



Syracuse Center of Excellence for Environmental and Energy Systems

700 and 728 East Water Street, Syracuse, New York

Site Management Plan for Post-Construction

Invasive Site Development and Maintenance Activities

July 2005



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EXHIBIT A Site Map

EXHIBIT B CoE Campus Site Inspection Form



1.0 OVERVIEW AND OBJECTIVES

The Syracuse Center of Excellence in Environmental and Energy Systems (“CoE”), which is to serve as the University’s CoE Campus, will be located on the following two (2) parcels to be purchased by Syracuse University:

- 2.4 acre parcel owned by the City of Syracuse that served as the site of the former Midtown Plaza building (“City Parcel”). This parcel was remediated by the City under the NYSDEC Environmental Restoration Program (Former Midtown Plaza Site (Syracuse (C) Onondaga County - Site Number B-0003-7-Record of Decision (March 1998) – the “ERP Project”); and
- 0.6 acre parcel owned by the City of Syracuse Industrial Development Agency (“SIDA Parcel”).

Attached as Exhibit A is a copy of the CoE Campus Site.

The objective of this Site Management Plan (SMP) is to set guidelines for the management of soil and debris that is encountered during any future development or maintenance activities that would invade the cover system at the City Parcel (“Covered Activities”). This SMP supercedes the SMP for the Construction of the TIEQ Laboratory and CoE Headquarters Facility (July 2005). This SMP has been reviewed and approved by the New York State Department of Environmental Conservation (NYSDEC) and the New York State Department of Health (NYSDOH).

2.0 NATURE AND EXTENT OF CONTAMINATION

The nature and extent of contamination were defined through a series of investigations completed initially as part of the City of Syracuse’s work under the ERP Project and later by the University’s environmental assessment review conducted by O’Brien & Gere Engineers, Inc. and NYSDEC’s investigations performed in the fall of 2004. The following summarizes the nature and extent of contamination identified at the CoE Campus Site.

- Debris from the demolition of the former Midtown Plaza was used to backfill the foundation. The debris varies in depth from 5 to 7.5 feet and from point-to-point with the primary constituents being gravel, bricks, reinforcing steel bars, and large pieces of concrete and wood. Soil is mixed with the debris. The old concrete floor, associated footers, and some basement walls exist below the debris. The debris contains some residual asbestos (the ERP Project included asbestos abatement) and low concentrations of semi-volatile polycyclic hydrocarbon compounds (PAHs).
- Soil at the site contained concentrations of heavy metals and PAHs. Heavy metals detected in several locations above TAGM 4046 concentrations were generally chromium and arsenic. PAHs were only detected in soil in the courtyard area as well as beneath the foundation of the building.
- Staining from petroleum products from a previous spill was observed near the surface at one location on the City Parcel that resulted in the opening of a NYSDEC spill file (Spill



0404540). A fingerprint analysis of this material suggested the presence of lubricating or hydraulic oil. A NYSDEC contractor undertook the removal of the petroleum-impacted soil and the spill file was closed on April 1, 2005.

- In 2001, as part of a potential acquisition of the City Parcel, Haley & Aldrich performed a test pit investigation of the fill material. One soil sample was collected from each of five test pits and submitted for laboratory analysis of total petroleum hydrocarbons. Lube/hydraulic oil was detected in four of the five samples.
- A relatively high level of hexavalent chromium was found in the ground water in monitoring well T-2, which was located in the vicinity of the former location of the heat-treating and plating operations. (see Exhibit A). The levels exceed the New York State ground water standards by a factor of ten. Ground water in this location is present at approximately 18 feet below the surface and flows to the southeast. At other monitoring well locations, the chromium in ground water was found to be below the ground water standards. Therefore, the extent of chromium-impacted groundwater appears to be limited. However, as a precaution, soil below 6 ft and within a 50 ft radius of well T-2 should be considered to contain elevated concentrations of chromium.
- There were no environmental issues identified at the SIDA Parcel.

3.0 DEFINITIONS

3.1 Site Manager

Person designated by the University to ensure that Site activities covered by this Plan are conducted in accordance with its terms. The Site Manager shall be designated after the completion of the construction of the initial phase of building construction at the CoE Campus. The initial phase consists of the construction of the TIEQ Laboratory and the CoE Headquarters Facility ("CoE Campus Development").

3.2 Debris and Soil

- Debris is defined as the material located within the foundation footprint of the former Midtown Plaza building as illustrated on Exhibit A. This material was found to contain miscellaneous demolition rubble consisting of wire, conduit, piping, concrete and bricks. In addition, soil, cobbles, and boulders are mixed within the debris in many areas, particularly at the shallower depths.
- Soil is defined as the soil and fill material located outside of the former building footprint.

3.3 Constituents of Concern (COCs)

- Debris - Constituents of concern found to be present in the debris include asbestos within tar paper fragments and polycyclic aromatic hydrocarbon (PAH) compounds.



- Soil – Constituents identified within the soil include inorganics and PAHs. Inorganic constituents detected above TAGM 4046 values in at least one sample include chromium, arsenic, lead, mercury, and selenium. Elevated concentrations of

chromium and hexavalent chromium were also found in the ground water and soil in the vicinity of T-2.

3.4 Construction Site Management Plan

Refers to the Site Management Plan that governs the construction of the CoE Campus Development.

3.5 City Parcel Cover

Refers to the surface cover system that has been placed by the University on the City Parcel in connection with the CoE Campus Development.

4.0 PURPOSE AND DESCRIPTION OF CITY PARCEL COVER

The purpose of the City Parcel Cover is to minimize the potential for human contact with debris and soil potentially impacted by COCs. The City Parcel Cover shall consist of an impervious product approved by the NYSDEC, which includes concrete, asphalt or structures, or a layer of clean soil or stone of uniform depth of not less than twelve inches. Clean soil/stone is that which comes from a borrow source that can be used off-site under applicable law. Material acceptable for use in the City Parcel Cover shall be referred to herein as “Approved Cover.”

5.0 MANAGEMENT OF SOIL/DEBRIS AND LONG TERM MAINTENANCE OF CITY PARCEL COVER

5.1 Overview

The purpose of this section is to provide guidelines for management of debris and soil potentially impacted by COCs at the City Parcel in the course of performance of Covered Activities.

5.2 Management Requirements

This SMP has the following management requirements:

- Any breach of the City Parcel Cover must be replaced or repaired using Approved Cover. The area must be identified by a demarcation layer prior to placement of cover material.
- Control of surface erosion and run-off from the City Parcel shall be maintained in accordance with best management practices.



- Soil and debris that is excavated from the City Parcel must be managed, characterized and disposed in accordance with section 2.3 of the Construction Site Management Plan. The Site Manager shall assume the role of the Construction Manager referenced in that section.
- In the event a Covered Activity will disturb debris, management of the debris shall be conducted in accordance with 12 NYCRR Part 56 as those requirements may be modified by variances approved by the New York State Department of Labor prior to the commencement of the Covered Activity.
- Excavated soils shall be screened in the field with a PID for the presence of VOCs and visually inspected for evidence of staining. Soil that does not exhibit elevated PID readings, staining or odor can be reused at the CoE Campus Site provided it is placed beneath Approved Cover.
- Prior to the commencement of any Covered Activity, the Site Manager shall be notified. Workers will subsequently be notified of conditions at the City Parcel, provided a copy of this SMP and given instruction on how the work is to proceed in accordance with this SMP.
- Covered Activities at the CoE Campus Site will be performed in accordance with all applicable local, state, and federal regulations related to worker health and safety protection and required to prepare a site-specific, activity-specific Health and Safety Plan (HASP) as needed for the particular activities to be performed.

5.3 Third Party Work

No third party shall be permitted access to the CoE Campus Site to conduct any Covered Activity without being informed of the need to comply with the terms of this SMP. The scope of potential third party work at issue would include, but not be limited to, municipal utility work.

6.0 SITE INSPECTION

The Site Manager shall inspect the CoE Campus Site on an annual basis to identify any areas where cracks, erosion, settlement or ponding suggest that the cover materials may be weathering or otherwise impaired. The inspections shall be completed during a time of year where the surfaces are not covered by snow or otherwise not visible. The results of each inspection shall be documented on an inspection form, a copy of which is provided as Exhibit B to this SMP.



7.0 UNIVERSITY CERTIFICATION TO NYSDEC

7.1 Timing of the Certification

Once every three (3) years, beginning on the first anniversary of the certification of the installation of the City Parcel Cover as part of the construction of the CoE Campus

Development, the University shall certify to NYSDEC in such form¹ as required by the NYSDEC whether the City Parcel during the period at issue was maintained in compliance with the terms of this SMP (as the SMP may be amended by the NYSDEC) and if not, detail the instance(s) in which compliance was not maintained and the corrective action(s) that were taken to address the instance(s) of non-compliance.

7.2 Impact of Third Party Work on the University's Certification

Any work conducted on the CoE Campus Site by a third party without prior notice to the University shall not be considered a failure to follow this SMP so long as University management takes action to address the oversight as promptly as possible upon learning of the work.

7.3 Impact of Non-Compliance

The NYSDEC reserves the right to modify its approval of the University's "change of use" under section 56-0511 of the New York State Environmental Conservation Law for use of the City Parcel associated with the CoE Campus development to the extent necessary to address environmental impacts associated with instances of non-compliance.

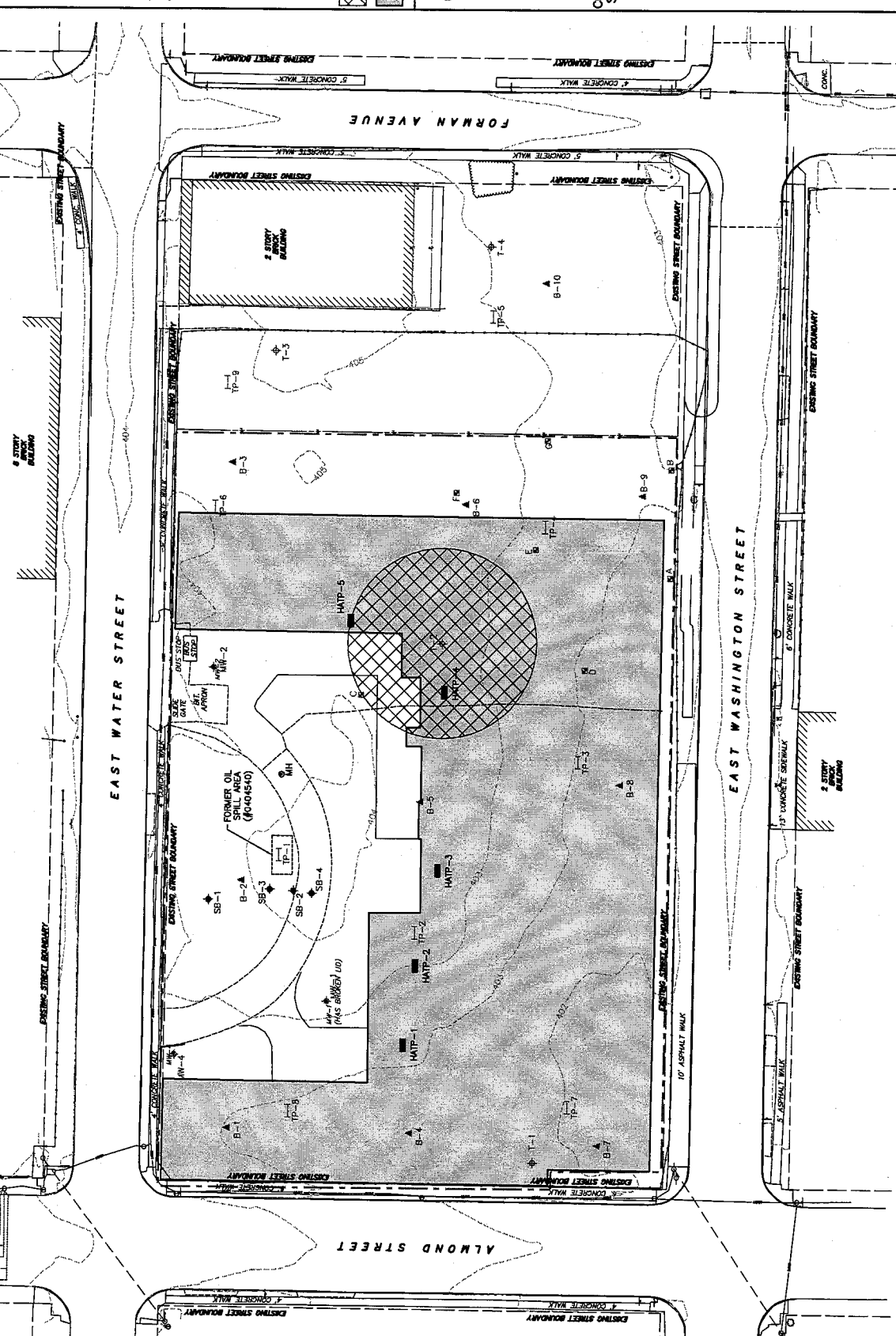
8.0 SMP AMENDMENT

This SMP may be amended by written approval by NYSDEC upon written request by the University. The University shall submit any proposed amendment to NYSDEC at the following address: New York State Department of Environmental Conservation (Attn: Regional Engineer), Region 7, 615 Erie Boulevard West, Syracuse, NY 13204.

¹ A NYSDEC-approved certification form is not available as of June 2005.

EXHIBIT A

SITE MAP



- LEGEND**
- EXISTING FENCELINE
 - PROPERTY LINE
 - EXISTING TEST PITS
 - EXISTING OIL SPILL BORINGS
 - EXISTING MONITORING WELLS
 - EXISTING TEMPORARY MONITORING WELLS
 - EXISTING GEOTECHNICAL BORINGS
 - PROPOSED TEMPORARY WELLS
 - 50 FT. RADIUS SURROUNDING T-2
 - FORMER BUILDING FOUNDATION
 - CITY PARCEL BOUNDARY
 - ASPHALT LOCATION OF TEST PIT BY HALEY & ALDRICH, TEST PITS 2-5 CONTAINED TPA
 - HATP-2

CENTER OF EXCELLENCE
SYRACUSE UNIVERSITY

SITE PLAN



SCALE IN FEET
0 25 50
FILE NO. 013335285.007
JUNE 2005

OBRIENEGERE
ENGINEERS, INC.
200 E. Erie and Oak, Syracuse, N.Y.

GENERAL NOTES:
1. ALL FEATURES AND LOCATION ARE APPROXIMATE

EXHIBIT B

COE CAMPUS SITE INSPECTION FORM



EXHIBIT B

CoE CAMPUS SITE INSPECTION FORM

Property Name: _____ Inspection Date: _____

Property Address: _____

City: _____ State: _____ Zip Code: _____

Property ID: (Tax Assessment Map)

Section: _____

Block: _____

Lot(s): _____

Total Acreage: _____

Weather (during inspection): Temperature: _____ Conditions: _____

SIGNATURE: _____

The findings of this inspection were discussed with appropriate personnel, corrective actions were identified and implementation was mutually agreed upon:

Inspector: _____

Date: _____

Next Scheduled Inspection Date: _____

IMPERVIOUS SURFACES

	Yes	No
1. List types and locations of cover inspected		
2. Is there evidence of sloughing, erosion, ponding or settlement?	_____	_____
Is there evidence of unintended traffic; rutting?	_____	_____
Are there visible cracks?	_____	_____

If answer to any of the above questions in YES, then provide a description below and indicate the location on attached map.



SOIL COVER & VEGETATION

3. Is soil and vegetation in acceptable condition? _____
- Is there evidence of sloughing, erosion, ponding or settlement? _____
- Is there evidence of unintended traffic; rutting? _____
- Is there evidence of distressed vegetation/turf? _____
- Are there locations where the marker layer is visible? _____

ACTIVITY ON SITE

- | | Yes | No |
|--|-------|-------|
| 4. Any activity on site this period that mechanically disturbed cover? | _____ | _____ |

Provide a map indicating location of any modifications to property cover.

COMMENTS

Item #

ATTACHMENTS

Check those that are attached:

- ___ Property Map
- ___ Sketch
- ___ Photographs