



State of Rhode Island
Department of Administration / Division of Purchases
One Capitol Hill, Providence, Rhode Island 02908-5855
Tel: (401) 574-8100 Fax: (401) 574-8387

ADDENDUM # 1

**RFQ #7449574 TITLED: 30 Car Parking Lot – Kauffman Center -
RIC**

OPENING DATE & TIME: 4/18/12 @ 2:00 PM (EST)

**Pre-Bid Conference Questions, & Clarifications.
Pre-Bid Attendance Sheet**

Gary P. Mosca
Gary P. Mosca
Buyer

PRE-BID - #7449574- 30 CAR PARKING LOT - Kauffman Center

Company	Representative	Address	Email	Phone
1. SHERRY CONST CORP	BILL SHERRY	P.O. BOX 151 SWANSEA, MA	BILL SHERRY @ SHERRY CONSTRUCTION. COM	508-673-2051
2. INTERNATIONAL PAINTING	CHUCK ALVES	25 CONCORD ST PAWT., RI	CHUCKA @ PAINTUCKETASAHALL. COM	401-312-6565
3. CARDI CORP	Joe Colapietro	400 Lincoln Ave Warwick, RI 02886	Joe Colapietro @ Cardi.com	401-739-8300 x158
4. ALSON Const Corp	George A. Alson	34 OAKDALE AVE Johnston, RI 02919	CALSON CORP AOL.COM	401 272-1100
5. LUCENA Bros. Inc	David Lucena	70 Founders Dr. Woonsocket RI 02895	david@lucena.bros. com	401 762-5400
6. CHINICO CONST CO	SCOTT SMITH	WATSON, N.J. 02226	CHINICO CONSTRUCTION @ COX.NET	401-823-5334
7. R.T. PUNNIES & SONS	Kevin Michael	1 PUNNIES LANE WEST WATFORD, MA 02833	Kevin @ RT PUNNIES .COM	401-821-8633
8. JH LYNCH TRNS	PAUL BROWN	30 LYNCH PLACE CUMBUHARD, RI 02844	SALES @ JHLYNCH.COM	401-373-4300
9. BWC CONTRACTING	STEVE BIBBY	110 SEYMOUR STREET WARREN RI 02885	SBIBBY @ BWC CONTRACTING COM	401 997 2026 401 996 1652
10. HARTFORD FAVING CORP	JAMES C. WHEELER	112 OLD FOCASSET ROAD JOHNSTON, RI 02919	JamesC@hartford.faving.com	TEL# (401) 942-8857 FAX# (401) 946-4166
11. RI DLT	Mark Ryan	1511 Pawtucket Avenue Crawston, RI 02920	mryan@dlth.rigov	CELL # (401) 654-1740 462-8541
12.				

DOCUMENT 00410
BID FORM

Date: _____

To: The Department of Administration, Division of Purchases
One Capitol Hill, Providence, RI 02908

Project: **Proposed 30 Car Parking Lot servicing Joseph F. Kauffman Center**

Submitted by: _____
(include address, _____
tel. & FAX nos.) _____

1. BID

Having examined the Place of The Work and all matters referred to in the Instructions to Bidders, and in the Contract Documents prepared by Joe Casali Engineering, Inc., Engineer for the above mentioned project, we, the undersigned, hereby offer to enter into a Contract to perform the Work for the Sum of:

_____ (\$ _____)
Written Numerically

We have included the specified Inspection and Testing Allowance(s), from Section 01200 in Division 1 of the Specifications, in the above Bid Sum

Inspection and Testing Allowance: \$ \$5,000.00 etc.

The owner will retain the specified Warranty Inspection Retainage, from Section 1200 in Division 1 of the Specifications from the above Bid Sum.

Warranty Inspection Retainage: \$ \$5,000.00 etc.

We propose to modify the above Bid Sum by the following amount(s) as identified by (a) numbered Alternative(s) specified in Division 1 of the Specifications, and as may be selected by the Owner:

Alternative No. 1:	\$ _____
Alternative No. 2 (deduct):	\$ _____
Alternative No. 3 (add)	\$ _____

(The following Unit Prices for specific portions of the Work as listed, are applicable to authorized variations from the Contract Documents:

ITEMS DESCRIBED	UNIT QUANTITY	UNIT COST	UNIT VALUE
Ledge Removal- Trench _____	<u>10 CY</u>	\$ _____	\$ _____

<u>Ledge Removal- Open</u>	<u>85 CY</u>	\$ <u> </u>	\$ <u> </u>
<u>Handling of Stockpile Materials</u>	<u>270 CY</u>	\$ <u> </u>	\$ <u> </u>
<u>Disposal of Stockpile Material</u>	<u>90 CY</u>	\$ <u> </u>	\$ <u> </u>
<u>Segmented Block Wall</u>	<u>850 SF</u>	\$ <u> </u>	\$ <u> </u>
<u>Handling, Transport, and Disposal of Contaminated Soils</u>	<u>300 CY</u>	\$ <u> </u>	\$ <u> </u>

We have included the required Bid security as required by the Invitation to Bid.

2. ACCEPTANCE

This offer shall be open to acceptance and is irrevocable for sixty days from the bid closing date. If the Owner accepts this bid within the time period stated above, we will:

- Execute the Agreement subject to compliance with required State regulatory agency approvals as described in the Invitation to Bid.
- Furnish the required bonds in compliance with amended provisions of the Instructions to Bidders.
- Commence work within seven days after receipt of a Purchase Order from the Rhode Island State Division of Purchases.

If this bid is accepted within the time stated, and we fail to commence the Work, or we fail to provide the required Bonds, the security deposit shall be forfeited as damages to the Owner by reason of our failure, limited in amount to the lesser of the face value of the security deposit or the difference between this bid and the bid upon which a Contract is signed.

In the event our bid is not accepted within the time stated above, the required security deposit shall be returned to the undersigned, in accordance with the provisions of the Instructions to Bidders; unless a mutually satisfactory arrangement is made for its retention and validity for an extended period of time.

3. CONTRACT TIME

Start Date: After issuance of purchase order

Completion Date: Contractor shall reach substantial completion within 90 calendar days from issuance of purchase order.

4. LIQUIDATED DAMAGES - TIME IS OF THE ESSENCE

If we fail to achieve certification of Substantial Completion or Final Completion at the expiration of the agreed upon Contract Times indicated above, we acknowledge we will be assessed Liquidated Damages for each calendar day the project continues to be in default of Substantial Completion, and/or Final Completion, as follows:

Substantial Completion:	\$ <u>500.00</u> per calendar day.
Final Completion – Close Out:	\$ <u>500.00</u> per calendar day

5 ADDENDA

The following Addenda have been received, and inserted into the Project Manual where as indicated in Document 00010 – Table of Contents. The modifications to the Bid Documents noted below have been considered and all costs are included in the Bid Sum.

Addendum No. 1, dated April 5, 2012.

Addendum No. 2, dated _____, etc

6 REQUIREMENT FOR LICENSE NUMBER

In compliance with the requirements of Rhode Island General Law, Section 5-65-23, my Rhode Island license number for the work to be performed by this firm as prime contractor is:

LICENSE NUMBER: _____

7 BID FORM SIGNATURE(S)

(Bidder's name)

By: _____

Title: _____

Corporate Seal:

END OF SECTION 00410

**SECTION 01200
PRICE AND PAYMENT PROCEDURES**

PART 1 - GENERAL**1 1 SECTION INCLUDES**

- A Testing and inspection allowances
- B Schedule of values
- C Applications for payment
- D Warranty inspection retainage
- E Sales tax exemption
- F Change procedures
- G Defect assessment
- H Unit prices
- I Alternates

1 2 TESTING AND INSPECTION ALLOWANCES

- A Costs Included in Testing and Inspecting Allowances: Cost of engaging a testing and inspecting agency; execution of tests and inspecting; and reporting results
- B Costs Not Included in the Testing and Inspecting Allowance But Included in the Contract Sum:
 - 1. Costs of incidental labor and facilities required to assist testing or inspecting agency
 - 2. Cost of testing services used by Contractor separate from Contract Document Requirements
 - 3. Costs of retesting upon failure of previous tests as determined by Architect
- C Payment Procedures:
 - 1 Submit one copy of the inspecting or testing firm's invoice with each copy of the next application for payment
 - 2 Pay invoice on approval by Owner
- D Testing and Inspecting Allowances Schedule:
 - 1 Include the sum of \$5,000.00 for payment of material testing

1 3 SCHEDULE OF VALUES

- A Submit a printed schedule on AIA Form G703 - Application and Certificate for Payment Continuation Sheet
- B Submit Schedule of Values in duplicate, one copyrighted original and one copy, within 15 days after date of receipt of a Purchase Order from RI State Department of Administration, Division of Purchases
- C Format: Utilize the Table of Contents of this Project Manual. Identify each line item with number and title of the major specification Section. Identify site mobilization, bonds and insurance.
- D Include in each line item, the amount of Allowances specified in this Section. For unit cost Allowances, identify quantities taken from Contract Documents multiplied by the unit cost to achieve the total for the item.
- E Include separately for each line item, a direct proportional amount of Contractor's overhead and profit
- F Revise schedule to list approved Change Orders, with each Application for Payment.

1.4 APPLICATIONS FOR PAYMENT

- A Submit each application on an original copyrighted AIA Form G702 - Application and Certificate for Payment and AIA G703 - Continuation Sheet, accompanied by three copies
 - 1 Individually sign and notarize, and emboss with notary's official seal, the original and each of the three copies.
 - 2 Applications not including original copyrighted AIA G702, and G703 Forms, will be rejected, and returned for resubmittal

3. Applications not properly signed and notarized will be rejected, and returned for resubmittal
- B Content and Format: Utilize Schedule of Values for listing items in Application for Payment.
- C Provide one hard copy and one copy in disc form of the updated construction schedule with each Application for Payment submission.
 1. Provide a statement signed by the Contractor's firm principal certifying that there are no unidentified outstanding claims for delay
- D Include with each monthly Application for Payment, following the first application, one copy of the Certified Monthly Payroll Record for the previous month's pay period
- E Payment Period: Submit at intervals stipulated in the Agreement.
- F Submit with transmittal letter as specified for Submittals in Section 01330
- G Beginning with the second Application for Payment, Contractor's right to payment must be substantiated by documenting, on a copy of the URI Waiver of Lien Form included in Document 00614 - Waiver of Lien Form in this Project Manual, that payment monies due, less retainage not exceeding ten percent, have been paid in full to subcontractor and suppliers for work, materials, or rental of equipment billed for under specific line item numbers in the immediately preceding application
- H Substantiating Data: When the Architect requires substantiating information, submit data justifying dollar amounts in question Include the following with the Application for Payment :
 - 1 Record Documents as specified in Section 01780, for review by the Owner which will be returned to the Contractor.
 - 2 Affidavits attesting to off-site stored products
 - 3 Construction progress schedules, revised and current as specified in Section 01330

1.7 WARRANTY INSPECTION RETAINAGE

- A An amount of \$5,000.00 will be retained from final payment, made at the time of Substantial Completion, for a duration of ten months. If, after ten months, all systems, including mechanical and electrical, are determined by the Owner to be properly functioning, the Warranty Inspection Retainage will be released
- B If, after ten months, there are found to be modifications, adjustments, or corrections necessary to be made to address any system or product malfunction, in order to fulfill specified performance or requirements of such systems or products, release of the warranty inspection retainage will be delayed until such malfunctions are rectified

1.8 SALES TAX EXEMPTION

- A Owner is exempt from sales tax on products permanently incorporated in Work of the Project
 - 1 Obtain sales tax exemption certificate number from Owner
 - 2 Place exemption certificate number on invoice for materials incorporated in the Work of the Project
 - 3 Furnish copies of invoices to Owner.
 - 4 Upon completion of Work, file a notarized statement with Owner that all purchases made under exemption certificate were entitled to be exempt
 - 5 Pay legally assessed penalties for improper use of exemption certificate number

1.9 CHANGE PROCEDURES

- A Submittals: Submit name of the individual authorized to receive change documents, and be responsible for informing others in Contractor's employ or Subcontractors of changes to the Work
- B The Architect will advise of minor changes in the Work not involving an adjustment to Contract Sum or Contract Time by issuing supplemental instructions on AIA Form G710
- C The Architect may issue a Proposal Request which includes a detailed description of a proposed change with supplementary or revised Drawings and specifications, a change in Contract Time for executing the change with a stipulation of any overtime work required, and the period of time during which the requested price will be considered valid. Contractor will prepare and submit an estimate within 15 days.

- D. The Contractor may propose changes by submitting a request for change to the Architect, describing the proposed change and its full effect on the Work. Include a statement describing the reason for the change, and the effect on the Contract Sum and Contract Time with full documentation, and a statement describing the effect on Work by separate or other Contractors. Document any requested substitutions in accordance with Section 01600.
 - E. Stipulated Sum Change Order: Based on Proposal Request, and Contractor's fixed price quotation, or Contractor's request for a Change Order as approved by Architect.
 - F. Unit Price Change Order: For contract unit prices and quantities, the Change Order will be executed on a fixed unit price basis. For unit costs or quantities of units of work which are not pre-determined, execute the Work under a Construction Change Directive. Changes in the Contract Sum or Contract Time will be computed as specified for a Time and Material Change Order.
 - G. Construction Change Directive: Architect may issue a directive, on AIA Form G713 Construction Change Directive signed by the Owner, instructing the Contractor to proceed with a change in the Work, for subsequent inclusion in a Change Order. Document will describe changes in the Work, and designate method of determining any change in the Contract Sum or Contract Time. Promptly execute the change.
 - H. Time and Material Change Order: Submit an itemized account and supporting data after completion of the change, within the time limits indicated in the Conditions of the Contract. The Architect will determine the change allowable in the Contract Sum and Contract Time as provided in the Contract Documents.
 - I. Maintain detailed records of work done on a Time and Material basis. Provide full information required for an evaluation of the proposed changes, and to substantiate costs for the changes in the Work.
 - J. Document each quotation for a change in cost or time with sufficient data to allow an evaluation of the quotation. Provide detailed breakdown of costs and estimates for labor and materials including a detailed breakdown for subcontractor's or vendor's Work. Include copies of written quotations from subcontractors or vendors.
 - K. Change Order Forms: AIA G701 Change Order.
 - L. Execution of Change Orders: The Architect will issue Change Orders for signatures of the parties as provided in the Conditions of the Contract.
 - M. Correlation of Contractor Submittals:
 - 1. Promptly revise the Schedule of Values and the Application for Payment forms to record each authorized Change Order as a separate line item and adjust the Contract Sum. Promptly revise progress schedules to reflect any change in the Contract Time, revise sub-schedules to adjust times for any other items of work affected by the change, and resubmit.
 - 2. Promptly enter changes in the Project Record Documents.
- 1 10 DEFECT ASSESSMENT
- A. Replace the Work, or portions of the Work, not conforming to specified requirements.
 - B. If, in the opinion of the Architect, it is not practical to remove and replace the Work, the Architect will direct an appropriate remedy or adjust payment.
 - C. The defective Work may remain, but the unit sum will be adjusted to a new sum at the discretion of the Architect.
 - D. The defective Work will be partially repaired to the instructions of the Architect, and the unit sum will be adjusted to a new sum at the discretion of the Architect.
 - E. The individual Specification Sections may modify these options or may identify a specific formula or percentage sum reduction.
 - F. The authority of the Architect to assess the defect and identify a payment adjustment, is final.
 - G. Non-Payment For Rejected Products: Payment will not be made for rejected products for any of the following:
 - 1. Products wasted or disposed of in a manner that is not acceptable.
 - 2. Products determined as unacceptable before or after placement.
 - 3. Products not completely unloaded from the transporting vehicle.
 - 4. Products placed beyond the lines and levels of the required Work.
 - 5. Products remaining on hand after completion of the Work.
 - 6. Loading, hauling, and disposing of rejected products.

1 11 UNIT PRICES

- A Unit Quantities: The quantities indicated in the Bid Form are for Contract purposes only. The quantities supplied or placed in the Work shall determine the payment
- B Payment Includes: Full compensation for required labor, products, tools, equipment, and transportation; installation of an item of the Work; overhead and profit
- C Unit Price Schedule:

ITEMS DESCRIBED	UNIT QUANTITY	UNIT COST	UNIT VALUE
<u>Ledge Removal – Trench</u>	<u>10 CY</u>	\$ _____	\$ _____
<u>Ledge Removal – Open</u>	<u>85 CY</u>	\$ _____	\$ _____
<u>Handling of Stockpile Materials</u>	<u>270 CY</u>	\$ _____	\$ _____
<u>Disposal of Stockpile Material</u>	<u>90 CY</u>	\$ _____	\$ _____
<u>Segmented Block Wall</u>	<u>850 SF</u>	\$ _____	\$ _____
<u>Handling, Transport, and Disposal Of Contaminated Soils</u>	<u>300 CY</u>	\$ _____	\$ _____

1 12 ALTERNATES

- A Alternates quoted on Bid Forms will be reviewed and accepted or rejected at the Owner's option. Accepted Alternates will be identified in Owner-Contractor Agreement
- B Coordinate related work and modify surrounding work as required
- C Schedule of Alternates:
- 1 Alternate No. 1: [Concrete Block Wall]:
 - a Base Bid Item: Segmented Block Wall
 - b Alternate Item: Concrete Block wall
 - 2 Alternate No. 2: [Precast Concrete Car Stops]
 - a Base Bid Item: Precast Concrete Car Stops
 - b Alternate Item: Deduct of Precast Car Stops
 - 3 Alternate No. 3: Compaction of Existing Site Materials

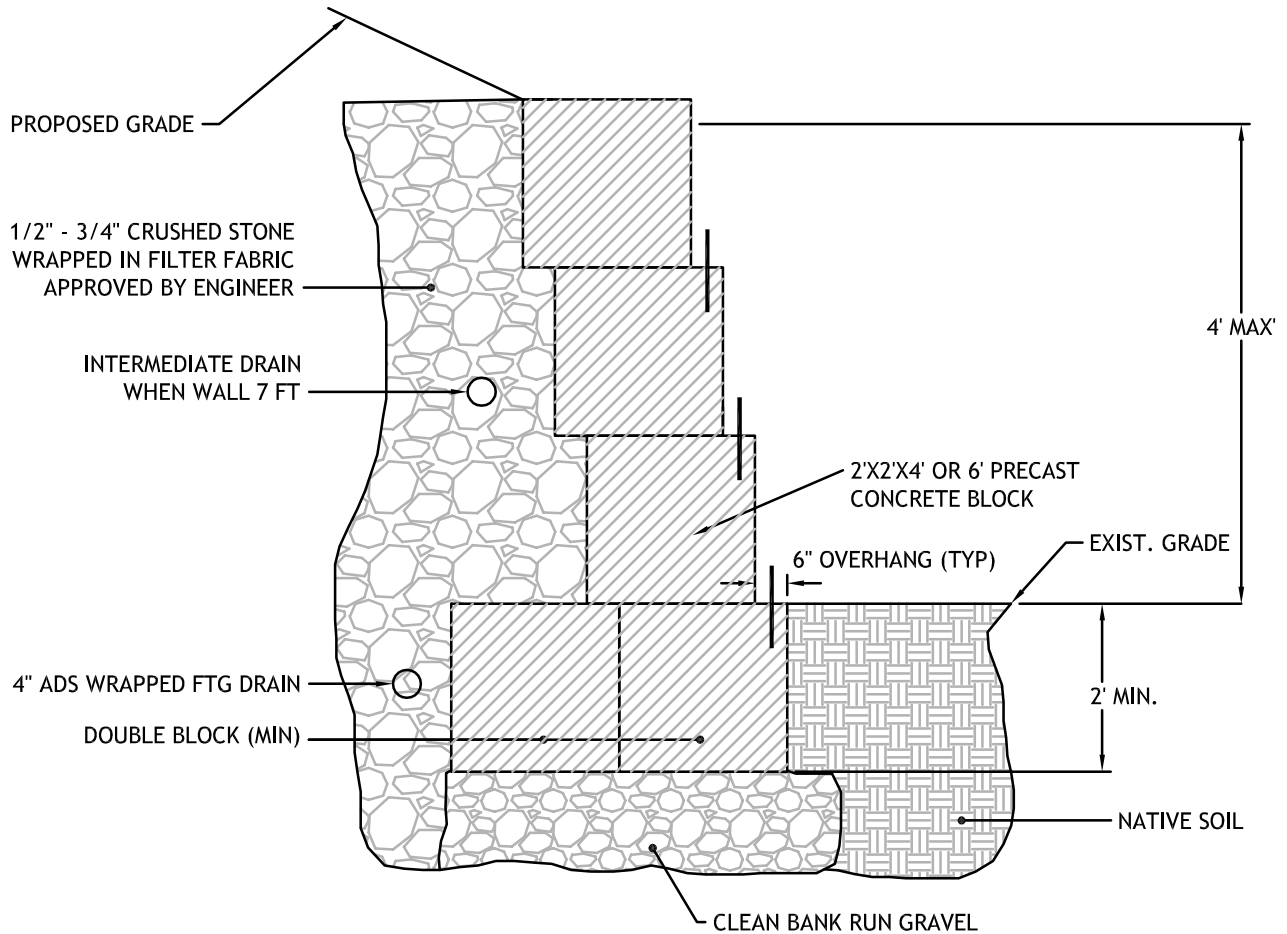
PART 2 - PRODUCTS

Not Used

PART 3 - EXECUTION

Not Used.

END OF SECTION 01200



RETAINING WALL DETAIL

SCALE: NOT TO SCALE

1. SHALL BE IN ACCORDANCE WITH SECTION 900 OF THE R.I. STANDARD SPECIFICATIONS.
2. ALL STRUCTURAL STEEL AND FASTENER HARDWARE SHALL BE WEATHERING STEEL AS SPECIFIED.

REVISIONS:
NO. DATE DESCRIPTION

DESIGNED BY: GEC
DRAWN BY: GEC
CHECKED BY: JAC
DATE: 4-9-2012
PROJECT NO: 09-41A

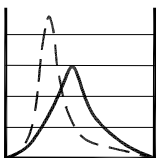
**CONCRETE
BLOCK
RETAINING
WALL**

**SHEET
1 OF 1**

PROPOSED PARKING LOT
JOSEPH F. KAUFFMAN CENTER
RHODE ISLAND COLLEGE
PROVIDENCE, RHODE ISLAND

JCE

JOE CASALI ENGINEERING, INC.
CIVIL - SITE DEVELOPMENT - TRANSPORTATION
DRAINAGE - WETLANDS - ISDS - TRAFFIC - FLOODPLAIN
300 POST ROAD, WARWICK, RI 02888
(401) 944-1300 (401) 944-1313 FAX WWW.JOECASALI.COM



ADDENDUM NO. 1

THE FOLLOWING CHANGES, CORRECTIONS, DELETIONS, ADDITIONS, AND INSERTIONS, SHALL BE AND ARE HEREBY MADE AN INTEGRAL PART OF THE DRAWINGS AND SPECIFICATIONS FOR THE PROPOSED 30-LOT PARKING LOT SERVICING THE JOSEPH F. KAUFFMAN CENTER AS FULLY AND TO THE SAME EXTENT AS ALL OTHER PARTS. BIDS SUBMITTED SHALL BE DEEMED TO INCLUDE THESE CHANGES. CORRECTIONS, DELETIONS, ADDITIONS AND INSERTIONS, AND ANY BIDDER SHALL BE STOPPED FROM ASSERTING NON-RECEIPT THEREOF. GENERAL BIDDER SHALL NOTIFY SUCH SUB-BIDDERS AS MAY BE AFFECTED BY THIS ADDENDUM.

Bidders are hereby notified that discussions at the Pre-Bid conference held in the Physical Plant on campus on Thursday, April 5, 2012 are not to be interpreted by the Bidder. The Contract Documents and the following addendum are to be the basis for all bids.

CLARIFICATIONS

1. The report entitled "*Short Term Response Action Plan*" completed by GZA GeoEnvironmental, Inc. dated August 2011 has been included with the Addendum Number 1.
2. The Contractor shall include in his/her base bid a \$5,000 allowance for testing. A \$5,000.00 Warranty Inspection Retainage will be held by the College for 10 months after completion of the project. Please refer to Section 01200 of the specifications book.
3. Included in the \$5,000 allowance for testing is sampling from the rock & gravel pile, rock & dirt pile and the dirt pile as labeled on the as-built drawing by Welsh Associates dated 1-6-12 to check for hazardous materials including but not limited to arsenic as described below:

Soil excavated from and/or stored at the site may not be re-used at off-site properties unless it has been shown, through representative sampling and laboratory testing overseen by an Environmental Professional, that the materials meets the Residential Direct Exposure Criteria (RDEC) for all constituents as listed in Table 1 of the Remediation Regulations. Soil must be sampled, by an Environmental Professional, at a frequency of sample per pile as described in the previous paragraph for all constituents. Testing must be performed by a RI Department of Health approved laboratory. In the event that the soil does not meet the RDEC and cannot be used on-site, the material must be properly managed and disposed of off-site at an appropriately licensed facility. No soil will leave the site without the approval of the Environmental Professional and/or RI College Project Manager. If the soil does not meet RDEC, the Owner has the right to modify the site plan to accommodate the contaminated soil with the proposed cap.

The testing program for off-site soil reuse/disposal must be adequate to support the permit requirements of the anticipated receiving facility, but at a minimum should include the following analytes:

Test Method	
Analyte/Parameter	
Petroleum Hydrocarbons	EPA Method 8100M
Volatile Organic Compounds	EPA Method 8260
Semi-volatile Organic Compounds	EPA Method 8270
Polychlorinated Biphenyls	EPA Method 8081
Total RCRA 8 Metals	EPA Method 6010 & 7471A
Flashpoint	EPA Method 1010M
Corrosivity (pH)	EPA Method 9045C
Reactivity	EPA Methods SW-846 7.3.3.2/9014 and
(Sulfide and Cyanide)	SW-846 7.3.4.2/376.2

The Contractor shall have the third party testing company approved by the Owner prior to testing. Results of the testing shall be forwarded to the Contractor, Owner and Engineer.

4. Included in the \$5,000 allowance for testing will be compaction samples taken at 4 locations on site. Samples shall be taken as shown on the attached plan. The Contractor shall have the third party testing company approved by the Owner prior to testing. Results of the testing shall be forwarded to the Contractor, Owner and Engineer.
5. A unit price item for the Handling, Transport, and Disposal of Contaminated Soils has been added to the Contract Documents.
6. An add alternate item for the Compaction of the Existing Site Materials has been added to the Contract Documents.
7. The Contractor shall include in his/her base bid the cost for the complete construction of the segmented block wall.
8. The alternate for concrete wall shall be for a concrete block wall. (Example sizes of blocks are 2x4, 2x6, etc.) The Contractor shall specify the price for complete installation of the concrete wall as an alternate to the segmented block wall.
9. For the items that unit prices are requested, the contract documents have been modified to include specific quantities for each of these items. The Contractor shall include these items in his/her base bid price. Credits and additions to these items may be applicable.
10. The stump pile shown on Sheet 4 of the plan set has been cleared by the College.

CONTRACT DOCUMENTS

SECTION 00410 – BID FORM

1. Delete page 00410-1 in its entirety and insert revised page 00410-1 (R-1) attached to this Addendum No.1. The BID and ITEMS DESCRIBED have been revised.
2. Delete page 00410-2 in its entirety and insert revised page 00410-2 (R-1) attached to this Addendum No.1. Unit quantities have been added to the ITEMS DESCRIBED.
3. Delete page 00410-3 in its entirety and insert revised page 00410-3 (R-10) attached to this Addendum No. 1. Addenda data has been added.

SECTION 01200 – PRICE AND PAYMENT PROCEDURES

1. Delete page 01200-4 in its entirety and insert revised page 01200-4 (R-1) attached to this Addendum No.1. The UNIT PRICES and ALTERNATES have been revised.

QUESTIONS AND ANSWERS SUBMITTED TO OWNER

1. The plan mentions contaminated soils, can you elaborate?

Response: There is a fill line of contaminated soils on the eastern side, the cap will go on this side. The western side is clean fill, no infiltration. The contamination is naturally occurring arsenic.

2. Won't drainage affect the western side and contaminate?

Response: It should not, the DEM plan is part of this addendum, if anything does get disturbed the plan will be followed.

3. Is there any cap currently?

Response: No, the material was transported from a different area, so you will be putting the cap on.

4. Will it be necessary to have an engineer stamp on the drawing for the wall?

Response: Yes, if the retaining wall height exceeds 4-feet.

5. The type of wall is unclear?

Response: See Clarification Nos. 7 & 8.

6. There is a warranty inspection retainage of \$5,000, should this be carried as allowance and added to base?

Response: No, this should not be added to base bid.

7. How long after completion will retainage be released?

Response: Ten (10) months to ensure drainage system is functioning correctly.

8. Is the ledge price for both ledge as well as open rock?

Response: No, the unit cost section under the Bid Form (Section 00410) has been revised to include a price for ledge removal price for both trench and open rock. Refer to Clarification No. 9.

9. Are plans available?

Response: Yes, on the website.

10. How much stock pile is underneath? If there is a sink hole who is responsible?

Response: As part of the Addendum No. 1 (Refer to Clarification No. 4), the Contractor is responsible for testing four locations within the site (see attached plan) for compaction. If the existing site work does not meet the compaction requirements, the Contractor shall rework the site to meet the required compaction in order to fully warranty the site at the end of the project. An add alternate for this work has been added to the Contract (Refer to Clarification No. 6).

11. Is there a unit cost for stock piles included in the base bid?

Response: Refer to Clarification No. 9

12. What are the limits of the rip-rap slope and could you please provide a detail for the slope.

Response: The proposed rip-rap slope has been shown in two locations as a dashed lined on the revised Grading and Drainage Plan attached to this addendum. Also on the revised Grading and Drainage Plan is a detail of the rip-rap slope.

13. Can we use the soil with organics init in the slope areas?

Response: The organic may be used if the organic material meets the RIDOT Specification for Common Borrow. (Section M.01.01 of the RI Standard Specifications of Road and Bridge Construction, compilation of Approved Specifications dated 1/24/2011.)

14. What fill is contaminated, and where can we dispose of it?

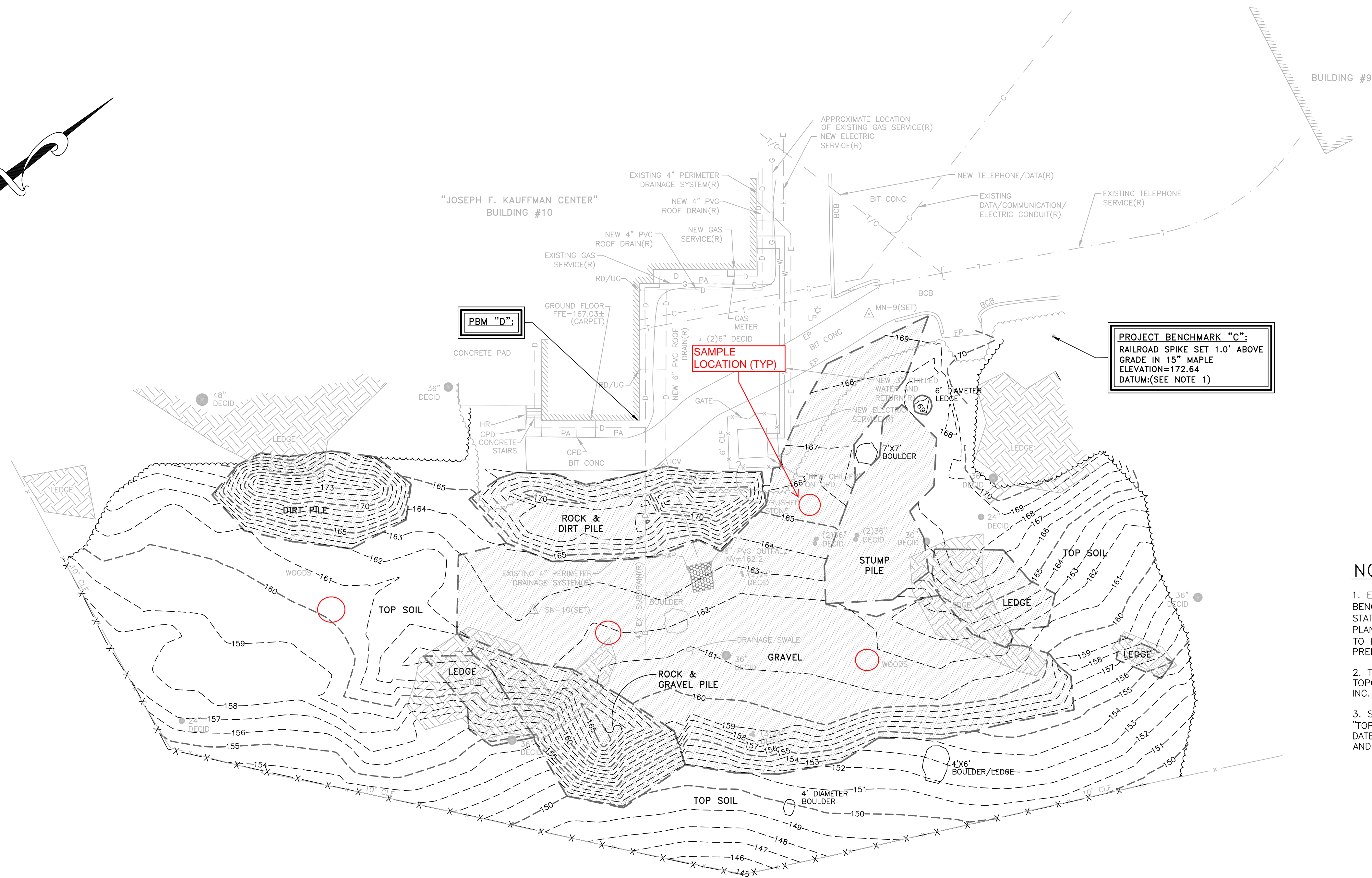
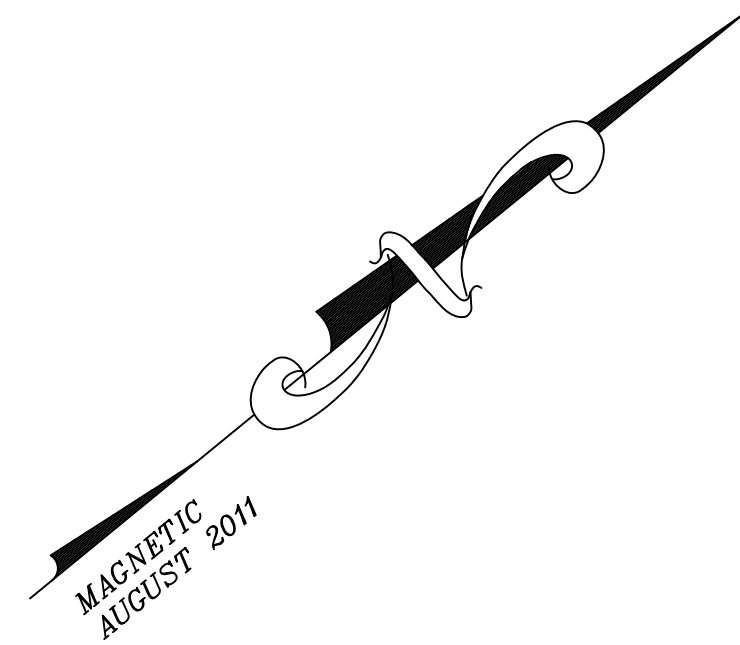
Response: The Contractor shall be responsible for determining if the stockpiled material is contaminated (refer to Clarification No. 3) and the Contractor shall be responsible for determining where it can be legally disposed of (refer to Clarification No.5).

15. For the SC-740, who is responsible for determining the soil bearing pressure acceptable?

Response: The Contractor shall be responsible for determining the soil bearing pressure. Please refer to Clarification Nos. 4 and 6.

16. Please provide a specification and detail for the alternate concrete block wall.

Response: Attached to this Addendum is a detail for the alternate concrete block wall.



NOTES:

- ELEVATIONS SHOWN ON THIS WORKSHEET ARE BASED ON THE FOLLOWING BENCHMARK: BUILDING #10 FINISH 1ST FLOOR ELEVATION=176.00 (DATUM NOT STATED) AS SHOWN ON A PLAN ENTITLED: "EXISTING CONDITIONS & DEMOLITION PLAN", SHEET C-1. SAID PLAN IS PART OF A DESIGN SET ENTITLED: "RENOVATIONS TO BUILDING 10, RHODE ISLAND COLLEGE, EAST CAMPUS", DATED APRIL 6, 2001, PREPARED BY VISION III ARCHITECTS, 255 CHAPMAN STREET, PROVIDENCE, RI.
- THE PURPOSE OF THIS WORKSHEET IS TO SHOW POST EXCAVATION TOPOGRAPHIC CONDITIONS AS SURVEYED BY WELCH ASSOCIATES LAND SURVEYORS, INC. ON DECEMBER 15, 2011.
- SCREENED FEATURES SHOWN HEREON ARE SHOWN PER WORKSHEET ENTITLED: "TOPOGRAPHIC WORKSHEET, BUILDING 10, RHODE ISLAND COLLEGE, EAST CAMPUS", DATED AUGUST 9, 2011, PREPARED BY WELCH ASSOCIATES LAND SURVEYORS, INC. AND ARE SHOWN FOR REFERENCE ONLY.

LEGEND

BIT CONC. BITUMINOUS CONCRETE
BCB. BITUMINOUS CONCRETE BERM
CLF. CHAIN LINK FENCE
CONC. CONCRETE
CPD. CONCRETE PAD
DECID. DECIDUOUS
EP. EDGE OF PAVEMENT
FFE. FINISH FLOOR ELEVATION
HR. HANDRAIL
ICV. IRRIGATION CONTROL VALVE
* LIGHT POLE
PA. PLANTED AREA
RD. ROOF DRAIN
TB. TOP OF BERM
UG. UNDERGROUND

UTILITY LEGEND

DRAIN ——— D ———
WATER ——— W ———
GAS ——— G ———
ELECTRIC ——— E ———
COMMUNICATIONS/DATA ——— C ———
TELEPHONE ——— T ———
TELEPHONE/DATA ——— T/C ———

UTILITY OPERATING AUTHORITIES

DRAIN/SEWER/WATER	RHODE ISLAND COLLEGE
GAS	NATIONAL GRID
ELECTRIC	RHODE ISLAND COLLEGE
CABLE	COX CABLE
TELEPHONE	VERIZON

PROJECT BENCHMARK "D": (PBM "D")
MARK SET ON BRICK BUILDING FACE
1.0' ABOVE NORTHEASTERLY CORNER
OF CONCRETE FOUNDATION
ELEVATION=167.88 DATUM:(SEE NOTE 1)

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WELCH
Associates Land
Surveyors, Inc.
218 North Main Street
West Bridgewater, MA 02379
(508) 580-4696 FAX: (508) 580-4962
WWW.WELCHINC.COM



SCALE: 1"=20'

**POST EXCAVATION
TOPOGRAPHIC WORKSHEET**
BUILDING #10
RHODE ISLAND COLLEGE
PROVIDENCE, RHODE ISLAND
(PROVIDENCE COUNTY)
Prepared for:
KBE BUILDING CORPORATION

ACAD FILE: P110701-BLDG 10-LEDGE-VOLUME.dwg BTC DATE: 1/6/2012



SHORT-TERM RESPONSE ACTION PLAN
RHODE ISLAND COLLEGE
RECREATION CENTER
600 MOUNT PLEASANT AVENUE
PROVIDENCE, RHODE ISLAND
RIDEM CASE NO. 2011-029

PREPARED FOR:

Rhode Island Department of Environmental Management
Providence, Rhode Island

PREPARED BY:

GZA GeoEnvironmental, Inc.
Providence, Rhode Island

August 2011
File No. 171016.00

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GZA
GeoEnvironmental, Inc.

*Engineers and
Scientists*

August 17, 2011
File No. 171016.00

Mr. Jeffrey Crawford
RI Department of Environmental Management
Office of Waste Management
235 Promenade Street
Providence, Rhode Island 02908



530 Broadway
Providence
Rhode Island
02909
401-421-4140
Fax: 401-751-8613
<http://www.gza.com>

Re: *Short Term Remedial Action Plan*
RI College Recreational Center
600 Mount Pleasant Avenue
Providence, Rhode Island
RIDEM Case No. 2011-029

Dear Mr. Crawford:

On behalf of our client, ABM Group, LLC, and Rhode Island College, GZA GeoEnvironmental Inc. (GZA) is pleased to submit this *Short Term Remedial Action Plan* (STRAP) associated with the above-referenced property.

The STRAP has been prepared to address the requirements of Section 9.00 of the RIDEM's Rules and Regulations for the Investigation and Remediation of Hazardous Materials Releases (Remediation Regulations). It is subject to the limitations presented in Appendix A.

We trust that this submittal fulfills your current needs. Should you have any questions or comments, please feel free to call us at 421-4140.

Very truly yours,

GZA GEOENVIRONMENTAL, INC.

A handwritten signature in blue ink, appearing to read 'R. Michael Clark'.

R. Michael Clark
Senior Project Manager

A handwritten signature in blue ink, appearing to read 'John P. Hartley'.

John P. Hartley
Principal

A handwritten signature in blue ink, appearing to read 'Larry Feldman'.

Larry Feldman
Senior Principal

RMC/JPH:tja

cc: John Fallone (ABM Group, LLC)
Don Tencher (RI College)

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FIGURES

FIGURE NO. 1	LOCUS PLAN
FIGURE NO. 2	SITE PLAN



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HEALTH AND SAFETY PLAN

1.00 INTRODUCTION



On behalf of the ABM Group, LLC (Client) and Rhode Island College, GZA GeoEnvironmental, Inc. (GZA) has prepared this *Short Term Response Action Plan* (STRAP). The plan is associated with the remediation of arsenic-impacted surface soils encountered during construction activities at the Recreation Center portion of the Rhode Island College campus, located at 600 Mount Pleasant Avenue in Providence, Rhode Island. For the purpose of this STRAP, this designated area is considered the "Site". The area comprising the Site is currently the focus of earthwork/construction activities for utility upgrades and building additions.

The STRAP has been prepared to address applicable requirements of Section 6.00 of the Department's Rules and Regulations for the Investigation and Remediation of Hazardous Materials Releases (Remediation Regulations). This STRAP has been prepared in accordance with the terms and conditions of our Agreement for Professional Consulting Services with the ABM Group, LLC, and is subject to the limitations presented in Section 6.00 and Appendix A. It may be subject to modification if additional information is subsequently developed by GZA or any other party.

2.00 BACKGROUND

The following sections provide Site background information.

2.10 SITE DESCRIPTION

Rhode Island College is located in the northwest portion of the City of Providence, in the Mount Pleasant section of the City. A *Site Locus Plan* prepared from a USGS Topographic Map (Prudence Island, RI Quadrangle) is included as Figure 1. It is approximately 1 mile southwest of the Providence-North Providence Corporate Boundary and approximately ½ mile east of the Johnston-Providence Corporate Boundary. Surrounding properties include Triggs Memorial Golf Course and Mount Pleasant High School to south and southeast, respectively, and residences.

The area that comprises the Site is located in the vicinity of the Recreation Center on the Rhode Island College Campus. The Recreational Center portion of the campus is presently being improved with the construction of building additions and a parking area (refer to Figure 2). It is anticipated that earthwork activities will be completed around mid-December 2011.

2.20 RELEASE BACKGROUND

Samples collected by others of excess soil generated as a result of ongoing earthwork activities were submitted for laboratory analysis to evaluate off-Site reuse/disposal alternatives. Specifically, a total of eight soil samples were analyzed for volatile organic compounds (VOCs), polychlorinated biphenyls (PCBs), total petroleum hydrocarbons



(TPH), RCRA 8 metals (both total and TCLP), and semi-volatile organic compounds (SVOCs), as well as hazardous waste characteristics. Results indicated the presence of arsenic at concentrations above the Method 1 Residential and Industrial/Commercial Direct Exposure Criteria of 7 mg/kg in all of the samples. No other regulatory exceedances were reported. Based on these findings, it is GZA's opinion that the arsenic concentrations are likely indicative of natural background conditions, and not the result of a specific release.

2.30 ENVIRONMENTAL SETTING

Based on a review of USGS topographic mapping, topography at the Site is generally flat, at an elevation of approximately 150 feet above the National Geodetic vertical Datum of 1929. There are no mapped surface water bodies located on the Site. The closest surface water body is the Woonasquatucket River, located approximately 0.3 miles west of the Site at its closest point.

Groundwater at and in the vicinity for the Site is designated a GB resource by RIDEM. This designation is given to groundwater considered unfit for human consumption without treatment due to known or presumed degradation. Based on its use as an educational facility, the Residential Direct Exposure Criteria (RDEC) apply to Site soils.

3.00 RESPONSE ACTION PLAN

The contents of this STRAP are presented in detail in the following sections.

3.10 REMEDIAL OBJECTIVES

The remedial objective for the Site is to manage excavated soil in a manner that reduces the potential for human exposure to arsenic concentrations above the RDEC.

3.20 PROPOSED REMEDY

Sufficient analytical testing data exists to characterize the excavated soils for off-Site disposal at a solid waste disposal facility. Section 4.60 provides a description of the measures that will be taken to manage these materials.

To address the potential exposure to soils remaining at the Site, the proposed remedy under this STRAP is to effectively isolate arsenic-impacted soil using a combination of the following RIDEM-approved engineered caps:

- Installation of a concrete slab (*i.e.*, a building slab);
- Installation of a bituminous asphalt pavement;
- Placement of a minimum of two feet of clean fill; and/or
- Placement of geotextile fabric overlain by a minimum of one foot of clean fill.



3.30 REMEDIATION OF IMPACTED GROUNDWATER

No remedial objective for groundwater remediation is proposed under this STRAP.

3.40 LIMITED DESIGN INVESTIGATION

No further investigation is proposed for the Site.

3.50 CONTRACTORS AND/OR CONSULTANTS

The Contractors, Consultants and contacts involved in the implementation of the proposed remedy include the following parties listed below.

Firm	Role	Contacts	Phone Number
GZA 530 Broadway, Providence, RI 02903	Environmental Engineering	R. Michael Clark John P. Hartley Larry Feldman	401- 427-2726 401-427-2727 781-278-3807
ABM Group, LLC 21 College Hill Road Warwick, Rhode Island	Construction Manager	John Fallone	401-681-4949
GZA Environmental Chemistry Laboratory 106 South Street Hopkinton, MA 01748	Analytical Testing Laboratory	Edie Hutchinson	508-435-9244
To be determined	Disposal Facility	---	---

RIDEM will be notified of any changes/additions to the above listing.

3.60 SOIL MANAGEMENT

The proposed remediation involves the excavation and management of soil exhibiting arsenic concentrations above the RDEC in the area comprising the Site. To the extent practicable, excess soils will be reused on-Site as part of the ongoing construction project. A Contractor Soil Management Plan (SMP) has been prepared for the contractor's use; a copy of the SMP is provided as Appendix B. Key points of the SMP are outlined below.

3.60.1 On-Site Soil Management

Excavated soils will be staged and temporarily stored in a designated area of the property for no more than 90 days. Soils will be stockpiled on polyethylene sheeting (6 mil minimum), and securely covered with the same at the end of each workday. Stockpiled materials will be maintained with appropriate controls to limit the loss of the cover and protect against wind and stormwater erosion. Soil stockpiles will be inspected daily. Should tears or punctures be observed in the polyethylene sheeting covering or underlying the piles, repairs will be made immediately.



3.60.2 Backfilling

To the extent practicable, excess soils will be reused on-Site as part of the ongoing construction project. Soil imported to serve as cap material must be analyzed to demonstrate that it meets the RDEC and the GB Leachability Criteria for all constituents as listed in Table 1 of the Remediation Regulations. Soil not meeting these standards will be prohibited from being used on Site.

3.60.3 Soil Reuse/Disposal

Soils excavated from the Site may not be re-used at off-Site properties unless it has been shown through representative sampling and laboratory testing overseen by an Environmental Professional that the material meets the Residential Direct Exposure Criteria for all constituents as listed in Table 1 of the Remediation Regulations. Approximately 1,500 tons of soil has been approved by the Rhode Island Resource Recovery Corporation (RIRRC) for disposal as solid waste soils at the Central Landfill facility in Johnston. We are presently evaluating other receiving facilities for that portion of the material requiring off-Site disposal.

3.70 CONTINGENCY PLAN

A Site-Specific *Health & Safety Plan* has been prepared for the proposed remedial actions. A copy of the HASP is attached as Appendix C.

The following provides a listing of individuals/firms who will be contacted in the event of an unanticipated incident involving hazardous materials.

Firm/Entity	Contact	Address	Phone Number
GZA	Mike Clark John Hartley	530 Broadway Providence, RI 02909	(401) 421-4140
RIDEM/ Office of Waste Management	Jeff Crawford	235 Promenade Street Providence, RI 02908	(401) 222-2797
RIDEM/Office of Compliance & Inspection/Emergency Response Program			(401) 222-1360 or (401) 222-3070 (non-business hours)
ABM Group, LLC	John Fallone	21 College Hill Road Warwick, RI 02886	(401) 481-0025
Rhode Island College	Don Tencher Proj. Mgr/Athletic Dir.	600 Mount Pleasant Avenue Providence, RI 02908	(401) 456-8007
Rhode Island College	Karla Safford	600 Mount Pleasant Avenue Providence, RI 02908	(401) 456-8949
Response Contractor: Marshall Environmental Group,	Peter Marshall	10 Dawn Lane Warwick, RI 02886	(401) 736-9001

3.80 SHORT TERM RESPONSE ACTION SUMMARY REPORT



Following the completion of field activities, including the removal of excavated soil and the backfilling of excavations, a *Short Term Response Action Summary Report* will be prepared in accordance with Section 6.09 of the Remediation Regulations. Attached to the report will be analytical data and facility receipts documenting the proper management of soils taken off-Site for reuse/disposal.

4.00 CERTIFICATION

To address Rule 9.19 of the Remediation Regulations, the following statements of certification are provided.

GZA GeoEnvironmental, Inc. certifies, to the best of its knowledge, that this Short Term Response Action Plan is complete and accurate.

A handwritten signature in blue ink, reading "John P. Hartley", is written over a horizontal line.

John P. Hartley
Principal
GZA GeoEnvironmental, Inc

Rhode Island College certifies, to the best of its knowledge, that this Short Term Response Action Plan is a complete and accurate representation of the site and the release and contains all known facts surrounding the release.

Don Tencher
Project manager/Athletic Director
Rhode Island College

5.00 LIMITATIONS

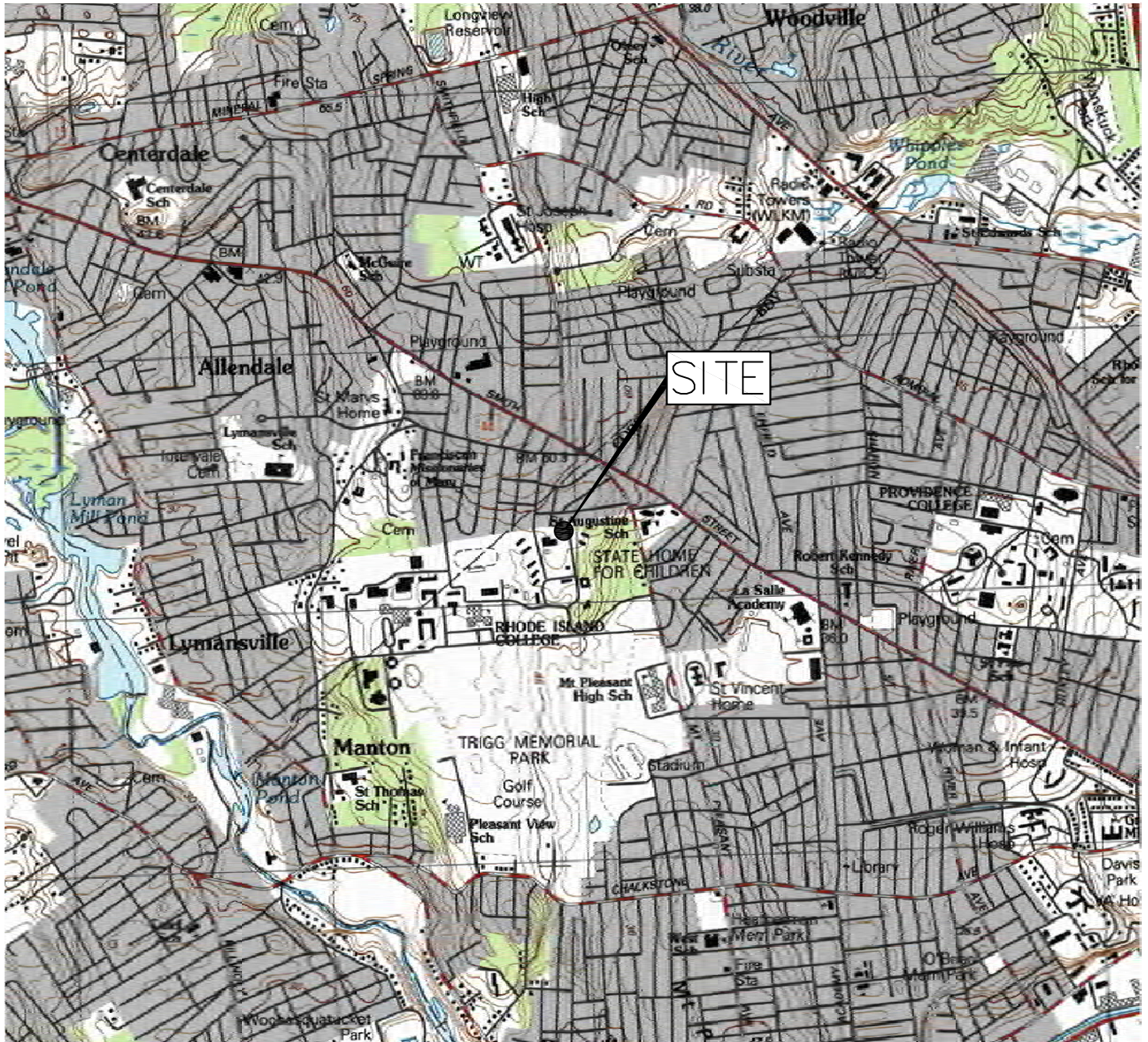
GZA's work was performed in accordance with generally accepted practices of other consultants undertaking similar studies at the same time and in the same geographical area, and GZA observed that degree of care and skill generally exercised by other consultants under similar circumstances and conditions. This work plan is also subject to the following specific limitations and those contained in Appendix A.



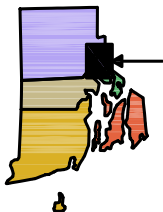
This work plan was designed to provide an appropriate level of remediation given our current understanding of site conditions and proposed development objectives for the property. If development plans or property use changes significantly, or if additional data is obtained during the course of development, GZA reserves the right to modify any or all of the criteria specified in this plan. This study and report have been prepared on behalf of and for the exclusive use of the ABM Group, LLC, and Rhode Island College for submittal to RIDEM in compliance with the Remediation Regulations. This Work Plan and the information contained herein shall not, in whole or in part, be disseminated or conveyed to any other party, nor used by any other party in whole or in part, without the prior written consent of GZA.

J:\ENV\171016.00 rmc\STRAP\171016 STRAP Final.doc

FIGURES



RHODE ISLAND



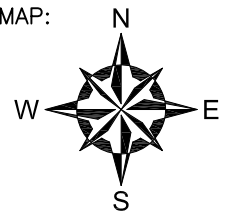
QUADRANGLE LOCATION

SOURCE: BASE MAP FROM THE FOLLOWING USGS QUADRANGLE MAP:
PROVIDENCE, RI-MA (41071-G3-TM-025)

DIGITAL TOPOGRAPHIC MAPS PROVIDED BY MAPTECH, INC.
CONTOUR ELEVATIONS REFERENCE NGVD 29,
CONTOURS ARE SHOWN IN 3 METER INTERVALS

0 1000 2000 4000

APPROXIMATE SCALE IN FEET



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RHODE ISLAND COLLEGE
600 MOUNT PLEASANT AVE
PROVIDENCE, RHODE ISLAND

PREPARED BY:
 **GZA** GeoEnvironmental, Inc.
Engineers and Scientists
www.gza.com

PREPARED FOR:
ABM GROUP, LLC.

LOCUS PLAN

PROJ MGR:	RMC	REVIEWED BY:	RMC	CHECKED BY:	RMC
DESIGNED BY:	RMC	DRAWN BY:	MBL	SCALE:	AS NOTED
DATE:	8-10-2011	PROJECT NO.	171016.00	REVISION NO.	0

FIGURE
1

© 2011 - GZA GeoEnvironmental, Inc. GZA-I:\ENVA\171016.00 rmc\FIGURES\GZA DWGS\171016.00-FIG2-RO-SITE-PLAN.dwg [SITE PLAN FIG 2] August 11, 2011 - 5:19pm christopher.dios



GENERAL NOTES

SOURCE: THIS DIGITAL AERIAL OTHOPHOTOGRAPHY CONTAINS THE ESRI ARCGIS ONLINE WORLD TOPOGRAPHIC MAP SERVICE, PUBLISHED FEBRUARY 2011 BY ESRI ARCGIS SERVICES. THE SERVICE WAS COMPILED TO UNIFORM CARTOGRAPHY USING A VARIETY OF BEST AVAILABLE SOURCES FROM SEVERAL DATA PROVIDERS, INCLUDING THE U.S. GEOLOGICAL SURVEY, U.S. ENVIRONMENTAL PROTECTION AGENCY, U.S. NATIONAL PARK SERVICE, FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS (FAO), DEPARTMENT OF NATURAL RESOURCES CANADA (NRCAN), AGRICULTURE AND AGRI-FOOD CANADA, THE STATE OF ARKANSAS, TELE ATLAS, AUTOMOTIVE NAVIGATION DATA (AND), DELORME, AND ESRI.

THE LOCATION OF THE HIGHLIGHT AREAS WERE APPROXIMATELY DETERMINED BY PLACING THE ABOVE REFERENCED DRAWING IN NAD83 DATUM USING A ARCGIS AERIAL IMAGE AND KNOWN POINTS IN THE FILED FOR ALIGNMENT. ARCGIS AERIAL IMAGES ARE PROVIDED FOR ILLUSTRATION PURPOSES ONLY AND ARE NOT CONSIDERED A LAND SURVEY. THESE LOCATIONS SHOULD BE CONSIDERED ACCURATE ONLY TO THE DEGREE IMPLIED BY THE METHOD USED.

NO.	ISSUE/DESCRIPTION	BY	DATE
UNLESS SPECIFICALLY STATED BY WRITTEN AGREEMENT, THIS DRAWING IS THE SOLE PROPERTY OF GZA GEOENVIRONMENTAL, INC. (GZA). THE INFORMATION SHOWN ON THE DRAWING IS SOLELY FOR USE BY GZA'S CLIENT OR THE CLIENT'S DESIGNATED REPRESENTATIVE FOR THE SPECIFIC PROJECT AND LOCATION IDENTIFIED ON THE DRAWING. THE DRAWING SHALL NOT BE TRANSFERRED, REUSED, COPIED, OR ALTERED IN ANY MANNER FOR USE AT ANY OTHER LOCATION OR FOR ANY OTHER PURPOSE WITHOUT THE PRIOR WRITTEN CONSENT OF GZA. ANY TRANSFER, REUSE, OR MODIFICATION TO THE DRAWING BY THE CLIENT OR OTHERS, WITHOUT THE PRIOR WRITTEN EXPRESS CONSENT OF GZA, WILL BE AT THE USER'S SOLE RISK AND WITHOUT ANY RISK OR LIABILITY TO GZA.			

RHODE ISLAND COLLEGE
600 MOUNT PLEASANT AVE
PROVIDENCE, RHODE ISLAND

SITE PLAN

PREPARED BY: GZA GeoEnvironmental, Inc. Engineers and Scientists www.gza.com		PREPARED FOR: CLIENT NAME AND ADDRESS	
PROJ MGR: RMC	DESIGNED BY: RMC	REVIEWED BY: RMC	CHECKED BY: CRD
DATE: AUGUST 2011	PROJECT NO. 171016.00	SCALE: AS NOTED	REVISION NO. 0

FIGURE
2

SHEET NO. 1 OF 1

APPENDIX A

LIMITATIONS

LIMITATIONS

1. This *Short Term Remedial Action Plan* have been prepared on behalf of and for the exclusive use of ABM Group, LLC and Rhode island College, solely for use in an environmental evaluation of property located at 600 Mount Pleasant Road, in Providence, Rhode Island (the "Site"). This *Short Term Remedial Action Plan* and the information contained herein shall not, in whole or in part, be disseminated or conveyed to any other party, nor used by any other party in whole or in part, without the prior written consent of GZA. However, GZA acknowledges and agrees that the report may be conveyed to the Rhode Island Department of Environmental Management (RIDEM).
2. In preparing this *Short Term Remedial Action Plan*, GZA GeoEnvironmental, Inc. has relied on certain information provided by state and local officials and other parties referenced therein. Although there may have been some degree of overlap in the information provided by these various sources, GZA GeoEnvironmental did not attempt to independently verify the accuracy or completeness of all information reviewed or received during the course of this site assessment.
3. In the event that the Client or others authorized to use this *Short Term Remedial Action Plan* obtain information on environmental or hazardous waste issues at the Site not contained in this document, such information shall be brought to GZA's attention forthwith. GZA will evaluate such information and, on the basis of this evaluation, may modify the conclusions stated herein.
4. The purpose of this report was to assess the Site with respect to the applicable requirements of the RIDEM Rules and Regulations for the Investigation and Remediation of Hazardous Materials Releases (Remediation Regulations). No specific attempt was made to check on the compliance of present or past owners or operators of the Site with federal, state, or local laws and regulations, environmental or otherwise.
5. Where quantitative laboratory analyses have been conducted by others and/or an outside laboratory, GZA has relied upon the data provided, and has not conducted an independent evaluation of the reliability of these data.
6. The observations and recommendations contained in this document are based in part upon various types of chemical data reported by others, and are contingent upon their validity. These data have been reviewed and interpretations made in the report. It should be noted that variations in the types and concentrations of contaminants and variations in their flow paths may occur due to seasonal water table fluctuations, past disposal practices, the passage of time, and other factors. Should additional chemical data become available in the future, these data should be reviewed by GZA and the conclusions and recommendations presented herein modified accordingly.
7. Chemical analyses have been performed by others for specific parameters, as described in the text. However, it should be noted that additional chemical constituents not searched for during the current study may be present at the Site.

APPENDIX B

CONTRACTOR SOIL MANAGEMENT PLAN

SOILS MANAGEMENT PLAN

RI College Recreation Center
Providence, Rhode Island
(RIDEM Case # 2011-029)

1.00 INTRODUCTION

This *Soils Management Plan* has been prepared on behalf of ABM Group, LLC and Rhode Island College for the contractor(s) completing development/construction activities (including earthwork and landscaping) associated with above-referenced project (site). It may be subject to modification if additional information is subsequently developed by GZA or any other party.

Based on analysis of samples collected from the site, soils contain the metal arsenic at concentrations above the Residential Direct Exposure Criterion of 7 mg/kg established by the RI Department of Environmental Management. No other contaminants were detected at levels above the applicable regulatory criteria. Based on this information, the contractor shall assume that all soils within the project area are similarly impacted, and as such, must be handled as “contaminated” unless proven otherwise. Accordingly, no excess soil shall be transported off-site for unrestricted reuse without a formal evaluation by an Environmental Professional.

Note that the handling, transportation, disposal, and re-use of rock materials are not governed by the Remediation Regulations, and therefore are not subject to this plan.

2.00 SOIL MANAGEMENT

This section of the *Soils Management Plan* has been prepared to establish procedures that will be followed during construction/earthwork activities to manage excavated soils which cannot be re-used on site as part of the ongoing construction/earthwork activities.

2.10 SOIL MANAGEMENT GUIDELINES

The following soil management guidelines were developed for activities involving soil excavation at the Site. The procedures will apply to soil stockpiling, management, characterization, re-use and disposal procedures during construction. The disposal procedures detailed below apply only to excess soil which cannot be used as backfill on site.

- Soil generated from any excavation conducted at the site may be placed back into its original excavation for backfill upon completion of the excavation. So as to maintain known exposure scenarios, to the extent practical and feasible, the contractor shall backfill the excavation so that the corresponding depth and location of the backfilled soil resembles the depth and location at which the soil originally existed.
- Prior to the initiation of soil excavation, the contractor or any other personnel performing subsurface work at the site will contact DigSafe® and appropriate utility companies to identify and mark the location of below grade utilities.
- Excavated soils will be staged and temporarily stored in a designated area of the property for no more than 90 days. Within reason, the storage location will be selected to limit the unauthorized access to the materials (*i.e.*, away from public roadways/walkways).
- Depending on the volume of material involved in the project, soils will be either stockpiled on polyethylene sheeting and/or stored in roll-off type containers. In either case, the material in storage will be covered with secured polyethylene sheeting (6 mil minimum) at the end of each workday. Stockpiled materials will be maintained with appropriate controls to limit the loss of the cover and protect against stormwater erosion. Soil stockpiles shall be inspected daily; should tears or punctures be observed in the polyethylene sheeting covering or underlying the piles, repairs shall be made immediately.
- During site/earthwork, dust suppression techniques must be initiated and maintained during periods when visible windblown dusts are generated. All reasonable precautions must be taken to prevent the excessive generation of dust during soil excavation, stockpiling, loading, and other soil handling activities. If excessive dust generation occurs and cannot be reasonably controlled, dust masks should be required for onsite workers.
- In the event that unexpected observations or situations involving hazardous materials, hazardous wastes or similar conditions of environmental concern arise during site work, such activities will immediately stop. Workers will not attempt to handle the situation themselves, but will contact GZA for further evaluation and direction. See Section 3.00 for contact information for GZA personnel.
- Soil excavated from the site may not be re-used at off-Site properties unless it has been shown through representative sampling and laboratory testing overseen by an Environmental Professional that the material meets the Residential Direct Exposure Criteria (RDEC) for all constituents as listed in Table 1 of the Remediation Regulations. Soil must be sampled, by an Environmental Professional, at a frequency of one sample per 1,000 cubic yards for all constituents. Testing must be performed by

a RI Department of Health approved laboratory. In the event that the soil does not meet the RDEC and not reused on-Site, the material must be properly managed and disposed of off-site at an appropriately licensed facility. No soil will leave the Site without the approval of GZA and/or the Owner.

- The soil testing program must be adequate to support the data requirements of the anticipated disposal facility, but at a minimum should include the following analytes.

Analyte/Parameter	Test Method
Petroleum Hydrocarbons	EPA Method 8100M
Volatile Organic Compounds	EPA Method 8260
Semi-volatile Organic Compounds	EPA Method 8270
Polychlorinated Biphenyls	EPA Method 8081
Total RCRA 8 Metals	EPA Method 6010 & 7471A
Flashpoint	EPA Method 1010M
Corrosivity (pH)	EPA Method 9045C
Reactivity	EPA Methods SW-846 7.3.3.2/9014 and SW-846 7.3.4.2/376.2

- Copies of the material shipping records associated with the disposal/recycling of the materials will be provided to ABM Group, LLC. This information will be summarized in a closure report to be completed by GZA and submitted to the RIDEM.
- All non-disposable equipment used during the soil disturbance activities will be properly decontaminated as appropriate prior to removal from the Site. All vehicles utilized during the work shall be properly decontaminated as appropriate (*e.g.*, remove visible soil from tires using dry brushing techniques) prior to leaving the Site.
- At the completion of Site development work, all exposed soils are required to be capped with one of the engineered controls described below.

2.20 ENGINEERED CONTROLS

Direct contact with impacted soils has been identified as the primary risk at the Site. Accordingly, the implementation of engineered controls has been selected as an appropriate remedial alternative. The specifications for the placement of each of these controls are provided below. Refer to Figure 1 for the locations of these engineered controls.

- **Asphalt pavement** – Access and parking areas will be completed with a 6-inch gravel base course, an 8-inch sub-base course composed of granular fill, and a top course of a minimum of 4 inches of asphalt, laid in 1½- to 2½ -inch perpendicular lifts to the maximum extent possible.

- **Concrete pavement** – Concrete walkways will be completed with concrete pavement poured at a thickness of 4 inches, over 6 inches of compacted gravel and 10 inches of compacted off-Site granular fill, over compacted sub-grade. The slab of the buildings will be completed with concrete pavement poured in-place at a minimum thickness of 6 inches.
- **Brick Pavers** – Brick-paved surface areas will be constructed by the placement of a 6-inch compacted lift over the compacted sub-grade. The surface will then be completed by the placement of a 2-inch compact layer of stone dust over which standard (3-inch thick) pavers will be placed.
- **Landscaped areas** – Landscaped areas will be capped by a 2-foot layer of clean “off-Site soil” or the installation of permeable geosynthetic textile overlain by a 1-foot lift of clean off-Site soil. Based on the guidelines provided by RIDEM, the geotextile material specified below has been selected for use at the site.

Manufacturer	TC Mirafi
Product Name	N-Series/140-N
Type	Non-woven geotextile
Material of Construction	Polypropylene stable fibers
Apparent Opening Size- ASTM D4751 (US Sieve)	70
Flow Rate - ASTM D4491 (gal/min/ft ²)	135 gal/min/ft ²
Grab Tensile Strength - ASTM D4632 (lbs)	120 lbs
Mullen Burst Strength -ASTM D3786 (psi)	400 psi
Puncture - ASTM D4833 (lbs)	120 lbs

All clean fill imported to the site, including sub-grade material and loam from native sources, must be sampled and characterized via laboratory analysis prior to delivery and placement. The samples will be analyzed at a frequency of 1 sample per 500 cubic yards for arsenic, and one sample per 2,000 cubic yards for RCRA 8 metals, total petroleum hydrocarbons (TPH), and volatile organic compounds (VOCs). Laboratory analytical results must be submitted to GZA via fax, email or hand-delivery prior to the material being brought on-Site. Clean fill and loam will be sampled for volatile organic compounds, semi-volatile organic compounds, Priority Pollutant 13 Metals, and total petroleum hydrocarbons. All soil that is to be utilized on-Site must meet the Residential Direct Exposure Criteria and the GB Leachability Criteria for all constituents. Please also be advised that the *Closure Report/Annual Inspection Report* for the site must include all original laboratory analytical data and a statement from the facility that provides the clean fill and/or loam attesting to the material’s origin and suitability.

2.30 BEST MANAGEMENT PRACTICES

During Site development, the general contractor will be responsible for limiting access to the Site during excavation and construction of the building, and for the implementation of standard construction best management practices as appropriate, to reduce the likelihood of uncontrolled exposure to impacted media at and from the Site.

2.30.1 Stormwater Management

Contractor will take measures to protect off-Site areas from the stormwater run-off of impacted soils; these controls will include, but will not be limited to, the establishment of siltation fences and staked hay bales in areas of the Site susceptible to erosion. GZA's on-Site field engineer will provide recommendations for the establishment of additional stormwater controls as construction/earthwork activities advance.

2.30.2 Dust Control

The contractor will prepare a dust and dirt containment plan prior to beginning work. The contractor will maintain a water truck(s) at the Site to control airborne dust during soil excavation, grading and other site development activities. Initiation of dust control measures will be the responsibility of the owner's representative and the contractor. The water truck shall be outfitted with sprinkler hoses and bars that allow surface watering in the area of the truck. The contractor shall use the water truck when the site soils become dry and there is potential for airborne dust. The contractor shall have a sufficient number of operable water trucks to maintain a moist soil surface at all areas of the site where exposed soils exist. Additionally, the contractor shall install and maintain the facilities to fill and maintain the water truck(s).

2.40 OPERATING LOG

An Operating Log, to be developed and maintained by the Contractor, will be readily available at the Site during the period of construction. Subsequent to this period, the log will be retained for a minimum period of three years. The Operating Log will include, at a minimum, the following information:

- Dates and time periods during which the remedial components described herein were ongoing;
- Records of any laboratory analysis and field screening performed as part of the remedial action;
- Descriptions of instances under which the Contingency Plan was implemented; and
- Inspection reports detailing compliance with the remedial specifications described herein and the actions taken to address non-compliant practices/conditions.

A copy of the Operating Log will be provided to GZA at the completion of the project. Photographic evidence of the completion of key remedial components (e.g., placement of the geotextile material, the thickness of the final soil cap, and the placement and thickness of the bituminous asphalt and concrete pavement) will be provided to GZA.

3.00 CONTINGENCY PLAN

The following provides a listing of points of contacts who will be contacted in the event of an unanticipated incident involving hazardous materials.

Firm	Contact	Address	Phone Number
GZA GeoEnvironmental, Inc.	John Hartley Michael Clark	530 Broadway Providence, RI 02909	(401) 421-4140
ABM Group, LLC	John Fallone	21 College Hill Road Warwick, RI 02886	(401) 481-0025
Rhode Island College	Don Tencher	600 Mount Pleasant Avenue Providence, RI 02908	(401) 456-8007
RIDEM, Office of Waste Management	Jeffrey Crawford	235 Promenade Street Providence, RI 02903	(401) 222-2797
RIDEM Emergency Response	Jim Ball	235 Promenade Street Providence, RI 02903	(401) 222-2797 x7129 or (401) 222-3070 (non-business hours)
Marshall Environmental, Inc.	Peter Marshall Wes Hodge	10 Dawn Lane Warwick, RI 02886-6925	736-9001 639-3714 (cell)

4.00 SHUT-DOWN REQUIREMENTS

The following section has been prepared to address the requirements of Section 9.16 of the Remediation Regulations.

Daily shut-down procedures will include the covering and securing of all stockpiled soils with polyethylene sheeting and, if warranted, the application of water (via the water truck) to exposed surfaces. Additionally, off-hour access to the Site will be controlled by locking the temporary construction fencing. In the event that the development project is cancelled, or if construction activities are suspended for an extended period of time, (*i.e.*, greater than two weeks), GZA will be so notified.

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APPENDIX C

HEALTH AND SAFETY PLAN

GZA SITE-SPECIFIC HEALTH, SAFETY & ACCIDENT PREVENTION PLAN

1. CLIENT/SITE/PROJECT INFORMATION		
Client: ABM Group, LLC		
Site Address: Rhode Island College, 600 Mount Pleasant Avenue, Providence, Rhode Island		
Site Description, Work Environment: College Campus		
Job/Project #: 171016.00	Estimated Start Date: 8/11/2011	Estimated Finish Date: 11/31/2011

2. EMERGENCY INFORMATION		
Hospital Name & Address: Rhode Island Hospital, 80 Dudley Street, Providence, RI		Hospital #: 401-444-4220
Directions and Street Map of Route to Nearest Hospital Attached: <input checked="" type="checkbox"/> Yes (required)		
Fire #: 911	Ambulance #: 911	Police #: 911
Other Emergency Contact(s): Project Manager Michael Clark		Phone #'s: 401-421-4140 / 781-983-1657
Location of Nearest Phone: Employee cell phone		
Site Specific Emergency Preparedness/Response Procedures/Concerns: No special requirements.		
<p>IMPORTANT: All incidents (injuries, fires, chemical spills, property damage, and significant near misses) must be reported within 24hours to your EHS Coordinator and the EHS Director and Insurance Coordinator, per GZA Incident Reporting Policy # 03-1005. Incident Report/Analysis form located on GZA Intranet under "Health and Safety," "Incident Report/Analysis Form"</p>		

3. SUB-SURFACE WORK, UNDERGROUND UTILITY LOCATION																									
Will subsurface explorations be conducted as part of this work? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No																									
Site property ownership where underground explorations will be conducted on:	Public Access Property <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Private Property <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No																								
Have Necessary Underground Utility Notifications For Subsurface Work Been Made?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> Yet to be conducted																								
Specify Clearance Date & Time, Dig Safe Clearance I.D. #, And Other Relevant Information:																									
DIGSAFE clearance is the responsibility of the contractor. Please review the requirements in the next section with the contractor prior to contact with DIGSAFE.																									
<p>IMPORTANT! For subsurface work, prior to the initiation of ground penetrating activities, GZA personnel to assess whether the underground utility clearance (UUC) process has been completed in a manner that appears acceptable, based on participation/confirmation by other responsible parties (utility companies, subcontractor, client, owner, etc.), for the following:</p>																									
Electric: Fuel (gas, petroleum, steam): Communication: Water: Sewer: Other:	<table style="width: 100%;"> <tr> <td><input type="checkbox"/> Yes</td> <td><input type="checkbox"/> No</td> <td><input type="checkbox"/> NA</td> <td><input type="checkbox"/> Other _____</td> </tr> <tr> <td><input type="checkbox"/> Yes</td> <td><input type="checkbox"/> No</td> <td><input type="checkbox"/> NA</td> <td><input type="checkbox"/> Other _____</td> </tr> <tr> <td><input type="checkbox"/> Yes</td> <td><input type="checkbox"/> No</td> <td><input type="checkbox"/> NA</td> <td><input type="checkbox"/> Other _____</td> </tr> <tr> <td><input type="checkbox"/> Yes</td> <td><input type="checkbox"/> No</td> <td><input type="checkbox"/> NA</td> <td><input type="checkbox"/> Other _____</td> </tr> <tr> <td><input type="checkbox"/> Yes</td> <td><input type="checkbox"/> No</td> <td><input type="checkbox"/> NA</td> <td><input type="checkbox"/> Other _____</td> </tr> <tr> <td><input type="checkbox"/> Yes</td> <td><input type="checkbox"/> No</td> <td><input type="checkbox"/> NA</td> <td><input type="checkbox"/> Other _____</td> </tr> </table>	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	<input type="checkbox"/> Other _____	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	<input type="checkbox"/> Other _____	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	<input type="checkbox"/> Other _____	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	<input type="checkbox"/> Other _____	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	<input type="checkbox"/> Other _____	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	<input type="checkbox"/> Other _____
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<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	<input type="checkbox"/> Other _____																						
Comments:																									

4. SCOPE OF WORK	
Any OSHA PERMIT-REQUIRED CONFINED SPACE entry? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO If yes, use <u>Site Specific H&S Plan/Confined Space Entry Permit</u> for that portion of the work	Any INDOOR fieldwork? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO If yes, explain:

General project description, and phase(s) or work to which this H&S Plan applies.	Site work consists of construction and earthwork activities in soils with known arsenic impacts.
Specific Tasks Performed by GZA:	Oversight of earthwork activities. Collection of soil samples.
Concurrent Tasks to be Performed by GZA Subcontractors (List Subcontractors by Name):	Earthwork and construction activities – subcontractor to be determined.
Concurrent Tasks to be Performed by Others:	
<p>IMPORTANT! Subcontractors may use GZA's plan for general informational purposes only. Each subcontractor is responsible for determining the adequacy and applicability of the information herein to its own activities on site. Each subcontractor engaged by GZA is responsible for all matters relating to the H&S of its personnel and equipment in performance of its work, as well as obligations for compliance with H&S regulations applicable to its work. GZA subcontractors are subject to GZA's review, recommendations, and contractual requirements pertaining to H&S.</p>	

5. DOCUMENTATION TO BE COMPLETED

- **Site Health and Safety Briefing/Site Safety Orientation Record** (Attachment A) must be completed prior to the initiation of on-site activities and at least once per week thereafter until the completion of GZA on-site activities. For some projects, daily safety briefings may be appropriate.
- **Site Inspection Log** (Attachment B) must be completed at the initiation of on-site activities and at least once per week thereafter until the completion of GZA on-site activities.
- **Incident Analysis Form** (Attachment C) must be completed for each accident, injury, incident, near miss.

6. SITE-SPECIFIC OVERVIEW OF H&S HAZARDS/ SAFETY MEASURES (Based on Hazard Assessment, Section 11)

For the hazards identified by the Hazard Assessment checklist, describe the specific nature of that hazard as it relates to your jobsite, and describe the safety measures to be implemented for worker protection. Use brief abstract statements or more detailed narrative as may be appropriate.

ON-SITE HAZARDS:	SAFETY MEASURES:
General housekeeping	Watch for tools and other items that maybe laying on the ground.
Pedestrians	The Site area is located on a college campus. Expect to encounter pedestrian traffic. Use traffic cones, caution tape and warning signs where/when appropriate.
Construction heavy equipment	Move with care around heavy equipment. Wear high visibility traffic vest and stay within the equipment operator's line of sight.
Weather hazards Insect hazardous	If weather is hot, please refer to company policy to high-heat days. (See attached Safety Alert). Use insect repellent to deter biting/stinging insects.
Noise and noise source awareness	Use appropriate hearing protection when in the vicinity of the Geoprobe rig.
Utility-related hazardous	Watch for overhead lines and unexpected buried utilities.
Presence of arsenic in soil	Elevated levels of arsenic have been detected in soils within the work area at concentrations of up to 25 ppm. This concentration is well below the OSHA PEL for arsenic at nuisance dust levels. Avoid breathing concentrated dust. Wear appropriate safety gear when working with soil.
Trenching and excavation	Remain alert in excavation areas to avoid falling into excavation.

7. HEALTH AND SAFETY EQUIPMENT AND CONTROLS

AIR MONITORING INSTRUMENTS (ensure instruments are calibrated)

☒ PID Type: OVM Lamp Energy: 10.6 eV

PERSONAL PROTECTIVE EQUIPMENT

☐ Respirator Type:

<input type="checkbox"/> FID Type: <input type="checkbox"/> Carbon Monoxide Meter <input type="checkbox"/> Hydrogen Sulfide Meter <input type="checkbox"/> O ₂ /LEL Meter <input type="checkbox"/> Particulate (Dust) Meter <input type="checkbox"/> Calibration Gas Type <input type="checkbox"/> Others: Discuss/Clarify, as Appropriate: OTHER H&S EQUIPMENT & GEAR <input type="checkbox"/> Fire Extinguisher <input checked="" type="checkbox"/> Caution Tape <input checked="" type="checkbox"/> Traffic Cones or Stanchions <input checked="" type="checkbox"/> Warning Signs or Placards <input type="checkbox"/> Decon Buckets, Brushes, etc. <input type="checkbox"/> Portable Ground Fault Interrupter (GFI) <input type="checkbox"/> Lockout/Tagout Equipment <input type="checkbox"/> Ventilation Equipment (dust mask) <input type="checkbox"/> Others: Discuss/Clarify, as Appropriate:	<input type="checkbox"/> Resp-Cartridge Type: <input checked="" type="checkbox"/> Hardhat <input checked="" type="checkbox"/> Outer Gloves Type: Nitrile <input type="checkbox"/> Inner Gloves Type: <input checked="" type="checkbox"/> Steel-toed boots/shoes <input type="checkbox"/> Coveralls Type: <input type="checkbox"/> Outer Boots Type: <input checked="" type="checkbox"/> Eye Protection with side shields <input type="checkbox"/> Face Shield <input checked="" type="checkbox"/> Traffic Vest <input type="checkbox"/> Personal Flotation Device (PFD) <input type="checkbox"/> Fire Retardant Clothing <input type="checkbox"/> EH (Electrical Hazard) Rated Boots, Gloves, etc. <input checked="" type="checkbox"/> Noise/Hearing Protection <input type="checkbox"/> Others: Discuss/Clarify, as Appropriate:
--	---

8. AIR MONITORING ACTION LEVELS Is air monitoring to be performed for this project? Yes ☒ No ☐

Make sure air monitoring instruments are in working order and have been calibrated prior to use. Depending on project-specific requirements, periodic field calibration checks may be necessary during the day of instrument use.

A. ACTION LEVELS FOR OXYGEN DEFICIENCY AND EXPLOSIVE ATMOSPHERIC HAZARDS (Action levels apply to occupied work space in general work area.)

☐ Applicable, See Below. ☒ Not Applicable

Parameter	Response Actions for Elevated Airborne Hazards
Oxygen	At 19.5% or below, exit area, provide adequate ventilation, or proceed to Level B, or discontinue activities. Verify presence of adequate oxygen (approx. 12% or more) before taking readings with LEL meter. If oxygen levels are below 12%, LEL meter readings are not valid.
LEL	Less than 10% LEL - Continue working, continue to monitor LEL levels Greater than or Equal to 10% LEL- Discontinue work operation and immediately withdraw from area. Resume work activities ONLY after LEL readings have been reduced to less than 10% through passive dissipation, or through active vapor control measures.

B. ACTION LEVELS FOR INHALATION OF TOXIC/HAZARDOUS SUBSTANCES (Action levels are for sustained breathing zone concentrations.)

☒ Applicable, See Below. ☐ Not Applicable

Air Quality Parameters (Check all that apply)	Remain in Level D or Modified D	Response Actions for Elevated Airborne Hazards
<input checked="" type="checkbox"/> VOCs	0 to 10 ppm	10 ppm to 100 ppm: Proceed to Level C, or Ventilate, or Discontinue Activities > 100 ppm: Proceed to Level B, or, Ventilate, or Discontinue Activities
<input type="checkbox"/> Carbon Monoxide	0 to 35 ppm	At greater than 35 ppm, exit area, provide adequate ventilation, or proceed to Level B, or discontinue activities.
<input type="checkbox"/> Hydrogen Sulfide	0 to 10 ppm	At greater than 10 ppm, exit area, provide adequate ventilation, or proceed to Level B, or discontinue activities

<input type="checkbox"/>	Dust	0 to mg/m ³	
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C. SPECIAL INSTRUCTIONS/COMMENTS REGARDING AIR MONITORING (IF APPLICABLE)

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9. H&S TRAINING/QUALIFICATIONS FOR FIELD PERSONNEL

- | | |
|--|---|
| <input checked="" type="checkbox"/> Project-Specific H&S Orientation Required for All Projects, All Field Staff
<input checked="" type="checkbox"/> OSHA 40 Hr. Hazwoper/8 Hr. Refreshers
<input checked="" type="checkbox"/> Hazard Communication (for project-specific chemical products)
<input checked="" type="checkbox"/> First Aid/CPR (at least one individual on site)
<input checked="" type="checkbox"/> General Construction Safety Training
<input type="checkbox"/> Lockout/Tagout Training
<input type="checkbox"/> Electrical Safety Training
<input type="checkbox"/> Bloodborne Pathogen Training | <input type="checkbox"/> Fall Protection Training
<input type="checkbox"/> Trenching & Excavation
Others:
<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/> |
|--|---|

Discuss/Clarify, as needed:

10. PROJECT PERSONNEL - ROLES AND RESPONSIBILITIES

GZA ON-SITE PERSONNEL:

Name	Project Title/Assigned Role	Telephone Numbers
To be determined	Site Supervisor	work: cell:
To be determined	Site Safety Officer	work: cell:
To be determined	First Aid Personnel	work: cell:

Site Supervisors and Project Managers (SS/PM): Responsibility for compliance with GZA Health and Safety programs, policies, procedures applicable laws and regulations is shared by all GZA management and supervisory personnel. This includes the need for effective oversight supervision of project staff necessary to control the Health and Safety aspects of GZA on-site activities.

Site Safety Officer (SSO): The SSO is responsible for implementation of the Site Specific Health and Safety Plan.

First Aid Personnel: At least one individual designated by GZA who has current training and certification in basic first aid and cardiopulmonary resuscitation (CPR) must be present during on-site activities involving multiple GZA personnel.

OTHER PROJECT PERSONNEL:

Name	Project Title/Assigned Role	Telephone Numbers
Lawrence Feldman	Principal-in-Charge	Work: 781-278-3807 Cell: 781-983-1675
Mike Clark	Senior Project Manager	Work: 401-421-4140 Cell: 781-983-1657
Mark Dalpe	Health and Safety Coordinator (HSC)	Work: 401-421-4140 Cell: 401-374-2305
Jayanti Chatterjee	GZA Director of Health and Safety	Work: 973-774-3335 Cell: 973-303-9796

Principal-in-Charge: Responsible of overall project oversight, including responsibility for Health and Safety.

Project Manager: Responsible for day-to-day project management, including Health and Safety.

Health and Safety Coordinator: General Health and Safety guidance and assistance.

Director of Health and Safety: H &S technical and regulatory guidance, assistance regarding GZA H&S policies and procedures.

11. HAZARD ASSESSMENT (CHECK ALL THAT APPLY)

A. GENERAL FIELDWORK HAZARDS: (Investigative, remedial or construction-related work; environmental, geological, geotechnical, geo-civil, wetland/upland/woodland work, etc.)

- ☐ Confined Space Entry – USE CONFINED SPACE H&S PLAN/ENTRY PERMIT (tanks, vessels, tunnels, misc. equipment enclosures)
- ☐ Enclosed Spaces (Non-Confined Spaces) – (trenches, basements, sub-basements, attics)
- ☒ General Housekeeping, Slip/Trip/Fall Hazards
- ☐ Unsanitary/Infectious Hazards (wastewater, sewage, landfill, medical waste, blood borne pathogens)
- ☐ Poisonous Plants, Plant Allergies
- ☒ Biting/Stinging Insects, Spiders, Lyme Disease
- ☐ Animal Hazards (snakes/rats/vermin, feral dogs/cats, urban dogs, wild animals, etc.)
- ☐ Water/Wetland Hazards (boating, barge, raft, wading, diving, ice/thin ice, hazardous currents, shoreline/tidewater hazards, dam release/flash floods, river/stream crossing, mud/silt, etc.)
- ☐ Remote Location/Navigation/Orientation Hazards (need for map/compass/GPS, limited communication/cell phone coverage, getting lost, distance from medical facility, lack of potable water)
- ☐ Rough Terrain Hazards (ledges, cliffs, high altitude, climbing, strenuous hiking, rip rap, holes, pits, mine shaft/sink holes, avalanche, falling rocks)
- ☐ Fall Hazards (ladders, stairs, scaffolds, towers, elevated work platforms, retaining walls, rope access work, use of areal lifts, pits, holes, etc.)
- ☒ Weather/Seasonal Hazards (heat/cold stress, sunburn, dehydration, wind/weather/lightning, snow/ice, hunting season)
- ☐ Roadway/Highway/Transportation Corridor Hazards (moving vehicles, traffic safety, railroad hazards, airport traffic)
- ☐ Motor Vehicle Operation Hazards (towing, hauling, transporting loads, etc.)
- ☒ Pedestrians/General Public (any need for special measures to protect bystanders, secure work area during off hours)
- ☒ Construction/Heavy Equipment, (operation of, or working near, loaders, excavator, backhoe, drill rig, geoprobe, cranes, etc.)
- ☐ Overhead Hazards (Falling tools, equipment, debris, rocks, tree limbs, etc.)
- ☐ Hand Tools/Power Tools/Equipment (tool use hazards, chips, blades, projectiles, electrical generators, compressors, hoists, etc.)
- ☐ Material Handling/Storage Hazards (manual handling, lifting, repetitive motion, mechanical transport, ropes/slings/chains, rigging, stacking, etc.)
- ☐ Gas Welding/Cutting, Arc Welding/Cutting
- ☐ Electrical Hazards (electrical equipment 120 volts or greater, low voltage electric shock hazards, etc.)
- ☐ Fire and/or Explosion Hazards (compressed gas, fuels, flammable materials, heat-producing equipment, unexploded ordnance, explosives, etc.)
- ☒ Noise and Noise Source Awareness
- ☒ Utility-Related Hazards (underground/overhead electric utilities, gas pipelines, water, sewer, fiber optic, etc.)
- ☒ Trenching & Excavation, Test Pits and Related Hazards
- ☐ Unexploded Ordnance and Related Hazards
- ☐ Long-Distance/Overnight Travel (distance driving/fatigue, unfamiliar territory, unfamiliar rental vehicles, etc.)

- ☐ Security/Personal Safety/Criminal Activity/Theft Concerns, High Crime Area
- ☐ Working Alone (in a manner requiring special considerations, notifications, etc.)
- ☐ Lack of Visibility (night work, poor lighting, etc)
- ☒ Chemical/Toxicity/Irritant Hazards (See Part C for details)
- ☐ Other:

B. BUILDING-RELATED FIELDWORK HAZARDS (Work in operating or abandoned facilities, including temporary remediation system facilities, or during construction/demolition/renovation/abatement activities)

- ☒ No Building-Related Work
- ☐ Operating or ☐ Abandoned/Vacant Building
- ☐ Confined Space Entry – USE CONFINED SPACE H&S PLAN/ENTRY PERMIT
- ☐ Enclosed Spaces (Non-Confined Spaces) – (trenches, basements, sub-basements, attics)
- ☐ General Environmental Conditions (degraded walking/working surfaces, housekeeping, poor lighting, too hot, too cold, etc., unsanitary)
- ☐ Fire, Hot Work, Explosion (welding/cutting, compressed gases, flammable/combustible liquids)
- ☐ Biological (mold, bird guano, medical waste, insects, vermin, unsanitary, sewerage, waste water, etc.)
- ☐ Ionizing/Non-Ionizing Radiation (radioactive materials, x-ray equipment, lasers, UV/IR from welding/process equipment, microwave, magnetic fields, radio frequency hazards)
- ☐ Fall Hazards (open pits, elevator shafts, working on roof, elevated work areas, elevated equipment access, stairs, ladders, scaffolding, powered boom lifts/scissors lifts)
- ☐ Electrical (operating equipment, power tools, extension cords, GFI, wet locations, abandoned electrical equip, batteries, capacitors, static electricity, arc flash/arc blast hazards, high voltage, need for lockout)
- ☐ Stored Energy Hazards (pneumatic/hydraulic pressure, hot surfaces, etc.)
- ☐ Mechanical/Moving Equipment/Machinery (cranes, operating equipment, conveyors, lockout hazards, robotic equipment, machine guarding hazards)
- ☐ Traffic/Vehicles/Pedestrian (moving fork trucks, parking lot, access road way, loading dock)
- ☐ Noise, Vibration Hazards
- ☐ Structural Hazards (unsafe floors/stairways/roof, deteriorated building components)
- ☐ Demolition/Renovation (overhead hazards, unstable building structures, heavy equipment, restricted access areas, etc.)
- ☐ Chemical/Toxicity/Irritant Hazards (See Part III for details)
- ☐ Other:

C. CHEMICAL/EXPOSURE HAZARDS

- ☐ No Chemical Hazards Anticipated
- ☐ Chemicals Subject to OSHA Hazard Communication (for commercial chemical products, attach MSDSs if applicable)
- ☐ Soil and/or Groundwater Contaminants
- ☐ Drums and Buried Drums

- ☐ Former Chemical Lagoon/Disposal Site
- ☐ Miscellaneous Residual "Urban Fill" Hazards and Similar Residual Hazard Conditions
- ☐ Contaminated Building Surfaces, Paint, Settled Dust, Accumulated Hazardous Substances
- ☐ Vapor/Fume/Particulate from Industrial/ Manufacturing or Welding/Cutting/Hot Processes
- ☐ Containerized Waste, Chemicals in Piping & Process Equipment
- ☐ Emissions from Gasoline-, Diesel-, Propane-fired Engine, Heater, Similar Equipment
- ☐ Spill, Potential for Spill
- ☐ General Work Site Airborne Dust Hazards
- ☐ Volatile Organic Compounds (VOCs), BTEX
- ☐ Chlorinated Organic Compounds
- ☐ Fuel Oil, Gasoline, Petroleum Products, Waste Oil
- ☐ Asbestos
- ☐ Oxygen Deficiency, Asphyxiation Hazards
- ☐ Methane Hazards
- ☐ Sulfides, Hydrogen Sulfide (H₂S)
- ☐ Cyanides, Hydrogen Cyanide (HCN)
- ☐ Carbon Monoxide
- ☐ Herbicides, Pesticide, Fungicide, Animal Poisons
- ☐ Metals, Metal Compounds (esp. heavy metals, toxic metals, etc.)
- ☐ Corrosives, Acids, Caustics, Strong Irritants
- ☐ Polychlorinated Biphenyls (PCBs)
- ☐ Polycyclic Aromatic Hydrocarbons (PAHs)
- ☐ Compressed Gases
- ☐ Cryogenic Hazard (hazards of extremely low temperature materials)
- ☐ Flammable/Combustible Liquids
- ☐ Explosives, Explosive Dust, Unexploded Ordnance, etc.
- ☐ Radiation Hazards (radioactive sealed/open source, x-rays, ultra violet, infrared, radio-frequency, etc.)
- ☐ Sensitizers
- ☒ Other: Arsenic impacted soil

12. PLAN ACKNOWLEDGEMENT AND APPROVALS – The following individuals indicate their acknowledgement and/or approval of the contents of this Site Specific H&S Plan based on their understanding of project work activities, associated hazards and the appropriateness of health and safety measures to be implemented.

Signature		Date
Prepared by:		8/16/11
Project Manager:		8/16/11
EHS Approval ¹ :		8/17/11
PIC:		8/17/11

1. EHS Coordinator, EHS Director, or designated H&S Plan Reviewer

Attachments: Attachment A Health and Safety Briefing/Site Orientation Record

Attach additional information if required.

(Revised October 2010)