ANNUAL SITE MANAGEMENT REPORT
FROM AUGUST 2013 TO JULY 2014
MOTT HAVEN CAMPUS-X790
730 CONCOURSE VILLAGE WEST
BRONX, NEW YORK
BCP AGREEMENT # C-203030

PREPARED FOR:

New York City Department of Education
Office of Environmental Health and Safety
44-36 Vernon Blvd.
Long Island City, New York 11101

PREPARED BY:

104 East 25th Street, 10th Floor
New York, New York 10010-2917

Date of Issue: August 28, 2014

Cardno ATC Project No. 015.19125.1883

TABLE OF CONTENTS

Attachments:

PROJECT DIRECTORY

CLIENT:	New York City Department of Education Office of Environmental Health and Safety 44-36 Vernon Blvd. Long Island City, New York 11101 (718) 361-3808
PROJECT LOCATION:	Mott Haven Campus - X790 730 Concourse Village West Bronx, New York, 10451 (718) 292-2036
PROJECT TECHNICAL SUPPORT	New York State Department of Environmental Conservation Division of Environmental Remediation, Region 2 47-40 21st Street Long Island City, New York 11101-5407 (718) 482-4891 New York City School Construction Authority 30-30 Thomson Avenue Long Island City, New York 11101 (718) 472-8000 TRC Engineers, Inc. 1430 Broadway New York, NY 10018 (212) 221-7822 STV Incorporated 225 Park Avenue South New York, NY 10003 (212) 777-4400
DESCRIPTION OF WORK:	Review Site Management Plan, O&M plan and prior reports; review custodian's inspection forms, walk-through visual inspection
ATC REPRESENTATIVES:	Gilbert Gedeon, PE, Division Manager Husam Zeidan, Inspector Nancy Guevara, Inspector Yong Bin Gao, Inspector

EXECUTIVE SUMMARY

This Site Management Report (SMR) covers the period from August 1, 2013 to July 31, 2014 for PS 790X located at 730 Concourse Village West, Bronx, NY. This report is being submitted in response to the June 9, 2014 New York State Department of Environmental Conservation (NYSDEC) Reminder Notice included under Attachment 1. This SMR includes information based on the most recent annual site refresher training associated with the operation and maintenance of the sub-slab depressurization system (SSDS), vapor barrier and composite cover system, as well as the site inspection conducted on August 1, 2014 pursuant to the NYSDEC-approved Site Management Plan (SMP).

The annual site inspection included an evaluation of engineering controls identified in the SMP which includes the vapor barrier, SSDS, and cover system established at the site. During this inspection, Cardno ATC (ATC) observed that the vibration damping cloth on SSDS fan unit EF-6 is slightly damaged and requires replacement/repair; a minor depression (4' long x 2' wide x ¼' deep) on the west side of the artificial turf (artificial turf cover remains intact); minor soil erosion (2" deep) adjacent to the auditorium building; and minor surficial cracking around the manhole on East Access Drive. The custodian notified DOE DSF and his employer, Temco, to repair these issues. In addition, ATC reviewed the custodial inspection logs, and SSDS inspection and groundwater monitoring reports prepared by others.

Based on the visual inspection, the aforementioned issues are minor in nature and do not impact the effectiveness of the Engineering Controls (ECs) and Institutional Controls (ICs). Therefore, ATC concludes that the ECs and ICs have not changed, are effective, protect public health and the environment, and the remedial goals are being met. See Attachment 1 for the Institutional and Engineering Controls Certification Form.

1.0 INTRODUCTION

On behalf of the NYCDOE Office of Environmental Health and Safety (DOE/EHS), ATC is pleased to provide this SMR to NYSDEC for PS 790X located at 730 Concourse Village West in Bronx, NY. The campus opened in September 2010 and is currently attended by approximately 1,400 students. This report was completed in accordance with the SMP approved by the NYSDEC.

The scope of work for this report included:

1. Review of the school custodian's monthly inspection logs documenting his routine walk-through to identify any observed changes to the ECs and ICs;
2. Roof-mounted SSDS equipment Inspection, Basement Inspection and Exterior Inspection;
3. Review of SMP, Operations and Maintenance Plan (O&M Plan), Groundwater Monitoring Reports and SSDS Biweekly Inspection Logs; and
4. Photographic documentation of observations.

This report was developed to document: (a) the changes to the ECs and ICs if any, and (b) whether the program for maintenance and monitoring is being implemented in accordance with the SMP. Mr. Gilbert Gedeon, P.E., Mr. Husam Zeidan, Ms. Nancy Guevara and Mr. Yong Bin Gao of ATC conducted an annual site inspection on August 1, 2014 accompanied by Mr. Robert Rivera Jr., the school's Custodian.

2.0 ENGINEERING CONTROLS

According to the SMP prepared by Shaw Environmental Inc. (Shaw), dated November 2008, the Mott Haven Campus (X790) contains engineering controls that include a Gas Vapor Barrier and a SSDS constructed beneath the school to prevent residual soil vapors from entering the Mott Haven Campus buildings. In addition, a Composite Surface Cover System consisting of asphalt, concrete, pavers and soil cover was constructed to act as a barrier to prevent direct contact with subsurface soils. A program for maintenance and monitoring was developed to ensure that the ECs remain effective.

2.1 Vapor Barrier

The vapor barrier was installed beneath the school buildings as a precautionary measure to prevent soil vapors from entering the buildings in the future. The vapor barrier is applied underneath the buildings' ground floor slabs.

2.2 Sub-Slab Depressurization System

A sub-slab depressurization system was installed at the school as an added safeguard to prevent soil vapors from entering the school buildings in the future. The primary components of the SSDS are gas permeable aggregate (GPA) and slotted schedule 80 PVC piping located beneath the school, schedule 40 steel riser piping through building chase spaces from the ground floor slab to the roof, and stainless steel ductwork connecting the steel SSDS piping to the roof top

fans. The SSDS fans are monitored by the Building Management System (BMS) using differential pressure switches mounted near each SSDS fan.

2.3 Composite Cover System

A composite cover system was installed on the school campus and also below the platform of PS 156 and IS 151 to the north of the property, to prevent school occupants from exposure to the underlying soils. This composite cover system is comprised of school buildings (concrete foundation), asphalt pavement, concrete sidewalks, the concrete cap below the platforms that support PS 156 and IS 151, artificial turf on athletic fields, or two feet of clean fill on all exposed ground surfaces.

3.0 INSTITUTIONAL CONTROLS

The ICs at the Site state that the owner of the Property shall:

- Comply with the Environmental Easement and Declarations of Covenants and Restrictions (DCR) and comply with all elements of the SMP;
- Operate and maintain all ECs as per the SMP;
- Inspect, maintain, and certify the integrity of the cover system consisting of concrete building slabs, asphalt pavement, concrete covered sidewalks, and artificial turf athletic field, or two feet of clean fill on all exposed ground surfaces including landscaped areas in the BCP Area and Non-BCP Area A as required by the SMP;
- Inspect the cover system consisting of a concrete cap on all exposed ground surfaces beneath PS 156 and IS 151 to prevent human exposure to underlying soils remaining under Non-BCP Area B;
- Operate, inspect, maintain, and certify the soil vapor mitigation system consisting of a SSDS and vapor barrier under all building structures (BCP Area and Non-BCP Area A) as required;
- Inspect and certify all ECs at a frequency and in a matter defined in the SMP;
- Perform groundwater monitoring as stated in the SMP;
- Report data and information relevant to Site Management for the Property at the frequency and in a manner defined in the SMP;
- Protect and replace on-site monitoring devices as necessary to ensure the devices function in the manner specified in the SMP;
- Refrain from discontinuing the ECs without an amendment or the extinguishment of the Environmental Easement or DCR and approval by NYSDEC and NYSDOH;
- Prohibit farming and vegetable gardens on the Property;
- Prohibit the use of groundwater underlying the Property unless treatment is used rendering it safe for its intended purpose;
- Prohibit all future activities on the Property that will disturb historic urban fill material (Non-BCP Area A and Non BCP Area B) unless conducted as defined in the soil management provisions of the SMP;
- Use the Property as a school campus provided all long-term ECs and ICs included in the SMP are employed;

- Prohibit the Property from being used for purposes other than a school without an amendment or the extinguishment of the Environmental Easement and DCR approved in writing by the NYSDEC; and
- Agree to submit to NYSDEC a written statement that certifies that: (1) controls employed at the Property are unchanged from the previous certification or that any changes to the controls were approved by the NYSDEC; and, (2) nothing has occurred that impairs the ability of the controls to protect public health and environment or that constitute a violation or failure to comply with the SMP. NYSDEC retains the right to access such Property at any time in order to evaluate the continued maintenance of any and all controls. This certification shall be submitted annually, or an alternate period of time that NYSDEC may allow. This annual statement must be certified by an expert that the NYSDEC finds acceptable.

4.0 SITE INSPECTIONS AND SSDS REPAIRS

4.1 Document Review

4.1.1 Review of Custodian's Inspection Logs

ATC reviewed the daily inspection logs and monthly inspection forms with the custodial staff from August 2013 through July 2014. TRC performed biweekly SSDS inspections during a portion this period as indicated in Section 4.1.2 below. The Monthly Inspection Forms are included in Attachment 2.

4.1.2 Review of Biweekly Inspection Logs

ATC reviewed the biweekly logs prepared by SCA's representative TRC from August 7, 2013 to September 4, 2013 (See Attachment 3). Based on this review, ATC noted that all six (6) SSDS fan units were operating at the time of each inspection. ATC also noted the BMS was operational, but did not register a change in fan status on August 7, 2014. The BMS is fully operational as of October 2013. Subsequently, biweekly inspections have been concluded.

4.1.3 Review of Semiannual Groundwater Monitoring Reports

The Site is currently undergoing a semiannual groundwater monitoring program until the upgradient contamination source is addressed. ATC reviewed the groundwater monitoring reports (Attachment 4) prepared by STV for December 2013 and June 2014 events. The reports were submitted to the NYSDEC by SCA on February 11, 2014 and August 1, 2014.

Summaries of the December 2013 and June 2014 groundwater sampling events are provided below:

December 2013 Sampling Event

On December 27, 2013, STV collected ground water samples from the seven (7) existing groundwater monitoring wells. These samples were submitted to York Analytical Laboratories,

Inc. of Stratford, Connecticut. No volatile organic compounds (VOC) were detected in two (2) of the three (3) downgradient monitoring wells (MW-5R and MW-11R). Two (2) VOCs were detected in the groundwater samples from MW-3R. The VOCs did not exceed New York State Class GA standards. One (1) VOC, tetrachloroethene (PCE), was detected in upgradient monitoring well MW-24 at a concentration above the groundwater quality standard and is likely related to an upgradient source. No VOCs were detected in the other upgradient monitoring wells (MW-23, MW-25, MW-26R).

The remedial objective for groundwater in the NYSDEC-approved Remedial Action Work Plan (RAWP) is to maintain groundwater quality at the downgradient property line. Detections of VOCs were limited to one of three monitoring wells near the downgradient property line (MW-3R) and the concentrations were below groundwater quality standards. The groundwater monitoring results demonstrated that the remedial objective for groundwater continues to be met per the RAWP.

June 2014 Sampling Event

On June 29, 2014 STV collected ground water samples from the seven (7) existing groundwater monitoring wells. These samples were submitted to York Analytical Laboratories, Inc. of Stratford, Connecticut. No VOCs were detected in the downgradient monitoring wells (MW-3R, MR-5R, and MW-11R). One (1) VOC, PCE, was detected in MW-24 at a concentration above the groundwater quality standard and is likely related to an upgradient source. One (1) VOC was also detected in MW-24 which was below New York State Class GA standards. No VOCs were detected in the other upgradient monitoring wells (MW-23, MW-25, and MW-26R).

The remedial objective for groundwater in the NYSDEC-approved RAWP is to maintain groundwater quality at the downgradient property line. No VOCs were detected in three monitoring wells near the downgradient property line (MW-3R, MW-5R and MW-11R). The groundwater monitoring results demonstrated that the remedial objective for groundwater continues to be met per the RAWP.

4.2 ATC's Visual Observations

On August 1, 2014, ATC conducted visual observations and photographic documentation while accompanied by the custodial staff. Site photographs are included Attachment 5 and the Annual Inspection Form is included in Attachment 6. During the inspection, ATC noted the following:

- Vibration damping cloth is slightly worn on SSDS fan unit EF-6;
- The BMS is fully commissioned;
- A spare fan unit labeled EF-7 is available at the school and is located in Room B80;
- Minor depression (2'x 1'x 2") at the east end of the artificial turf by the 40 yard line;
- Slight soil erosion (4.5' x 2' x 4") adjacent to the auditorium building by the 45 yard line; and
- Surficial cracks around the manhole on East Access Drive by the 35 yard line.

The custodian notified DOE DSF and Temco concerning the aforementioned issues. The custodian was advised to notify ATC once the aforementioned observations were addressed.

4.2.1 Roof Vent SSDS Inspection

1. The SSDS blowers and stacks are located on the top of the roof of Buildings A, B, C, and D as follows:
    - ***Buildings A & B*** roofs have two fans each: one on the top of the main roof and the other on the top of the mechanical room roof
    - ***Buildings C & D*** roofs have one fan each: on the top of the mechanical room roof.
2. All SSDS fan units were operational;
3. All fan belts were aligned and in good condition. The custodial staff has been replacing worn belts on an as-needed basis;
4. Vibration damping cloth associated with SSDS fan unit EF-6 is slightly worn;
5. Vacuum gauges on the SSDS fan units have been installed;
6. Guy wires of all SSDS fan units were observed to be tight and in good condition;
7. Fan mounting and vibration isolators were intact; and
8. SSDS fan bearings for SSDS fan units EF-5 and EF-6 were observed to be slightly worn. Mr. Rivera Jr. advised ATC that new bearings were ordered and were replaced.

4.2.2 Basement Inspection (Cellar)

ATC inspected the accessible areas of the basement floors. ATC did not observe any visible concrete cracks penetrating into the basement floor during the site inspections. Furthermore, ATC did not observe any floor joints in the basement floor. As such, smoke testing consistent with Section 3.2.2 of the SMP was not conducted. ATC's observation of the basement concrete floors was limited due to architectural finishes such as ceramic floor tiles, vinyl floor tiles, wood flooring and miscellaneous equipment and furniture. ATC also inspected the DOT maintenance corridor and did not observe any visible cracks.

4.2.3 Exterior Inspection

ATC inspected the composite cover system around the perimeter of the Mott Haven Campus including the paved and unpaved areas. There was no evidence of pavement removal. No structures have been constructed on the unpaved areas. ATC observed slight soil erosion (4.5' x 2' x 4") in the landscaped area adjacent to the auditorium building by the 45 yard line and a minor depression (2'x 1'x 2") in the artificial turf located on the east end at the 40 yard line. ATC also observed minor surficial cracks around the manhole on East Access Drive by the 35 yard line.

ATC did not observe any other visible cracks in the exterior paved areas or sidewalks during the annual inspection. ATC also inspected the artificial turf and observed no apparent holes, cracks or deterioration. It is concluded that the composite cover system is intact and provides a barrier to direct contact with underlying soils.

5.0 CONCLUSIONS AND RECOMMENDATIONS

Based on visual observations, ATC concludes the following:

1. The SSDS is operational and is being monitored by the BMS;
2. No visible concrete cracks penetrating into the basement floors or walls were observed during the annual inspection; therefore, no smoke testing was performed;
3. The ICs and ECs are in place, remain effective and the remedial goals have been met;
4. The O&M Plan is being implemented;
5. No changes have occurred that would reduce the ability of the controls to protect public health and the environment;
6. Access is available to the Site by NYSDEC and NYSDOH to evaluate continued maintenance of such controls; and
7. Site usage is compliant with the environmental easement.

Based on document review and visual observations, ATC recommends the following:

1. Continue documenting all operation and maintenance activities on ECs;
2. Conduct preventative maintenance and document accordingly; and
3. Continue to replace any worn fan belts.

6.0 STANDARDS OF CARE

ATC's work was performed in a professional manner with the best interest of our client in mind. Our objective was to perform our work with care, exercising the customary skills and competence of consulting professionals in the relevant disciplines. The conclusions presented in this report are professional opinions based upon visual observations, site documents review and real-time environmental measurements. The conclusions expressed in this report reflect only the limited inspections of specific locations. The opinions and recommendations presented herein apply to site conditions existing at the time of our observations. ATC cannot act as insurers, and no expressed or implied representation or warrant is included or intended in our report except that our work was performed, within the limits prescribed by our clients, with the customary thoroughness and competence of our profession at the time and place the services were rendered.

It is our pleasure to provide our consultative services to the NYCDOE. If you have any questions about this report, please call (212) 353-8280.

Sincerely,
CARDNO ATC

Gilbert Gedeon, P.E.
Division Manager

cc: B. Orlan
Y. Efstathiou
H. Zeidan

Attachment 1
Institutional and Engineering Controls Certification Form

New York State Department of Environmental Conservation
Division of Environmental Remediation, 11th Floor
625 Broadway, Albany, New York 12233
Phone: (518) 402-9553 **Fax:** (518) 402-9577
Website: www.dec.ny.gov

Joe Martens
Commissioner

6/9/2014

Bernie Orlan
Director of Environmental Health & Safety
New York City Dept of Education
44-36 Vernon Boulevard
Long Island City, NY 11101

Re: Reminder Notice: Site Management Periodic Review Report and IC/EC Certification Submittal
Site Name: Former Metro North Property
Site No.: C203030
Site Address: 730 Concourse Village West
New York, NY 10451

apl

Dear Mr. Orlan:

This letter serves as a reminder that sites in active Site Management (SM) require the submittal of a periodic progress report. This report, referred to as the Periodic Review Report (PRR), must document the implementation of, and compliance with, site specific SM requirements. Section 6.3(b) of DER-10 *Technical Guidance for Site Investigation and Remediation* (available online at http://www.dec.ny.gov/regulations/67386.html) provides guidance regarding the information that must be included in the PRR. Further, if the site is comprised of multiple parcels, then you as the Certifying Party must arrange to submit one PRR for all parcels that comprise the site. The PRR must be received by the Department no later than **August 30, 2014**. Guidance on the content of a PRR is enclosed.

Site Management is defined in regulation (6 NYCRR 375-1.2(at)) and in Chapter 6 of DER-10. Depending on when the remedial program for your site was completed, SM may be governed by multiple documents (e.g., Operation, Maintenance, and Monitoring Plan; Soil Management Plan) or one comprehensive Site Management Plan.

A Site Management Plan (SMP) may contain one or all of the following elements, as applicable to the site: a plan to maintain institutional controls and/or engineering controls ("IC/EC Plan"); a plan for monitoring the performance and effectiveness of the selected remedy ("Monitoring Plan"); and/or a plan for the operation and maintenance of the selected remedy ("O&M Plan"). Additionally, the technical requirements for SM are stated in the decision document (e.g., Record of Decision) and, in some cases, the legal agreement directing the remediation of the site (e.g., order on consent, voluntary agreement, etc.).

When you submit the PRR (by the due date above), include the enclosed forms documenting that all SM requirements are being met. The Institutional Controls (ICs) portion of the form (Box 6) must be signed by you or your designated representative. The Engineering Controls (ECs) portion of the form (Box 7) must be signed by a Professional Engineer (PE). If you cannot certify that all SM requirements are being met, you must submit a Corrective Measures Work Plan that identifies the actions to be taken to restore compliance. The work plan must include a schedule to be approved by the Department. The Periodic Review process will not be considered complete until all necessary corrective measures are completed and all required controls are certified. Instructions for completing the certifications are enclosed.

All site-related documents and data, including the PRR, are to be submitted in electronic format to the Department of Environmental Conservation. The Department will not approve the PRR unless all documents and data generated in support of that report have been submitted in accordance with the electronic submissions protocol. In addition, the certification forms are required to be submitted in both paper and electronic formats.

Information on the format of the data submissions can be found at:
http://www.dec.ny.gov/regulations/2586.html

The signed certification forms should be sent to Sondra Martinkat, Project Manager, at the following address:

New York State Department of Environmental Conservation
One Hunters Point Plaza
47-40 21st Street
Long Island City, NY 11101

Phone number: 718-482-4891. E-mail: smmartin@gw.dec.state.ny.us

The contact information above is also provided so that you may notify the project manager about upcoming inspections, or for any other questions or concerns that may arise in regard to the site.

Enclosures

PRR General Guidance
Certification Form Instructions
Certification Forms

ec: w/ enclosures
Sondra Martinkat, Project Manager
Jane O'Connell, Hazardous Waste Remediation Engineer, Region 2

Enclosure 1

Certification Instructions

I. Verification of Site Details (Box 1 and Box 2):

Answer the three questions in the Verification of Site Details Section. The Owner and/or Qualified Environmental Professional (QEP) may include handwritten changes and/or other supporting documentation, as necessary.

II. Certification of Institutional Controls/ Engineering Controls (IC/ECs)(Boxes 3, 4, and 5)

1.1.1. Review the listed IC/ECs, confirming that all existing controls are listed, and that all existing controls are still applicable. If there is a control that is no longer applicable the Owner / Remedial Party should petition the Department separately to request approval to remove the control.

2. In Box 5, complete certifications for all Plan components, as applicable, by checking the corresponding checkbox.

3. If you cannot certify "YES" for each Control listed in Box 3 & Box 4, sign and date the form in Box 5. Attach supporting documentation that explains why the **Certification** cannot be rendered, as well as a plan of proposed corrective measures, and an associated schedule for completing the corrective measures. Note that this **Certification** form must be submitted even if an IC or EC cannot be certified; however, the certification process will not be considered complete until corrective action is completed.

If the Department concurs with the explanation, the proposed corrective measures, and the proposed schedule, a letter authorizing the implementation of those corrective measures will be issued by the Department's Project Manager. Once the corrective measures are complete, a new Periodic Review Report (with IC/EC Certification) must be submitted within 45 days to the Department. If the Department has any questions or concerns regarding the PRR and/or completion of the IC/EC Certification, the Project Manager will contact you.

III. IC/EC Certification by Signature (Box 6 and Box 7)**:**

If you certified "YES" for each Control, please complete and sign the IC/EC Certifications page as follows:

- For the Institutional Controls on the use of the property, the certification statement in Box 6 shall be completed and may be made by the property owner or designated representative.

- For the Engineering Controls, the certification statement in Box 7 must be completed by a Professional Engineer or Qualified Environmental Professional, as noted on the form.

Enclosure 2

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Site Management Periodic Review Report Notice
Institutional and Engineering Controls Certification Form

Site Details **Box 1**

Site No. **C203030**

Site Name Former Metro North Property

Site Address: 730 Concourse Village West Zip Code: 10451
City/Town: New York
County: Bronx
Site Acreage: 0.9

Reporting Period: July 31, 2013 to July 31, 2014
Reporting Period: August 01, 2013 to July 31, 2014

	YES	NO
1. Is the information above correct?	☐	☑
If NO, include handwritten above or on a separate sheet.		
2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?	☐	☑
3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?	☐	☑
4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?	☐	☑
If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.		
5. Is the site currently undergoing development?	☐	☑

Box 2

	YES	NO
6. Is the current site use consistent with the use(s) listed below? Restricted-Residential, Commercial, and Industrial	☑	☐
7. Are all ICs/ECs in place and functioning as designed?	☑	☐

IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative

Date

Box 2A

	YES	NO
8. Has any new information revealed that assumptions made in the Qualitative Exposure Assessment regarding offsite contamination are no longer valid?	☐	☑
If you answered YES to question 8, include documentation or evidence that documentation has been previously submitted with this certification form.		
9. Are the assumptions in the Qualitative Exposure Assessment still valid? (The Qualitative Exposure Assessment must be certified every five years)	☑	☐
If you answered NO to question 9, the Periodic Review Report must include an updated Qualitative Exposure Assessment based on the new assumptions.		

SITE NO. C203030 **Box 3**

Description of Institutional Controls

Parcel	Owner	Institutional Control
9-2443-78 P/O	New York City Dept. of Education	Ground Water Use Restriction Soil Management Plan Landuse Restriction Building Use Restriction Monitoring Plan Site Management Plan O&M Plan IC/EC Plan

ICs:
Compliance with the Environmental Easement and DCR.
All ECs must be operated and maintained as specified in SMP
Cover systems inspection, certification, and maintenance.
Soil Vapor Mitigation system consisting of vapor Barrier and SSDS must be inspected, certified, and maintained as required in SMP. All ECs must be inspected and certified at frequency specified in SMP. Groundwater monitoring must be performed as specified in SMP. Groundwater monitoring wells must be protected and replaced as necessary to ensure compliance with SMP. ECs may not be discontinued or amended without concurrence from NYSDEC and NYSDOH. Vegetable gardens and farming at the property is prohibited. The use of groundwater property is prohibited. All activities disturbing urban fill materials are prohibited. Controlled property can only be used as a school provided long term ICs and ECs are employed as specified in SMP.

Box 4

Description of Engineering Controls

Parcel	Engineering Control
9-2443-78 P/O	Vapor Mitigation Groundwater Containment Subsurface Barriers Fencing/Access Control

ECs:
Cover Systems
Vapor Barrier
Jet Grout Hydraulic Barrier
Waterloo Hydraulic Barrier
SSDS

Box 5

Periodic Review Report (PRR) Certification Statements

1. I certify by checking "YES" below that:

   a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;

   b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and compete.

YES	NO
☑	☐

2. If this site has an IC/EC Plan (or equivalent as required in the Decision Document), for each Institutional or Engineering control listed in Boxes 3 and/or 4, I certify by checking "YES" below that all of the following statements are true:

   (a) the Institutional Control and/or Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;

   (b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

   (c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;

   (d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and

   (e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

YES	NO
☑	☐

IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

_____ _____

Signature of Owner, Remedial Party or Designated Representative — Date

IC CERTIFICATIONS
SITE NO. C203030

Box 6

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 1,2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I BERNARD POKOIK at 44-36 VERNON BLVD LONG ISLAND,
print name print business address

am certifying as OWNER (Owner or Remedial Party)

for the Site named in the Site Details Section of this form.

Signature of Owner, Remedial Party, or Designated Representative Rendering Certification

8/25/14
Date

IC/EC CERTIFICATIONS

Box 7

Professional Engineer Signature

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Gerhart Gedeon at 104 E. 95th St NY, NY 10012
print name print business address

am certifying as a Professional Engineer for the NYC Department of Education
(Owner or Remedial Party)

STATE OF NEW YORK GERHART GEDEON 075399 LICENSED PROFESSIONAL ENGINEER

Signature of Professional Engineer, for the Owner or Remedial Party, Rendering Certification

Stamp (Required for PE)

8/27/14
Date

Enclosure 3
Periodic Review Report (PRR) General Guidance

I. Executive Summary: (1/2-page or less)
   A. Provide a brief summary of site, nature and extent of contamination, and remedial history.
   B. Effectiveness of the Remedial Program - Provide overall conclusions regarding;
      1. progress made during the reporting period toward meeting the remedial objectives for the site
      2. the ultimate ability of the remedial program to achieve the remedial objectives for the site.
   C. Compliance
      1. Identify any areas of non-compliance regarding the major elements of the Site Management Plan (SMP, i.e., the Institutional/Engineering Control (IC/EC) Plan, the Monitoring Plan, and the Operation & Maintenance (O&M) Plan).
      2. Propose steps to be taken and a schedule to correct any areas of non-compliance.
   D. Recommendations
      1. recommend whether any changes to the SMP are needed
      2. recommend any changes to the frequency for submittal of PRRs (increase, decrease)
      3. recommend whether the requirements for discontinuing site management have been met.

II. Site Overview (one page or less)
   A. Describe the site location, boundaries (figure), significant features, surrounding area, and the nature and extent of contamination prior to site remediation.
   B. Describe the chronology of the main features of the remedial program for the site, the components of the selected remedy, cleanup goals, site closure criteria, and any significant changes to the selected remedy that have been made since remedy selection.

III. Evaluate Remedy Performance, Effectiveness, and Protectiveness
   Using tables, graphs, charts and bulleted text to the extent practicable, describe the effectiveness of the remedy in achieving the remedial goals for the site. Base findings, recommendations, and conclusions on objective data. Evaluations and should be presented simply and concisely.

IV. IC/EC Plan Compliance Report (if applicable)
   A. IC/EC Requirements and Compliance
      1. Describe each control, its objective, and how performance of the control is evaluated.
      2. Summarize the status of each goal (whether it is fully in place and its effectiveness).
      3. Corrective Measures: describe steps proposed to address any deficiencies in ICECs.
      4. Conclusions and recommendations for changes.
   B. IC/EC Certification
      1. The certification must be complete (even if there are IC/EC deficiencies), and certified by the appropriate party as set forth in a Department-approved certification form(s).

V. Monitoring Plan Compliance Report (if applicable)
   A. Components of the Monitoring Plan (tabular presentations preferred) - Describe the requirements of the monitoring plan by media (i.e., soil, groundwater, sediment, etc.) and by any remedial technologies being used at the site.
   B. Summary of Monitoring Completed During Reporting Period - Describe the monitoring tasks actually completed during this PRR reporting period. Tables and/or figures should be used to show all data.
   C. Comparisons with Remedial Objectives - Compare the results of all monitoring with the remedial objectives for the site. Include trend analyses where possible.
   D. Monitoring Deficiencies - Describe any ways in which monitoring did not fully comply with the monitoring plan.
   E. Conclusions and Recommendations for Changes - Provide overall conclusions regarding the monitoring completed and the resulting evaluations regarding remedial effectiveness.

VI. Operation & Maintenance (O&M) Plan Compliance Report (if applicable)
   A. Components of O&M Plan - Describe the requirements of the O&M plan including required activities, frequencies, recordkeeping, etc.
   B. Summary of O&M Completed During Reporting Period - Describe the O&M tasks actually completed during this PRR reporting period.
   C. Evaluation of Remedial Systems - Based upon the results of the O&M activities completed, evaluated the ability of each component of the remedy subject to O&M requirements to perform as

designed/expected.

D. O&M Deficiencies - Identify any deficiencies in complying with the O&M plan during this PRR reporting period.

E. Conclusions and Recommendations for Improvements - Provide an overall conclusion regarding O&M for the site and identify any suggested improvements requiring changes in the O&M Plan.

VII. Overall PRR Conclusions and Recommendations

A. Compliance with SMP - For each component of the SMP (i.e., IC/EC, monitoring, O&M), summarize;
   1. whether all requirements of each plan were met during the reporting period
   2. any requirements not met
   3. proposed plans and a schedule for coming into full compliance.

B. Performance and Effectiveness of the Remedy - Based upon your evaluation of the components of the SMP, form conclusions about the performance of each component and the ability of the remedy to achieve the remedial objectives for the site.

C. Future PRR Submittals
   1. Recommend, with supporting justification, whether the frequency of the submittal of PRRs should be changed (either increased or decreased).
   2. If the requirements for site closure have been achieved, contact the Departments Project Manager for the site to determine what, if any, additional documentation is needed to support a decision to discontinue site management.

VIII. Additional Guidance

Additional guidance regarding the preparation and submittal of an acceptable PRR can be obtained from the Departments Project Manager for the site.

Attachment 2
Custodian Monthly or Severe Condition Inspection Forms

Monthly/Severe Condition Inspection Form

Mott Haven Campus
730 Concourse Village West, Bronx, New York 10451

Inspector's Name: Robert Rivera
Inspection Date: 8-20-13
Inspection Time: 1:00 pm
Comments: everything check out OK

Weather Conditions: Clear Skies
Air Temperature (°F): High 89° Low 72°

A. SSDS SYSTEM INSPECTION

1. Walk the entire roof surface of school bulidings.

* Inspect fan stack guide wires.	✓
* Inspect fan mounting and vibration isolators.	✓
* Inspect condition of fan belt.	✓
* Inspect alignment of fan belt.	✓
* Record vacuum gauge reading: -150 mm of water	✓
* Inspect bolts and set screws for tightness and rusty condition.	✓
* Inspect for cleanliness. Clean exterior surfaces only. Remove dust and grease on motor housing.	✓
* Are the indicator lights on the Building Management System functioning properly?	yes
* Confirm that spare fan is stored in designated secure location and in working condition.	✓
* Confirm that the spare fan's bearings are completely filled with grease/lubricant.	✓
* Rotate the fan wheel of the spare fan several times to ensure that bearings remain lubricated.	✓
* Comments (see or hear anything unusual?):	✓
	NO

B. COVER SYSTEM - BOTTOM FLOOR INSPECTION

1. Walk all of the bottom floors

* Any visible cracks or depressions in the ground floors?	No
* Any other visible openings (unintended) in the ground floors?	No
* Draw approximate location of floor cracks/openings on site map.	N/A
* Note the length of the crack/opening.	N/A
* Note the width of the crack/opening.	N/A
* Comments:	N/A

C. COVER SYSTEM - EXTERIOR INSPECTION

1. Walk and inspect the entire perimeter of the Site.

2. Walk and inspect all of the paved areas (concrete and asphalt) of the Site.

3. Walk and inspect all of the unpaved areas of the Site including artificial turf field.

* Are there any signs of significant cracks, settlement, or deterioration of the paved areas?	No
* Has any of the pavement material been removed?	No
* Are there signs of vehicular use on the unpaved areas (tire tracks, rutting, etc.)?	No
* Have any structures been constructed on the unpaved areas?	No
* Are there any signs of soil washing or erosion (gullies, soil washed out onto the pavement)?	No
* Are there any signs of intrusive activities (drilling, digging, trenching, grading, excavating, etc.)?	NO
* Comments:	No

D. REPAIRS

Summarize needed/completed repairs to Engineering Controls:

Inspector's Signature: Robert Rivera

Monthly/Severe Condition Inspection Form

Mott Haven Campus
730 Concourse Village West, Bronx, New York 10451

Inspector's Name: Robert Rivera JR
Inspection Date: 9-10-13
Inspection Time: 11:00 am
Comments: everything check out OK

Weather Conditions: Cloudy skies / Humyd
Air Temperature (°F): High 88° Low 73°

A. SSDS SYSTEM INSPECTION

1. Walk the entire roof surface of school buildings.

*	Inspect fan stack guide wires.	✓
*	Inspect fan mounting and vibration isolators.	✓
*	Inspect condition of fan belt.	✓
*	Inspect alignment of fan belt.	✓
*	Record vacuum gauge reading: -150 mm of water	✓
*	Inspect bolts and set screws for tightness and rusty condition.	✓
*	Inspect for cleanliness. Clean exterior surfaces only. Remove dust and grease on motor housing.	✓
*	Are the indicator lights on the Building Management System functioning properly?	Yes
*	Confirm that spare fan is stored in designated secure location and in working condition.	✓
*	Confirm that the spare fan's bearings are completely filled with grease/lubricant.	✓
*	Rotate the fan wheel of the spare fan several times to ensure that bearings remain lubricated.	✓
*	Comments (see or hear anything unusual?):	✓ NO

B. COVER SYSTEM - BOTTOM FLOOR INSPECTION

1. Walk all of the bottom floors

*	Any visible cracks or depressions in the ground floors?	NO
*	Any other visible openings (unintended) in the ground floors?	No
*	Draw approximate location of floor cracks/openings on site map.	N/A
*	Note the length of the crack/opening.	N/A
*	Note the width of the crack/opening.	N/A
*	Comments:	N/A

C. COVER SYSTEM - EXTERIOR INSPECTION

1. Walk and inspect the entire perimeter of the Site.

2. Walk and inspect all of the paved areas (concrete and asphalt) of the Site.

3. Walk and inspect all of the unpaved areas of the Site including artificial turf field.

*	Are there any signs of significant cracks, settlement, or deterioration of the paved areas?	NO
*	Has any of the pavement material been removed?	NO
*	Are there signs of vehicular use on the unpaved areas (tire tracks, rutting, etc.)?	NO
*	Have any structures been constructed on the unpaved areas?	NO
*	Are there any signs of soil washing or erosion (gullies, soil washed out onto the pavement)?	NO
*	Are there any signs of intrusive activities (drilling, digging, trenching, grading, excavating, etc.)?	NO
*	Comments:	NO

D. REPAIRS

Summarize needed/completed repairs to Engineering Controls:

Inspector's Signature: Robert Rivera Jr

Monthly/Severe Condition Inspection Form

Mott Haven Campus
730 Concourse Village West, Bronx, New York 10451

Inspector's Name: Robert Rivera JR
Inspection Date: 10-01-15
Inspection Time: 1:30 pm
Comments: Everything Check out OK

Weather Conditions: Clear skies
Air Temperature (°F): High 79° Low 61°
Comfortable

A. SSDS SYSTEM INSPECTION

1. Walk the entire roof surface of school buildings.

*	Inspect fan stack guide wires.	✓
*	Inspect fan mounting and vibration isolators.	✓
*	Inspect condition of fan belt.	✓
*	Inspect alignment of fan belt.	✓
*	Record vacuum gauge reading: -150 mm of water.	✓
*	Inspect bolts and set screws for tightness and rusty condition.	✓
*	Inspect for cleanliness. Clean exterior surfaces only. Remove dust and grease on motor housing.	✓
*	Are the indicator lights on the Building Management System functioning properly?	Yes ✓
*	Confirm that spare fan is stored in designated secure location and in working condition.	✓
*	Confirm that the spare fan's bearings are completely filled with grease/lubricant.	✓
*	Rotate the fan wheel of the spare fan several times to ensure that bearings remain lubricated.	✓
*	Comments (see or hear anything unusual?):	NO ✓

B. COVER SYSTEM - BOTTOM FLOOR INSPECTION

1. Walk all of the bottom floors

*	Any visible cracks or depressions in the ground floors?	NO
*	Any other visible openings (unintended) in the ground floors?	NO
*	Draw approximate location of floor cracks/openings on site map.	N/A
*	Note the length of the crack/opening.	N/A
*	Note the width of the crack/opening.	N/A
*	Comments:	N/A

C. COVER SYSTEM - EXTERIOR INSPECTION

1. Walk and inspect the entire perimeter of the Site.

2. Walk and inspect all of the paved areas (concrete and asphalt) of the Site.

3. Walk and inspect all of the unpaved areas of the Site including artificial turf field.

*	Are there any signs of significant cracks, settlement, or deterioration of the paved areas?	NO
*	Has any of the pavement material been removed?	NO
*	Are there signs of vehicular use on the unpaved areas (tire tracks, rutting, etc.)?	NO
*	Have any structures been constructed on the unpaved areas?	NO
*	Are there any signs of soil washing or erosion (gullies, soil washed out onto the pavement)?	NO
*	Are there any signs of intrusive activities (drilling, digging, trenching, grading, excavating, etc.)?	NO
*	Comments:	

D. REPAIRS

Summarize needed/completed repairs to Engineering Controls:

Inspector's Signature: Robert Rivera Jr

Monthly/Severe Condition Inspection Form

Mott Haven Campus
730 Concourse Village West, Bronx, New York 10451

Inspector's Name: Robert Rovere JR
Inspection Date: 11-02-2013
Inspection Time: 11:00 am
Comments: Everything check out ok

Weather Conditions: Cloudy skies
Air Temperature (°F): High 50° Low 30°

A. SSDS SYSTEM INSPECTION

1. Walk the entire roof surface of school buildings.

*	Inspect fan stack guide wires.	✓
*	Inspect fan mounting and vibration isolators.	✓
*	Inspect condition of fan belt.	✓
*	Inspect alignment of fan belt.	✓
*	Record vacuum gauge reading: -150 mm of water.	✓
*	Inspect bolts and set screws for tightness and rusty condition.	✓
*	Inspect for cleanliness. Clean exterior surfaces only. Remove dust and grease on motor housing.	✓
*	Are the indicator lights on the Building Management System functioning properly? Yes	✓
*	Confirm that spare fan is stored in designated secure location and in working condition.	✓
*	Confirm that the spare fan's bearings are completely filled with grease/lubricant.	✓
*	Rotate the fan wheel of the spare fan several times to ensure that bearings remain lubricated.	✓
*	Comments (see or hear anything unusual?):	NO

B. COVER SYSTEM - BOTTOM FLOOR INSPECTION

1. Walk all of the bottom floors

*	Any visible cracks or depressions in the ground floors?	NO
*	Any other visible openings (unintended) in the ground floors?	NO
*	Draw approximate location of floor cracks/openings on site map.	N/A
*	Note the length of the crack/opening.	N/A
*	Note the width of the crack/opening.	N/A
*	Comments:	N/A

C. COVER SYSTEM - EXTERIOR INSPECTION

1. Walk and inspect the entire perimeter of the Site.

2. Walk and inspect all of the paved areas (concrete and asphalt) of the Site.

3. Walk and inspect all of the unpaved areas of the Site including artificial turf field.

*	Are there any signs of significant cracks, settlement, or deterioration of the paved areas?	NO
*	Has any of the pavement material been removed?	NO
*	Are there signs of vehicular use on the unpaved areas (tire tracks, rutting, etc.)?	NO
*	Have any structures been constructed on the unpaved areas?	NO
*	Are there any signs of soil washing or erosion (gullies, soil washed out onto the pavement)?	NO
*	Are there any signs of intrusive activities (drilling, digging, trenching, grading, excavating, etc.)?	NO
*	Comments:	

D. REPAIRS

Summarize needed/completed repairs to Engineering Controls:

Inspector's Signature: Robert Rovere

Monthly/Severe Condition Inspection Form

Mott Haven Campus
730 Concourse Village West, Bronx, New York 10451

Inspector's Name: Robert Rivera Jr
Inspection Date: 12-07-13
Inspection Time: 11:00 am
Comments: Everything check out OK

Weather Conditions: Partly Cloudy
Air Temperature (°F): High 41° Low 25°

A. SSDS SYSTEM INSPECTION

1. Walk the entire roof surface of school bulidings.

*	Inspect fan stack guide wires.	✓
*	Inspect fan mounting and vibration isolators.	✓
*	Inspect condition of fan belt.	✓
*	Inspect alignment of fan belt.	✓
*	Record vacuum gauge reading: -150 mm of Water.	✓
*	Inspect bolts and set screws for tightness and rusty condition.	✓
*	Inspect for cleanliness. Clean exterior surfaces only. Remove dust and grease on motor housing.	✓
*	Are the indicator lights on the Building Management System functioning properly?	Yes ✓
*	Confirm that spare fan is stored in designated secure location and in working condition.	✓
*	Confirm that the spare fan's bearings are completely filled with grease/lubricant.	✓
*	Rotate the fan wheel of the spare fan several times to ensure that bearings remain lubricated.	✓
*	Comments (see or hear anything unusual?):	NOV

B. COVER SYSTEM - BOTTOM FLOOR INSPECTION

1. Walk all of the bottom floors

*	Any visible cracks or depressions in the ground floors?	NO
*	Any other visible openings (unintended) in the ground floors?	NO
*	Draw approximate location of floor cracks/openings on site map.	N/A
*	Note the length of the crack/opening.	N/A
*	Note the width of the crack/opening.	N/A
*	Comments:	N/A

C. COVER SYSTEM - EXTERIOR INSPECTION

1. Walk and inspect the entire perimeter of the Site.

2. Walk and inspect all of the paved areas (concrete and asphalt) of the Site.

3. Walk and inspect all of the unpaved areas of the Site including artificial turf field.

*	Are there any signs of significant cracks, settlement, or deterioration of the paved areas?	NO
*	Has any of the pavement material been removed?	NO
*	Are there signs of vehicular use on the unpaved areas (tire tracks, rutting, etc.)?	NO
*	Have any structures been constructed on the unpaved areas?	NO
*	Are there any signs of soil washing or erosion (gullies, soil washed out onto the pavement)?	NO
*	Are there any signs of intrusive activities (drilling, digging, trenching, grading, excavating, etc.)?	NO
*	Comments:	

D. REPAIRS

Summarize needed/completed repairs to Engineering Controls:

Inspector's Signature: Robert Rivera Jr

Monthly/Severe Condition Inspection Form

Mott Haven Campus
730 Concourse Village West, Bronx, New York 10451

Inspector's Name: Robert Rivera JR
Inspection Date: 1-11-14
Inspection Time: 10:00 am
Comments: Everything check out OK

Weather Conditions: Cloudy 54°
Air Temperature (°F): High 57° Low 39°

A. SSDS SYSTEM INSPECTION

1. Walk the entire roof surface of school bulidings.

* Inspect fan stack guy wires.	√
* Inspect fan mounting and vibration isolators.	√
* Inspect condition of fan belt.	√
* Inspect alignment of fan belt.	√
* Record vacuum gauge reading: -150 mm of water	√
* Inspect bolts and set screws for tightness and rusty condition.	√
* Inspect for cleanliness. Clean exterior surfaces only. Remove dust and grease on motor housing.	√
* Is the Building Management System monitoring SSDS fans and functioning properly?	Yes √
* Confirm that spare fan is stored in designated secure location and in working condition.	√
* Confirm that the spare fan's bearings are completely filled with grease/lubricant.	√
* Rotate the fan wheel of the spare fan several times to ensure that bearings remain lubricated.	√
* Comments (see or hear anything unusual?):	√
	NO √

B. COVER SYSTEM - BOTTOM FLOOR INSPECTION

1. Walk all of the bottom floors

* Any visible cracks or depressions in the ground floors?	NO
* Any other visible openings (unintended) in the ground floors?	NO
* Draw approximate location of floor cracks/openings on site map.	N/A
* Note the length of the crack/opening.	N/A
* Note the width of the crack/opening.	N/A
* Comments:	N/A

C. COVER SYSTEM - EXTERIOR INSPECTION (Including area under platform)

1. Walk and inspect the entire perimeter of the Site.

2. Walk and inspect all of the paved areas (concrete and asphalt) of the Site and under platform.

3. Walk and inspect all of the unpaved areas of the Site including artificial turf field.

* Are there any signs of significant cracks, settlement, or deterioration of the paved areas?	NO
* Has any of the pavement material been removed?	NO
* Are there signs of vehicular use on the unpaved areas (tire tracks, rutting, etc.)?	NO
* Have any structures been constructed on the unpaved areas?	NO
* Are there any signs of soil washing or erosion (gullies, soil washed out onto the pavement)?	NO
* Are there any signs of intrusive activities (drilling, digging, trenching, grading, excavating, etc.)?	NO
* Comments:	

D. REPAIRS

Summarize needed/completed repairs to Engineering Controls:

Inspector's Signature: Robert Rivera JR

Monthly/Severe Condition Inspection Form

Mott Haven Campus
730 Concourse Village West, Bronx, New York 10451

Inspector's Name: Robert Rivera JR
Inspection Date: 02-07-2014
Inspection Time: 10:00 am
Comments: SSDS Fans ~~fan~~ running

Weather Conditions: Mostly sunny 27°
Air Temperature (°F): 27° High 36°
Low 16°

A. SSDS SYSTEM INSPECTION

1. Walk the entire roof surface of school bulidings.

*	Inspect fan stack guide wires.	✓
*	Inspect fan mounting and vibration isolators.	✓
*	Inspect condition of fan belt.	✓
*	Inspect alignment of fan belt.	✓
*	Record vacuum gauge reading: -150 mm of Water	✓
*	Inspect bolts and set screws for tightness and rusty condition.	✓
*	Inspect for cleanliness. Clean exterior surfaces only. Remove dust and grease on motor housing.	✓
*	Are the indicator lights on the Building Management System functioning properly?	✓
*	Confirm that spare fan is stored in designated secure location and in working condition.	✓
*	Confirm that the spare fan's bearings are completely filled with grease/lubricant.	✓
*	Rotate the fan wheel of the spare fan several times to ensure that bearings remain lubricated.	✓
*	Comments (see or hear anything unusual?):	✓

B. COVER SYSTEM - BOTTOM FLOOR INSPECTION

1. Walk all of the bottom floors

*	Any visible cracks or depressions in the ground floors?	NO
*	Any other visible openings (unintended) in the ground floors?	NO
*	Draw approximate location of floor cracks/openings on site map.	N/A
*	Note the length of the crack/opening.	N/A
*	Note the width of the crack/opening.	N/A
*	Comments: No	N/A

C. COVER SYSTEM - EXTERIOR INSPECTION

1. Walk and inspect the entire perimeter of the Site.

2. Walk and inspect all of the paved areas (concrete and asphalt) of the Site.

3. Walk and inspect all of the unpaved areas of the Site including artificial turf field.

*	Are there any signs of significant cracks, settlement, or deterioration of the paved areas?	NO
*	Has any of the pavement material been removed?	NO
*	Are there signs of vehicular use on the unpaved areas (tire tracks, rutting, etc.)?	NO
*	Have any structures been constructed on the unpaved areas?	NO
*	Are there any signs of soil washing or erosion (gullies, soil washed out onto the pavement)?	NO
*	Are there any signs of intrusive activities (drilling, digging, trenching, grading, excavating, etc.)?	NO
*	Comments:	

D. REPAIRS

Summarize needed/completed repairs to Engineering Controls:

Perform monthly PM's Everything OK

Inspector's Signature: Robert Rivera

Monthly/Severe Condition Inspection Form

Mott Haven Campus
730 Concourse Village West, Bronx, New York 10451

Inspector's Name:	Robert Riverosa	Weather Conditions:	Mostly Sunny
Inspection Date:	3-15-2014	Air Temperature (°F):	55° High 54°
Inspection Time:	9.00 am		Low 32°

Comments: All 6 SSDS Fans are running ok

A. SSDS SYSTEM INSPECTION

1. Walk the entire roof surface of school buildings.

*	Inspect fan stack guide wires.	✓
*	Inspect fan mounting and vibration isolators.	✓
*	Inspect condition of fan belt.	✓
*	Inspect alignment of fan belt.	✓
*	Record vacuum gauge reading: -150 mm of water	✓
*	Inspect bolts and set screws for tightness and rusty condition.	✓
*	Inspect for cleanliness. Clean exterior surfaces only. Remove dust and grease on motor housing.	✓
*	Are the indicator lights on the Building Management System functioning properly?	✓
*	Confirm that spare fan is stored in designated secure location and in working condition.	✓
*	Confirm that the spare fan's bearings are completely filled with grease/lubricant.	✓
*	Rotate the fan wheel of the spare fan several times to ensure that bearings remain lubricated.	✓
*	Comments (see or hear anything unusual?):	✓

B. COVER SYSTEM - BOTTOM FLOOR INSPECTION

1. Walk all of the bottom floors

*	Any visible cracks or depressions in the ground floors?	No
*	Any other visible openings (unintended) in the ground floors?	No
*	Draw approximate location of floor cracks/openings on site map.	N/A
*	Note the length of the crack/opening.	N/A
*	Note the width of the crack/opening.	N/A
*	Comments:	N/A OK

C. COVER SYSTEM - EXTERIOR INSPECTION

1. Walk and inspect the entire perimeter of the Site.

2. Walk and inspect all of the paved areas (concrete and asphalt) of the Site.

3. Walk and inspect all of the unpaved areas of the Site including artificial turf field.

*	Are there any signs of significant cracks, settlement, or deterioration of the paved areas?	No
*	Has any of the pavement material been removed?	No
*	Are there signs of vehicular use on the unpaved areas (tire tracks, rutting, etc.)?	No
*	Have any structures been constructed on the unpaved areas?	No
*	Are there any signs of soil washing or erosion (gullies, soil washed out onto the pavement)?	No
*	Are there any signs of intrusive activities (drilling, digging, trenching, grading, excavating, etc.)?	No
*	Comments:	

D. REPAIRS

Summarize needed/completed repairs to Engineering Controls:

Perform preventive maintenance on SSDS Fans all 6 fans are currently running.

Inspector's Signature: Robert Riverosa

Monthly/Severe Condition Inspection Form

Mott Haven Campus
730 Concourse Village West, Bronx, New York 10451

Inspector's Name: Robert Riverniza
Inspection Date: 04-12-2014
Inspection Time: 2:00 pm
Comments: All 5 SSDS Fans are running.

Weather Conditions: Partly Cloudy
Air Temperature (°F): 69° High 62° Low 51°

A. SSDS SYSTEM INSPECTION

1. Walk the entire roof surface of school bulidings.

* Inspect fan stack guide wires.	✓
* Inspect fan mounting and vibration isolators.	✓
* Inspect condition of fan belt.	✓
* Inspect alignment of fan belt.	✓
* Record vacuum gauge reading: -150 mm of water	✓
* Inspect bolts and set screws for tightness and rusty condition.	✓
* Inspect for cleanliness. Clean exterior surfaces only. Remove dust and grease on motor housing.	✓
* Are the indicator lights on the Building Management System functioning properly?	Yes ✓
* Confirm that spare fan is stored in designated secure location and in working condition.	✓
* Confirm that the spare fan's bearings are completely filled with grease/lubricant.	✓
* Rotate the fan wheel of the spare fan several times to ensure that bearings remain lubricated.	✓
* Comments (see or hear anything unusual?): Vibration coming from SSDS Fan building A & B. Check bearings & Fan belt.	✓

B. COVER SYSTEM - BOTTOM FLOOR INSPECTION

1. Walk all of the bottom floors

* Any visible cracks or depressions in the ground floors?	NO
* Any other visible openings (unintended) in the ground floors?	NO
* Draw approximate location of floor cracks/openings on site map.	N/A
* Note the length of the crack/opening.	N/A
* Note the width of the crack/opening.	N/A
* Comments:	N/A

C. COVER SYSTEM - EXTERIOR INSPECTION

1. Walk and inspect the entire perimeter of the Site.

2. Walk and inspect all of the paved areas (concrete and asphalt) of the Site.

3. Walk and inspect all of the unpaved areas of the Site including artificial turf field.

* Are there any signs of significant cracks, settlement, or deterioration of the paved areas?	No
* Has any of the pavement material been removed?	No
* Are there signs of vehicular use on the unpaved areas (tire tracks, rutting, etc.)?	No
* Have any structures been constructed on the unpaved areas?	No
* Are there any signs of soil washing or erosion (gullies, soil washed out onto the pavement)?	No
* Are there any signs of intrusive activities (drilling, digging, trenching, grading, excavating, etc.)?	No
* Comments:	

D. REPAIRS

Summarize needed/completed repairs to Engineering Controls:
Grease bearings & Check Fan belt.

Inspector's Signature: Robert Riverniza

Monthly/Severe Condition Inspection Form

Mott Haven Campus
730 Concourse Village West, Bronx, New York 10451

Inspector's Name: Robert Rivera
Inspection Date: 5-26-14
Inspection Time: 11.00 am
Weather Conditions: Mostly sunny
Air Temperature (°F): 348 High 32° Low 16°
Comments: All 6 SSDS Fans are running.

A. SSDS SYSTEM INSPECTION

1. Walk the entire roof surface of school bulidings.

*	Inspect fan stack guide wires.	✓
*	Inspect fan mounting and vibration isolators.	✓
*	Inspect condition of fan belt.	✓
*	Inspect alignment of fan belt.	✓
*	Record vacuum gauge reading: -150 mm of water	✓
*	Inspect bolts and set screws for tightness and rusty condition.	✓
*	Inspect for cleanliness. Clean exterior surfaces only. Remove dust and grease on motor housing.	✓
*	Are the indicator lights on the Building Management System functioning properly?	✓
*	Confirm that spare fan is stored in designated secure location and in working condition.	✓
*	Confirm that the spare fan's bearings are completely filled with grease/lubricant.	✓
*	Rotate the fan wheel of the spare fan several times to ensure that bearings remain lubricated.	✓
*	Comments (see or hear anything unusual?): Ball pack bearing starting to wear down on SSDS Fan on Roof level of building A & B.	

B. COVER SYSTEM - BOTTOM FLOOR INSPECTION

1. Walk all of the bottom floors

*	Any visible cracks or depressions in the ground floors?	No
*	Any other visible openings (unintended) in the ground floors?	No
*	Draw approximate location of floor cracks/openings on site map.	N/A
*	Note the length of the crack/opening.	N/A
*	Note the width of the crack/opening.	N/A
*	Comments: No cracks or openings in ground floor.	N/A

C. COVER SYSTEM - EXTERIOR INSPECTION

1. Walk and inspect the entire perimeter of the Site.

2. Walk and inspect all of the paved areas (concrete and asphalt) of the Site.

3. Walk and inspect all of the unpaved areas of the Site including artificial turf field.

*	Are there any signs of significant cracks, settlement, or deterioration of the paved areas?	No
*	Has any of the pavement material been removed?	No
*	Are there signs of vehicular use on the unpaved areas (tire tracks, rutting, etc.)?	No
*	Have any structures been constructed on the unpaved areas?	No
*	Are there any signs of soil washing or erosion (gullies, soil washed out onto the pavement)?	No
*	Are there any signs of intrusive activities (drilling, digging, trenching, grading, excavating, etc.)?	No
*	Comments: Everything ok.	

D. REPAIRS

Summarize needed/completed repairs to Engineering Controls:

Grease ball pack bearings & visually inspected fan belts on all 6 SSDS Fans at +90. All 6 SSDS Fans are running.

Inspector's Signature: Robert Rivera

Monthly/Severe Condition Inspection Form

Mott Haven Campus
730 Concourse Village West, Bronx, New York 10451

Inspector's Name: Robert Rivera SR
Inspection Date: 6-3-14
Inspection Time: 9:00 am
Weather Conditions: Mostly Sunny
Air Temperature (°F): 830
Comments: Fans running inspected SSDS Fans

A. SSDS SYSTEM INSPECTION

1. Walk the entire roof surface of school bulidings.

* Inspect fan stack guide wires.	✓
* Inspect fan mounting and vibration isolators.	✓
* Inspect condition of fan belt.	✓
* Inspect alignment of fan belt.	✓
* Record vacuum gauge reading: ~150 mm of water	✓
* Inspect bolts and set screws for tightness and rusty condition.	✓
* Inspect for cleanliness. Clean exterior surfaces only. Remove dust and grease on motor housing.	✓
* Are the indicator lights on the Building Management System functioning properly?	Yes
* Confirm that spare fan is stored in designated secure location and in working condition.	✓
* Confirm that the spare fan's bearings are completely filled with grease/lubricant.	✓
* Rotate the fan wheel of the spare fan several times to ensure that bearings remain lubricated.	✓
* Comments (see or hear anything unusual?): Bearing is are wearing down on SSDS Fan in Building A & B. Hearing & visually seeing vibrations.	

B. COVER SYSTEM - BOTTOM FLOOR INSPECTION

1. Walk all of the bottom floors

* Any visible cracks or depressions in the ground floors?	No
* Any other visible openings (unintended) in the ground floors?	No
* Draw approximate location of floor cracks/openings on site map.	N/A
* Note the length of the crack/opening.	N/A
* Note the width of the crack/opening.	N/A
* Comments: No cracks or openings in ground ~~slab~~ floor.	

C. COVER SYSTEM - EXTERIOR INSPECTION

1. Walk and inspect the entire perimeter of the Site.

2. Walk and inspect all of the paved areas (concrete and asphalt) of the Site.

3. Walk and inspect all of the unpaved areas of the Site including artificial turf field.

* Are there any signs of significant cracks, settlement, or deterioration of the paved areas?	No
* Has any of the pavement material been removed?	No
* Are there signs of vehicular use on the unpaved areas (tire tracks, rutting, etc.)?	No
* Have any structures been constructed on the unpaved areas?	No
* Are there any signs of soil washing or erosion (gullies, soil washed out onto the pavement)?	No
* Are there any signs of intrusive activities (drilling, digging, trenching, grading, excavating, etc.)?	No
* Comments:	

D. REPAIRS

Summarize needed/completed repairs to Engineering Controls:

Grease ball pack bearings, check Fan belt ensure SSDS Fan is running. Need to replace ball pack bearings on SSDS Fans on building A & B Rooftop.

Inspector's Signature: Robert Rivera

Monthly/Severe Condition Inspection Form

Mott Haven Campus
730 Concourse Village West, Bronx, New York 10451

Inspector's Name: Robert Rivera JR
Inspection Date: 7/25/14
Inspection Time: 10:00 am
Comments: Inspected SSDS Fans are running.

Weather Conditions: Mostly cloudy 72°
Air Temperature (°F): 77°
High 82° Low 63°

A. SSDS SYSTEM INSPECTION

1. Walk the entire roof surface of school bulidings.

*	Inspect fan stack guide wires.	✓
*	Inspect fan mounting and vibration isolators.	✓
*	Inspect condition of fan belt.	✓
*	Inspect alignment of fan belt.	✓
*	Record vacuum gauge reading:	-150 mm of ✓ water
*	Inspect bolts and set screws for tightness and rusty condition.	✓
*	Inspect for cleanliness. Clean exterior surfaces only. Remove dust and grease on motor housing.	✓
*	Are the indicator lights on the Building Management System functioning properly?	Yes
*	Confirm that spare fan is stored in designated secure location and in working condition.	✓
*	Confirm that the spare fan's bearings are completely filled with grease/lubricant.	✓
*	Rotate the fan wheel of the spare fan several times to ensure that bearings remain lubricated.	✓ waiting for delivery
*	Comments (see or hear anything unusual?):	Need to replace

ball pack on SSDS fan on building A & B. I hear loud viberation & visually inspected both units

B. COVER SYSTEM - BOTTOM FLOOR INSPECTION

1. Walk all of the bottom floors

*	Any visible cracks or depressions in the ground floors?	NO
*	Any other visible openings (unintended) in the ground floors?	NO
*	Draw approximate location of floor cracks/openings on site map.	N/A
*	Note the length of the crack/opening.	N/A
*	Note the width of the crack/opening.	N/A
*	Comments:	N/A

No crack visible or opening.

C. COVER SYSTEM - EXTERIOR INSPECTION

1. Walk and inspect the entire perimeter of the Site.

2. Walk and inspect all of the paved areas (concrete and asphalt) of the Site.

3. Walk and inspect all of the unpaved areas of the Site including artificial turf field.

*	Are there any signs of significant cracks, settlement, or deterioration of the paved areas?	NO
*	Has any of the pavement material been removed?	NO
*	Are there signs of vehicular use on the unpaved areas (tire tracks, rutting, etc.)?	NO
*	Have any structures been constructed on the unpaved areas?	NO
*	Are there any signs of soil washing or erosion (gullies, soil washed out onto the pavement)?	NO
*	Are there any signs of intrusive activities (drilling, digging, trenching, grading, excavating, etc.)?	NO
*	Comments:	

D. REPAIRS

Summarize needed/completed repairs to Engineering Controls:

Need to replace ball pack bearings on SSDS fans on building A & B rooftop loud viberation coming from both units - Temco Mechanics HVAC order - new ball pack bearings for both Fans

Inspector's Signature: Robert Rivera Jr

Attachment 3
Biweekly Inspection Logs

1430 Broadway
10th Floor
New York, NY 10018

212.221.7822 PHONE
212.221.7840 FAX

www.TRCsolutions.com

August 11, 2014

Ms. Lee Guterman, Deputy Director
Industrial & Environmental Hygiene Division
New York City School Construction Authority
30-30 Thomson Avenue
Long Island City, New York 11101

Re: SSDS Certification
Mott Haven Campus – X790
730 Concourse Village West
Bronx, New York
SCA LLW# 033485, Job# 34857
NYSDEC BCP No. C203030

Dear Ms. Guterman:

In connection with the Mott Haven Campus located at 730 Concourse Village West, Bronx, New York, please accept this letter as certification that TRC Engineers, Inc. (TRC) performed inspections of the sub-slab depressurization system (SSDS) on August 7, 2013, August 22, 2013 and September 4, 2013 on behalf of the New York City School Construction Authority, in accordance with the New York State Department of Environmental Conservation-approved November 2008 Site Management Plan. The SSDS fans were operating normally during each TRC inspection completed on these dates.

Sincerely,
TRC Engineers, Inc.

Jennifer DiPietato, P.E.
NYS Professional Engineer License No. 085404

Under New York State Education Law Article 145 (Engineering), Section 7209 (2), it is a violation of this law for any person, unless acting under the direction of a Licensed Professional Engineer, to alter this document.

Attachment A – TRC SSDS Inspection Reports (8/7/13, 8/22/13 and 9/4/13)

ATTACHMENT A
TRC SSDS INSPECTION REPORTS
(8/7/13, 8/23/13 and 9/4/13)

1430 Broadway
10th Floor
New York, NY 10018

212.221.7822 PHONE
212.221.7840 FAX

www.TRCsolutions.com

FIELD ACTIVITY DAILY LOG

Date: 08/7/13

Author: Kevin Boger

Attendees: None

Project Name: NYCSCA Mott Haven
LLW No.: 033485
IEH No.: 41747
TRC Project No.: 192455

Field Activity Subject: Sub-Slab Depressurization System (SSDS) Bi-Weekly Inspection

Description of Daily Activities and Events:

- TRC on-site.
- Checked in with front desk and custodian's office to sign in.
- All six SSDS suction fans were operating.
- TRC tested the connection of each pressure switch (installed near the inlet of each suction fan) to the Building Management System. Please see below for results of the BMS test and vacuum readings at each suction fan.

  Building "D":
  - EF–4: 4.50 inches of water vacuum
  - Status of pressure switch registers on BMS

  Building "C":
  - EF–3: 4.50 inches of water vacuum
  - Status of pressure switch registers on BMS

  Building "B":
  - EF–2: 4.50 inches of water vacuum
  - Status of pressure switch registers on BMS

  - EF–6: 5.25 inches of water vacuum
  - Status of pressure switch registers on BMS

Building "A":

- EF–1: 4.50 inches of water vacuum
- Status of pressure switch **does not** register on BMS

- EF–5: 4.75 inches of water vacuum
- Status of pressure switch **does not** register on BMS

When performing this BMS test every fan was shut down and then the fan status messages were noted at the BMS. Additionally when all SSDS fans were turned on the status of the fans in alarm (EF-2, EF-3, EF-4, and EF-6) did not reset back to normal status and remained in alarm.

1430 Broadway
10th Floor
New York, NY 10018

212.221.7822 PHONE
212.221.7840 FAX

www.TRCsolutions.com

FIELD ACTIVITY DAILY LOG

Date: 08/22/13

Author: Phillip Castellano

Attendees: None

Project Name: NYCSCA Mott Haven
LLW No.: 033485
IEH No.: 41747
TRC Project No.: 192455

Field Activity Subject: Sub-Slab Depressurization System (SSDS) Bi-Weekly Inspection

Description of Daily Activities and Events:

- TRC on-site.
- Checked in with front desk and custodian's office to sign in.
- All six SSDS suction fans were operating.
- See below for pressure gauge readings from for each suction fan installation.
    - **Building "D":**
    - EF–4: 5.00 inches of water vacuum
    - **Building "C":**
    - EF–3: 4.50 inches of water vacuum
    - **Building "B":**
    - EF–2: 4.50 inches of water vacuum
    - EF–6: 5.50 inches of water vacuum
    - **Building "A":**
    - EF–1: 4.50 inches of water vacuum
    - EF–5: 5.00 inches of water vacuum
- The Building Management System (BMS) is up and running.

1430 Broadway
10th Floor
New York, NY 10018

212.221.7822 PHONE
212.221.7840 FAX

www.TRCsolutions.com

FIELD ACTIVITY DAILY LOG

Date: 09/04/13

Author: Sanjay Sharma

Attendees: None

Project Name: NYCSCA Mott Haven
LLW No.: 033485
IEH No.: 41747
TRC Project No.: 192455

Field Activity Subject: Sub-Slab Depressurization System (SSDS) Bi-Weekly Inspection

Description of Daily Activities and Events:

- TRC on-site.
- Checked in with front desk and custodian's office to sign in.
- All six SSDS suction fans were operating.
- See below for pressure gauge readings from for each suction fan installation.
    - **Building "D":**
    - EF–4: 5.00 inches of water vacuum
    - **Building "C":**
    - EF–3: 4.50 inches of water vacuum
    - **Building "B":**
    - EF–2: 4.50 inches of water vacuum
    - EF–6: 5.75 inches of water vacuum
    - **Building "A":**
    - EF–1: 4.50 inches of water vacuum
    - EF–5: 4.75 inches of water vacuum
- The Building Management System (BMS) is functional at this school. However, the Custodian could not log into the system because of ongoing electrical work so the status of the BMS could not be checked with respect to each individual fan during this site inspection. Please refer to TRC's latest inspection report for the BMS at this school, dated 8/7/13, for a list of outstanding issues.

Attachment 4
Semiannual Groundwater Monitoring Reports

August 7, 2014

Ms. Lee Guterman
Deputy Director
Industrial & Environmental Hygiene Division
New York City School Construction Authority
30-30 Thomson Avenue
Long Island City, New York 11101

Re: Certification of Groundwater Monitoring
Mott Haven Campus
730 Concourse Village West
Bronx, New York 10451
SCA LLW# 033485 / SCA Job# 41747
BCP No. C203030

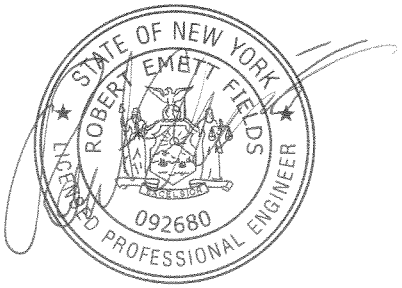
Dear Ms. Guterman:

Pursuant to the New York State Department of Environmental Conservation (NYSDEC)-approved November 2008 Site Management Plan, this letter certifies that on December 27, 2013, STV conducted semi-annual groundwater monitoring (14th event, 10th semi-annual event). The Semi-Annual Groundwater Monitoring report was submitted to NYSDEC on February 11, 2014, under separate cover.

If you have any questions, please contact me at 212-614-3450.

Sincerely,

STV INCORPORATED



Robert E. Fields, P.E.
NYS Professional Engineer #092680

AN EMPLOYEE-OWNED COMPANY PROVIDING QUALITY SERVICE SINCE 1912 | 225 PARK AVENUE SOUTH
NEW YORK, NEW YORK 10003-1604
(212) 777-4400 FAX: (212) 529-5237

February 4, 2014

Ms. Sondra Martinkat
Environmental Engineer 2
New York State Department of Environmental Conservation (NYSDEC)
Division of Environmental Remediation, Region 2 Office
47-40 21st Street
Long Island City, New York 11101

Re: Semi-Annual Groundwater Monitoring
December 2013 (14th Event, 10th Semi-Annual Event)
Mott Haven Campus
730 Concourse Village West
Bronx, New York 11375
SCA LLW# 033485/SCA Job #41747
BCP No. C203030

Dear Ms. Martinkat:

On behalf of the New York City School Construction Authority (NYCSCA), STV Incorporated (STV) has prepared this semi-annual report regarding the post-remediation groundwater sampling at the Mott Haven Campus (i.e., the "Site). Groundwater monitoring results are being reported in accordance with the November 2008 Mott Haven Site Management Plan (SMP), approved by the New York State Department of Environmental Conservation (NYSDEC, the Department) on November 25, 2008. The groundwater monitoring data will be submitted via email to the NYSDEC in Electronic Data Deliverable (EDD) format for input into the Department's database.

On December 27, 2013, water levels were measured in the seven existing on-site monitoring wells and four upgradient and off-site monitoring wells on Concourse Village West. The depth to water measurements and corresponding groundwater elevations are summarized in Table 1. Groundwater contours based on measured groundwater elevation data on the Site are shown in Figure 2. The contours depicted on Figure 2 indicate that the direction of horizontal groundwater flow is generally toward the southeast, consistent with data obtained during the remedial investigation and previous groundwater monitoring events.

On December 27, 2013, groundwater samples were collected from the seven existing on-site monitoring wells MW-3R, MW-5R, MW-11R, MW-23, MW-24, MW-25, and MW-26R as shown on Figure 1. Sampling was performed in accordance with the Sampling Event Protocol presented in Section 3.3.4 of the SMP. Field sampling logs for the groundwater sampling are presented in *Appendix A*.

Groundwater samples were submitted to York Analytical Laboratories, Inc. (York) of Stratford, Connecticut, a New York State Environmental Laboratory Approval Program (ELAP) certified laboratory for analysis for Target Compound List (TCL) volatile organic compounds (VOCs) plus methyl tert-butyl ether (MTBE) per the United States Environmental Protection Agency (USEPA) Method 8260. Table 2 summarizes the groundwater analytical data. The laboratory report for the groundwater sample analysis is provided in *Appendix B,* and *Appendix C* contains York's ELAP certification forms.

No VOCs were detected in the trip blank sample, indicating that the samples were not exposed to any environment that might impact the sample integrity. The field duplicate sample was collected from MW-

25. No VOCs were detected above the laboratory method detection limit in the primary sample or the duplicate sample. All other laboratory QC criteria (i.e., surrogate recoveries) were acceptable, with the exception of the surrogate, "Toluene-d8" which was recovered above acceptable limits in all of the samples analyzed. These surrogate recovery results are not anticipated to affect the usability of the data.

The laboratory analytical results reported only one VOC detected in one groundwater sample at a concentration greater than the NYSDEC Class GA Values. Tetrachloroethene (PCE) was detected in monitoring well MW-24 at a concentration of 15 µg/L, which exceeded the NYSDEC Class GA groundwater standard (principal organic contaminant standard) of 5.0 µg/L. In previous sampling events, PCE concentrations in groundwater samples collected from MW-24 have ranged between non-detect and 51 µg/L. No other VOCs were detected in MW-24 during this sampling event. Monitoring well MW-24 is located on the upgradient side of the Site, and the VOC detected in the groundwater sample collected from MW-24 is likely from an upgradient source. No VOCs were detected in the groundwater sample collected from the other upgradient monitoring wells MW-23, MW-25, and MW-26R.

Samples analyzed from the three downgradient monitoring wells, MW-3R. MW-5R, and MW-11R, did not detect any VOCs above the Class GA Values. Cis-1,2-dichloroethene and vinyl chloride were detected at estimated concentrations of 0.82 µg/L and 1.0 µg/L in MW-3R, respectively. These concentrations are below the Class GA Values of 5.0 µg/L for cis-1,2-dichloroethene and 2.0 µg/L for vinyl chloride.

No other VOCs were detected in groundwater at concentrations exceeding the laboratory method detection limits or the reporting limits.

The remedial objective for groundwater in the NYSDEC approved Remedial Action Work Plan (RAWP) is to maintain existing groundwater quality at the downgradient property line. VOCs in downgradient monitoring wells MW-3R, MW-5R and MW-11R were non-detect or below Class GA groundwater quality standards. Accordingly, the remedial objectives for groundwater continue to be met per the RAWP.

Please do not hesitate to contact me at (914) 400-5205 if you have any questions or require additional information regarding this project.

Sincerely,

STV Incorporated

Michael R. Sherwood, CPG
Senior Consultant

cc: D. Hettrick, P.E., New York State Department of Health (NYSDOH)
L. Guterman, NYCSCA

August 7, 2014

Ms. Lee Guterman
Deputy Director
Industrial & Environmental Hygiene Division
New York City School Construction Authority
30-30 Thomson Avenue
Long Island City, New York 11101

Re: Certification of Groundwater Monitoring
Mott Haven Campus
730 Concourse Village West
Bronx, New York 10451
SCA LLW# 033485 / SCA Job# 41747
BCP No. C203030

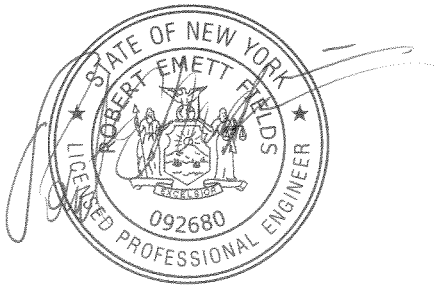
Dear Ms. Guterman:

Pursuant to the New York State Department of Environmental Conservation (NYSDEC)-approved November 2008 Site Management Plan, this letter certifies that on June 29, 2014, STV conducted semi-annual groundwater monitoring (15th event, 11th semi-annual event). The Semi-Annual Groundwater Monitoring report was submitted to NYSDEC on August 1, 2014, under separate cover.

If you have any questions, please contact me at 212-614-3450.

Sincerely,

STV INCORPORATED



Robert E. Fields, P.E.
NYS Professional Engineer #092680

AN EMPLOYEE-OWNED COMPANY PROVIDING QUALITY SERVICE SINCE 1912
225 PARK AVENUE SOUTH
NEW YORK, NEW YORK 10003-1604
(212) 777-4400 FAX: (212) 529-5237

August 1, 2014

Ms. Sondra Martinkat
Environmental Engineer 2
New York State Department of Environmental Conservation (NYSDEC)
Division of Environmental Remediation, Region 2 Office
47-40 21st Street
Long Island City, New York 11101

Re: Semi-Annual Groundwater Monitoring
June 2014 (15th Event, 11th Semi-Annual Event)
Mott Haven Campus
730 Concourse Village West
Bronx, New York 11375
SCA LLW# 033485/SCA Job #41747
BCP No. C203030

Dear Ms. Martinkat:

On behalf of the New York City School Construction Authority (NYCSCA), STV Incorporated (STV) has prepared this semi-annual report regarding the post-remediation groundwater sampling at the Mott Haven Campus (i.e., the "Site). Groundwater monitoring results are being reported in accordance with the November 2008 Mott Haven Site Management Plan (SMP), approved by the New York State Department of Environmental Conservation (NYSDEC, the Department) on November 25, 2008. The groundwater monitoring data will be submitted via email to the NYSDEC in Electronic Data Deliverable (EDD) format for input into the Department's database.

On June 29, 2014, water levels were measured in the seven existing on-site monitoring wells and five upgradient and off-site monitoring wells on Concourse Village West. The depth to water measurements and corresponding groundwater elevations are summarized in Table 1. Groundwater contours based on measured groundwater elevation data on the Site are shown in Figure 2. The contours depicted on Figure 2 indicate that the direction of horizontal groundwater flow is generally toward the southeast, consistent with data obtained during the remedial investigation and previous groundwater monitoring events.

On June 29, 2014, groundwater samples were collected from the seven existing on-site monitoring wells MW-3R, MW-5R, MW-11R, MW-23, MW-24, MW-25, and MW-26R as shown on Figure 1. Sampling was performed in accordance with the Sampling Event Protocol presented in Section 3.3.4 of the SMP. Field sampling logs for the groundwater sampling are presented in *Appendix A*.

Groundwater samples were submitted to York Analytical Laboratories, Inc. (York) of Stratford, Connecticut, a New York State Environmental Laboratory Approval Program (ELAP) certified laboratory for analysis for Target Compound List (TCL) volatile organic compounds (VOCs) plus methyl tert-butyl ether (MTBE) per the United States Environmental Protection Agency (USEPA) Method 8260. Table 2 summarizes the groundwater analytical data. The laboratory report for the groundwater sample analysis is provided in *Appendix B,* and *Appendix C* contains York's ELAP certification forms.

Acetone was detected in samples collected from MW-11R, MW-23, MW-24, MW-25, MW-26R, the field duplicate collected from MW-3R, and the trip blank. The laboratory report flagged each detection of acetone with a "B" qualifier, which indicates that the analyte was found in the associated analysis batch

blank and should be considered a laboratory artifact. The detection of acetone is not associated with groundwater contamination at the site, and will not be considered further.

The field duplicate sample was collected from MW-3R. No VOCs were detected above the laboratory method detection limit in the primary sample or the duplicate sample. As indicated in Appendix B, there were several constituents noted as being high bias or low bias in the laboratory control sample (LCS). However, this does not impact the usability of the data or the conclusions in this report.

The laboratory analytical results reported only one VOC detected in one groundwater sample at a concentration greater than the NYSDEC Class GA Values. Tetrachloroethene (PCE) was detected in monitoring well MW-24 at a concentration of 25 µg/L, which exceeded the NYSDEC Class GA groundwater standard of 5.0 µg/L. In previous sampling events, PCE concentrations in groundwater samples collected from MW-24 have ranged between non-detect and 51 µg/L. TCE was the only other VOC detected in MW-24 at an estimated concentration of 3.1 µg/L, which is less than the NYSDEC Class GA groundwater standard of 5.0 µg/L. Monitoring well MW-24 is located on the upgradient side of the Site and the detections are likely from an upgradient source. No VOCs were detected in the other upgradient monitoring wells (MW-23, MW-25, and MW-26R).

No VOCs were detected in the three downgradient monitoring wells, MW-3R, MW-5R, and MW-11R.

The remedial objective for groundwater in the NYSDEC approved Remedial Action Work Plan (RAWP) is to maintain existing groundwater quality at the downgradient property line. No VOCs were detected in downgradient monitoring wells MW-3R, MW-5R and MW-11R during this sampling event. Accordingly, the remedial objectives for groundwater continue to be met per the RAWP.

Please do not hesitate to contact me at (914) 400-5205 if you have any questions or require additional information regarding this project.

Sincerely,

STV Incorporated

Michael R. Sherwood, CPG
Senior Consultant

cc: C. Bethoney, New York State Department of Health (NYSDOH)
L. Guterman, NYCSCA

Attachment 5
Photographic Documentation

Photo 1: View of BMS on typical SSDS fan unit (EF-1).

Photo 2: View of spare SSDS fan unit (EF-7) in Room B80.

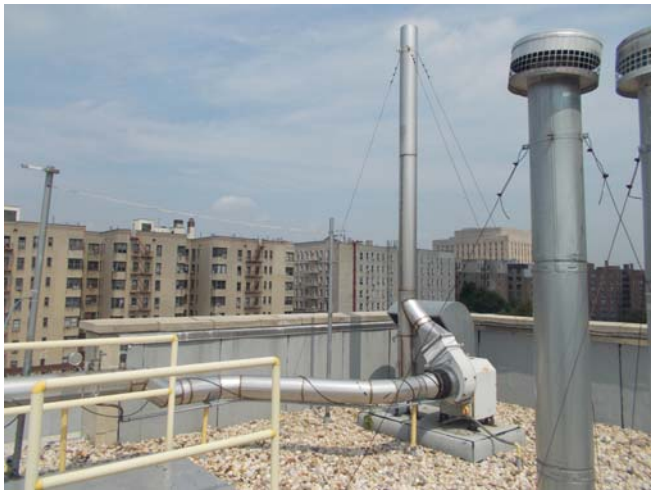


Photo 3: View of typical SSDS roof fan unit (EF-2).

Photo 4: View of typical vacuum gauge associated with SSDS fan units (EF-2).

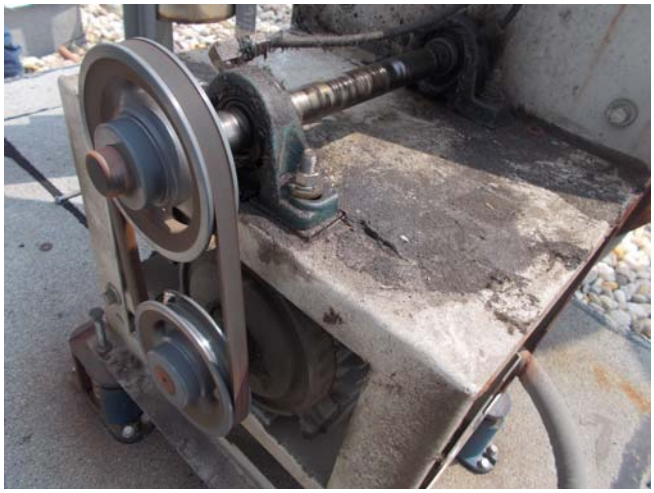


Photo 5: View of typical SSDS fan belt and assembly (EF-4).

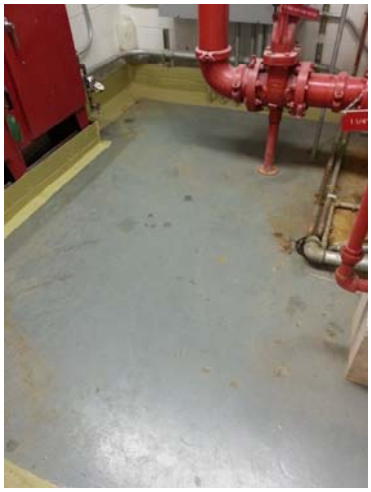


Photo 6: View of typical bare floor in the Fire Pump Room (Room C20D).

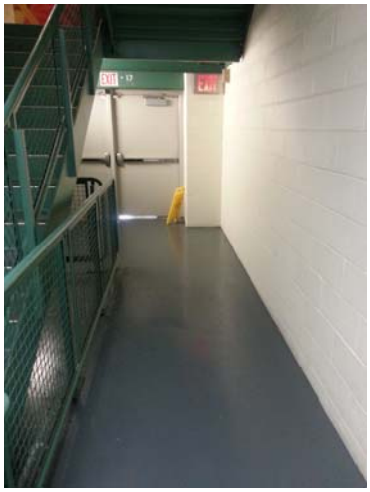


Photo 7: View of typical bare concrete floor in Stairwell G.

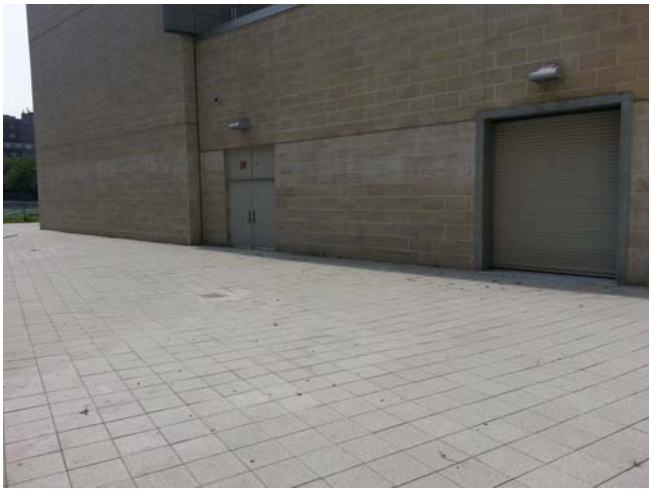


Photo 8: View of typical sidewalk pavers.

Photo 9: View of artificial turf on football field.

Photo 10: View of various site covers.

Attachment 6
Annual Inspection Forms

Annual Inspection Form

Mott Haven Campus
730 Concourse Village West, Bronx, New York 10451

Inspector's Name: Gilbert Gedeon
Inspection Date: 8/1/14
Inspection Time: 10 AM
Weather Conditions: Sunny
Air Temperature (°F): 80°F
Comments:

A. PRE INSPECTION CHECKLIST

* Schedule Annual Inspection when school is not occupied by students. ✓
* Review 12 Previous Monthly Inspection Checklists. ✓
* Meet with Custodian and Principal to solicit comments/concerns regarding the operation of the Engineering Controls over the last 12 months. ✓
* Conduct Annual Refresher SMP Training with DOE, DSF. ✓
* Comments:

B. SSDS SYSTEM INSPECTION

1. Walk the entire roof surface of school buildings.

* Inspect fan stack guy wires. ✓
* Inspect fan mounting and vibration isolators. ✓
* Inspect condition of fan belt. ✓
* Inspect alignment of fan belt. ✓
* Record vacuum gauge reading. ≈ -4.5" - 6" H_2O
* Inspect bolts and set screws for tightness and rusty condition. ✓
* Verify spare fan is available, properly lubricated, and properly stored. Yes Room B&O
* Verify spare fan parts (i.e. drive belts) are available and in good condition. ✓
* Inspect for cleanliness. Clean exterior surfaces only. Remove dust and grease on motor housing. ✓
* Are the indicator lights on the Building Management System functioning properly? Yes
* Comments (see or hear anything unusual?):

Vibration dumping cloth of BK6 requires repair.

C. COVER SYSTEM - BOTTOM FLOOR INSPECTION

1. Walk all of the bottom floors

* Any visible cracks or settlement in the ground floors? No
* Any other visible openings (unintended) in the ground floors? No
* Any other visible cracks in elevator pit or other accessible pits? Inaccessible
* Draw approximate location of floor cracks/openings on site map. N/A
* Note the length of the crack/opening. N/A
* Note the width of the crack/opening. N/A
* Comments:

Annual Inspection Form

Mott Haven Campus
730 Concourse Village West, Bronx, New York 10451

D. COVER SYSTEM - EXTERIOR INSPECTION (Including area under platform)

1. **Walk and inspect the entire perimeter of the Site and the concrete cap under platform.**
2. **Walk and inspect all of the paved areas (concrete and asphalt) of the Site, including areas under PS 156 and IS 151.**
3. **Walk and inspect all of the unpaved areas of the Site including artificial turf field**

* Are there any signs of significant cracks, settlement or deterioration of the paved areas? NO
* Has any of the pavement material been removed? NO
* Are there signs of vehicular use on the unpaved areas (tire tracks, rutting, etc.)? NO
* Have any structures been constructed on the unpaved areas? NO
* Inspect synthetic turf. Any problems identified? Minor Depression (2' x 1' x 2")
* Are the flush-mounted caps/protective casings for the 7 monitoring wells secured? Yes
* Are there any signs of soil washing or erosion (gullies, soil washed out onto the pavement)? Slightly (4'5" x 2' x 4")
* Are there any signs of intrusive activities (drilling, digging, trenching, grading, excavating, etc.)? NO
* Comments:

E. VAPOR BARRIER INSPECTION

1. **Walk all of the bottom floors**

* Review all cracks or other openings indentified in ground floors during previous inspections. ✓
* Conduct smoke test at each identified crack/opening/depression using environmentally safe smoke. N/A
* Draw approximate location of floor cracks/openings that appear to have potential leak through vapor barrier. N/A
* Identify sources of potential impact to smoke test (i.e., HVAC vent nearby). N/A
* Redo smoke test at location of potential vapor barrier leak after sealing off sources of potential impact. N/A

Comments:

F. Repair

Summarize needed/completed repairs to Engineering Controls:

Repair minor depressions and cracks under section D.
Repair vibration dampening cloth for SSDS EF-6
DOE DSF notified

Inspector's Signature: _____

Attachment 7
Training Acknowledgement

Cardno ATC
Shaping the Future

104 East 25th St, 10th Floor
New York, NY 10010-2917
www.cardnoatc.com
212-353-8280
Fax 212-353-8306

Annual Training Acknowledgement
Engineering Controls Operation and Maintenance

Location: X790

Custodian/Fireman: Robert Rivera JR

I, Robert Rivera JR, received annual refresher training on Engineering Controls Operation and Maintenance by Cardno ATC on 03/01/14. As part of the annual refresher training I conducted a walkthrough with Cardno ATC during which all elements covered by the Operation and Maintenance Plan were explained to me including the completion of the daily logs and monthly inspection form.

Robert Rivera JR

Signed by: Robert Rivera JR **Date:** 3/01/14
Custodian/Fireman

Recommendations:

Parts received and fans Repaired as

- Replace SSDS dump cloth on SSDS fan unit EF-6
- ~~Observed worn bearings on SSDS fan units EF 5 + EF 6, custodian advised that bearings were on order.~~
- Repair artificial football field cover by the east end of the 40' yard line, depression (2'x1') observed.
- observed soil erosion adjacent to the auditorium building by the 45' yard line ~ approx 3ft3 of soil required.
- Repair cracks around manhole on East Access drive by the 35' yard Line.