue, all isomer, all congener, or all "Oroclor analyses."Total values calculated for reporting on NOIs and discharge monitoring reports shall be calculated by adding the measured concentration of each constituent. If the measure of a constituent is less than the ML, the permittee shall use a value of zero for that constituent. For each test, the permittee shall also attach the raw data for each constituent to the discharge monitoring report, including the minimum level and minimum detection level for the analysis.
[9]Although the maximum value for total PCBs is 0.000064 ug/l, the compliance limit is equal to the minimum level (ML) of the test method used as listed in Appendix VI (i.e., 0.5 ug/l for Method 608 or 0.00005 ug/l when Method 1668a is approved).
[10] Hardness. Cadmium, Chromium III, Copper, Lead, Nickel, Silver, and Zinc are Hardness Dependent.
[11] For a Dilution Factor (DF) from 1 to 5, metals limits are calculated using DF times the base limit for the metal. See Appendix IV. For example, iron limits are calculated using DF x 1,000ug/L (the iron base limit). Therefore DF is 1.5, the iron limit will be 1,500 ug/L; DF 2, then iron limit =1,000 x 2 =2,000 ug/L., etc. not to exceed the DF=5.
[12] Minimum Level (ML) is the lowest level at which the analytical system gives a recognizable signal and acceptable calibration point for the analyte. The ML represents the lowest concentration at which an analyte can be measured with a known level of confidence. The ML is calculated by multiplying the laboratory-determined method detection limit by 3.18 (see 40 CFR Part 136, Appendix B).
[13] pH sampling for compliance with permit limits may be performed using field methods as provided for in EPA test Method 150.1.
[14] Temperature sampling per Method 170.1

cle engineering

December 6, 2011

U.S. Environmental Protection Agency – Region 1
5 Post Office Square, Suite 100
Mail Code OEP06-4
Boston, MA 02109-3912

Attention: Remediation General Permit NOI Processing

RE: Notice of Intent
NPDES Remediation General Permit
Alford Street Bridge Repairs and Cable Installation
Mystic River crossing, Boston, Massachusetts

To Whom It May Concern:

CLE Engineering, Inc. (CLE) has prepared this Notice of Intent (NOI) on behalf of SPS New England Inc. (SPS) for coverage under the National Pollutant Discharge Elimination System (NPDES) Remediation General Permit (RGP). The completed NOI form is provided in Appendix A.

Project Description:

As part of the rehabilitation of the Alford Street Bridge across the Mystic River in Boston, the Massachusetts Department of Transportation (MassDOT) has included the replacement of submarine power and control cables with three (3) new 4" submarine cables. The site is shown in Figure 1. This replacement will be performed by SPS New England, Inc. (SPS). Three cables will be laid 10" apart in a common trench excavated to a minimum depth of -31.7' plus +/- 0.5' for the cables or 32.2' relative to NGVD29 datum. The proposed trench dimensions between the western ends of the existing bridge piers are approximately 2 feet wide, 160 feet long and 7.5 feet deep with unspecified slopes. BSC Group estimated that a volume of 1,200 cubic yards of sediment will be excavated with a clamshell bucket from a barge mounted crane and placed into barges for decanting and/or dewatering with water effluent controls. The fine grained dredged sediment with 36% to 43% passing the No. 200 Sieve and an average in-situ moisture content of 47.3%1, will be dewatered by decanting and/or siphoning free-clear water from the barges. The sediments will also be treated with cement (Portland I or II) until the moisture content meets the prescribed paint-filter test (14% moisture content) and no free liquid. SPS will sample dewatered sediment from each barge and have it analyzed in accordance to project specifications and environmental permits. Once the dewatered sediment has been deemed suitable for transport

[1] Based on sediment characterization data submitted with 401 WQC Application

CLE Engineering, Inc.
15 Creek Road
Marion, Massachusetts 02738
508/748 0937• 508/748-1363

Offices:
Boston, San Francisco,
and Los Angeles

www.CLEengineering.com

and disposal, the sediment will be unloaded from the barges, placed into sealed trucks and transported to the designated disposal site (to be named).

Permits Issued:

The dredging and dewatering are authorized by the following permits:

1. US Army Corps of Engineers (USACE), #NAE-2009-1692
2. Department of Environmental Protection (DEP), 401 Water Quality Certification #X226081 dated July 13, 2009
3. DEP, 401 Water Quality Certification #X226081 Amendment 1, October 19, 2009

Dredging Operations

Dredging of the cable trench will be performed by SPS using a barge mounted crane with a clamshell bucket and/or an excavator to excavate the trench to the specified minimum depth of -32.2' relative to NGVD29 between the western ends of the existing bridge piers. A silt curtain will be deployed around the dredge area. The curtain will be a pre-assembled system including a geotextile, floatation system, bottom weight, and anchoring and securing mechanism. The bottom weight will be sufficient to hold the curtain in a vertical position. (See attached cut sheets.)

Dewatering Operations

All personnel who will come into contact with sediment dewatering operations shall at a minimum utilize OSHA Level D Personal Protection Equipment (PPE).

All transfer of dredged sediment from the dredging of the trench through the dewatering process and eventual delivery to the designated disposal site shall be recorded with a DEP Dredge Material Tracking Form (DMTF) or DEP Material Shipping Record (MSR) as required in the project specifications and Condition #10 of the 401 WQC.

Dredge Materials will be loaded onto either hopper barges or deck barges with watertight combing and delivered to the SPS dock located at the head of the Island End River. In accordance with 314 CMR 9.07(5)(f), the Contractor will request written approval from DEP prior to utilizing deck barges with watertight combing.

The dredged materials on either hopper barges or deck barges will be delivered to the SPS dock located at the head of the Island End River. Once the barge has been secured to the dock, SPS will complete the following dewatering operations:

1. Allow turbid sediment to precipitate out of solution for a maximum of three (3) days.
2. Free water will be siphoned and/or decanted through an approved filter fabric prior to controlled discharge into tanks or equivalent storage facility in accordance to the project specifications (Item 814) and permits.
3. In accordance with Specification Item 814, Contractor will sample the dewatering fluid effluent to evaluate water quality. One (1) water quality test will be performed for the effluent from each barge. Turnaround time for laboratory analytical data is anticipated to be two working days.
    a. If the effluent is suitable for direct discharge into the river in accordance with 314 CMR 4.00 Massachusetts Surface Water Quality Standards, the effluent will be discharged into the Island End River.
    b. If the free water is not suitable for direct discharge into the river, the effluent will be treated through a suitable treatment unit to the required water quality standards and then discharged into the Island End River.
4. Once the free water has been removed from the barge, SPS will mix in a thickening agent in such quantity as necessary up to the stated 25% limit by volume of the material being solidified. The specific thickening agent will be dependent on the properties of the dredge material, once dewatered. Possible thickening agents include, cement, lime, diatomaceous earth, and quarry dust. The thickening agent will be delivered to the SPS dock facility by truck, placed onto the barge and then mixed using a backhoe until the sediment moisture content passes the filter paint test (14% moisture content). The dewatered sediment will be placed on sealed trucks for transport to the designated disposal site.

Additional information on the dredging, transport and dewatering operations is provided in Appendix B

Discharge and Receiving Surface Water Information

As directed by Item 814 of the contract specifications, a sample of the dewatering fluid effluent will be collected and analyzed in order to develop the type treatment (if any) required to avoid violations of the anti-degradation provisions of the Massachusetts Surface Water Quality Standards. As required of discharges to Class SB Waters, the discharge shall not exceed the limitations for dissolved oxygen, temperature, pH, solids, color and turbidity, oil and grease, taste and odor as described in 314 CMR 4.05(4)(b).

Sediment Characterization

As required by the 401 Water Quality Certification, sediment samples were obtained from the dredge footprint for physical and chemical analysis. The results are summarized and compared to the Massachusetts Contingency Plan (MCP) Reportable Concentrations for Soil – 1/ Groundwater – 1 sites (Appendix C). A number of total metals, semi volatile organics, polynuclear aromatic hydrocarbons and extractable petroleum hydrocarbons were detected at concentrations above the reportable concentrations for Soil – 1/Groundwater -1 sites; which are likely below the background concentrations in the Island End River receiving waters.

Rare Species Review

The project was reviewed by the Massachusetts Division of Fisheries and Wildlife, Natural Heritage and Endangered Species Program (NHESP). As indicated in the letter from NHESP issued to the MassDOT on May 7, 2009, a taking of the rare species Common Tern will be avoided provided the abandoned pier immediately adjacent to the northbound travel lane is not altered, destroyed or damaged during any phase of construction (Appendix D). The dredging operation will not affect the referenced pier.

Coverage Under NPDES RGP

CLE is of the opinion that the proposed discharge is eligible for coverage under the NPDES RGP. Therefore CLE requests coverage under the NPDES RGP on behalf of its client, SPS New England, Inc. for the discharge of dewatering effluent associated with the dredging required for the submarine cable installation at the Alford Street Bridge in Boston, Massachusetts. As the contractor for the project, SPS is the Operator of the site and has operational control over the construction project.

Please contact me with any questions.

Very truly yours,
CLE Engineering, Inc.

Jeffrey W. Oakes

Jeffrey Oakes, P.E.
Senior Project Manager
Enc.
Cc SPS New England, Inc.

FIGURE 1
SITE LOCUS
ALFORD STREET BRIDGE
BOSTON, MASSACHUSETTS

Google earth

feet 3000

km 1

APPENDIX A
NOTICE OF INTENT FORM
REMEDIAL GENERAL PERMIT
ALFORD STREET BRIDGE
BOSTON, MASSACHUSETTS

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

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

a) Name of **facility/site**: Alford Street Bridge		**Facility/site** mailing address:		
Location of **facility/site**: longitude: 74d 04' 16.3" W latitude: 42d 23' 23" N	Facility SIC code(s):	Street: Alford Street Bridge over the Mystic River		
b) Name of **facility/site owner:**		Town: Boston		
Email address of facility/site owner:		State: Massachusetts	Zip: 02116	County: Suffolk
Telephone no. of facility/site **owner**: (617) 973-7000				
Fax no. of facility/site **owner**: (617) 973-8031		**Owner** is (check one): 1. Federal ○ 2. State/Tribal ⊙ 3. Private ○ 4. Other ○ if so, describe:		
Address of **owner** (if different from site):		Massachusetts Department of Transportation - Highway Division MDOT #62665		
Street: 10 Park Plaza, Suite 3170				
Town: Boston	State: MA	Zip: 02116	County: Suffolk	
c) Legal name of **operator**:		**Operator** telephone no: (978) 462-6543		
SPS New England, Inc.		**Operator** fax no.: (978) 462-0345	**Operator** email: bczerepak@spsne.com	
Operator contact name and title: William Czerepak				
Address of **operator** (if different from owner):	Street: 98 Elm Street			
Town: Salisbury	State: MA	Zip: 01952	County: Essex	

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

e) Is site/facility subject to any State permitting, license, or other action which is causing the generation of discharge? Y ◉ N ○
If Y, please list:
1. site identification # assigned by the state of NH or MA: MA Water Quality Certification, Alford Street Bridge Rehabilitation, Boston
2. permit or license # assigned: WQC Transmittal # X226081
3. state agency contact information: name, location, and telephone number:

Ken Chin
Massachusetts Department of Environmental Protection
1 Winter Street, Boston, MA 02108 (617) 292-5893

f) Is the site/facility covered by any other EPA permit, including:
1. Multi-Sector General Permit? Y ○ N ◉,
if Y, number:
2. Final Dewatering General Permit? Y ○ N ◉,
if Y, number:
3. EPA Construction General Permit? Y ◉ N ○,
if Y, number: MAR10DL32
4. Individual NPDES permit? Y ○ N ◉,
if Y, number:
5. any other water quality related individual or general permit? Y ○
N ◉, if Y, number:

g) Is the site/facility located within or does it discharge to an Area of Critical Environmental Concern (ACEC)? Y ○ N ◉

h) Based on the facility/site information and any historical sampling data, identify the sub-category into which the potential discharge falls.

Activity Category	**Activity Sub-Category**
I - Petroleum Related Site Remediation	A. Gasoline Only Sites ☐ B. Fuel Oils and Other Oil Sites (including Residential Non-Business Remediation Discharges) ☐ C. Petroleum Sites with Additional Contamination ☐
II - Non Petroleum Site Remediation	A. Volatile Organic Compound (VOC) Only Sites ☐ B. VOC Sites with Additional Contamination ☐ C. Primarily Heavy Metal Sites ☐
III - Contaminated Construction Dewatering	A. General Urban Fill Sites ☒ B. Known Contaminated Sites ☐

IV - Miscellaneous Related Discharges	A. Aquifer Pump Testing to Evaluate Formerly Contaminated Sites ☐ B. Well Development/Rehabilitation at Contaminated/Formerly Contaminated Sites ☐ C. Hydrostatic Testing of Pipelines and Tanks ☐ D. Long-Term Remediation of Contaminated Sumps and Dikes ☐ E. Short-term Contaminated Dredging Drain Back Waters (if not covered by 401/404 permit) ☐

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

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

Dredge material will be deposited into barges for delivery to the SPS dock located at the head of the Island End River. Free water will be discharged through a treatment system and tested to determine suitability for return to the Island End River. See attached application.

b) Provide the following information about each discharge:

1) Number of discharge points: 1 at SPS dock

2) What is the **maximum** and **average flow rate** of discharge (in cubic feet per second, ft^3/s)?
Max. flow: 0.31 cfs Is maximum flow a **design value**? Y ○ N ◉
Average flow (include units): < 0.31 cfs Is average flow a design value or estimate? estimate

3) Latitude and longitude of each discharge within 100 feet:
pt.1: lat. 42d 23.463' N long. 71d 3.154' W pt.2: lat. _____ long. _____;
pt.3: lat. _____ long. _____ pt.4: lat. _____ long. _____;
pt.5: lat. _____ long. _____ pt.6: lat. _____ long. _____;
pt.7: lat. _____ long. _____ pt.8: lat. _____ long. _____; etc.

4) If hydrostatic testing, total volume of the discharge (gals): N/A

5) Is the discharge intermittent ◉ or seasonal ○?
Is discharge ongoing? Y ○ N ◉

c) Expected dates of discharge (mm/dd/yy): start: December 12, 2011 end: January 31, 2012

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).

See attached description and drawings in the application. The estimated through put rate of <140 gpm is based on filter bag limitation.

3. Contaminant information.

a) Based on the sub-category selected (see Appendix III), indicate whether each listed chemical is **believed present** or **believed absent** in the potential discharge. Attach additional sheets as needed.

Parameter *	CAS Number	Believed Absent	Believed Present	# of Samples	Sample Type (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)
1. Total Suspended Solids (TSS)		☐	☐								
2. Total Residual Chlorine (TRC)		☐	☐								
3. Total Petroleum Hydrocarbons (TPH)		☐	☐								
4. Cyanide (CN)	57125	☐	☐								
5. Benzene (B)	71432	☐	☐								
6. Toluene (T)	108883	☐	☐								
7. Ethylbenzene (E)	100414	☐	☐								
8. (m,p,o) Xylenes (X)	108883; 106423; 95476; 1330207	☐	☐								
9. Total BTEX [2]	n/a	☐	☐								
10. Ethylene Dibromide (EDB) (1,2-Dibromoethane) [3]	106934	☐	☐								
11. Methyl-tert-Butyl Ether (MtBE)	1634044	☐	☐								
12. tert-Butyl Alcohol (TBA) (Tertiary-Butanol)	75650	☐	☐								

***** Numbering system is provided to allow cross-referencing to Effluent Limits and Monitoring Requirements by Sub-Category included in Appendix III, as well as the Test Methods and Minimum Levels associated with each parameter provided in Appendix VI.

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

[3] EDB is a groundwater contaminant at fuel spill and pesticide application sites in New England.

Parameter *	CAS Number	Believed Absent	Believed Present	# of Samples	Sample Type (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)
13. tert-Amyl Methyl Ether (TAME)	9940508	☐	☐								
14. Naphthalene	91203	☐	☐								
15. Carbon Tetrachloride	56235	☐	☐								
16. 1,2 Dichlorobenzene (o-DCB)	95501	☐	☐								
17. 1,3 Dichlorobenzene (m-DCB)	541731	☐	☐								
18. 1,4 Dichlorobenzene (p-DCB)	106467	☐	☐								
18a. Total dichlorobenzene		☐	☐								
19. 1,1 Dichloroethane (DCA)	75343	☐	☐								
20. 1,2 Dichloroethane (DCA)	107062	☐	☐								
21. 1,1 Dichloroethene (DCE)	75354	☐	☐								
22. cis-1,2 Dichloroethene (DCE)	156592	☐	☐								
23. Methylene Chloride	75092	☐	☐								
24. Tetrachloroethene (PCE)	127184	☐	☐								
25. 1,1,1 Trichloro-ethane (TCA)	71556	☐	☐								
26. 1,1,2 Trichloro-ethane (TCA)	79005	☐	☐								
27. Trichloroethene (TCE)	79016	☐	☐								

Parameter *	CAS Number	Believed Absent	Believed Present	# of Samples	Sample Type (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)
28. Vinyl Chloride (Chloroethene)	75014	☐	☐								
29. Acetone	67641	☐	☐								
30. 1,4 Dioxane	123911	☐	☐								
31. Total Phenols	108952	☐	☐								
32. Pentachlorophenol (PCP)	87865	☐	☐								
33. Total Phthalates (Phthalate esters) [4]		☐	☐								
34. Bis (2-Ethylhexyl) Phthalate [Di-(ethylhexyl) Phthalate]	117817	☐	☐								
35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)		☐	☐								
a. Benzo(a) Anthracene	56553	☐	☐								
b. Benzo(a) Pyrene	50328	☐	☐								
c. Benzo(b)Fluoranthene	205992	☐	☐								
d. Benzo(k)Fluoranthene	207089	☐	☐								
e. Chrysene	21801	☐	☐								
f. Dibenzo(a,h)anthracene	53703	☐	☐								
g. Indeno(1,2,3-cd) Pyrene	193395	☐	☐								
36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)		☐	☐								

[4] The sum of individual phthalate compounds.

Parameter *	CAS Number	Believed Absent	Believed Present	# of Samples	Sample Type (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)
h. Acenaphthene	83329	☐	☐								
i. Acenaphthylene	208968	☐	☐								
j. Anthracene	120127	☐	☐								
k. Benzo(ghi) Perylene	191242	☐	☐								
l. Fluoranthene	206440	☐	☐								
m. Fluorene	86737	☐	☐								
n. Naphthalene	91203	☐	☐								
o. Phenanthrene	85018	☐	☐								
p. Pyrene	129000	☐	☐								
37. Total Polychlorinated Biphenyls (PCBs)	85687; 84742; 117840; 84662; 131113; 117817.	☐	☐								
38. Chloride	16887006	☐	☐								
39. Antimony	7440360	☐	☐								
40. Arsenic	7440382	☐	☐								
41. Cadmium	7440439	☐	☐								
42. Chromium III (trivalent)	16065831	☐	☐								
43. Chromium VI (hexavalent)	18540299	☐	☐								
44. Copper	7440508	☐	☐								
45. Lead	7439921	☐	☐								
46. Mercury	7439976	☐	☐								
47. Nickel	7440020	☐	☐								
48. Selenium	7782492	☐	☐								
49. Silver	7440224	☐	☐								
50. Zinc	7440666	☐	☐								
51. Iron	7439896	☐	☐								
Other (describe):		☐	☐								

Parameter *	CAS Number	Believed Absent	Believed Present	# of Samples	Sample Type (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)
		☐	☐								
		☐	☐								

b) For discharges where **metals** are believed present, please fill out the following (attach results of any calculations):

Step 1: Do any of the metals in the influent exceed the effluent limits in Appendix III (i.e., the limits set at zero dilution)? Y_○_ N_○_	If yes, which metals?
Step 2: For any metals which 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? Metal: _____ DF: _____ Metal: _____ DF: _____ Metal: _____ DF: _____ Metal: _____ DF: _____ Etc.	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 Y, list which metals:

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 description and plans in the application.

b) Identify each applicable treatment unit (check all that apply):	Frac. tank ☒	Air stripper ☐	Oil/water separator ☐	Equalization tanks ☐	Bag filter ☒	GAC filter ☐
	Chlorination ☐	De-chlorination ☐	Other (please describe):	Media filter as required		

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 <140 gpm Maximum flow rate of treatment system 140 gpm
Design flow rate of treatment system <140 gpm

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

No additives, the filter media will be selected based on the effluent characteristics.

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

a) Identify the discharge pathway:	Direct to receiving water ☒	Within facility (sewer) ☐	Storm drain ☐	Wetlands ☐	Other (describe):

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

See attached application. The effluent will pass through the treatment system and be tested for compliance prior to discharge to the Island End River.

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 SB (CSO)

e) Provide the reported or calculated seven day-ten year low flow (7Q10) of the receiving water N/A cfs
Please attach any calculation sheets used to support stream flow and dilution calculations.

f) Is the receiving water a listed 303(d) water quality impaired or limited water? Y ○ N ◉ If yes, for which pollutant(s)?

Is there a final TMDL? Y ○ N ○ If yes, for which pollutant(s)? N/A

6. ESA and NHPA Eligibility.

Please provide the following information according to requirements of Permit Parts I.A.4 and I.A.5 Appendices II and VII.

a) Using the instructions in Appendix VII and information on Appendix II, under which criterion listed in Part I.C are you eligible for coverage under this general permit?

A ○ B ◉ C ○ D ○ E ○ F ○

b) If you selected Criterion D or F, has consultation with the federal services been completed? Y ○ N ○ Underway ○

c) If consultation with U.S. Fish and Wildlife Service and/or NOAA Fisheries Service was completed, was a written concurrence finding that the discharge is "not likely to adversely affect" listed species or critical habitat received? Y ○ N ○

d) Attach documentation of ESA eligibility as described in the NOI instructions and required by Appendix VII, Part I.C, Step 4.

e) Using the instructions in Appendix VII, under which criterion listed in Part II.C are you eligible for coverage under this general permit?

1 ◉ 2 ○ 3 ○

f) If Criterion 3 was selected, attach all written correspondence with the State or Tribal historic preservation officers, including any terms and conditions that outline measures the applicant must follow to mitigate or prevent adverse effects due to activities regulated by the RGP.

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.

The Department of the Army, New England District Permit Number NAE-2009-1692 is considered by the applicant to complete the ESA Section 7 Review. Additionally the Massachusetts Division of Fisheries and Wildlife, Natural Heritage and Endangered Species Program File No. 05-17188 stated in a letter dated May 7, 2009 that no taking of Common Tern would occur provided that the abandoned pier identified as habitat is not destroyed.

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: ALFORD STREET BRIDGE

Operator signature:

Printed Name &Title: WILLIAM CZEREPAK, PROJECT MANAGER SPS NEW ENGLAND INC.

Date: 12/8/11

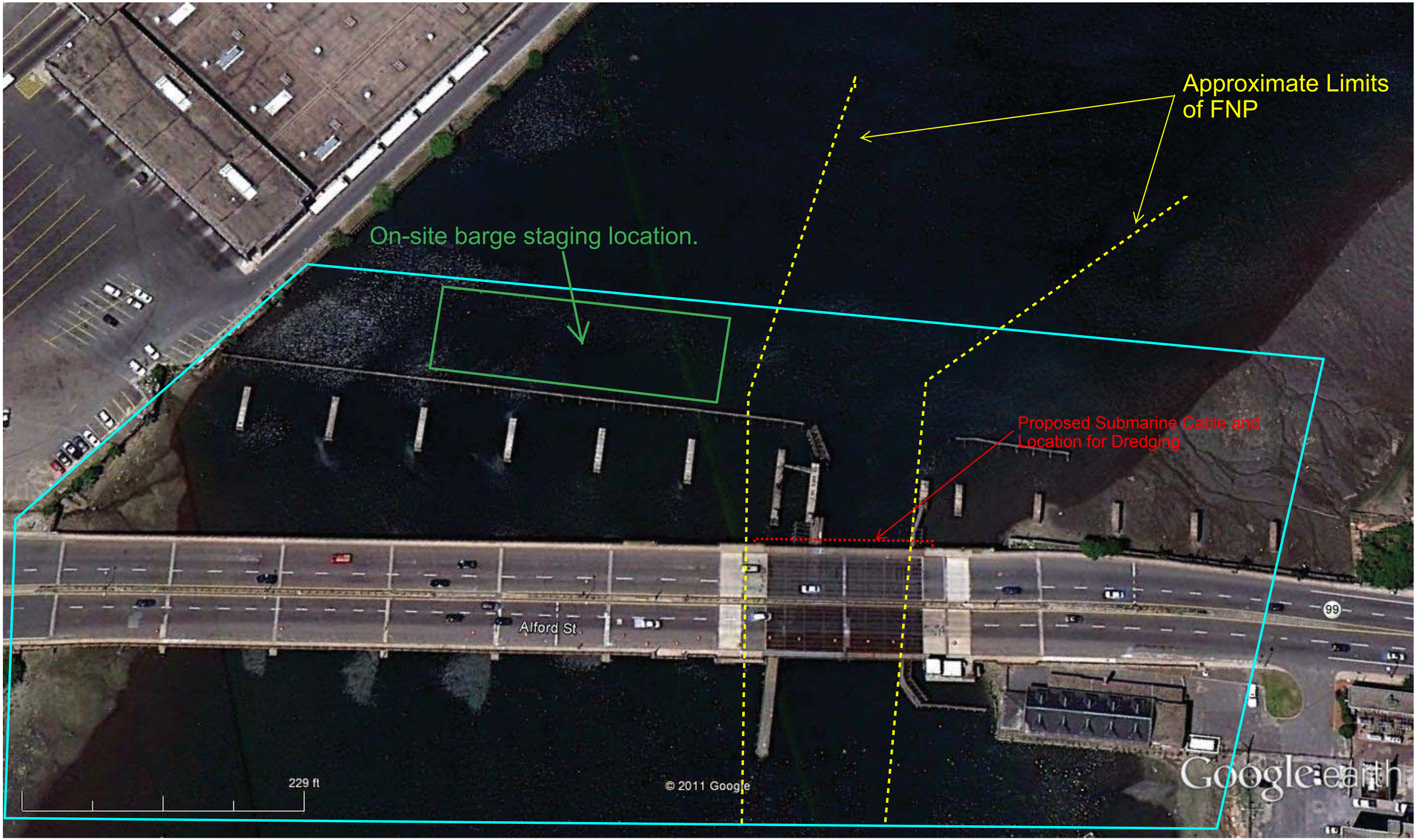
APPENDIX B
DEWATERING DETAILS
REMEDIAL GENERAL PERMIT
ALFORD STREET BRIDGE
BOSTON, MASSACHUSETTS

Dredging Operation Drawings:

Plan Views

Contract Drawings

Typical Dredging Set-up



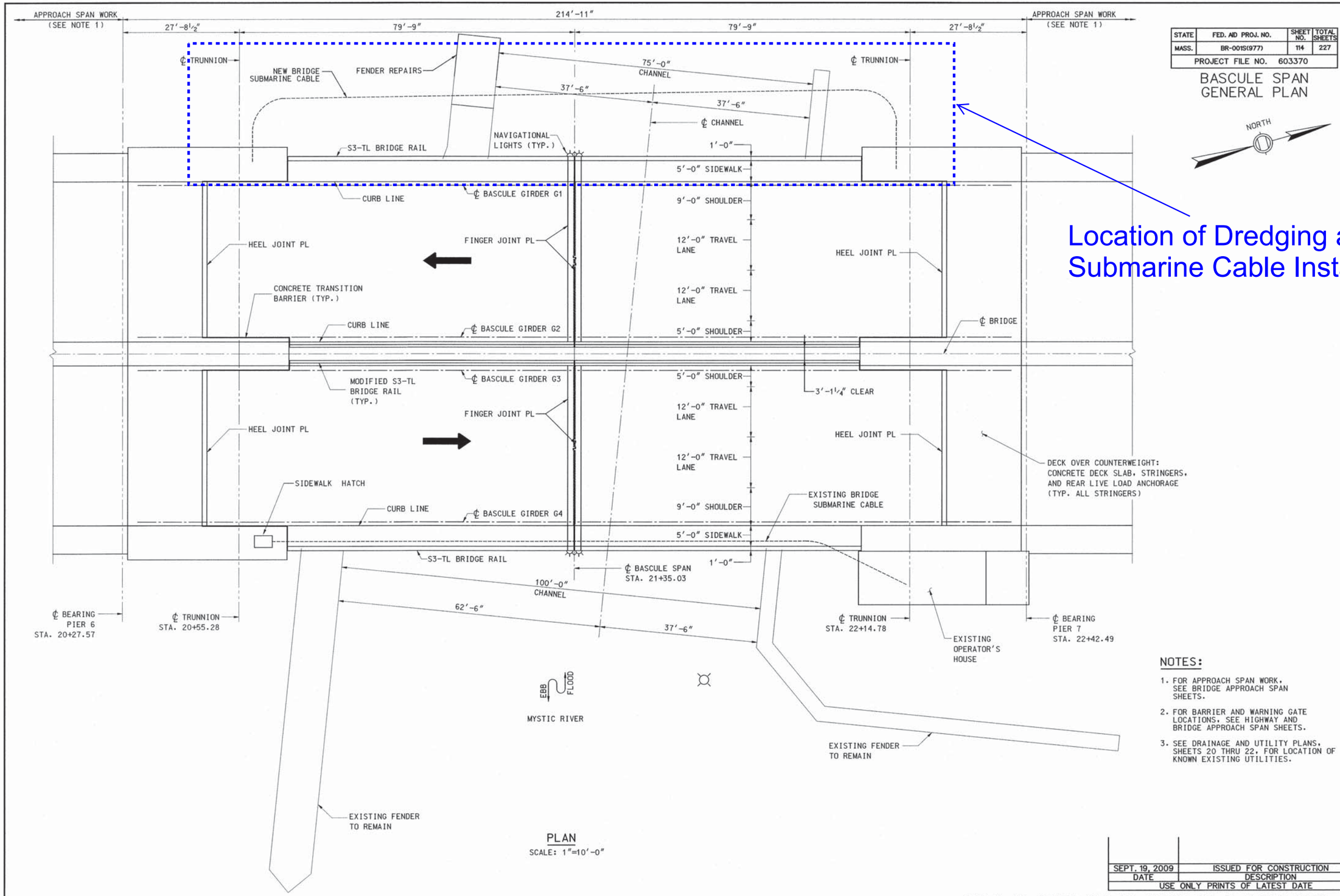
Google earth

feet 500

meters 100

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	BR-001S(977)	114	227
PROJECT FILE NO. 603370			

BASCULE SPAN GENERAL PLAN



Location of Dredging and Submarine Cable Installation

PLAN

SCALE: 1″=10′-0″

NOTES:

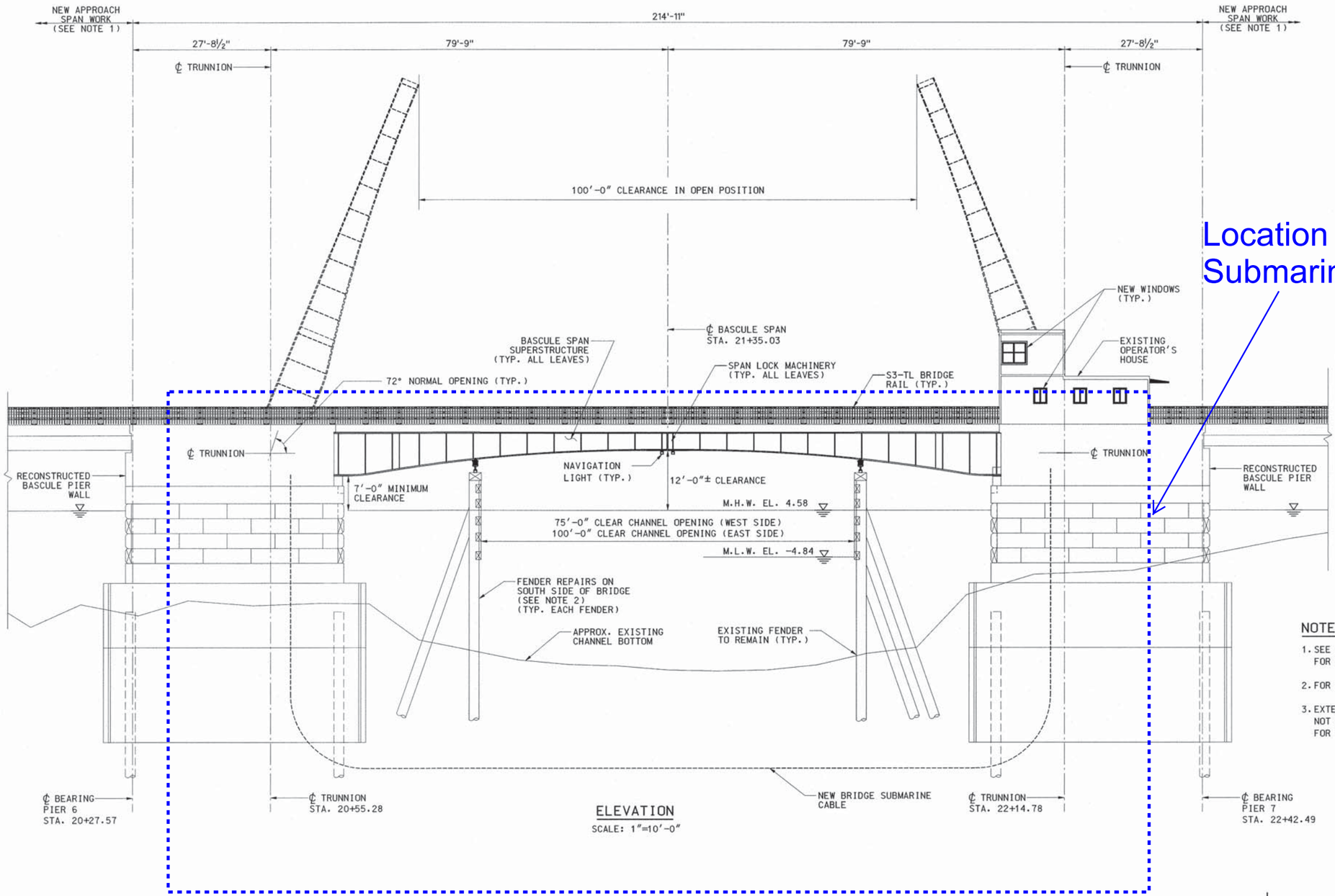
1. FOR APPROACH SPAN WORK, SEE BRIDGE APPROACH SPAN SHEETS.
2. FOR BARRIER AND WARNING GATE LOCATIONS, SEE HIGHWAY AND BRIDGE APPROACH SPAN SHEETS.
3. SEE DRAINAGE AND UTILITY PLANS, SHEETS 20 THRU 22, FOR LOCATION OF KNOWN EXISTING UTILITIES.

DATE	DESCRIPTION
SEPT. 19, 2009	ISSUED FOR CONSTRUCTION
USE ONLY PRINTS OF LATEST DATE	

g:\2099\STRUCTURALS_GP001.dgn
12/7/2009

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	BR-001S(977)	115	227
PROJECT FILE NO. 603370			

BASCULE SPAN GENERAL ELEVATION



ELEVATION

SCALE: 1"=10'-0"

Location of Dredging and Submarine Cable Installation

NOTES:

1. SEE GENERAL PLAN, BRIDGE SHEET 69, FOR NOTES.
2. FOR FENDER DETAILS SEE BRIDGE SHEET 71.
3. EXTERIOR ACCESS PLATFORM FOR MBTA UTILITY NOT SHOWN. SEE BRIDGE SHEETS 45 AND 110 FOR LOCATIONS AND DETAILS.

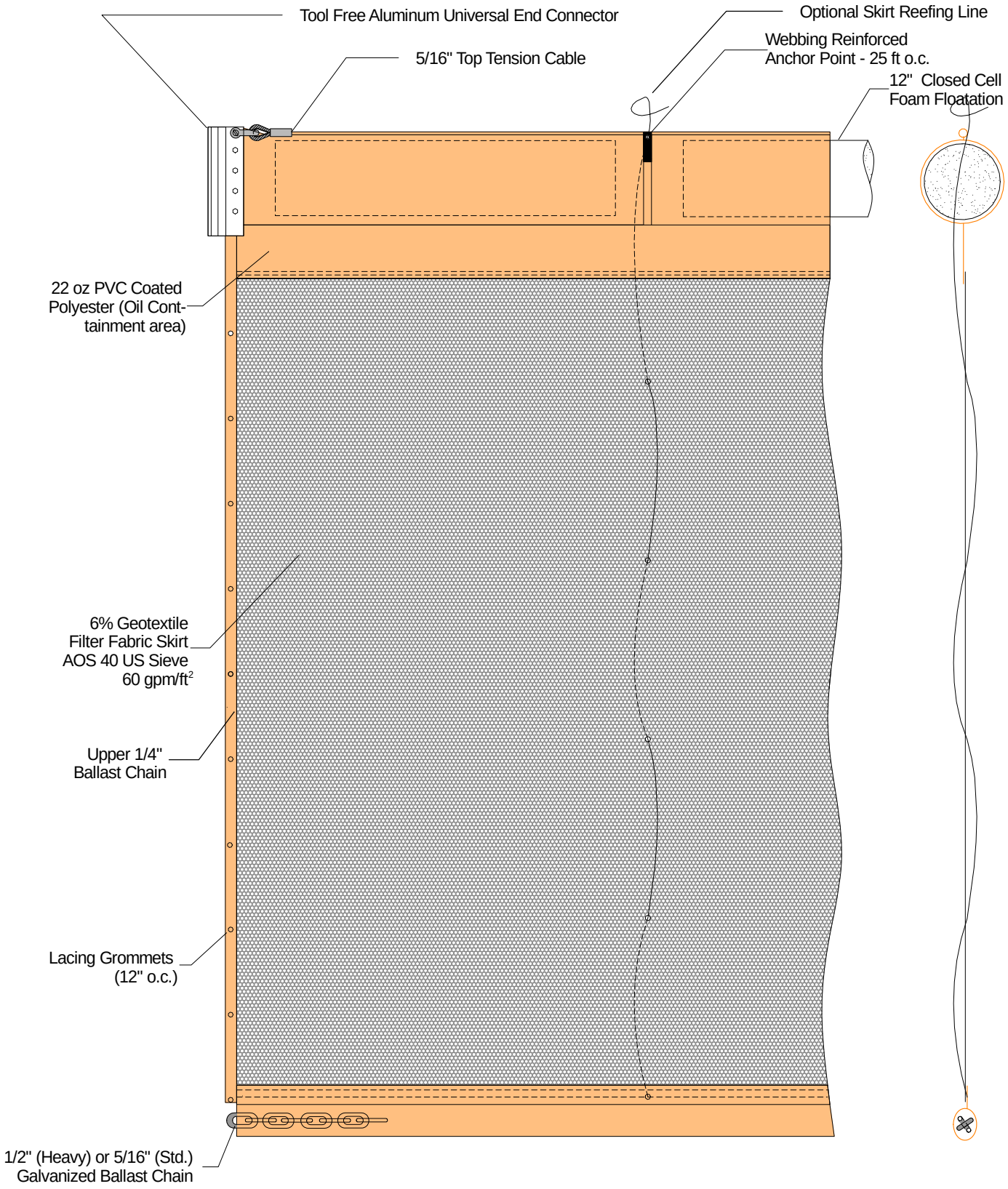
DATE	DESCRIPTION
SEPT. 19, 2009	ISSUED FOR CONSTRUCTION
USE ONLY PRINTS OF LATEST DATE	

12/7/2009 g:\2099\STRUCTURAL\S_GP002.dgn

Silt Curtain Information

Typical details shown.

Silt Curtain to be Brockton Equipment/SpillDam, Inc. SiltDam Type II Curtain or equivalent.



SILTDAM TYPE II, SEMI-PERMEABLE TURBIDITY BARRIER DETAIL WITH INTERMEDIATE BALLAST CHAIN AND SKIRT REEFING LINES

BROCKTON EQUIPMENT/SPILLDAM, INC.
P.O. Box 960, Brockton MA 02303
800-699-2374 Fax 508-583-5231
www.spilldam.com

PROJECT: SPS New England, Alford Street Bridge
Submarine Cable Trench

LOCATION: Boston, MA

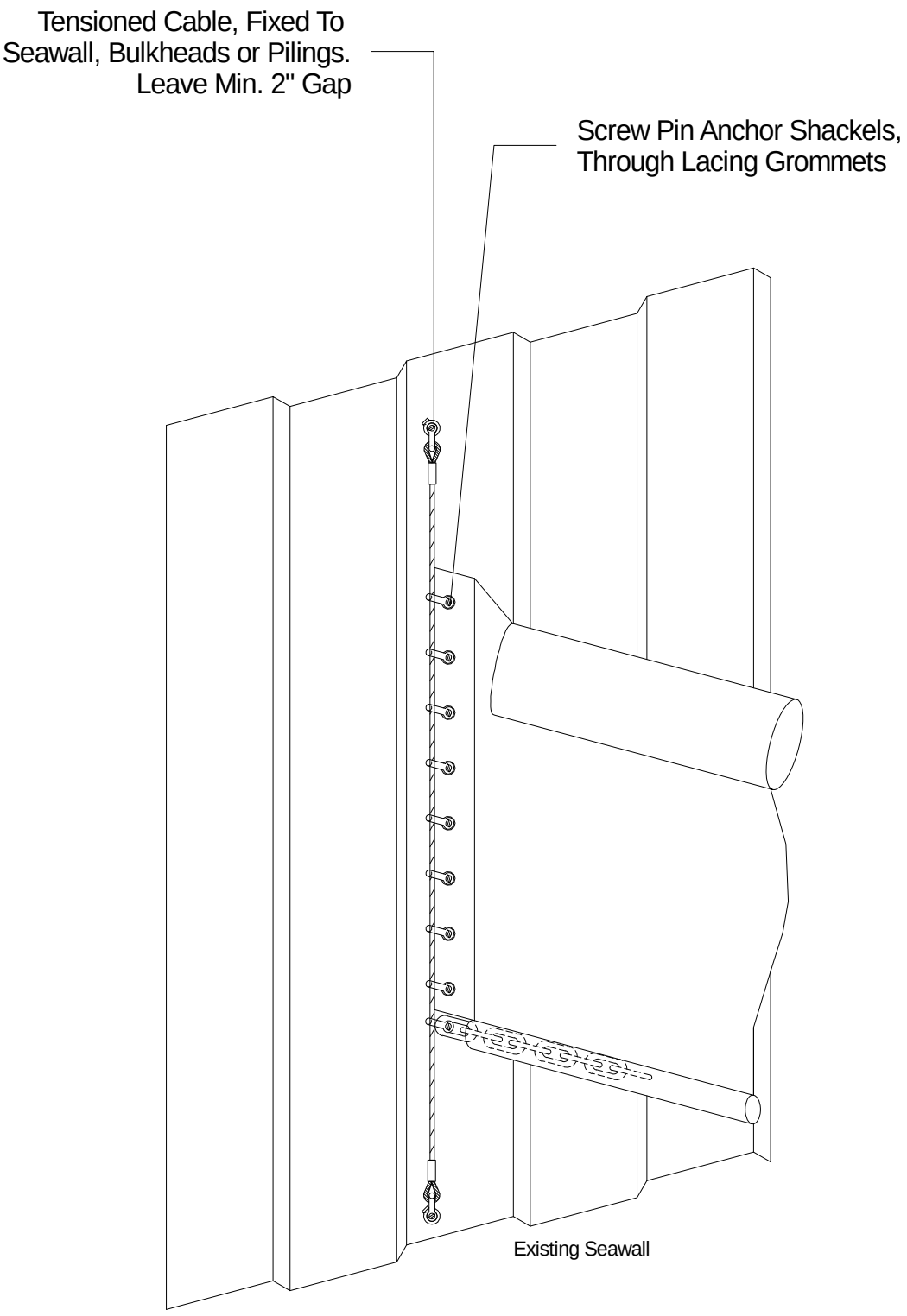
SHEET NO.:1 of 1

DATE: November 10, 2011

SCALE: Not To Scale

DRAWN BY: TJP

CABLE RISER FOR TURBIDITY BARRIER INSTALLATIONS



BROCKTON EQUIPMENT/SPILLDAM, INC.
P.O. Box 960, Brockton MA 02303
800-699-2374 Fax 508-583-5231
www.spilldam.com

PROJECT:

LOCATION:

SHEET NO.:

SCALE: Not To Scale

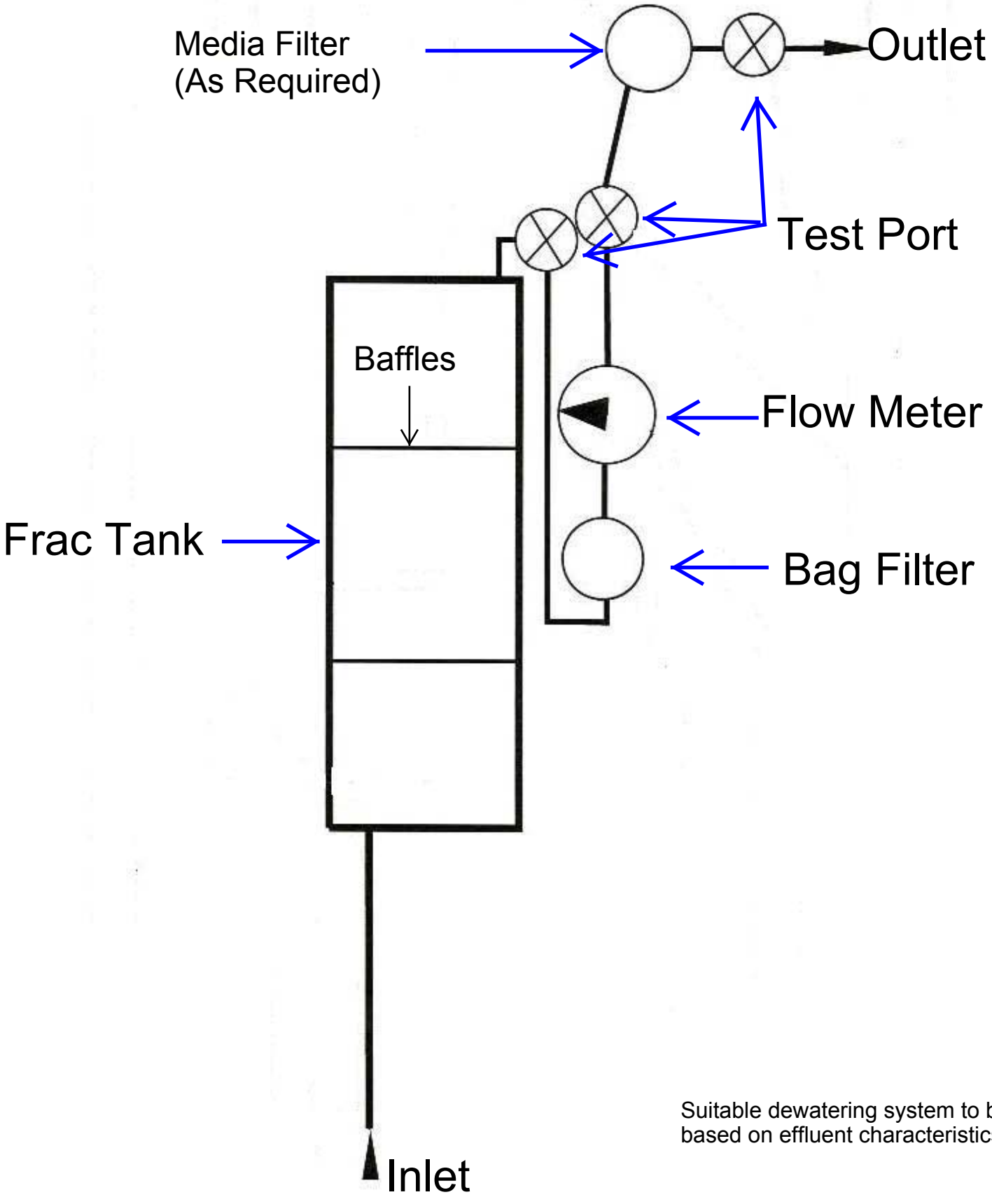
DATE:

DRAWN BY: TJP

Dewatering System

Typical details shown.

Typical Dewatering System



Suitable dewatering system to be based on effluent characteristics.

Frac Tank (Typ.)

PRODUCT DATA SHEET
July, 2008

230 BBL OPEN TOP TANK

GENERAL INFORMATION

This skid-mounted tank is designed to provide easy viewing of the contents. Very economical tank for smaller jobs or where space is a premium.

WEIGHTS AND MEASURES

» **Capacity:**	230 BBL. (9,660 gal.)
» **Height:**	8'-4" (overall) 8'-1" (tank only)
» **Width:**	8'-0"
» **Length:**	20'-0" (tank only) 21'-9" (end of skid)
» **Weight:**	7,000 lbs. (approx.)

STRUCTURAL DESIGN

» **Floor:**	¼" thick ASTM A36 carbon steel
» **Sides/Ends:**	¼" thick ASTM A36 carbon steel (smooth walls on exterior sides, structural framing on inside)
» **Floor Frame:**	4"x4" tubular steel (on external floor surface)
» **Internal Cross Bracing:**	(6) – Structural steel angle irons
» **Skid Runners:**	Pipe or structural tubing

FEATURES

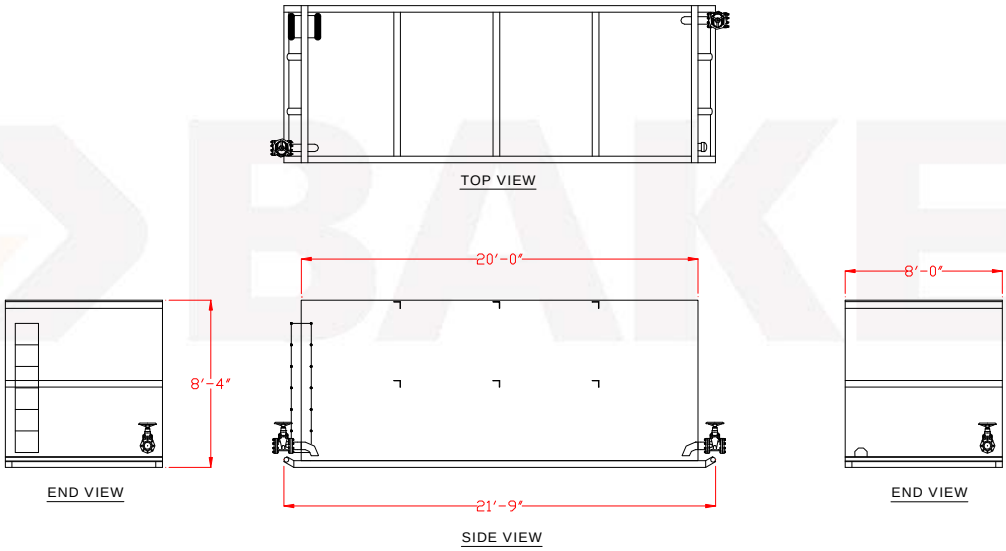
» **Manifold:**	None
» **Valves:**	2-4" gate valves, one on each end of tank
» **Top Access:**	Open top
» **Ladders:**	One inside, one outside, same end of tank
» **Drain Connection:**	One 4" capped nipple
» **Inlet Connection:**	One 4" capped nipple
» **Level Gauge:**	None

SURFACE DETAILS

» **Exterior Coating:**	High Gloss Polyurethane
» **Interior Coating:**	None
» **Placard Mounts:**	None

TESTS/CERTIFICATIONS

» **Test Performed:**	Construction/Major repairs – hydrotest Scheduled- Level I, II and III inspections



PRODUCT DATA SHEET

January, 2007

3" DUPLEX BAG FILTER SYSTEM

GENERAL INFORMATION

Two independent filter housings are skid-mounted and piped such that one filter unit is active while the other is out of service. Inlet and outlet connections are provided on each end of the skid. Use for filtering a wide range of industrial and commercial process fluids, groundwater discharge from construction sites, stormwater or urban runoff.

WEIGHTS AND MEASURES

» Capacity:	Up to 140 gpm per filter when clean (depends on filter media micron rating)
» Design Press:	150 psi
» Design Temp:	140°F max.*
» Height:	5'-0" (overall)
» Width :	3'-8"
» Length:	5'-0"
» Weight:	540 lbs. (approx.)

SKID DESIGN

» Outer Frame:	6 x 8.2 A36 carbon steel channel
» Inter. Frame:	3"x2 "x3/8" A36 carbon steel angle
» Filter Housing Pad:	¼" thk. Steel plate supported by 3x2x3/8 angle iron
» Forklift Pockets:	Through front and rear framing channels
» Cover:	Expanded metal grating
» Lifting Eyes:	All four corners

*Practical limit for the PVC header piping. Unit could be used up to 225°F if carbon steel piping is used instead.

FILTER DESIGN

» Filter Housing	Rosedale model 8-30-3F-2-150-C-B-S-PB
» Top Cover:	Three eyenuts; hinged for easy access
» Piping:	3" schedule 80 PVC (inlet and outlet headers)
» Inlet & Outlet:	3" 150# ANSI flanges
» Cover Seal:	Buna N (Nitrile) o-ring
» Housing Material:	Carbon Steel
» Filter Basket:	30" deep, 6.7" diameter, 4.4 sq. ft. surface area, 1000 cu. in. volume, 9/64" dia holes (51% open)
» Filter Media:	Filter bags, size #2. Wide range of micron ratings is available, down to 1.0.
» Vent Valves:	1/4" ball valve on top cover
» Drain Valves:	1" brass ball valve on the bottom of each housing

SURFACE DETAILS

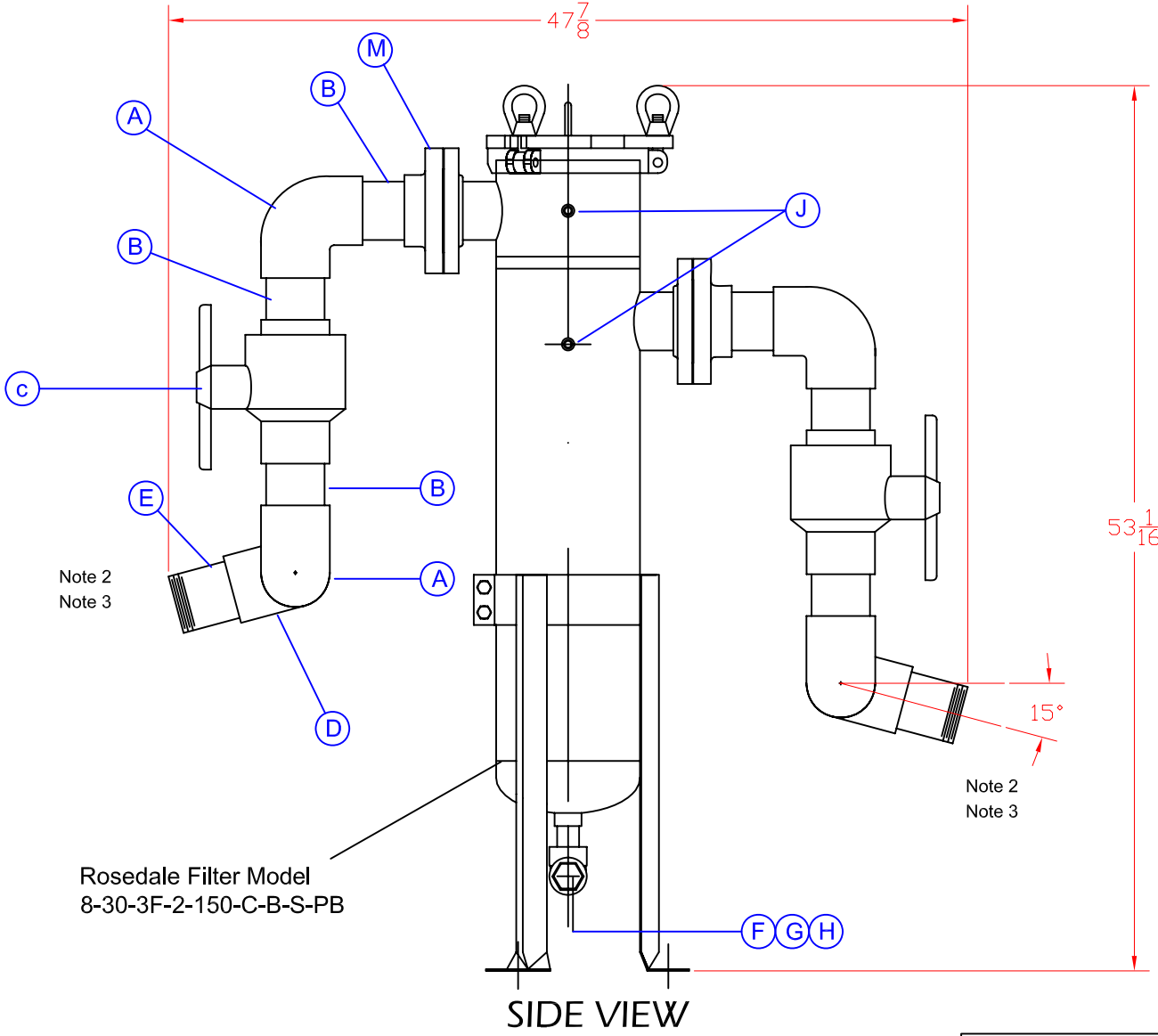
» Exterior Coating:	High gloss polyurethane

TESTS / CERTIFICATIONS

» Test Performed:	Scheduled QMS inspections

BAKERCORP™

3020 Old Ranch Parkway • Suite 220 • Seal Beach, CA • 562-430-6262



ITEM	DESCRIPTION
A	Elbow, 90 deg, 3" sch. 80 PVC, socket x socket, Spears 806-030
B	Pipe, 3", sch. 80, PVC, 6-1/4" long
C	Ball valve, 3" PVC, non-shock; Spears 2622-030
D	Tee, 3"x3"x3", sch. 80 PVC, socket ends; Spears 801-030
E	Adapter, 3" PVC, PE x MPT,YARDNEY 126553040
F	1" sch. 80 M.I. MNPTxMNPT pipe nipple, 2" long
G	1" 90 deg. elbow, NPTxNPT
H	1" brass ball valve, FNPTxFNPT; Parker Hannifin XV500P-16
J	Pressure gauge, 0-100 psi oil-filled, 2-1/2" dial
K	NOT USED
L	1/4" 600# WOG brass ball valve; Parker Hannifin XV500P-4
M	Flange, 3" sch. 80 PVC, socket; Spears 851-030

Bag Filter (Typ.)

Notes:
1. This is a general layout drawing only.
2. Tee should be rotated downward at an angle of 15-60 degrees to prevent strain on the piping when hose is connected to it.
3. A 3" female camlock fitting (not shown) will be attached to the adapter.

REV.	DESCRIPTION	DATE	BY
G			
F			
E			
D			
C			
B			
A			

BAKERCORP™ 3020 OLD RANCH PARKWAY SEAL BEACH, CA 90740-2751

SCALE: –	SIZE A	ORIGINAL DWG. DATE 18FEB05
DRAWN BY: P.J.B.	APPROVED BY: –	CAT/CLASS NA
TITLE: 3" BAG FILTER UNIT		SHEET 1 OF 1
DRAWING NO. S-9-M0018-1-		REV. 0

Media Filter (Typ.)

Filtration Systems

Specialty Media


Sand


Cartridge


Bag Filters


Bag/Cartridge Combo


Odor Control


10K Duplex Filter

SPECIALTY MEDIA FILTRATION

IDEAL USAGE

Environmental and industrial contaminant removal, liquid and vapor phase.

BENEFIT

Skid mounted for portability. Backwashing capabilities. Influent/ effluent gauges and sample ports.

PERFORMANCE

Capacity	Liquid: 10 gpm – 1000 gpm; Vapor: 120 cfm – 20,000 cfm
Pressure	Liquid: 0 psi – 75 psi; Vapor: 0 psi – 75 psi
Temperature	Liquid: Ambient to 150° F; Vapor: Ambient to 150° F
Filtration	Down to non-detect levels
Media Weight Range	Liquid: 100 lbs – 20,000 lbs; Vapor: 100 lbs – 20,000 lbs
Height Range	Liquid: 30" – 190"; Vapor: 30" – 168"
Width/Diameter Range	19" – 120"
Length Range	Skid units available. Call for details.
Equipment Weight Range	45 lbs up. Contact BakerCorp.

FEATURES

Type of Media Used	Granular activated carbon, ion exchange resin, zeolite, organoclay.
Material of Construction	Carbon steel with epoxy coating on interior surfaces. Some models available in polyethylene.
Options	Vapor phase units available in deep bed and radial flow design.

APPLICATION PHOTOS

PRODUCT LINE

Click products below to download pdf's of product specifications.

Vapor Phase

Liquid Phase

Specialty Media

Filter Media

REQUEST A QUOTE

*Type of Media used will be based on effluent characteristics.

APPENDIX C
SEDIMENT SAMPLE ANALYSIS
REMEDIAL GENERAL PERMIT
ALFORD STREET BRIDGE
BOSTON, MASSACHUSETTS

Alford Street Bridge
Boston, Massachusetts

Sample Results Comparison with MCP S1/GW-1 Criteria.										
SAMPLING DATE			VC-1 04-NOV-11		VC-2 04-NOV-11		VC-3 04-NOV-11		VC-4 04-NOV-11	
LAB SAMPLE ID	S1/G1-08	Units	L1118366-01	Qual	L1118366-02	Qual	L1118366-03	Qual	L1118366-04	Qual
General Chemistry - Westborough Lab										
Specific Conductance		umhos/cm	2300		3900		3400		2200	
General Chemistry - Mansfield Lab										
Solids, Total		%	67.8		36		50.2		63	
General Chemistry - Westborough Lab										
Solids, Total Volatile		%	3.6		11		12		4.1	
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)		%	1.43		3.32		3.61		1.8	
Total Organic Carbon (Rep2)		%	1.32		3.14		3.59		1.83	
Grain Size Analysis - Mansfield Lab										
Cobbles		%	0.1	U	0.1	U	0.1	U	0.1	U
% Coarse Gravel		%	0.1	U	0.1	U	0.1	U	1.16	
% Fine Gravel		%	8.1		5.81		18.2		12.9	
% Coarse Sand		%	12.5		18.9		27.5		12.8	
% Medium Sand		%	39.8		49.6		40.6		35.8	
% Fine Sand		%	37.9		23.6		12.8		35.8	
% Total Fines		%	1.66		2.06		0.96		1.5	
Total Metals - Mansfield Lab										
Arsenic, Total	20	mg/kg	11.8		63.7		27.3		9	
Barium, Total	1000	mg/kg	30.4		103		66.6		39.3	
Cadmium, Total	2	mg/kg	0.703		3.91		2.49		0.652	
Chromium, Total	30	mg/kg	38		207		152		51	
Copper, Total		mg/kg	66.4		395		242		76.8	
Lead, Total	300	mg/kg	163		495		281		86	
Mercury, Total	20	mg/kg	0.289		1.64		1.09		0.326	
Nickel, Total	20	mg/kg	19.8		66.7		70		21	
Selenium, Total	400	mg/kg	0.667		3.54		1.86		0.803	
Silver, Total	100	mg/kg	0.786		5.13		3.2		1.04	
Zinc, Total	2500	mg/kg	124		656		394		196	
Volatile Organics by GC/MS-5035 - Westborough Lab										
1,1,1,2-Tetrachloroethane	0.1	mg/kg			0.0023	U	0.0014	U		
1,1,1,2-Tetrachloroethane	0.1	mg/kg	0.0019	U	0.0023	U	0.0014	U	0.0006	U
1,1,1-Trichloroethane	30	mg/kg			0.0023	U	0.0014	U		
1,1,1-Trichloroethane	30	mg/kg	0.0019	U	0.0023	U	0.0014	U	0.0006	U
1,1,2,2-Tetrachloroethane	0.005	mg/kg			0.0023	U	0.0014	U		
1,1,2,2-Tetrachloroethane	0.005	mg/kg	0.0019	U	0.0023	U	0.0014	U	0.0006	U
1,1,2-Trichloroethane	0.1	mg/kg			0.0034	U	0.0021	U		
1,1,2-Trichloroethane	0.1	mg/kg	0.0029	U	0.0034	U	0.0021	U	0.0009	U
1,1-Dichloroethane	0.4	mg/kg			0.0034	U	0.0021	U		
1,1-Dichloroethane	0.4	mg/kg	0.0029	U	0.0034	U	0.0021	U	0.0009	U
1,1-Dichloroethene	3	mg/kg			0.0023	U	0.0014	U		
1,1-Dichloroethene	3	mg/kg	0.0019	U	0.0023	U	0.0014	U	0.0006	U
1,1-Dichloropropene		mg/kg			0.011	U	0.0069	U		
1,1-Dichloropropene		mg/kg	0.0097	U	0.011	U	0.0071	U	0.003	U
1,2,3-Trichlorobenzene		mg/kg			0.011	U	0.0069	U		
1,2,3-Trichlorobenzene		mg/kg	0.0097	U	0.011	U	0.0071	U	0.003	U
1,2,3-Trichloropropane		mg/kg			0.023	U	0.014	U		
1,2,3-Trichloropropane		mg/kg	0.019	U	0.023	U	0.014	U	0.006	U
1,2,4-Trichlorobenzene	2	mg/kg			0.011	U	0.0069	U		
1,2,4-Trichlorobenzene	2	mg/kg	0.0097	U	0.011	U	0.0071	U	0.003	U
1,2,4-Trimethylbenzene		mg/kg			0.013		0.0069	U		
1,2,4-Trimethylbenzene		mg/kg	0.0097	U	0.017		0.0071	U	0.003	U
1,2-Dibromo-3-chloropropane		mg/kg			0.011	U	0.0069	U		
1,2-Dibromo-3-chloropropane		mg/kg	0.0097	U	0.011	U	0.0071	U	0.003	U
1,2-Dibromoethane	0.1	mg/kg			0.0091	U	0.0055	U		

Sample Results Comparison with MCP S1/GW-1 Criteria.										
SAMPLING DATE			VC-1 04-NOV-11		VC-2 04-NOV-11		VC-3 04-NOV-11		VC-4 04-NOV-11	
LAB SAMPLE ID			L1118366-01		L1118366-02		L1118366-03		L1118366-04	
	S1/G1-08	Units		Qual		Qual		Qual		Qual
1,2-Dibromoethane	0.1	mg/kg	0.0078	U	0.0091	U	0.0057	U	0.0024	U
1,2-Dichlorobenzene	9	mg/kg			0.011	U	0.0069	U		
1,2-Dichlorobenzene	9	mg/kg	0.0097	U	0.011	U	0.0071	U	0.003	U
1,2-Dichloroethane	0.1	mg/kg			0.0023	U	0.0014	U		
1,2-Dichloroethane	0.1	mg/kg	0.0019	U	0.0023	U	0.0014	U	0.0006	U
1,2-Dichloropropane	0.1	mg/kg			0.008	U	0.0048	U		
1,2-Dichloropropane	0.1	mg/kg	0.0068	U	0.008	U	0.005	U	0.0021	U
1,3,5-Trimethylbenzene		mg/kg			0.011	U	0.0069	U		
1,3,5-Trimethylbenzene		mg/kg	0.0097	U	0.012		0.0071	U	0.003	U
1,3-Dichlorobenzene	1	mg/kg			0.011	U	0.0069	U		
1,3-Dichlorobenzene	1	mg/kg	0.0097	U	0.011	U	0.0071	U	0.003	U
1,3-Dichloropropane		mg/kg			0.011	U	0.0069	U		
1,3-Dichloropropane		mg/kg	0.0097	U	0.011	U	0.0071	U	0.003	U
1,4-Dichlorobenzene	0.7	mg/kg			0.011	U	0.0069	U		
1,4-Dichlorobenzene	0.7	mg/kg	0.0097	U	0.011	U	0.0071	U	0.003	U
1,4-Dichlorobutane		mg/kg			0.023	U	0.014	U		
1,4-Dichlorobutane		mg/kg	0.019	U	0.023	U	0.014	U	0.006	U
2,2-Dichloropropane		mg/kg			0.011	U	0.0069	U		
2,2-Dichloropropane		mg/kg	0.0097	U	0.011	U	0.0071	U	0.003	U
2-Butanone	4	mg/kg			0.031		0.037			
2-Butanone	4	mg/kg	0.019	U	0.09		0.048		0.0098	
2-Hexanone		mg/kg			0.023	U	0.014	U		
2-Hexanone		mg/kg	0.019	U	0.023	U	0.014	U	0.006	U
4-Methyl-2-pentanone	0.4	mg/kg			0.023	U	0.014	U		
4-Methyl-2-pentanone	0.4	mg/kg	0.019	U	0.023	U	0.014	U	0.006	U
Acetone	6	mg/kg			0.13		0.15			
Acetone	6	mg/kg	0.07	U	0.36		0.19		0.04	
Acrylonitrile		mg/kg			0.0091	U	0.0055	U		
Acrylonitrile		mg/kg	0.0078	U	0.0091	U	0.0057	U	0.0024	U
Benzene	2	mg/kg			0.0048		0.0014	U		
Benzene	2	mg/kg	0.0019	U	0.0052		0.0014	U	0.0006	U
Bromobenzene		mg/kg			0.011	U	0.0069	U		
Bromobenzene		mg/kg	0.0097	U	0.011	U	0.0071	U	0.003	U
Bromochloromethane		mg/kg			0.011	U	0.0069	U		
Bromochloromethane		mg/kg	0.0097	U	0.011	U	0.0071	U	0.003	U
Bromodichloromethane	0.1	mg/kg			0.0023	U	0.0014	U		
Bromodichloromethane	0.1	mg/kg	0.0019	U	0.0023	U	0.0014	U	0.0006	U
Bromoform	0.1	mg/kg			0.0091	U	0.0055	U		
Bromoform	0.1	mg/kg	0.0078	U	0.0091	U	0.0057	U	0.0024	U
Bromomethane	0.5	mg/kg			0.0046	U	0.0028	U		
Bromomethane	0.5	mg/kg	0.0039	U	0.0046	U	0.0028	U	0.0012	U
Carbon disulfide		mg/kg			0.023	U	0.014	U		
Carbon disulfide		mg/kg	0.019	U	0.023	U	0.022		0.006	U
Carbon tetrachloride	10	mg/kg			0.0023	U	0.0014	U		
Carbon tetrachloride	10	mg/kg	0.0019	U	0.0023	U	0.0014	U	0.0006	U
Chlorobenzene	1	mg/kg			0.0023	U	0.0014	U		
Chlorobenzene	1	mg/kg	0.0019	U	0.0023	U	0.0014	U	0.0006	U
Chloroethane		mg/kg			0.0046	U	0.0028	U		
Chloroethane		mg/kg	0.0039	U	0.0046	U	0.0028	U	0.0012	U
Chloroform	0.4	mg/kg			0.0034	U	0.0021	U		
Chloroform	0.4	mg/kg	0.0029	U	0.0034	U	0.0021	U	0.0009	U
Chloromethane		mg/kg			0.011	U	0.0069	U		
Chloromethane		mg/kg	0.0097	U	0.011	U	0.0071	U	0.003	U
cis-1,2-Dichloroethene	0.3	mg/kg			0.0023	U	0.0014	U		
cis-1,2-Dichloroethene	0.3	mg/kg	0.0019	U	0.0023	U	0.0014	U	0.0006	U
cis-1,3-Dichloropropene	0.01	mg/kg			0.0023	U	0.0014	U		
cis-1,3-Dichloropropene	0.01	mg/kg	0.0019	U	0.0023	U	0.0014	U	0.0006	U
Dibromochloromethane	0.005	mg/kg			0.0023	U	0.0014	U		
Dibromochloromethane	0.005	mg/kg	0.0019	U	0.0023	U	0.0014	U	0.0006	U
Dibromomethane		mg/kg			0.023	U	0.014	U		
Dibromomethane		mg/kg	0.019	U	0.023	U	0.014	U	0.006	U
Dichlorodifluoromethane		mg/kg			0.023	U	0.014	U		
Dichlorodifluoromethane		mg/kg	0.019	U	0.023	U	0.014	U	0.006	U

Sample Results Comparison with MCP S1/GW-1 Criteria.										
SAMPLING DATE			VC-1 04-NOV-11		VC-2 04-NOV-11		VC-3 04-NOV-11		VC-4 04-NOV-11	
LAB SAMPLE ID			L1118366-01		L1118366-02		L1118366-03		L1118366-04	
	S1/G1-08	Units		Qual		Qual		Qual		Qual
Ethyl ether		mg/kg			0.011	U	0.0069	U		
Ethyl ether		mg/kg	0.0097	U	0.011	U	0.0071	U	0.003	U
Ethyl methacrylate		mg/kg			0.023	U	0.014	U		
Ethyl methacrylate		mg/kg	0.019	U	0.023	U	0.014	U	0.006	U
Ethylbenzene	40	mg/kg			0.0048		0.0014	U		
Ethylbenzene	40	mg/kg	0.0019	U	0.0042		0.0014	U	0.0006	U
Hexachlorobutadiene	6	mg/kg			0.011	U	0.0069	U		
Hexachlorobutadiene	6	mg/kg	0.0097	U	0.011	U	0.0071	U	0.003	U
Isopropylbenzene		mg/kg			0.0057		0.0016			
Isopropylbenzene		mg/kg	0.0019	U	0.0061		0.0017		0.0006	U
Methyl tert butyl ether	0.1	mg/kg			0.0046	U	0.0028	U		
Methyl tert butyl ether	0.1	mg/kg	0.0039	U	0.0046	U	0.0028	U	0.0012	U
Methylene chloride	0.1	mg/kg			0.023	U	0.014	U		
Methylene chloride	0.1	mg/kg	0.019	U	0.023	U	0.014	U	0.006	U
n-Butylbenzene		mg/kg			0.0023	U	0.0014	U		
n-Butylbenzene		mg/kg	0.0019	U	0.0023	U	0.0014	U	0.0006	U
n-Propylbenzene		mg/kg			0.0023	U	0.0014	U		
n-Propylbenzene		mg/kg	0.0019	U	0.0023	U	0.0014	U	0.0006	U
Naphthalene	4	mg/kg			0.055		0.016			
Naphthalene	4	mg/kg	0.0097	U	0.12		0.018		0.003	U
o-Chlorotoluene		mg/kg			0.011	U	0.0069	U		
o-Chlorotoluene		mg/kg	0.0097	U	0.011	U	0.0071	U	0.003	U
o-Xylene	400	mg/kg			0.0068		0.0028	U		
o-Xylene	400	mg/kg	0.0039	U	0.0079		0.0028	U	0.0012	U
p-Chlorotoluene		mg/kg			0.011	U	0.0069	U		
p-Chlorotoluene		mg/kg	0.0097	U	0.011	U	0.0071	U	0.003	U
p-Isopropyltoluene		mg/kg			0.0025		0.0014	U		
p-Isopropyltoluene		mg/kg	0.0019	U	0.0026		0.0014	U	0.0006	U
p/m-Xylene	400	mg/kg			0.0056		0.0028	U		
p/m-Xylene	400	mg/kg	0.0039	U	0.0066		0.0028	U	0.0012	U
sec-Butylbenzene		mg/kg			0.0023	U	0.0014	U		
sec-Butylbenzene		mg/kg	0.0019	U	0.0023	U	0.0014	U	0.0006	U
Styrene	3	mg/kg			0.0046	U	0.0028	U		
Styrene	3	mg/kg	0.0039	U	0.0046	U	0.0028	U	0.0012	U
tert-Butylbenzene		mg/kg			0.011	U	0.0069	U		
tert-Butylbenzene		mg/kg	0.0097	U	0.011	U	0.0071	U	0.003	U
Tetrachloroethene	1	mg/kg			0.0023	U	0.0014	U		
Tetrachloroethene	1	mg/kg	0.0019	U	0.0023	U	0.0014	U	0.0006	U
Tetrahydrofuran		mg/kg			0.046	U	0.028	U		
Tetrahydrofuran		mg/kg	0.039	U	0.046	U	0.028	U	0.012	U
Toluene	30	mg/kg			0.0034	U	0.0021	U		
Toluene	30	mg/kg	0.0029	U	0.0034	U	0.0021	U	0.0009	U
trans-1,2-Dichloroethene	1	mg/kg			0.0034	U	0.0021	U		
trans-1,2-Dichloroethene	1	mg/kg	0.0029	U	0.0034	U	0.0021	U	0.0009	U
trans-1,3-Dichloropropene	0.01	mg/kg			0.0023	U	0.0014	U		
trans-1,3-Dichloropropene	0.01	mg/kg	0.0019	U	0.0023	U	0.0014	U	0.0006	U
trans-1,4-Dichloro-2-butene		mg/kg			0.011	U	0.0069	U		
trans-1,4-Dichloro-2-butene		mg/kg	0.0097	U	0.011	U	0.0071	U	0.003	U
Trichloroethene	0.3	mg/kg			0.0023	U	0.0014	U		
Trichloroethene	0.3	mg/kg	0.0019	U	0.0023	U	0.0014	U	0.0006	U
Trichlorofluoromethane		mg/kg			0.011	U	0.0069	U		
Trichlorofluoromethane		mg/kg	0.0097	U	0.011	U	0.0071	U	0.003	U
Vinyl acetate		mg/kg			0.023	U	0.014	U		
Vinyl acetate		mg/kg	0.019	U	0.023	U	0.014	U	0.006	U
Vinyl chloride	0.6	mg/kg			0.0046	U	0.0028	U		
Vinyl chloride	0.6	mg/kg	0.0039	U	0.0046	U	0.0028	U	0.0012	U
Semivolatile Organics by GC/MS - Mansfield Lab										
1,2,4,5-Tetrachlorobenzene		mg/kg	1.37	U	2.44	U	1.78	U	1.37	U
1,2,4-Trichlorobenzene	2	mg/kg	1.37	U	2.44	U	1.78	U	1.37	U
1,2-Dichlorobenzene	9	mg/kg	1.37	U	2.44	U	1.78	U	1.37	U
1,3-Dichlorobenzene	1	mg/kg	1.37	U	2.44	U	1.78	U	1.37	U
1,4-Dichlorobenzene	0.7	mg/kg	1.37	U	2.44	U	1.78	U	1.37	U

Sample Results Comparison with MCP S1/GW-1 Criteria.										
SAMPLING DATE			VC-1 04-NOV-11		VC-2 04-NOV-11		VC-3 04-NOV-11		VC-4 04-NOV-11	
LAB SAMPLE ID			L1118366-01		L1118366-02		L1118366-03		L1118366-04	
	S1/G1-08	Units		Qual		Qual		Qual		Qual
2,3,4,6-Tetrachlorophenol		mg/kg	1.37	U	2.44	U	1.78	U	1.37	U
2,4,5-Trichlorophenol	4	mg/kg	1.37	U	2.44	U	1.78	U	1.37	U
2,4,6-Trichlorophenol	0.7	mg/kg	1.37	U	2.44	U	1.78	U	1.37	U
2,4-Dichlorophenol	0.7	mg/kg	1.37	U	2.44	U	1.78	U	1.37	U
2,4-Dimethylphenol	0.7	mg/kg	1.37	U	2.44	U	1.78	U	1.37	U
2,4-Dinitrophenol	3	mg/kg	5.47	U	9.75	U	7.13	U	5.48	U
2,4-Dinitrotoluene	0.7	mg/kg	1.37	U	2.44	U	1.78	U	1.37	U
2,6-Dinitrotoluene		mg/kg	1.37	U	2.44	U	1.78	U	1.37	U
2-Chloronaphthalene		mg/kg	1.37	U	2.44	U	1.78	U	1.37	U
2-Chlorophenol	0.7	mg/kg	1.37	U	2.44	U	1.78	U	1.37	U
2-Methylnaphthalene	0.7	mg/kg	1.37	U	2.44	U	1.78	U	1.37	U
2-Methylphenol		mg/kg	1.37	U	2.44	U	1.78	U	1.37	U
2-Nitroaniline		mg/kg	1.37	U	2.44	U	1.78	U	1.37	U
2-Nitrophenol		mg/kg	1.37	U	2.44	U	1.78	U	1.37	U
3,3'-Dichlorobenzidine	1	mg/kg	1.37	U	2.44	U	1.78	U	1.37	U
3-Nitroaniline		mg/kg	1.37	U	2.44	U	1.78	U	1.37	U
4,6-Dinitro-2-Methylphenol		mg/kg	5.47	U	9.75	U	7.13	U	5.48	U
4-Bromophenyl-phenylether		mg/kg	1.37	U	2.44	U	1.78	U	1.37	U
4-Chloroaniline	1	mg/kg	1.37	U	2.44	U	1.78	U	1.37	U
4-Chlorophenyl-phenylether		mg/kg	1.37	U	2.44	U	1.78	U	1.37	U
4-Methylphenol		mg/kg	1.37	U	2.44	U	1.78	U	1.37	U
4-Nitroaniline		mg/kg	1.37	U	2.44	U	1.78	U	1.37	U
4-Nitrophenol		mg/kg	2.74	U	4.87	U	3.56	U	2.74	U
Acenaphthene	4	mg/kg	1.37	U	2.55		1.78	U	1.37	U
Acenaphthylene	1	mg/kg	1.37	U	2.44	U	1.78	U	1.37	U
Acetophenone		mg/kg	1.7		8.02		4.68		1.82	
Aniline		mg/kg	1.37	U	2.44	U	1.78	U	1.37	U
Anthracene	1000	mg/kg	1.37	U	2.83		2.74		1.37	U
Atrazine		mg/kg	1.37	U	2.44	U	1.78	U	1.37	U
Azobenzene		mg/kg	1.37	U	2.44	U	1.78	U	1.37	U
Benz(a)anthracene		mg/kg	2.4		5.16		6.02		1.37	U
Benzaldehyde		mg/kg	2.74	U	5.05		3.56	U	2.74	U
Benzidine		mg/kg	5.47	U	9.75	U	7.13	U	5.48	U
Benzo(a)pyrene	2	mg/kg	1.47		2.68		2.95		1.37	U
Benzo(b)fluoranthene	7	mg/kg	1.62		3.02		3.25		1.37	U
Benzo(ghi)perylene	1000	mg/kg	1.37	U	2.44	U	1.78	U	1.37	U
Benzo(k)fluoranthene	70	mg/kg	1.37	U	2.99		3.12		1.37	U
Benzoic Acid		mg/kg	10.3	U	18.3	U	13.4	U	10.3	U
Benzyl Alcohol		mg/kg	1.37	U	2.44	U	1.78	U	1.37	U
Biphenyl		mg/kg	1.37	U	2.44	U	1.78	U	1.37	U
Bis(2-chloroethoxy)methane		mg/kg	1.37	U	2.44	U	1.78	U	1.37	U
Bis(2-chloroethyl)ether	0.7	mg/kg	1.37	U	2.44	U	1.78	U	1.37	U
Bis(2-chloroisopropyl)ether	0.7	mg/kg	1.37	U	2.44	U	1.78	U	1.37	U
Bis(2-Ethylhexyl)phthalate	200	mg/kg	172		702		326			
Bis(2-Ethylhexyl)phthalate	200	mg/kg	166	E	672	E	324	E	36.9	
Butylbenzylphthalate		mg/kg	1.37	U	2.44	U	1.78	U	1.37	U
Caprolactam		mg/kg	1.37	U	2.44	U	1.78	U	1.37	U
Carbazole		mg/kg	1.37	U	2.44	U	1.78	U	1.37	U
Chrysene	70	mg/kg	1.97		7.08		6.35		1.37	U
Di-n-butylphthalate		mg/kg	1.37	U	2.44	U	1.78	U	1.37	U
Di-n-octylphthalate		mg/kg	1.91		17.5		13.9		1.37	U
Dibenz(a,h)anthracene		mg/kg	1.37	U	2.44	U	1.78	U	1.37	U
Dibenzofuran		mg/kg	1.37	U	2.44	U	1.78	U	1.37	U
Diethylphthalate		mg/kg	1.37	U	2.44	U	1.78	U	1.37	U
Dimethylphthalate		mg/kg	1.37	U	2.44	U	1.78	U	1.37	U
Fluoranthene	1000	mg/kg	9.11		17.1		24.6		1.37	U
Fluorene	1000	mg/kg	1.37	U	2.97		1.78	U	1.37	U
Hexachlorobenzene	0.7	mg/kg	1.37	U	2.44	U	1.78	U	1.37	U
Hexachlorobutadiene	6	mg/kg	1.37	U	2.44	U	1.78	U	1.37	U
Hexachlorocyclopentadiene		mg/kg	1.37	U	2.44	U	1.78	U	1.37	U
Hexachloroethane	0.7	mg/kg	1.37	U	2.44	U	1.78	U	1.37	U
Indeno(1,2,3-cd)Pyrene	7	mg/kg	1.37	U	2.44	U	1.78	U	1.37	U
Isophorone		mg/kg	1.37	U	2.44	U	1.78	U	1.37	U

Alford Street Bridge
Boston, Massachusetts

Sample Results Comparison with MCP S1/GW-1 Criteria.										
SAMPLING DATE			VC-1 04-NOV-11		VC-2 04-NOV-11		VC-3 04-NOV-11		VC-4 04-NOV-11	
LAB SAMPLE ID			L1118366-01		L1118366-02		L1118366-03		L1118366-04	
	S1/G1-08	Units		Qual		Qual		Qual		Qual
N-Nitroso-di-n-propylamine		mg/kg	1.37	U	2.44	U	1.78	U	1.37	U
n-Nitrosodimethylamine	0.7	mg/kg	1.37	U	2.44	U	1.78	U	1.37	U
Naphthalene	4	mg/kg	1.37	U	2.44	U	1.78	U	1.37	U
Nitrobenzene		mg/kg	1.37	U	2.44	U	1.78	U	1.37	U
NitrosoDiPhenylAmine(NDPA)/DPA		mg/kg	1.37	U	2.44	U	1.78	U	1.37	U
P-Chloro-M-Cresol		mg/kg	1.37	U	2.44	U	1.78	U	1.37	U
Pentachlorophenol	3	mg/kg	5.47	U	9.75	U	7.13	U	5.48	U
Phenanthrene	10	mg/kg	1.88		10		3.2		1.37	U
Phenol	1	mg/kg	1.37	U	2.44	U	1.78	U	1.37	U
Pyrene	1000	mg/kg	8.99		11.9		16.5		1.37	U
Pyridine		mg/kg	1.37	U	2.44	U	1.78	U	1.37	U
PAHs/PCB Congeners by GC/MS - Mansfield Lab										
Acenaphthene	4	mg/kg	0.486		2.81		0.647		0.0363	
Acenaphthylene	1	mg/kg	0.172		0.718		0.552		0.144	
Anthracene	1000	mg/kg	1.05		2.52		2.8		0.187	
Benz(a)anthracene		mg/kg	2.39		4.54		6.36		0.49	
Benzo(a)pyrene	2	mg/kg	1.19		2.79		2.74		0.638	
Benzo(b)fluoranthene	7	mg/kg	1.59		4.12		4.25		0.771	
Benzo(ghi)perylene	1000	mg/kg	0.608		1.94		1.58		0.468	
Benzo(k)fluoranthene	70	mg/kg	0.987		2.11		2.41		0.578	
Chrysene	70	mg/kg					8.02			
Chrysene	70	mg/kg	2.48		5.07		7.08	E	0.587	
Cl10-BZ#209		mg/kg	0.00555		0.0054		0.00378		0.00992	
Cl2-BZ#8		mg/kg	0.00514		0.0272		0.0129		0.00322	
Cl3-BZ#18		mg/kg	0.0328		0.161		0.0701		0.0127	
Cl3-BZ#28		mg/kg	0.0179		0.105		0.0569		0.00712	
Cl4-BZ#44		mg/kg	0.0556		0.336		0.173		0.0244	
Cl4-BZ#49		mg/kg	0.0369		0.293		0.136		0.0165	
Cl4-BZ#52		mg/kg			0.507					
Cl4-BZ#52		mg/kg	0.0892		0.639	E	0.335		0.0428	
Cl4-BZ#66		mg/kg	0.0362		0.213		0.115		0.0155	
Cl5-BZ#101		mg/kg	0.0647		0.452		0.337		0.035	
Cl5-BZ#105		mg/kg	0.0221		0.138		0.114		0.0125	
Cl5-BZ#118		mg/kg	0.0458		0.323		0.246		0.0318	
Cl5-BZ#87		mg/kg	0.0276		0.166		0.144		0.0151	
Cl6-BZ#128		mg/kg	0.0133		0.0998		0.0789		0.00963	
Cl6-BZ#138		mg/kg	0.0581		0.413		0.316		0.0391	
Cl6-BZ#153		mg/kg	0.0484		0.286		0.212		0.0294	
Cl7-BZ#170		mg/kg	0.0146		0.0874		0.0548		0.0104	
Cl7-BZ#180		mg/kg	0.0196		0.0908		0.0506		0.016	
Cl7-BZ#183		mg/kg	0.00629		0.0366		0.0217		0.00432	
Cl7-BZ#184		mg/kg	0.00106	U	0.00202	U	0.00137	U	0.00113	U
Cl7-BZ#187		mg/kg	0.0196		0.0929		0.0504		0.0108	
Cl8-BZ#195		mg/kg	0.00267		0.0143		0.00718		0.00157	
Cl9-BZ#206		mg/kg	0.00351		0.017		0.0065		0.0028	
Dibenz(a,h)anthracene		mg/kg	0.186		0.543		0.487		0.126	
Fluoranthene	1000	mg/kg	8.08		16.6		25.2			
Fluoranthene	1000	mg/kg	7.35	E	15.7	E	20.8	E	0.794	
Fluorene	1000	mg/kg	0.386		2.56		1		0.0609	
Indeno(1,2,3-cd)Pyrene	7	mg/kg	0.647		1.96		1.67		0.475	
Naphthalene	4	mg/kg	0.492		2.53		1.35		0.504	
Phenanthrene	10	mg/kg	1.42		9.76		4.24		0.382	
Pyrene	1000	mg/kg	7		11.9		16.5			
Pyrene	1000	mg/kg	6.78	E	11	E	14.4	E	1.3	
Organochlorine Pesticides by GC - Mansfield Lab										
2,4'-DDD		mg/kg	0.00317		0.00466		0.00244		0.00354	
2,4'-DDE		mg/kg	0.00138	U	0.00257	U	0.00177	U	0.00141	U
2,4'-DDT		mg/kg	0.00138	U	0.00257	U	0.00177	U	0.00141	U
4,4'-DDD	4	mg/kg	0.02		0.0355		0.0301		0.029	
4,4'-DDE	3	mg/kg	0.00732		0.0374		0.0249		0.00802	
4,4'-DDT	3	mg/kg	0.00416		0.0321		0.0199		0.00266	

Alford Street Bridge
Boston, Massachusetts

Sample Results Comparison with MCP S1/GW-1 Criteria.										
SAMPLING DATE			VC-1 04-NOV-11		VC-2 04-NOV-11		VC-3 04-NOV-11		VC-4 04-NOV-11	
LAB SAMPLE ID			L1118366-01		L1118366-02		L1118366-03		L1118366-04	
	S1/G1-08	Units		Qual		Qual		Qual		Qual
Aldrin	0.04	mg/kg	0.00138	U	0.00257	U	0.00177	U	0.00141	U
Alpha-BHC		mg/kg	0.00138	U	0.00257	U	0.00177	U	0.00141	U
Beta-BHC		mg/kg	0.00138	U	0.00257	U	0.00177	U	0.00141	U
Chlordane	0.7	mg/kg	0.0689	U	0.128	U	0.0886	U	0.0707	U
cis-Chlordane		mg/kg	0.00327		0.0124		0.00778		0.00313	
Delta-BHC		mg/kg	0.00138	U	0.00257	U	0.00177	U	0.00141	U
Dieldrin	0.05	mg/kg	0.00138	U	0.00257	U	0.00177	U	0.00141	U
Endosulfan I	0.5	mg/kg	0.00138	U	0.00257	U	0.00177	U	0.00141	U
Endosulfan II	0.5	mg/kg	0.00138	U	0.00257	U	0.00177	U	0.00141	U
Endosulfan sulfate		mg/kg	0.00138	U	0.00257	U	0.00177	U	0.00141	U
Endrin	8	mg/kg	0.00138	U	0.00257	U	0.00177	U	0.00141	U
Endrin aldehyde		mg/kg	0.00138	U	0.00257	U	0.00177	U	0.00141	U
Endrin ketone		mg/kg	0.00138	U	0.00257	U	0.00177	U	0.00141	U
gamma-BHC		mg/kg	0.00138	U	0.00257	U	0.00177	U	0.00141	U
Heptachlor	0.2	mg/kg	0.00138	U	0.00257	U	0.00177	U	0.00141	U
Heptachlor epoxide	0.09	mg/kg	0.00138	U	0.00257	U	0.00177	U	0.00141	U
Hexachlorobenzene	0.7	mg/kg	0.00138	U	0.00257	U	0.00177	U	0.00141	U
Methoxychlor	200	mg/kg	0.00138	U	0.00257	U	0.00177	U	0.00141	U
Mirex		mg/kg	0.0099		0.0658		0.046		0.00141	U
Oxychlordane		mg/kg	0.0101		0.0402		0.0243		0.00517	
Toxaphene		mg/kg	0.0689	U	0.128	U	0.0886	U	0.0707	U
trans-Chlordane		mg/kg	0.00138	U	0.00257	U	0.00177	U	0.00141	U
trans-Nonachlor		mg/kg	0.00138	U	0.0389		0.0207		0.00141	U
Extractable Petroleum Hydrocarbons - Westborough Lab										
C11-C22 Aromatics		mg/kg	236		1070		274		142	
C11-C22 Aromatics, Adjusted	1000	mg/kg	207		1010		254		138	
C19-C36 Aliphatics	3000	mg/kg	235		1640		354		311	
C9-C18 Aliphatics	1000	mg/kg	42.7		529		77.5		15	

Alpha Analytical Labs provides this custom reporting format as a convenience to our clients. As such, we cannot be held liable for errors or omissions associated with the regulatory standards listed above and/or the sample results highlighted by comparison with the standards (current as of February, 2008).

Only compounds detected with reporting limits that exceed the corresponding regulatory standard in at least one sample are included on the summary sheets.

Refer to the laboratory report in Adobe Acrobat (.PDF) format to check results or read any associated project narrative that may be present. In all cases, the signed, hardcopy Alpha Analytical Labs laboratory report is the official document for reporting laboratory results.

APPENDIX D
NATURAL HERITAGE AND ENDANGERED SPECIES PROGRAM CORRESPONDENCE
REMEDIAL GENERAL PERMIT
ALFORD STREET BRIDGE
BOSTON, MASSACHUSETTS

Commonwealth of Massachusetts

Division of Fisheries & Wildlife

MassWildlife

Wayne F. MacCallum, *Director*

May 7, 2009

Erin Remillard
Massachusetts Highway Department
10 Park Plaza
Boston, MA 02116

RE: Project Description: Alford Street Bridge (US 99)
Project Location: Alford Street (US 99) over Mystic River, Boston and Everett
NHESP File No.: 05-17188

Dear Ms. Remillard:

The Natural Heritage & Endangered Species Program (NHESP) of the Massachusetts Division of Fisheries and Wildlife received your filing including project plans (dated 4/30/09). Your submission included a Massachusetts Endangered Species Act (MGL c131A, MESA) Checklist and project plans in the form of a 401 Water Quality Certification application. We reviewed your plans for compliance with the MESA and its implementing regulations (321 CMR 10.00). Your filing describes: (1) the excavation and replacement of a submarine power and control cable in the Mystic River to the west of Alford Street Bridge; (2) replacement of existing fenders on the west side of the bridge; and (3) repairs to the south bridge abutment.

MASSACHUSETTS ENDANGERED SPECIES ACT (MESA)

Based on a review of the information provided and the information contained in our database, the NHESP has determined that this project is within the mapped habitat of Common Tern (*Sterna hirundo*), a state-listed Species of Special Concern. Specifically, the NHESP has determined that Common Terns are nesting upon an abandoned pier immediately adjacent to the northbound travel lane (Map 1). This structure is referred to as the southeastern "Existing Fender" in the plans titled "Bascule Span and Fender Plan and Repair Details" in the 401 WQC application.

The NHESP find that this project, as currently proposed, must be conditioned in order to avoid a prohibited "take" of state-listed species (321 CMR 10.18(2)(a)). The NHESP is concerned that, in the absence of proper protection measures prior to and during construction, this project could result in the inadvertent direct harming or killing of Common Tern and the direct loss of nesting habitat.

To avoid a prohibited "take" of Common Tern, the following condition must be met:

(1) The abandoned pier (Existing Fender) described above and identified in Map 1 (attached) must not be altered, destroyed, or damaged during any phase of construction.

If it is not possible to comply with this condition, or if project plans change, the applicant must contact the NHESP prior to any work for further guidance. We note that all work is subject to the anti-segmentation provisions (321 CMR 10.16) of the MESA. The NHESP notes that any activity not included in the current filing (eg, expansion of the scope of the project, change in work-plan or timing, installation of additional structures, soil or vegetation disturbance outside lawfully developed and maintained lawn or landscaped areas) and located within *Priority Habitat* may require an additional filing with the NHESP for review if not otherwise exempt. If no physical work is commenced on the above proposed project within three-years from the date of issuance of this letter or there is a material change in the plans that were submitted to the NHESP, updated information and/or plans must be sent to the NHESP for review prior to any work. Please do not hesitate to contact Michael T. Jones, Endangered Species Review Biologist, at (508) 389-6386 (michael.t.jones@state.ma.us), with any questions or comments you may have.

Sincerely,

Thomas W. French

Thomas W. French, Ph. D.
Assistant Director

cc: Derek Standish, DEP