SOIL MANAGEMENT PLAN

"The Warehouse"
(Former Dunk & Bright Warehouse Facility)
350-364 and 382-388 West Fayette Street
City of Syracuse, Onondaga County, New York

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SECTION 1.0
INTRODUCTION AND BACKGROUND

1.01 GENERAL

The following Soil Management Plan is intended to establish procedures for handling, characterization, management, transportation and disposal of soil and materials to be excavated during ongoing construction activities at the properties located at 350-364 and 382-388 West Fayette Street in the City of Syracuse, Onondaga County, New York (collectively "The Warehouse Site"). This Plan also establishes procedures to be followed during any excavation activities that may be undertaken at the property in the future.

The provisions of this Plan shall be applicable to any and all excavation work at the site, whether performed by Syracuse University personnel or by outside contractors.

1.02 SITE DESCRIPTION

The site consists of two parcels that are situated on the north side of West Fayette Street and bisected by the north-bound lane of the West Street arterial. The western parcel, hereinafter referred to as the "Warehouse West Site", presently consists of a triangular-shaped paved parking lot that is bounded by the southbound extension of West Street on the west; the northbound extension of West Street to the east; and West Fayette Street to the south. The east parcel, hereinafter referred to as the "Warehouse North Site", is developed with a building that is approximately 144,000 square feet in gross building space that

had previously been utilized as a furniture warehouse and distribution center for Dunk & Bright Furniture Leasing Corporation ("Dunk & Bright"), and is bounded on the north by West Washington Street; the east by Onondaga Creek; the south by West Fayette Street; and the west by the northbound extension of West Street. This site is presently under renovation by Syracuse University for future use in connection with its educational campus.

A Site Location Map depicting the site in relation to surrounding features is attached as Figure 1. An aerial photograph depicting current site features is attached as Figure 2.

1.03 EXISTING CONDITIONS

Past environmental investigation work conducted at the subject site in early 2005 had identified the presence of various environmental contaminants in soil and groundwater resulting from historical use of the site in railroad operations, manufacturing operations, metalworking/foundry operations, and retail gasoline sales and automobile repair activities. The contaminants that have been documented to exist in soil at the site at concentrations above currently recognized regulatory criteria include:

- Polynuclear Aromatic Hydrocarbons (PAHs)
- Heavy Metals, including Arsenic, Cadmium, Chromium, Lead, Selenium, and Mercury
- Volatile Organic Compounds (VOC)
- Petroleum Products and degraded petroleum products, including gasoline, No. 2 fuel oil, and lubricating oil

- PCB Aroclor 1260 (in basement sump)

The ranges of concentrations documented in soil on each portion of the property are listed in Appendix A in comparison to the respective soil cleanup standards presently recognized and established by the New York State Department of Environmental Conservation (NYSDEC) in its *Technical and Administrative Guidance Memorandum No. 4046 (TAGM 4046).*

In addition to the soil contaminants, groundwater samples collected from various locations across the property also contained similar contaminants at concentrations above currently recognized groundwater standards and guidance values established by the NYSDEC in *6NYCRR Part 703* and *Technical and Operational Guidance Series 1.1.1 – Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations (TOGS 1.1.1).* The ranges of concentrations documented in groundwater on each portion of the property are listed in Appendix B in comparison to the respective groundwater standards or guidance values.

Based on various site-specific factors, the NYSDEC has determined that further remediation of the site is not required for soil and groundwater to remain in place under current conditions. However, once contaminated soil is excavated and not intended to be immediately backfilled directly into the location from which it was excavated, or groundwater is extracted from the subsurface, the material becomes classified as a waste material (either hazardous waste or non-hazardous industrial waste, depending upon its characteristics and analysis results) requiring proper handling, management, treatment, and/or disposal in accordance with state and federal regulations.

Based on the available analysis data and site historical information, all soil and groundwater at the site shall be considered to be potentially contaminated unless otherwise documented through suitable laboratory analysis. As such, this Plan has been developed to establish procedures to be followed during the planned

site construction activities as well as during any excavation activities that may be undertaken at the site in the future. This Plan also establishes minimum worker safety and health procedures to be followed during excavation and handling of soil and other materials.

1.04 PLANNED CONSTRUCTION ACTIVITIES

At the present time, facility renovation and site construction activities are ongoing in connection with Syracuse University's re-development of the site from its previous use as a furniture warehouse and distribution facility into its planned use as part of the School's educational campus. The activities that are currently planned or anticipated that would or may be subject to the provisions of this plan include:

- Utility pole installations within the proposed parking areas
- Shallow trenching required for the installation of subsurface electrical and communication conduits (using a "Ditch Witch")
- Parking area control gate installations
- Security guard booth installation
- Bollard installations
- Stairway foundation construction
- Curb cuts and curb installations
- Water hydrant relocations
- Other site activities requiring excavation or grading that will disturb soil

Overall, the scope of excavation required to complete the above-listed tasks to be associated with the ongoing renovation of the facility is expected to be limited to within the upper 3 to 5 feet of soil. Existing site data indicate that groundwater at the site is generally below these expected excavation depths.

Possible future excavation work that may be foreseen at this time may include plantings, shallow excavation for conduit installations, and asphalt pavement repairs.

1.05 EMERGENCY EXCAVATION ACTIVITIES

Any future excavation activities that may be required at the site on an emergency basis shall conform to the procedures outlined in this Plan.

END OF SECTION

SECTION 2.0
EXCAVATION AND ON-SITE MANAGEMENT OF WASTE MATERIALS

2.01 GENERAL

A. All activities relating to the disturbance, handling, staging, and on-site management of soil or other solid materials disturbed during excavation activities at the site shall be conducted in accordance with the following provisions.

2.02 NOTIFICATION PRIOR TO EXCAVATION

A. Prior to conducting excavation activities at the site, the Contractor or University personnel that will conduct the excavation work shall notify the Syracuse University Environmental Health Office (EHO; Telephone: 315-443-4132) of the intent and schedule for such excavation. The EHO shall be notified as early as possible during the planning of excavation work for the site, and at a minimum of 72 hours prior to initiating planned construction activities. In cases where emergency excavation work that would not allow a 72-hour notification is necessary, the EHO shall be notified as early as possible prior to initiating excavation.

2.03 SEPARATION OF EXCAVATED MATERIALS

A. The materials excavated from the "Warehouse West" portion of the site shall be segregated and staged separately from those materials generated by

activities performed on the "Warehouse North" portion of the property.

B. The materials shall not be transported across the street from the generation point, unless waste characterization laboratory analyses are completed to determine if the material is classified as non-hazardous industrial solid waste or hazardous waste, and such movement is performed by a waste transporter that has a valid *6NYCRR Part 364* permit issued by the New York State Department of Environmental Conservation. Under no circumstances shall waste materials be removed from the site or transported across public streets from the generation point unless approved by EHO in advance.

C. Surface layers of asphalt or concrete removed in connection with excavation at the site shall be separated from the underlying soil, and removed from the site for disposal as construction and demolition debris at a NYSDEC-permitted disposal facility. The proposed disposal location for such materials shall be approved by the EHO prior to transporting the material from the site.

D. Should railroad ties be excavated during the work, these shall be staged on and securely covered with plastic sheeting (minimum of 6 mil in thickness) until samples of the material are collected and waste characterization analyses are completed to determine if the ties are classified as non-hazardous industrial waste or hazardous waste. If the analysis results indicate that the materials constitute a hazardous waste, the ties shall be cut into pieces by appropriately certified personnel (having requisite OSHA 40-hour training and RCRA hazardous waste training) so as to be smaller than 12 inches by 12 inches in size. Once cut, the pieces shall be placed in a suitable waste receptacle for off-site disposal at a designated hazardous waste treatment facility. If the analysis results indicate that the ties are classified as non-hazardous solid industrial waste, they may be placed in a rolloff for disposal at a designated non-hazardous disposal facility acceptable to the EHO, in conjunction with the permit requirements of the facility.

E. In the event that large cobbles or boulders are disturbed during excavation activities, they shall be segregated from the remaining excavated soil and brushed with a stiff-bristled brush or similar suitable device to remove surficial soil. These items shall then be placed at a suitable location on the site for subsequent use as landscape features. The ultimate placement of these items will be determined by the senior Syracuse University representative at the site.

2.04 EXAMINATION AND SCREENING OF EXCAVATED MATERIALS

A. Soil exposed during excavation activities shall be field screened for detectable concentrations of volatile organic compounds (VOC) by headspace screening methods using a portable photo-ionization detector (PID) equipped with a 10.6 eV or higher lamp. The PID shall be calibrated with an appropriate calibration gas mixture at the start of each day of excavation, in accordance with the manufacturer's specifications.

B. Field PID screening shall be performed by a competent and qualified individual having documented experience in the calibration, operation, and application of the instrumentation, and in the interpretation of the generated data.

C. In cases where the excavation work is to be performed by Syracuse University personnel, the screening shall be coordinated with the University's EHO.

D. In cases where excavation work is to be performed by an outside contractor or personnel other than Syracuse University personnel, the associated Contractor shall provide or retain a qualified individual acceptable to the EHO to conduct the requisite screening.

E. The headspace screening shall be performed by placing a representative portion of the soil in a glass jar or other suitable container and screening the air above the soil within the jar with the PID as the containerized soil is agitated. If the ambient temperature is less than 50 degrees Fahrenheit, the containerized soil samples shall be warmed to approximate room temperature prior to screening.

2.05 ON-SITE STAGING AND MANAGEMENT OF EXCAVATED MATERIALS

A. Unless otherwise approved by the EHO (as provided in Section 2.07 below), all excavated soil and other solid material shall either be placed directly in appropriate waste receptacles (i.e., rolloff containers) immediately upon removal from its in-situ position, or staged on plastic sheeting in accordance with the methods detailed below, for temporary storage until waste characterization is completed and arrangements for transportation and off-site disposal are finalized. If small quantities of materials are to be generated, they may be placed in appropriate 55-gallon barrels for disposal.

1. <u>Rolloff Container Use</u>

(a.) All rolloff containers or other similar vessels utilized shall be watertight and lined with 6-mil polyethylene sheeting or equivalent impermeable lining, and equipped with a secured and impermeable cover.

(b.) The impermeable cover shall remain securely in place at all times when material is not being actively placed in the vessels. The party placing the materials into the rolloff shall be responsible for ensuring that the cover remains securely intact until the container is removed from the site.

(c.) Due to USDOT weight restrictions, waste rolloffs shall not be filled to more than 50 percent of their capacity.

(d.) The Contractor or University personnel responsible for the excavation work shall immediately notify EHO when a rolloff is filled to 50 percent capacity or when excavation has been completed, so that arrangements can be made for the material to be sampled for waste characterization laboratory analysis prior to disposal. The sampling will be as described in Section 3 below.

2. Staging on Plastic

Should it be deemed necessary or beneficial to temporarily stockpile excavated materials at the site rather than place them directly into USDOT-approved waste receptacles, such staging shall be as follows:

(a.) The soil stockpile shall be placed in a location at the site to be designated at the start of the project.

(b.) The perimeter of the stockpile shall be surrounded with a one foot high berm comprised of non-contaminated soil from the site.

(c.) The bermed area shall be lined with a layer of polyethylene sheeting of at least 10-mil thickness, or by a double layer of polyethylene sheeting with each layer of at least 6-mil thickness.

(d.) If the area of the stockpile requires more than one sheet of polyethylene, the sheet covering the higher elevation shall overlap the lower sheet(s) by a minimum of three (3) feet.

(e.) The soil stockpile shall be covered with a layer of polyethylene sheeting of at least 6-mil thickness at the conclusion of each work day and until the soil is transported from the property.

(f.) The berm and lining will serve to divert storm water away from the impacted material and the cover will direct precipitation off of the stockpile.

(g.) The cover shall be secured in place by sandbags or similar weighted items.

(h.) In the event that the cover becomes damaged by the elements prior to removal of the stockpile from the site, the cover shall be replaced with an equivalent material and secured in place with sandbags or similar weighted items.

(i) The party staging the materials shall be responsible for ensuring that the cover remains securely intact until the stockpile is removed from at the site.

3. <u>55-Gallon Barrel Use</u>

(a.) Small quantities of excavated materials may be placed in suitable DOT-approved 55-gallon barrels, provided that they are watertight and free of corrosion, perforations, punctures, or other damage.

B. Due to size limitations posed by disposal facilities, no material measuring more than 12 inches by 12 inches by 12 inches in dimension shall be placed in the rolloffs or staged for disposal. Should materials such as large cobbles or boulders be excavated during the work, these shall be retained at the site and separated and stored appropriately for disposal. Other materials exceeding these dimensions, such as concrete rubble, shall be broken down so as to be smaller than this designated size.

C. The waste containers shall remain staged at the site with a secure impermeable cover in place until the results of the waste characterization analyses are received from the laboratory, provided to the appropriate waste disposal site, and approval is received from the designated disposal site for the material to be delivered to that facility. Transportation and disposal arrangements will be made by the EHO, in accordance with Section 4 below.

D. Stockpile, rolloff and barrel staging areas shall be designated prior to initiation of the excavation work, and approved by the senior Syracuse University Representative at the facility. In the absence of a Syracuse University representative at the site, designated stockpile and staging areas shall be approved by the EHO.

2.06 EMERGENCY EXCAVATION SOIL HANDLING

A. In cases where emergency excavation work is necessary, the work shall be performed in accordance with the procedure outlined in Appendix C.

2.07 ON-SITE RE-USE OF EXCAVATED MATERIALS

A. In limited cases, the reuse of excavated material at the site may be approved by the EHO. Such reuse will be subject to case-by-case approval by the EHO, and shall be limited to circumstances that meet all of the following criteria:

    1. The excavated quantity of material proposed to be reused shall be small;

    2. The excavated material must not exhibit obvious or notable odors

or visible staining;

3. The excavated material shall not exhibit detectable concentrations of volatile organic compounds (VOC) above ambient background levels upon headspace screening with an appropriately calibrated photo-ionization detector (PID) equipped with a 10.6 eV or higher lamp; and

4. The excavated material shall be replaced directly into the same location from which it was extracted immediately upon completion of the associated work.

B. In the event that the EHO approves the reuse of limited quantities of soil in this manner, the EHO shall be notified of the actual location of such disturbance and replacement of materials so that the activities may be documented by that office.

2.08 GROUNDWATER AND LIQUID WASTE MATERIALS

A. Groundwater that is encountered or is expected to be encountered at the site during excavation activities, and will need to be removed from the excavation to allow the associated work to proceed, shall be collected and stored on site in an appropriate vessel until sampling an laboratory analysis is completed and arrangements for proper treatment or disposal are finalized.

B. Under no circumstances shall groundwater that is removed from an excavation be returned to the subsurface at the site or discharged to an on-site or off-site location.

C. Liquid materials, including groundwater, free-phase petroleum products, equipment or personal decontamination fluids, or similar liquids generated

during excavation work at the site shall be placed directly into appropriately sized vessels for temporary containment until appropriate characterization analysis and waste profiling is completed.

D. Acceptable vessels for the storage of groundwater or liquid wastes may include DOT-approved 55-gallon barrels, steel or polyethylene tanks, fractioning tanks, or tank trucks. All proposed vessels shall be compatible with the intended liquid contents.

E. Container staging areas shall be designated prior to initiation of the excavation work, and approved by the senior Syracuse University Representative at the facility. In the absence of a Syracuse University representative at the site, designated stockpile and staging areas shall be approved by the EHO.

F. All storage vessels to be used in the containerization and transportation of liquid waste materials shall be free of corrosion, perforations, punctures, or other condition that may impair its ability to securely contain liquid.

G. Temporary staging of liquid waste vessels at the site shall be in a manner that will prevent freezing of contained liquids. Should the potential exist for liquid containers to freeze during exterior storage at the site, arrangements shall be made with the EHO to identify and utilize an appropriate alternate storage location acceptable to the EHO.

H. All liquid storage vessels utilized and staged at the site shall be stored in an area on the property that will not interfere with facility operations or normal flow of vehicle or pedestrian traffic, and in a manner that will minimize the potential for tipping, vandalism, or damage by vehicular traffic.

I. Disposal of all liquid wastes generated at the site during excavation activities shall be at a NYSDEC-permitted waste treatment/disposal facility and shall be arranged by the EHO.

J. Contractors or Syracuse University personnel responsible for the generation of the wastes shall notify EHO prior to removing groundwater from an excavation or generating other liquid wastes to arrange for the procurement of appropriate vessels.

K. Contractors or Syracuse University personnel responsible for the generation of the wastes shall notify EHO upon completion of the activities from which the liquid wastes are generated, to arrange for sampling, waste profiling, and treatment/disposal at a NYSDEC-permitted facility.

2.09 PROCUREMENT OF WASTE RECEPTACLES

A. Procurement and coordination of waste receptacles will be handled by the senior Syracuse University representative at the site, in cooperation with Syracuse University's Environmental Health Office. Such arrangements will be made following notification of the EHO of the intent to conduct excavation activities at the site.

B. The Contractor shall immediately notify EHO when a waste rolloff is filled to 50 percent capacity or when excavation has been completed, so that arrangements can be made for the material to be sampled for waste characterization laboratory analysis prior to disposal. The sampling will be as described in Section 3 below. The rolloff shall be securely covered by the contractor at all times when not adding material to the vessel.

2.10 LABELING OF WASTE CONTAINERS

A. All waste containers must be labeled with the name of the waste contained;

the date in which the first material was placed in the vessel; and the last date at which addition of waste occurred.

B. All waste containers containing materials deemed to be "hazardous waste" following laboratory characterization (by the methodology detailed in Section 3 below) shall be labeled as follows:

HAZARDOUS WASTE-Federal law prohibits
improper disposal. If found, contact the nearest
police or public safety authority or the
U.S. Environmental Protection Agency.

Generator's Name:_____
Manifest Document No.:_____
Generator's Address:_____
_____
EPA I.D. Number: _____
Accumulation Start Date: _____
DOT Shipping Name: _____
EPA Waste Code: _____

Such marking must be durable, in English, and printed on or affixed to the surface of the package or on a label, tag, or sign; displayed on a background of sharply contrasting color; unobscured by labels or attachments; and located away from any other marking (such as advertising) that could substantially reduce its effectiveness.

END OF SECTION

SECTION 3.0
COMMUNITY AIR MONITORING

In the event that concentrations of airborne particulates or VOC are recorded in excess of the action levels established in the foregoing section of this Plan, a means of monitoring for potential exposure to the downwind community shall be implemented. At a minimum, this shall include real-time air monitoring for airborne VOC and fugitive dust/particulate levels at upwind and downwind fringes of the subject property during soil/waste excavation and handling activities. Monitoring for VOC shall be accomplished using a portable photo-ionization detector (PID) equipped with a 10.6 eV lamp, whereas monitoring for airborne particulate levels shall be conducted utilizing a real-time aerosol monitor capable of recording dust levels to 0.01 mg/m^3.

The screening for particulates shall be performed continuously by positioning aerosol monitors at an upwind and a downwind location at the edge of the property. The monitors shall be equipped with an audible alarm that will indicate exceedence of the action level established herein.

The screening for VOC concentrations shall be conducted continuously throughout the delineated work site, at fifteen (15) minute intervals at the downwind edge of the property, and at any time at which VOC concentrations above 15 ppm are recorded within the delineated work site. Upwind VOC concentrations shall be recorded at the beginning of each work day, at two (2) hour intervals thereafter, and at any time at which a notable change in ambient conditions is observed (such as change in wind direction).

In the event that VOC concentrations at the downwind perimeter of the delineated work site exceed 5 ppm above the upwind background level for the

fifteen minute average, work activities shall be suspended, and monitoring at the downwind location shall continue. Work may resume with continual monitoring at the downwind fringe if VOC concentrations decrease to below 5 ppm (instantaneous reading) over background. In the event that VOC concentrations persist above 5 ppm over background levels, but are less than 25 ppm, work shall be suspended and the source of the vapors shall be evaluated. Actions to abate such vapors shall be instituted, and monitoring will continue. Following these actions, work may resume, with continual monitoring of downwind concentrations, provided that VOC concentrations do not exceed 5 ppm over background for the fifteen minute average at a distance of 200 feet downwind of the delineated work site, and provided that the VOC concentration at the downwind edge of the delineated work site does not exceed 25 ppm. In such case, work shall be suspended, and such conditions will be further evaluated by EHO prior to resuming work.

Should airborne particulate levels of 100 micrograms per cubic meter or more over upwind locations be recorded at the downwind fringe of the delineated work site for the fifteen minute average, or if visible dust migration is observed at the downwind fringe of the delineated work site, dust suppression methods shall be implemented. Such provisions will involve wetting of the soil with clean potable water from a source approved by the EHO prior to disturbance of the material. Work may resume under these conditions provided that particulate concentrations at the downwind fringe of the delineated work site do not exceed 150 micrograms per cubic meter over upwind levels, and provided that no visible dust migration is observed at the downwind fringe of the delineated work site. If particulate levels exceed this threshold after implementation of dust suppression techniques, work shall be suspended, and additional engineering controls will be evaluated by the EHO.

END OF SECTION

SECTION 4.0
WASTE SAMPLING, ANALYSIS AND WASTE PROFILING

4.01 GENERAL

A. Prior to removing the excavated materials from the site, the material in each rolloff or material stockpile shall be sampled for laboratory analyses that will establish whether:

(1.) The materials do not exhibit hazardous waste characteristics and may be transported and disposed of as non-hazardous solid industrial waste; or

(2.) The materials are determined to exhibit hazardous waste characteristics and will need to be handled as regulated hazardous waste and be shipped and disposed of accordingly.

The analysis profile will also obtain data that will be required for potential waste disposal facilities.

4.02 COORDINATION OF SAMPLING

A. Once the Contractor notifies the EHO that a rolloff container is ready for removal from the site (i.e., has been filled to 50% capacity or excavation is completed), the EHO will arrange for the containerized material to be sampled and analyzed for the required pre-disposal analyses by the project laboratory designated by EHO.

4.03 SAMPLING METHODOLOGY

A. Representative composite samples of the materials shall be collected from each rolloff, staged soil pile, or barrel for laboratory analysis for the following:

4.04 ANALYSIS METHODOLOGIES

a.) Full Scan TCLP (Including Metals, Volatile Organic Compounds, Semi-Volatile Organic Compounds, and Herbicides and Pesticides)

b.) Reactive Cyanide

c.) Reactive Sulfide

d.) EPA Method 8260 (Volatile Organic Compounds)

e.) EPA Method 8270 (Semi-Volatile Organic Compounds)

f.) Asbestos

g.) Polychlorinated Biphenyls (PCBS), by EPA Method 8082

h.) RCRA Metals (Arsenic, Barium, Cadmium, Chromium, Lead, Mercury, Selenium, and Silver)

i.) Ignitability

j.) Paint Filter

Each composite sample will consist of several grab samples collected from various areas across a representative distribution throughout the waste material. The grab samples will be combined to form one representative sample of the material.

4.05 ANALYSIS SCHEDULE

2. The analyses shall be conducted by a laboratory that is certified under the New York State Department of Health's Environmental Laboratory Approval Program. Unless otherwise required by the University, the laboratory analyses will be performed on a 5-day laboratory turn-around schedule.

4.06 WASTE PROFILING

Upon receipt of the waste characterization laboratory results, the EHO will review such results and make a determination as to whether the material meets the criteria for classification as a non-hazardous industrial solid waste or if it exhibits hazardous characteristics and must be handled and disposed of as a regulated hazardous waste. The EHO will then make arrangements with the appropriate facility and permitted transporters for the materials to be transported from the site for disposal.

END OF SECTION

SECTION 5.0
WASTE TRANSPORTATION AND DISPOSAL

5.01 GENERAL

The arrangements for transportation and disposal shall be as follows:

1. Non-Hazardous Industrial Solid Waste: Material that is determined by waste characterization analyses to be classified as non-hazardous industrial solid waste and meets the approval of the disposal facility shall be transported to an appropriate permitted non-hazardous waste management facility approved in advance by the EHO. Transportation shall be by a hauler having a valid *6NYCRR Part 364* permit issued by the New York State Department of Environmental Conservation, and shall be in accordance with US and NYS Department of Transportation regulations for transporting such wastes.

2. Hazardous Waste: Material that is determined by the waste characterization laboratory analyses to be classified as hazardous waste shall be transported to a permitted hazardous waste management facility approved in advance by the EHO. Transportation shall be by a hauler having a valid *6NYCRR Part 364* permit issued by the New York State Department of Environmental Conservation and valid permits issued by the states through which the material will pass, and shall be in accordance with US and NYS Department of Transportation regulations for transporting such wastes.

3. Limitation on Storage: The staged materials shall be transported from the site for disposal within 90 days following the excavation of the materials. Each roll-off container shall be tracked as to the date at which excavated

materials are first placed in the respective vessel, and that date shall represent the start of the 90 day time that is allowable for on-site staging of those materials.

4. Once the waste material has been classified as either non-hazardous industrial solid waste or hazardous waste and the appropriate disposal facility has been identified by the EHO, the EHO will compile the appropriate generator documentation required by the designated disposal facility and track the waste and related documentation as required.

5. If the waste material is determined to be hazardous waste by the analyses, the EHO will obtain a USEPA Hazardous Waste Generator Identification Number, and prepare waste manifests that shall convey with the respective material through its shipment to and receipt by the designated disposal facility.

6. Prior to the waste material departing the site for the designated disposal facility, the manifests shall be signed only by authorized University EHO personnel and relinquished to the hauler to convey with the load while in transit. The material shall not leave the site without the manifest being given to and signed by the hauler.

END OF SECTION

SECTION 6.0
EQUIPMENT DECONTAMINATION

6.01 GENERAL

Equipment to be utilized in connection with excavation and handling of soil or other materials, or that will or may come in direct contact with the site contaminants, shall be decontaminated prior to leaving the site to prevent migration of the contaminated residues from the project site. This will include equipment utilized in connection with excavation and handling of the excavated materials, and small items to be associated with the collection of samples for laboratory analyses.

6.02 EXCAVATION EQUIPMENT

Excavation and soil handling equipment shall be decontaminated prior to demobilization from the site, at a designated decontamination area. An equipment decon pad shall be constructed in that area, to consist of a minimum of two layers of polyethylene sheeting, with each layer being a minimum of 6 mil in thickness. The outside edge of the sheeting shall be placed over 2" by 8" dimensional lumber or similar mechanism to create a shallow berm around the perimeter of the pad. The polyethylene liming shall extend over the berm on all sides of the pad to prevent contained decontamination fluids from escaping to the surrounding ground surface. The pad shall be of suitable size as to capture 'overspray' from the decon process.

The polyethylene liner will be placed in a manner to promote drainage of wash water to one corner of the pad, where a shallow sump shall be created and

overlain with the double layered sheeting to collect the fluids. Due care shall be exercised in the use and maintenance of the decontamination pad so as to avoid damage to the polyethylene lining. Routine inspection of the polyethylene lining shall be performed to monitor for evidence of tearing or breach of the liner integrity. In the event of visible damage, the liner shall be replaced. Further, alternative provisions for protecting the liner shall be evaluated and implemented in the event that damage cannot be mitigated through reasonable care.

The equipment shall be decontaminated by high pressure and high temperature wash (i.e., 'steam-cleaning'), until such time as all visible soil is removed from the equipment and its undercarriage and tires/tracks. The Contractor shall provide an adequate source of clean, potable water for use in decontaminating the equipment. At the conclusion of each decontamination event, the fluids collected within the pad shall be immediately transferred to NYSDOT-approved 55-gallon barrels for subsequent characterization and removal from the site by Syracuse University's contracted waste hauling firm. Each barrel shall be labeled as to its contents and initial date of use when the initial fluids are placed, and shall be securely covered and sealed at any time when fluids are not being transferred into the vessels.

At the conclusion of the project, the decontamination pad shall be disassembled and placed in NYSDOT-approved 55-gallon barrels for subsequent characterization and disposal by Syracuse University's contracted waste management firm.

6.03 SAMPLING EQUIPMENT

Non-disposable sampling equipment employed in the course of the project will be decontaminated between samples and at the conclusion of each work day through the following sequence:

- Initial tap water rinse, to remove gross soil
- Tap water and alconox wash
- Tap water rinse
- Distilled water rinse on those items that will or may directly contact the samples

The wash water shall be containerized in 55-gallon barrels with the construction equipment decontamination fluids.

END OF SECTION

SECTION 7.0
HEALTH AND SAFETY

7.01 GENERAL

The following section describes the minimum health and safety requirements that shall apply to excavation and soil handling work at the subject site. All on-site workers involved in excavation or waste handling activities must review and abide by the health and safety requirements established below prior to beginning work.

Contractors that work at the site shall be responsible and liable for the safety and health of their personnel, and for ensuring that all work is performed in accordance with applicable Occupational Safety and Health Administration (OSHA) standards and regulations established in Title 29 of the United States Code of Federal Regulations at Parts 1910 and 1926 (29CFR 1910 and 1926).

7.02.1 HEALTH AND SAFETY PLAN

A. Anyone, including Syracuse University personnel, Contractors and Subcontractors, that will conduct excavation, soil handling, or any other activities that could potentially encounter contaminated media shall develop a Project-Specific Health and Safety Plan (HASP) that will establish the health and safety provisions to be followed by their employees and representatives during the project.

B. The HASP shall be submitted to the EHO as early as possible and a minimum of 72 hours prior to the scheduled work start date.

C. At a minimum, the HASP shall include the following:

(1) Health and Safety Organization

(2) Site Description and Hazard Assessment

(3) Site Control

(4) Training Requirements

(5) Medical Surveillance

(6) Identification of Work Areas

(7) Standard Operating Procedures and Engineering Controls

(8) Personal Protective Equipment

(9) Equipment Decontamination

(10) Air Monitoring

(11) Emergency Equipment/First Aid Requirements

(12) Emergency Response and Contingency Plan

(13) Spill Containment Plan

(14) Record Keeping

(15) Community Protection Plan

D. The HASP shall be reviewed by all site personnel prior to their entrance to the work zones and performance of work at the site.

E. The HASP shall be maintained in readily available status at the site during all work activities.

7.03 RESPONSIBILITIES

1. Anyone, including but not limited to Syracuse University personnel, contractors, or subcontractors, that will conduct excavation or soil handling work at the site shall designate a field Site Safety Officer to ensure that the worker safety and health provisions established herein are followed by all workers involved in excavation and soil handling or other activities that may result in the workers being in contact or potential contact with contaminated soil or materials. The Site Safety Officer shall be present during all excavation and soil handling activities to monitor compliance with the provisions of this Plan.

2. The designated Site Safety Officer shall serve as the point of contact with the EHO on safety and health matters.

3. Prior to beginning work associated with the excavation or handling of soil or other potentially contaminated materials at the site, all personnel to be involved with such activities shall be briefed by the Site Safety Officer on the potential hazards associated with the site contaminants and informed of the provisions of this Plan. Each individual involved in such work shall review the provisions of this Plan and acknowledge such review and familiarity by signing in the spaces provided in Appendix A.

4. The designated Site Safety Officer shall immediately communicate any and all safety and health concerns or incidents to the EHO.

5. This Plan describes the minimum health and safety requirements to be followed during the project. Each Department (for Syracuse University personnel) or firm (for Contractors and Subcontractors) will be responsible for ensuring that its personnel fully comply with the terms of this Plan and conduct its respective duties in full compliance with any and all federal, state, and local regulations or requirements during the course of the project.

6. The Plan shall be maintained and readily available at the site during field activities, for reference by field personnel.

7. Periodic "tailgate" safety briefings shall be conducted by the Site Safety Officer, and shall be attended by all personnel prior to the start of work on each day. For projects of a duration of less than one week, one safety briefing shall be conducted prior to the start of the work, and subsequent briefings shall occur in the event that site conditions change or unforeseen conditions are encountered. For projects having a duration in excess of one week, one safety briefing shall be conducted prior to start of the work and subsequent briefings shall occur on at least a weekly basis thereafter. More frequent tailgate briefings shall be held in the event of a change in site personnel or in the event of a change in site conditions. Sign-in sheets acknowledging and documenting attendance shall be maintained, on the form attached hereto as Appendix B.

8. This Plan shall be continually evaluated throughout the duration of the project by the Site Safety Officer, and any and all procedural changes and/or other modifications, if necessary, shall be incorporated into this Plan as addenda. The addenda shall be submitted to and approved by the EHO prior to implementation.

9. Should the results of laboratory analyses performed on samples of the waste materials indicate that the material exhibits "hazardous waste" characteristics, excavation work shall be suspended and the need for modification to the provisions of this Plan shall be reviewed with EHO.

10. Disregard for the compliance with the terms of this Plan or the safety and health components herein will be deemed just and sufficient cause to suspend work activities and/or terminate the respective contractor's contract.

7.04 SITE CONTROL AND COMMUNICATIONS

Prior to beginning excavation work at the site, the Syracuse University personnel or contractor that will conduct the work shall establish provisions for site control and on-site communications. These provisions shall, at a minimum, provide for the following:

- Clear and visible delineation of each area where excavation work, soil handling and staging, or equipment decontamination will occur. Such delineation may be made using traffic control cones, barricades, ribbon, construction fencing or other similar means.
- Control of access to the delineated work zone to allow entrance only by authorized individuals and those that are necessary for the execution of the particular work tasks.
- A means of communication between the designated Site Safety Officer and the EHO, Campus Security, and local emergency services.
- Areas to remain delineated and controlled until the corresponding excavation and soil handling activities are complete for that area; the associated excavations have been backfilled and in-situ soil/material is no longer exposed to potential contact; equipment decontamination has been completed; fluids have been removed from the decontamination pad and securely containerized; and all excavated materials have been placed in the rolloff containers and the covers of such containers have been secured in place.
- Compliance with standard safety and health procedures by all personnel at all times.

7.05 HEALTH RISK AND HAZARD ASSESSMENT

A. Physical Hazards

Buried Utilities

The performance of soil excavation work and intrusive subsurface investigation (i.e., drilling) such as that proposed at the subject site presents the potential for damage to buried utilities during the advancement of the sampling tools. Therefore, Dig Safely New York (formerly the Underground Facilities Protection Organization or UFPO) shall be contacted a minimum of three business days prior to initiating the field activities, to arrange for the identification and markout of buried utilities at the site. The contact number for Dig Safely New York is **1-800-962-7962**.

Information regarding the nature and location of private/unregistered site utilities shall be obtained from the Owner prior to initiating the work.

In the event of inadvertent damage to buried utilities, all work shall cease, and the situation shall be evaluated by the Site Safety Officer.

Heavy Equipment Use and Traffic

The use of heavy construction equipment and drilling equipment such as that required in connection with the project presents potential safety hazards to personnel involved in the execution of the project. Management of the risks posed by such equipment shall be accomplished through the following means:

1. Each contractor or subcontractor deploying and utilizing heavy equipment in connection with their respective duties shall ensure that such equipment is in safe operating condition, and equipped with safety provisions appropriate for such equipment.

2. Each contractor or subcontractor deploying and utilizing heavy equipment in connection with their respective duties shall ensure that the personnel assigned to operate such equipment are adequately trained and experienced in the operation of such equipment under the conditions inherent to the project site.

3. Each Contractor shall manage and minimize the number of employees and volume of equipment at the site to the amount required in the execution of its tasks, so as to minimize site congestion and potential for accidents.

Other Physical Hazards

Other physical hazards that may be associated with field investigation activities such as those proposed for the subject site include slip/trip/fall hazards. Management of slip/trip/fall hazards shall be promoted by maintaining a neat and orderly work area, and in exercising reasonable care during site work.

B. Chemical Hazards

The work to be conducted at the site will involve the disturbance, handling, and sampling and handling of soil and groundwater that is or may potentially be impacted primarily by heavy metals, volatile organic compounds, and petroleum and creosote-related chemicals. Low levels of PCB Aroclor 1260 were detected in the basement sump on the Warehouse North parcel. No other contaminants have been documented to exist at the site to date.

Based on the nature of the contaminants and work to be performed, the primary exposure pathways to site personnel would be expected to include:

i.) inhalation of airborne volatile organic compounds or airborne particulates resultant of release from the soil or groundwater disturbed through the excavation and soil handling activities;

ii.) skin contact and adsorption resultant of direct contact with impacted soil, groundwater, or decontamination fluids;

iii.) ingestion through introduction of residual material on skin or clothing, as a result of eating, smoking, gum or tobacco chewing, or similar activity; and/or

iv.) adsorption through the eyes and mucus membranes by direct contact with residual material on skin or clothing as a result of itching, rubbing, or other contact, or through exposure to significant airborne concentrations of volatile organics or fugitive dust.

Management of potential worker exposures will be accomplished through the use of personnel protective equipment, the performance of real-time air monitoring, and through personal decontamination procedures outlined below.

C. Environmental Hazards

The concerns posed by weather conditions may include lightning, overhead hazards created by high winds, and slip hazards created by wet conditions. Hot weather may contribute to heat stress or stroke. Therefore, work will be ceased and conditions will be monitored in the event that lightning is observed or suspected in the area, or in the event that other weather conditions pose a health hazard.

Potential heat exposure and stress shall be monitored through the "buddy system" of frequent communication between site personnel, and managed through scheduled breaks and the availability of potable fluids at the site. In the event that personnel are observed to exhibit dizziness, disorientation, slurred speech, flushed appearance of skin, or other symptoms of heat stress, work shall be immediately discontinued, and the affected person(s) shall be immediately moved to a location that is free of direct sun exposure. Following the personal decontamination procedures outlined herein, the affected person(s) shall be provided fluids (preferably a product that will replenish electrolytes), and be monitored during a subsequent period of rest, to evaluate whether there is notable improvement in their condition. Each Contractor shall make available a source of potable water or electrolyte-enhanced product for its employees at all times during the project.

In the event that a notable improvement is not observed, further immediate treatment shall be sought (e.g., through contacting Onondaga County Emergency Services at **911).**

7.06 PERSONNEL PROTECTIVE EQUIPMENT

Prior to undertaking work at the site that will involve potential contact with contaminated media, the appropriate level of personal protective equipment (PPE) for the related work shall be evaluated, identified and followed. The PPE selection guidance provided in Appendix C is provided as a general guide only.

Based on the nature of work to be conducted at the site and the nature of contaminants that have been identified to exist at the site, it is expected that modified Level D personnel protective equipment (PPE) will be adequate to minimize worker exposure during the execution of the required minimally invasive excavation work. The modified Level D PPE to be employed during the work will include:

- Hard Hat Conforming to OSHA Health and Safety Standards (29CFR 1910.135)
- Leather, Steel-Toed Safety Shoes
- Rubber Overboots or 'Booties'
- Safety Glasses Conforming to *ANSI Z 87.1* Standards
- Disposable Inner Chemical Resistant (Nitrile) Gloves
- Disposable Outer Chemical Resistant (Nitrile) Gloves

- Disposable Chemical Resistant Coveralls in the event of conditions that will or may result in contact with excavated materials other than by glove-covered hands

This level of personnel protective gear shall be worn at all times by personnel conducting work or otherwise entering the delineated work zones. An upgrade to Level C PPE may become necessary in the event that site conditions and air monitoring results indicate that respiratory protection is warranted. (i.e., elevated concentrations of volatile organic compounds or dust levels above the threshold values identified in this Plan are exceeded). Based on available information relating to the site, it is unlikely that an upgrade to Level B or A PPE would become necessary; however, should conditions arise that suggest or indicate that an upgrade to such levels is warranted, such provisions shall be evaluated and implemented at that time.

Personnel present at the site and will not directly handle or contact soil or excavated materials shall utilize the following PPE at all times:

- Hard Hat Conforming to OSHA Health and Safety Standards (29CFR 1910.135)
- Leather, Steel-Toed Safety Shoes
- Safety Glasses Conforming to *ANSI Z 87.1* Standards

The need for upgrades to PPE should be evaluated throughout the course of the project, based on field conditions encountered at that time. PPE may be upgraded based on the results of the air monitoring described above, and/or at the discretion of the EHO. No decrease in PPE (below the provisions specified above) will be allowed in the delineated work zones.

In the event that the Site Safety Officer determines that field conditions suggest a potential for exposure or hazard beyond which is afforded by the PPE or monitoring procedures, work shall be ceased, and field personnel will evacuate the area until such time as the conditions are evaluated by the EHO. Such conditions may include visible dust or particulates or the detection of odors

7.07 STANDARD SAFETY AND HEALTH PROCEDURES AND ENGINEERING CONTROLS

The following provisions shall be employed to promote overall safety, personnel hygiene, and personnel decontamination:

1. Each contractor or subcontractor shall ensure that its employees are equipped with the appropriate safety and personnel protective equipment required to execute its project duties in a safe and healthy manner.

2. Each contractor or subcontractor shall ensure that all safety equipment and protective clothing to be utilized by its personnel is maintained in a clean and readily accessible manner at the site.

3. All prescription eyeglasses in use on this project shall be safety glasses conforming to *ANSI Standard Z87.1*. No contact lenses shall be allowed on the site.

4. All personnel working at the site shall be equipped with appropriate leather, steel-toed safety shoes. Footwear utilized at the site shall be covered by rubber overboots or 'booties' when entering the contaminant reduction zone or delineated work site. The rubber overboots/booties shall be decontaminated prior to departure from the contaminant reduction zone into the support zone, by washing with water and detergent within an appropriate containment basin, using a bristle brush,

and subsequently rinsing with tap water within a separate appropriate containment basin. The Site Contractor shall provide an appropriate boot wash station for this purpose. The fluids utilized in this process shall be placed in the barrels with fluids generated by the equipment decontamination activities outlined in Section 6.1 above.

5. Prior to exiting the delineated work zone, all personnel shall remove protective clothing, and place disposable items in appropriate disposal containers to be dedicated to that purpose. Following removal of PPE, personnel shall thoroughly wash and rinse their face, hands, arms, and other exposed areas with soap and tap water wash and subsequent tap water rinse. A fresh supply of tap water shall be provided at the site on each work day by the Site Contractor for this purpose.

6. All PPE used on site shall be decontaminated or disposed of at the end of each work day. Discarded PPE shall be placed in sealed NYSDOT-approved 55-gallon barrels for off-site disposal by Syracuse University's contracted waste hauling firm at the conclusion of the project.

7. Respirators, if necessary due to an upgrade to Level C PPE, shall be dedicated to each employee, and not interchanged between workers without cleaning and sanitizing.

8. Eating, drinking, chewing gum or tobacco, smoking, and any other practice that increases the likelihood of hand to mouth contact shall be prohibited within the delineated work zones. Prior to performing these activities, each employee shall thoroughly cleanse their face, hands, arms, and other exposed areas.

9. All personnel shall thoroughly cleanse their face, hands, arms, and other exposed areas prior to using toilet facilities.

10. No alcohol, illicit drugs, or firearms will be allowed on the site at any time.

11. All personnel that are on non-prescription (i.e., over-the-counter) or prescription medication of any kind shall notify the Site Safety Officer prior to conducting work at the site. The Site Safety Officer will make a determination as to whether such individuals will be allowed to work on the site, and, if so, in what capacity. The Site Safety Officer may require signed documentation from the individual's personal physician stating what limitations may be posed by the medication or condition that may apply to that individual's work activities.

12. Contact with potentially contaminated surfaces should be avoided, if possible. Field personnel should minimize walking through standing water/puddles, mud, or other wet or discolored surfaces; kneeling on ground; and placing equipment, materials, or food on ground or other potentially contaminated surface.

13. The use of the "Buddy System" shall be employed at all times while conducting work at the site. Each employee shall frequently monitor other workers for signs of heat stress or chemical exposure or fatigue; periodically examine others PPE for signs of wear or damage; routinely communicate with others; and notify the Site Safety Officer in the case of an emergency.

7.08 AIR MONITORING AND ACTION LEVELS

A. Potential exposure of site workers to airborne volatile petroleum constituents and fugitive dust/particulates to which contaminants may be adhered shall be monitored through real-time, periodic/routine screening of the worker breathing zones (i.e., above waist level), at various areas

throughout the delineated work site during soil/waste excavation and handling activities.

B. Monitoring for VOC shall be accomplished using a portable photo-ionization detector (PID) equipped with a 10.6 eV lamp.

C. Monitoring for airborne particulate levels shall be conducted utilizing a real-time aerosol monitor capable of recording dust levels to 0.01 mg/m^3.

D. The screening shall be performed periodically (i.e., at a minimum frequency of once during each fifteen minutes) during all soil excavation or handling activities.

E. Air monitoring shall be performed by a competent and qualified individual having documented experience in the calibration, operation, and application of the instrumentation, and in the interpretation of the generated data.

F. In cases where the excavation work is to be performed by Syracuse University personnel, the air monitoring shall be coordinated with the University's EHO.

G. In cases where excavation work is to be performed by an outside contractor or personnel other than Syracuse University personnel, the associated Contractor shall provide or retain a qualified individual acceptable to the EHO to conduct the requisite air monitoring.

H. At the beginning of each work day, and at any other time in which observations suggest a change in ambient conditions (i.e., significant increase in wind velocity or occurrences of visible dust at upwind areas), an upwind background reading for each parameter shall be recorded.

I. In the event that sustained elevated levels of VOC or airborne particulates are recorded in the worker breathing zone(s), work shall be suspended

and the EHO shall be notified. In such case, the need for modification of the level of personnel protection utilized by the field crew and the need for and appropriateness of other engineering controls (i.e., dust or vapor control) shall be evaluated by EHO.

J. An upgrade of PPE to include respiratory protection shall occur in the event that sustained concentrations of VOC in excess of five (5) parts-per-million (ppm) are recorded in the worker breathing zone (i.e., above waist level), through the air monitoring with the portable PID, for a period of five minutes or more, or in the event that airborne particulate concentrations exceeding 100 micrograms per cubic meter above upwind concentrations are recorded.

K. Such respiratory protection shall include particulate filter and organic vapors, if recorded above action levels.

L. Any personnel affected by such an upgrade will need to be fit tested for the respirator; have completed a pulmonary function exam by a qualified physician and deemed capable of wearing a respirator; and educated in the use and care of respirators. Such documentation will be required to be submitted to and reviewed by the EHO prior to resuming work.

7.09 EMERGENCY RESPONSE AND EVACUATION

- Personal Injury, Chemical Exposure, or Other Emergency

If a member of the work crew demonstrates symptoms of heat or cold stress, injury, chemical exposure, or other similar issue, another team member present within the delineated work site (i.e., suitably equipped with appropriate PPE provisions) should remove the affected person from the delineated work site, and

signal/communicate to the Site Safety Officer of the incident. Precautions should be taken to avoid exposure of other individuals to contaminated media.

An evaluation of the person's condition shall be made by the Site Safety Officer, to determine the appropriate course of action to administer first aid or other emergency response provision. The Site Safety Officer shall assess the seriousness of the injury, give first aid treatment if appropriate, and arrange for appropriate emergency response from outside emergency services, if warranted.

A fire extinguisher (ABC class extinguisher) and a first aid kit shall be maintained and made readily accessible at the site at all times by each contractor, for use in controlling small fires, and providing preliminary and/or small scale treatment of injuries, as appropriate.

If soiled clothing cannot be removed, the injured person will be wrapped in a blanket while transported from the site.

The Safety Officer shall also monitor the affected person to determine whether there are symptoms resulting from the exposure or injury. If there is a visible manifestation of exposure such as skin irritation, the affected party shall be referred to a medical facility for treatment and evaluation as to whether the manifestation may be indicative of a delayed or acute exposure, a secondary response to exposure such as skin infection, or occupational dermatitis. All incidents of injuries and/or obvious chemical exposure shall be evaluated by the Safety Officer and the EHO, to determine whether modifications to work practices and/or protective provisions are warranted.

- Outside Emergency Services and Evacuation

The primary mechanism for responding to site emergencies shall be by contact with/notification of Onondaga County Emergency Services, through dialing **911.**

Several medical facilities/hospitals are located in relatively close proximity to the project site. The contact numbers for these facilities are listed in the Master Telephone list included in Appendix D.

Directions and maps depicting the most direct route of travel between the site and these facilities are attached as Appendix E.

7.10 PERTINENT TELEPHONE NUMBERS

A master list of pertinent telephone numbers is attached as Appendix D, and shall be maintained in a readily accessible location at the site.

7.11 EMPLOYEE ACKNOWLEDGMENT AND DAILY LOGS

All personnel involved in field activities on the project are required to be familiar with and to abide by the provisions of this plan, and acknowledge such familiarity by signing the acknowledgment form attached hereto as Appendix F.

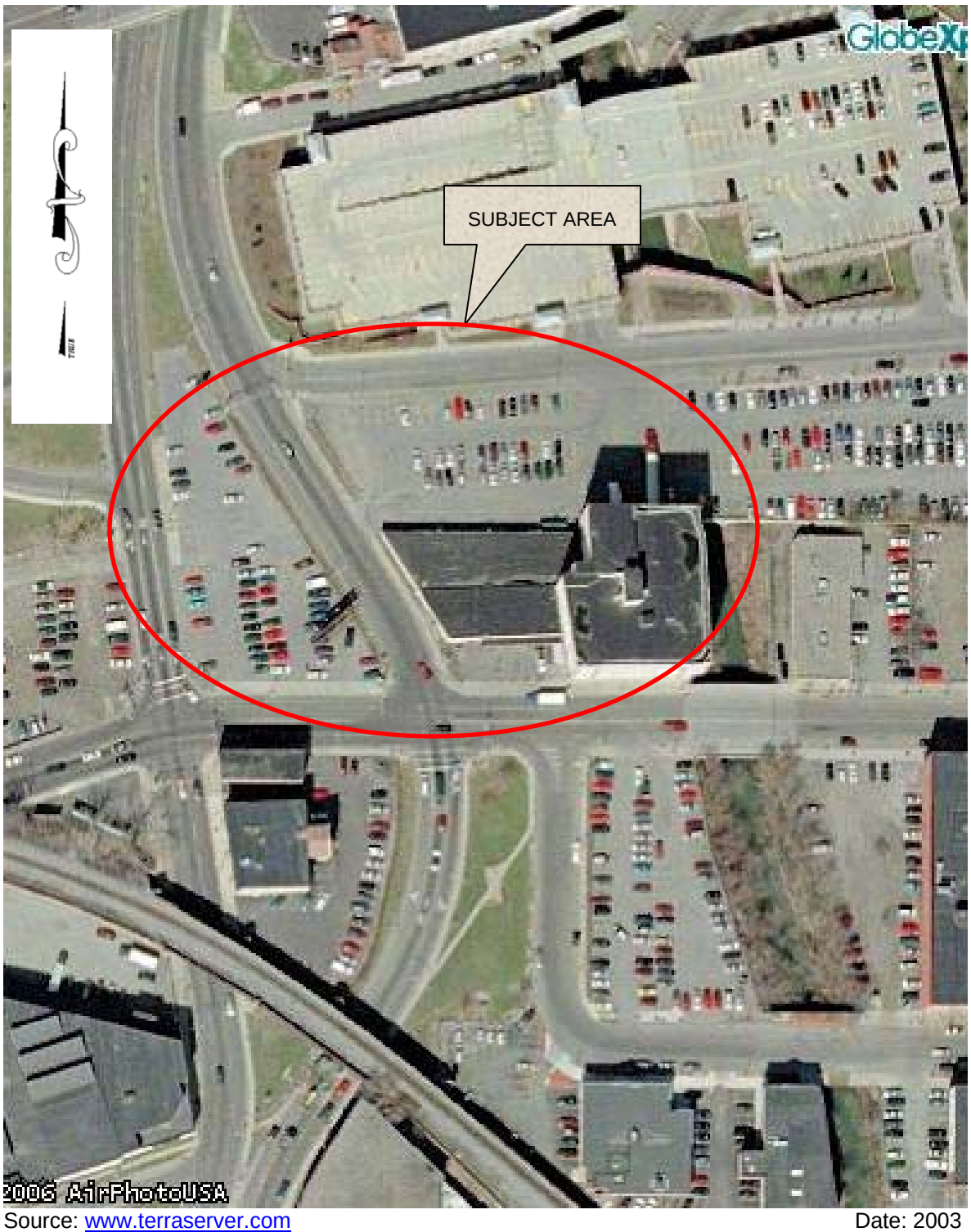
Further, personnel present at the daily safety meetings and therefore involved with site activities shall sign daily safety meeting rosters, on the form attached as Appendix G, which shall be incorporated as part of this Plan.

Daily logs documenting the personnel present at the site during each day; arrival and departure times of field staff and other visitors; description of work completed on each day of activity and area of same; notation of weather conditions during each day of work; documentation of safety and health incidents, unusual observations, equipment failures, and other issues; and a summary of daily air monitoring results shall be maintained by the Site Safety Officer and copies shall be provided to the EHO at the conclusion of the project.

END OF SECTION

SOIL MANAGEMENT PLAN
The Warehouse
350-364 and 382-388 West Fayette Street
Syracuse, New York

FIGURES



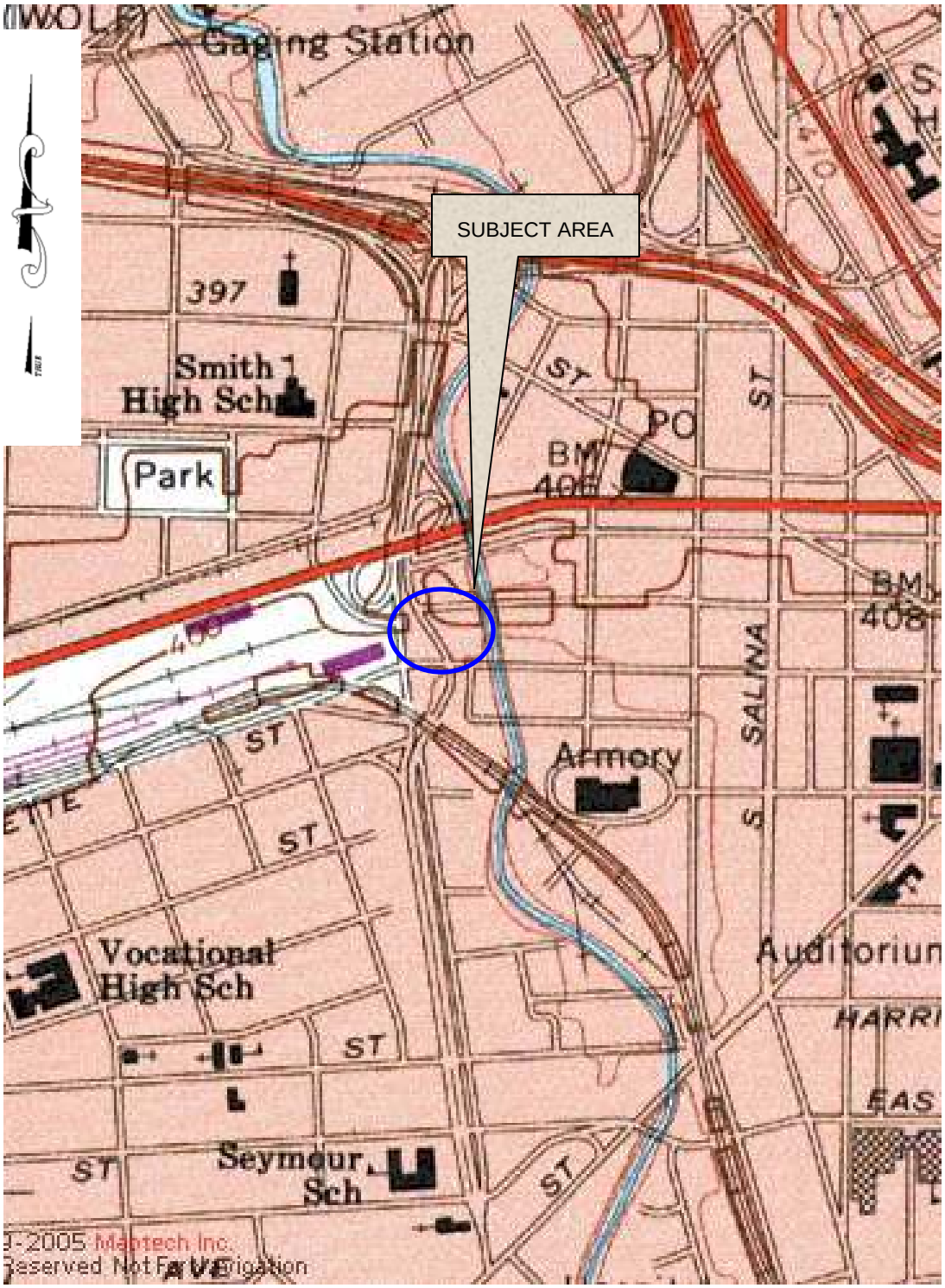
Source: www.terraserver.com Date: 2003

STRATEGIC ENVIRONMENTAL, LLC
25 ½ WATER STREET
BALDWINSVILLE, NY 13027
TEL 315.635.8936
FAX 315.635.2380

AERIAL PHOTOGRAPH
"The Warehouse"
350-364 & 382-388 W Fayette St
Syracuse, New York

Project Number:3241.0001

FIGURE 1



Source: www.terraserver.com

STRATEGIC ENVIRONMENTAL, LLC 25 ½ WATER STREET BALDWINSVILLE, NY 13027 TEL 315.635.8936 FAX 315.635.2380	TOPOGRAPHIC MAP "The Warehouse" 350-364 & 382-388 W Fayette St Syracuse, New York Project Number:3241.0001	**FIGURE 2**

SOIL MANAGEMENT PLAN
The Warehouse
350-364 and 382-388 West Fayette Street
Syracuse, New York

APPENDIX A
Existing Soil Data

Appendix A
Exisiting Analysis Data vs. TAGM 4046 Recommended Cleanup Objectives (Soil)
"The Warehouse" Site
350 West Fayette Street
Syracuse, New York

Detected Compound Contaminant	Concentration Range		TAGM 4046 Recommended Soil Cleanup Objective
	Warehouse West Parcel	Warehouse North Parcel	
Volatile Organic Compounds (ug/kg or Parts-Per-Billion)			
Acetone	<60 to 17,000	<20 to 820	200
2-Butanone (MEK)	<10 to 36	<4 to <60	300
Carbon Disulfide	<6 to <600	<4 to <10	2,700
Methylene chloride *	<10 to <1,000	<10 to 1,200	100
Toluene	<6 to 62	<4 to <30	1,500
Trichloroethene	<6 to <600	<4 to 13	700
Xylenes (Total)	<6 to 140	<5 to 50	1,200
n-Butylbenzene	<6 to <600	<4 to 130	10,000
Methyl tert-butyl ether (MTBE)	<6 to 20	<4 to <30	1,200
Naphthalene	<6 to 150	<4 to 53,000	13,000
1,2,4-Trimethylbenzene	<6 to 50	<4 to 270	10,000
1,3,5-Trimethylbenzene	<6 to 45	<4 to 130	3,300
TICS (Total)	ND to 45,500	ND to 0.12	NE
TOTAL	ND to 62,500	ND to 54,400	10,000
Semi-Volatile Organic Compounds/PAHs (mg/kg or Parts-Per-Million)			
Acenaphthene	<0.2 to 3.3	<0.2 to <2	50
Acenaphthylene	<0.2 to <20	<0.2 to 0.39	50
Anthracene	<0.2 to 23	<0.2 to 0.35	50
Benzo(a)anthracene	<0.2 to 44	<0.2 to 2.3	0.224 or MDL
Benzo(b)fluoranthene	<0.2 to 51	<0.2 to 2.8	0.220 or MDL
Benzo(k)fluoranthene	<0.2 to 21	<0.2 to 0.96	0.220 or MDL
Benzo(g,h,l)perylene	<0.2 to 4.5	<0.2 to 0.93	50
Benzo(a)pyrene	<0.2 to 37	<0.2 to 1.5	0.061 or MDL
Chrysene	<0.2 to 38	<0.2 to 2.3	0.4
Dibenzofuran *	<0.2 to 2.9	<0.2 to <2	6.2
bis(2-Ethylhexyl)phthalate *	<0.2 to <20	<0.2 to 0.77	50
Fluoranthene	<0.2 to 89	<0.2 to 3.9	50
Fluorene	<0.2 to 3.3	<0.2 to <2	50
Indeno(1,2,3-c,d)pyrene	<0.2 to 23	<0.2 to 1.2	3.2
2-Methylnaphthalene *	<0.2 to 2	<0.2 to <2	36.4
Naphthalene	<0.2 to 6.2	<0.2 to <30	13
Phenanthrene	<0.2 to 82	<0.2 to 3.5	50
Pyrene	<0.2 to 72	<0.2 to 4.3	50
TICS (Total)	ND to 134.6	ND to 3.55	NE
TOTAL	ND to 614.6	ND to 21.77	500
PCBs (mg/kg or Parts-Per-Million)			
Aroclor-1260		0.21 to 1.6	1 at surface
Total PCBs			10 at 12" below surface
RCRA Metals and Mercury (mg/kg or Parts-Per-Million)			
Arsenic	3.9 to 8.2	<1 to 15	7.5 or SB
Barium	19 to 130	14 to 280	300 or SB
Cadmium	<1 to <10	<1 to 2.5	1 or SB
Chromium	7.3 to 16	4.8 to 1,100	10 or SB
Lead	5.5 to 590	2.7 to 1,200	SB
Selenium	<1 to <10	<1 to 41	2 or SB
Silver	<1 to 2.5	<1 to 4.0	SB
Mercury	<0.03 to 5.9	<0.03 to 8.2	0.1
Total Cyanide (mg/kg or ppm)			
Cyanide (Total)	<0.1 to 0.11	<0.1 to 1.1	NE

Appendix A Cont.

Notes to Soil Data Table

• Above listed data obtained from Beardsley Design Associates, P.C.

•Phase II Environmental Site Assessment report dated March 9, 2005.

•ND=Not Detected

•NE=Not Established

•MDL=Method Detection Limit

•SB=Site Background Concentration

•TAGM 4046 Recommened Soil Cleanup Objectives are as established in the New York State Department of Environmental Conservation's Technical and Administrative Guidance Memorandum No. 4046.

•Methylene Chloride concentrations listed above were believed by Beardsley Design Associates, P.C., to represent laboratory contamination of samples collected during their Phase II Environmental Site Assessment.

•PCBs noted on "Warehouse North" parcel were detected in one soil boring (near northwest corner of structure) and in residue or sediment present within a sump within building basement.

•TICs=Tentatively Identified Compounds

SOIL MANAGEMENT PLAN
The Warehouse
350-364 and 382-388 West Fayette Street
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APPENDIX B
Existing Groundwater Data

Appendix B
Existing Analysis Data vs. NYSDEC Groundwater Standards and Guidance Values (Groundwater)
"The Warehouse" Site
350 West Fayetter Street
Syracuse, New York

Detected Compound Contaminant	Concentration Range		Groundwater Standard or Guidance Value
	Warehouse West Parcel	Warehouse North Parcel	
Volatile Organic Compounds (ug/L or Parts-Per-Billion)			
Benzene	<1 to 3.1	<1	1.0
Ethyl benzene	<1 to 460	<1	5.0
Toluene	1.1 to 1.3	1.6	5.0
Xylenes (Total)	<1 to 2000	<1	5.0
n-Butylbenzene	<1 to 59	<1	5.0
sec-Butylbenzene	<1 to 27	<1	5.0
Isopropylbenzene (Cumene)	<1 to 140	<1	5.0
Naphthalene	<1 to 210	<1	10.0
N-Propylbenzene	<1 to 270	<1	5.0
1,2,4-Trimethylbenzene	<1 to 1,800	<1	5.0
1,3,5-Trimethylbenzene	<1 to 460	<1	5.0
TICS (Total)	ND to 6,270	NA	NE
TOTAL	1.3 to 11,696	1.6	NE
Semi-Volatile Organic Compounds/PAHs (ug/L or Parts-Per-Billion)			
Diethylphthalate	<5 to 6.2	NA	50
2-Methylnaphthalene	<5 to 58	NA	4.7
Naphthalene	<5 to 140	NA	10
TICS (Total)	14 to 2,565	NA	NE
TOTAL	14 to 2,763	NA	NE
RCRA Metals and Mercury (mg/L or Parts-Per-Million)			
Arsenic	<0.01 to 0.034	0.2	0.025
Barium	0.91 to 1.3	0.22	1
Chromium	<0.2	<0.01	0.05
Lead	0.048 to 0.37	0.014	0.025
Silver	<0.01 to 0.015	<0.01	0.05
Mercury	<0.0002 to 0.00049	<0.0002	0.0007

Notes:
- Above listed data obtained from Beardsley Design Associates, P.C. Phase II Environmental Site Assessment reported dated March 9, 2005.
- ND=Not Detected
- NA=Not Analyized
- NE=Not Established
- Groundwater standards as established in 6NYCRR Part 703. Groundwater Values as established in the New York State Department of Environmental Conservation's Technical and Operational Guidance Series 1.1.1 (TOGS 1.1.1)
- TICs=Tentatively Identified Compounds

SOIL MANAGEMENT PLAN
The Warehouse
350-364 and 382-388 West Fayette Street
Syracuse, New York

APPENDIX C
PPE Selection Guidance

GUIDANCE ON PPE SELECTION

PPE Level	Components	Criteria for Selection	Guidance on Selection
LEVEL A	• Supplied air respirator approved by MSHA* and NIOSH* (Positive-pressure self-contained breathing apparatus or positive-pressure airline respirator with escape bottle for Immediately Dangerous to Life and Health atmosphere) • Fully-encapsulating chemical resistant suit, compatible with site hazards • Chemical-resistant coveralls compatible with site hazards • Chemical-resistant outer gloves, compatible with site hazards • Chemical-resistant inner gloves, compatible with site hazards • Steel toe and shank leather work boots • Chemical-resistant outer boots • Hard hat • Duct taping between coveralls and boots and coveralls and gloves • Escape SCBA (at least 5 minute duration) • 2-way radio communication • Cooling Unit (Optional)	<u>Should be used when:</u> • The chemical risk has been identified and requires the highest level of protection for skin, eyes, and the respiratory system based on: - measured (or potential for) high concentration of atmospheric vapors, gases, or particulates; or - site operations and work functions involving a high potential for splash, immersion, or exposure to unexpected vapor, gases, or particulates of materials that are harmful to skin or capable of being absorbed through the intact skin • Substances with a high degree of hazard to the skin are known or suspected to be present, and skin contact is possible • Operations must be conducted in confined, poorly ventilated areas until the absence of conditions requiring Level A protection is determined • Direct readings on Flame-ionization detectors or photo-ionization detectors or similar instruments indicate high levels of unidentified vapors and gases in the air	• Fully encapsulating suits are primarily designed to provide a gas- or vapor-tight barrier between the user and atmospheric contaminants. Therefore, Level A is generally used when high concentrations of airborne substances could severely affect the skin, eyes, or mucous membranes. • Fully-encapsulating suits should be of a material that is protective against and compatible with the substances involved.

GUIDANCE ON PPE SELECTION

PPE Level	Components	Criteria for Selection	Guidance on Selection
LEVEL B	• Positive-pressure Self-Contained Breathing Apparatus (SCBA) or positive-pressure air line respirator (with escape bottle) • Chemical-resistant coveralls compatible with site hazards • Chemical-resistant outer gloves, compatible with site hazards • Chemical-resistant inner gloves, compatible with site hazards • Steel toe and shank leather work shoes • Chemical-resistant outer boots • Hard hat • Duct taping between coveralls and boots and coveralls and gloves • Escape SCBA (at least 5 minute duration) • 2-way radio communication	Should be used when: • The type and atmospheric concentration of substances have been identified and require a high level of respiratory protection, but less skin protection. This includes atmospheres: - With concentrations of specific substances that do not represent a severe skin hazard but DO represent respiratory concerns that are potentially Immediately Dangerous to Life and Health (IDLH), or - That do not meet the criteria for the use of air-purifying respirators - that contain substances for which air-purifying respirators do not exist or do not provide an adequate removal efficiency - that contain substances at concentrations that exceed the limits of protection afforded by air-purifying respirators • The atmosphere contains less that 19.5 percent oxygen • Working in confined spaces • Presence of incompletely identified vapors or gases is indicated by direct-reading organic vapor detection instrument, but vapors and gases are not suspected of containing high levels of chemicals harmful to skin or capable of being absorbed through the skin.	• Provides the same level of respiratory protection as Level A, but less skin protection

GUIDANCE ON PPE SELECTION

PPE Level	Components	Criteria for Selection	Guidance on Selection
LEVEL C	• Full-face, air-purifying respirator with cartridge or canister filters appropriate for respiratory hazards (MSHA/NIOSH Approved) • Chemical-resistant coveralls compatible with site hazards • Chemical-resistant outer gloves, compatible with site hazards • Chemical-resistant inner gloves, compatible with site hazards • Steel toe and shank leather work boots • Chemical-resistant outer boots • Hard hat • Duct taping between coveralls and boots and coveralls and gloves • Escape SCBA (at least 5 minute duration) • 2-way radio communication	Should be used when: • Measures air concentrations of identified substances will be reduced by the respirator to at or below the substances Threshold Limit Value or appropriate occupational exposure limit and the concentration is within the service limit of the canister. • Atmospheric contaminant concentrations do not exceed IDLH levels • Atmospheric contaminants, liquid splashes, or other direct contact will not adversely affect the small areas of the skin left unprotected by the chemical-resistant clothing • Job functions do not require self-contained breathing apparatus • Oxygen concentrations are not below 19.5 percent • Air will be monitored continuously for the identified contaminants present	• Provides the same level of skin protection as Level B, but less respiratory protection • Air purifying respirators must be equipped with canisters/filters that are compatible with the type and concentrations of airborne contaminants • Air purifying respirators do not account for oxygen deficient atmospheres

GUIDANCE ON PPE SELECTION

PPE Level	Components	Criteria for Selection	Guidance on Selection
LEVEL D MODIFIED	• Chemical-resistant coveralls compatible with site hazards • Chemical-resistant outer gloves, compatible with site hazards • Chemical-resistant inner gloves, compatible with site hazards • Steel toe and shank leather work boots • Chemical-resistant outer boots • Hard hat • Safety Glasses (conforming to ANSI Standard • Duct taping between coveralls and boots and coveralls and gloves • 2-Way radio communication	Should be used when: • The atmosphere does not contain any known hazards, and continuous air monitoring by direct-read instruments does not identify any airborne contaminant concentrations above background levels • Work functions will not have a potential for splashes, immersion, or unexpected inhalation of or contact of unprotected skin surfaces (i.e., face) with contaminated media • Work functions will have a moderate level of contact with contaminated media	• Provides no respiratory protection
LEVEL D	• Coveralls • Hard Hat • Safety glasses, conforming to ANSI Standard • Steel toe and shank leather work boots • 2-way radio communication • Chemical-resistant outer gloves, compatible with site hazards (if manual contact with contaminated media is possible) • Chemical-resistant inner gloves, compatible with site hazards (if manual contact with contaminated media is possible)	Should be used when: • The atmosphere does not contain any known hazards, and continuous air monitoring by direct-read instruments does not identify any airborne contaminant concentrations above background levels • Work functions will not have a potential for splashes, immersion, or unexpected inhalation of or contact with contaminated media	• Provides no respiratory protection and no skin protection

SOIL MANAGEMENT PLAN

The Warehouse
350-364 and 382-388 West Fayette Street
Syracuse, New York

APPENDIX D

Master Telephone List

MASTER TELEPHONE LIST

- Syracuse University Environmental Health Office
  Telephone: (315)443-4132

- City of Syracuse Fire Department
  Telephone: (911)

- City of Syracuse Police Department
  Telephone: (911)
  (315)442-5111 (Non-Emergency)

- Onondaga County Sheriff's Department
  Telephone: (911)
  (315)435-2111 (Non-Emergency)

- New York State Police Department-Lafayette, New York
  Telephone: (911)
  (315)457-2600 (Non-Emergency)

- New York State Department of Environmental Conservation
  615 Erie Boulevard West, Syracuse, New York
  Telephone: (315)426-7400
  Emergency Spill Hotline: 1-800-457-7362

- New York State Department of Health
  217 South Salina Street, Syracuse, New York
  Telephone: (315)477-8100

- City of Syracuse Department of Public Works
  Telephone: (315)448-2489)

- Niagara Mohawk Natural Gas Emergency
  Telephone: 1-800-892-2345

- Poison Control Center
  Telephone: 1-800-282-3171

- Chemical Emergency Advice (CHEMTREC)
  Telephone: 1-800-424-9300
- University Hospital
  Address: 750 East Adams Street, Syracuse, New York 13210
  Telephone: (315)464-5540
  Emergency Telephone: (315)464-5611

- Crouse Hospital
  Address: 736 Irving Avenue, Syracuse, New York 13210
  Telephone: (315)470-7111
  Emergency Telephone: (315)470-7411

- St. Joseph's Hospital
  Address: 301 Prospect Avenue, Syracuse, New York 13203
  Telephone: (315)448-5111

SOIL MANAGEMENT PLAN

The Warehouse
350-364 and 382-388 West Fayette Street
Syracuse, New York

APPENDIX E

Directions to Hospitals

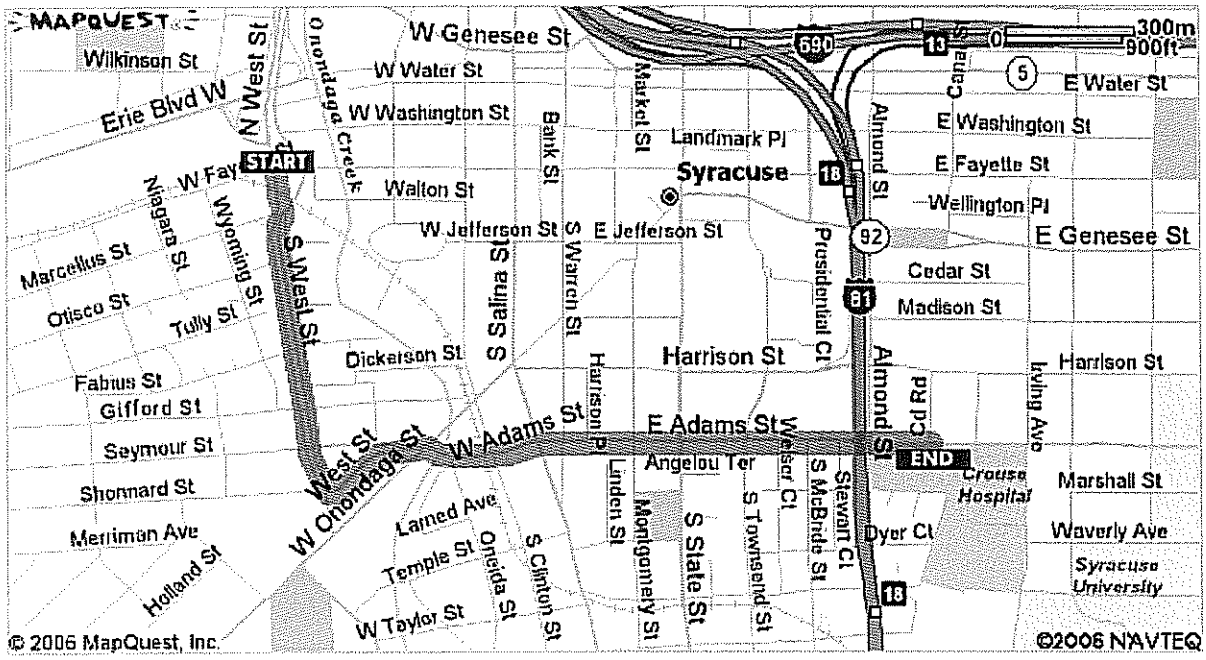
MAPQUEST

Start: **W Fayette St & S West St**
Syracuse, NY 13201, US

End: **Upstate Medical University Hospital**: 315-464-5540
750 E Adams St, Syracuse, NY 13210, US

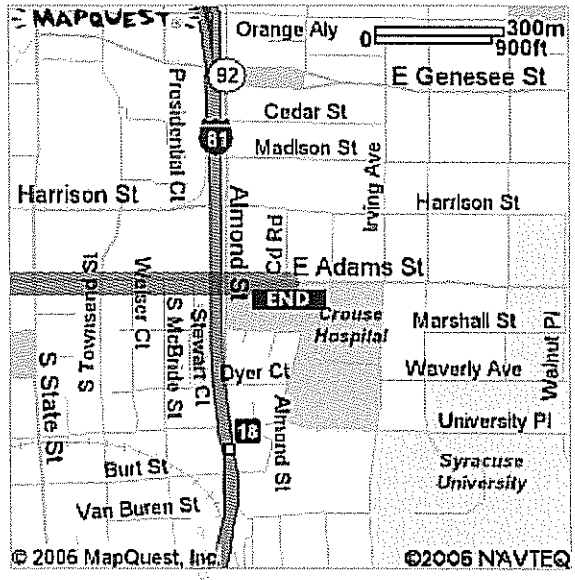
Notes:

Directions	Distance
Total Est. Time: 4 minutes **Total Est. Distance:** 1.39 miles	
START **1:** Start out going SOUTH on S WEST ST toward W FAYETTE ST.	0.5 miles
2: Turn LEFT onto WEST ST.	<0.1 miles
3: Keep LEFT at the fork to continue on WEST ST.	<0.1 miles
4: Turn SLIGHT LEFT onto W ONONDAGA ST.	<0.1 miles
5: Turn RIGHT onto W ADAMS ST.	0.7 miles
END **6:** End at **Upstate Medical University Hospital** 750 E Adams St, Syracuse, NY 13210, US	
Total Est. Time: 4 minutes **Total Est. Distance:** 1.39 miles	



Start:
W Fayette St & S West St
Syracuse, NY 13201, US

End:
Upstate Medical University Hospital:
315-464-5540
750 E Adams St, Syracuse, NY 13210, US



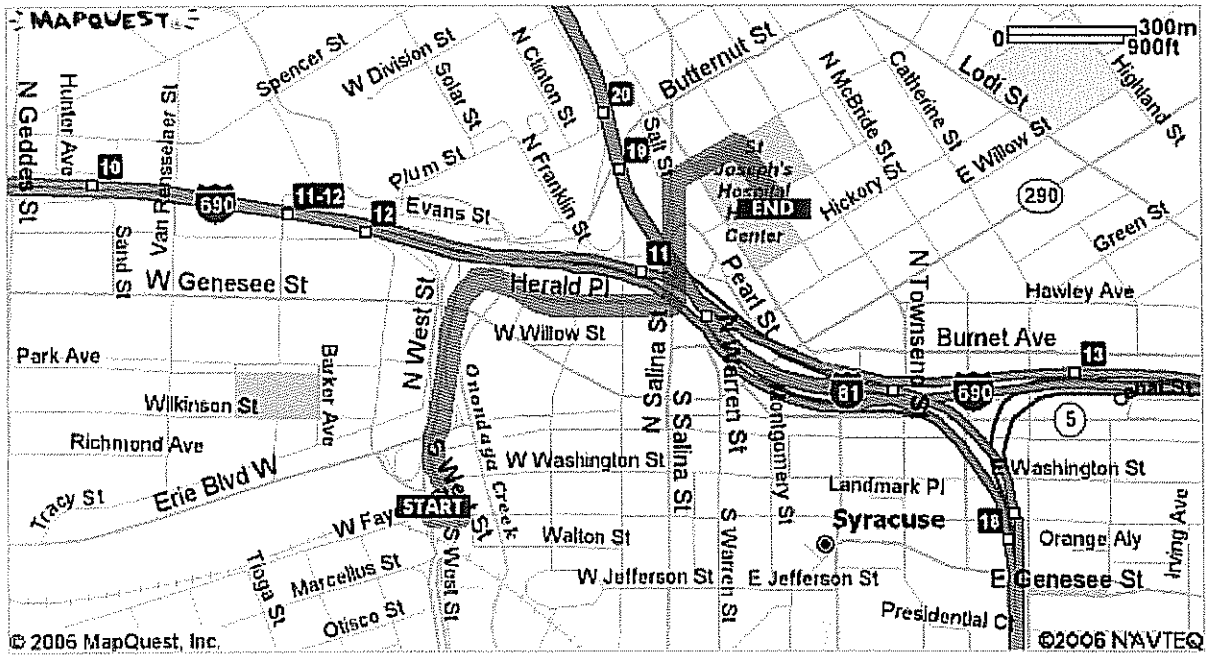
MAPQUEST

Start: **W Fayette St & S West St**
Syracuse, NY 13201, US

End: **St Joseph's Hospital Hlth Ctr:**
315-448-5111
301 Prospect Ave, Syracuse, NY 13203, US

Notes:

Directions	Distance
Total Est. Time: 4 minutes **Total Est. Distance:** 1.11 miles	
START **1:** Start out going SOUTH on S WEST ST toward W FAYETTE ST.	<0.1 miles
2: Make a U-TURN at W FAYETTE ST onto S WEST ST.	0.3 miles
RAMP **3:** Take the I-690 E / HERALD PL ramp toward EASY SYRACUSE.	<0.1 miles
4: Keep RIGHT at the fork in the ramp.	<0.1 miles
5: Stay STRAIGHT to go onto HERALD PL.	0.2 miles
6: Turn LEFT onto N SALINA ST.	0.1 miles
7: Turn RIGHT onto E LAUREL ST.	0.1 miles
8: Turn RIGHT onto PROSPECT AVE.	<0.1 miles
END **9:** End at **St Joseph's Hospital Hlth Ctr** 301 Prospect Ave, Syracuse, NY 13203, US	
Total Est. Time: 4 minutes **Total Est. Distance:** 1.11 miles	



Start:
W Fayette St & S West St
Syracuse, NY 13201, US

End:
St Joseph's Hospital Hlth Ctr:
315-448-5111
301 Prospect Ave, Syracuse, NY 13203, US

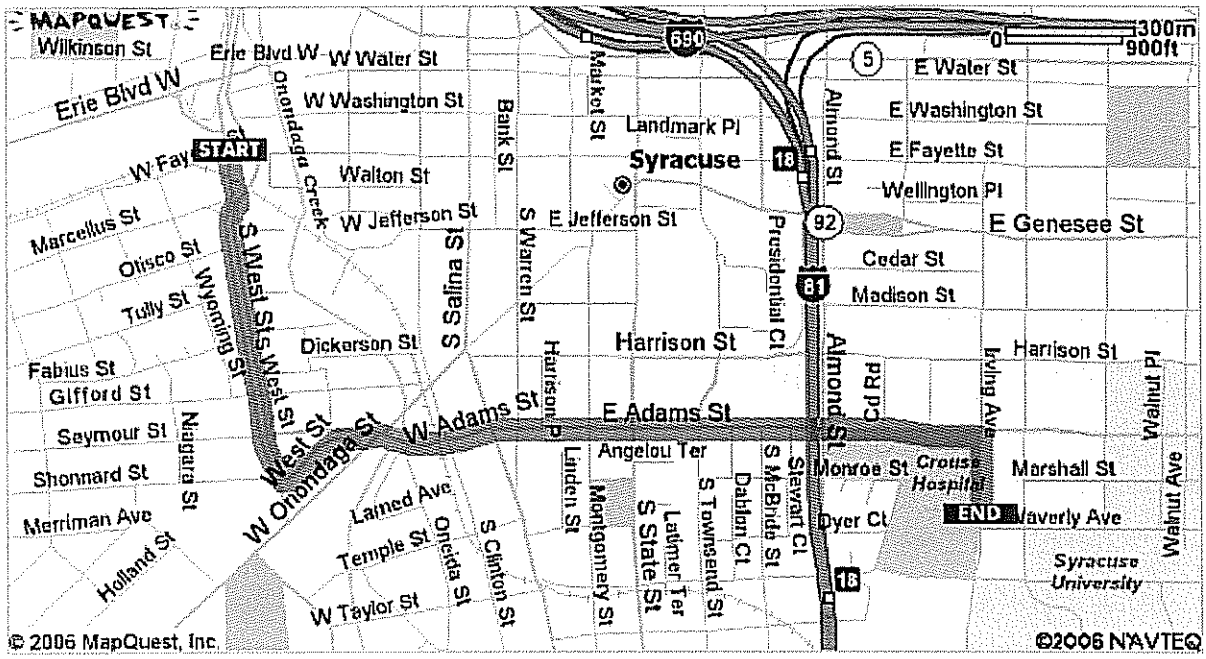
MAPQUEST

Start: **W Fayette St & S West St**
Syracuse, NY 13201, US

End: **Crouse Irving Memorial Hosp:**
315-470-7111
736 Irving Ave, Syracuse, NY 13210, US

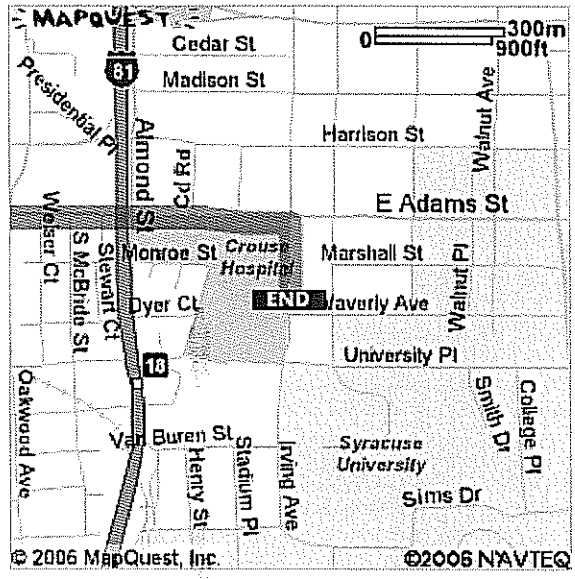
Notes:

Directions	Distance
Total Est. Time: 4 minutes **Total Est. Distance:** 1.63 miles	
START **1:** Start out going SOUTH on S WEST ST toward W FAYETTE ST.	0.5 miles
2: Turn LEFT onto WEST ST.	<0.1 miles
3: Keep LEFT at the fork to continue on WEST ST.	<0.1 miles
4: Turn SLIGHT LEFT onto W ONONDAGA ST.	<0.1 miles
5: Turn RIGHT onto W ADAMS ST.	0.8 miles
6: Turn RIGHT onto IRVING AVE.	0.1 miles
END **7:** End at **Crouse Irving Memorial Hosp** 736 Irving Ave, Syracuse, NY 13210, US	
Total Est. Time: 4 minutes **Total Est. Distance:** 1.63 miles	



Start:
W Fayette St & S West St
Syracuse, NY 13201, US

End:
Crouse Irving Memorial Hosp:
315-470-7111
736 Irving Ave, Syracuse, NY 13210, US



SOIL MANAGEMENT PLAN

The Warehouse
350-364 and 382-388 West Fayette Street
Syracuse, New York

APPENDIX F

Plan Review Acknowledgement Form

ACKNOWLEDGEMENT OF SOIL MANAGEMENT PLAN REVIEW

The Warehouse

350-364 and 382-388 West Fayette Street, Syracuse, New York

Printed Name	Signature	Date

SOIL MANAGEMENT PLAN
The Warehouse
350-364 and 382-388 West Fayette Street
Syracuse, New York

APPENDIX G
Safety Briefing Acknowledgement Form

Appendix 2

AKNOWLEDGEMENT OF FIELD SAFETY MEETING

Site Investigation
Empire State I, LLC/Former AFMC, Inc. Bulk Storage Terminal
Ambrose Street, Sackets Harbor, Jefferson County, New York

Date: _____
Time: _____

The following individuals hereby acknowledge their presence during, and understanding of issues discussed in the course of, the project safety review meeting held at the above noted date and time.

Printed Name	Signature

SOIL MANAGEMENT PLAN

The Warehouse
350-364 and 382-388 West Fayette Street
Syracuse, New York

APPENDIX H
Pavement Management Plan

PAVEMENT MANAGEMENT PLAN

1. Implementation of this plan shall be the responsibility of the Syracuse University Parking and Transit Service Department.

2. The paved surfaces at the site shall be visually examined on an annual basis for evidence of wear, settling, heaving, cracking, deterioration, or other distress (collectively "distress"). The inspections shall occur between late spring and early fall.

3. Each inspection shall be performed by establishing a grid pattern across the various paved surfaces, and note same on a drawing of the site. Grid sections shall be labeled with an alpha-numeric identifier.

4. Photographs of conditions shall be taken of each grid section and of specific areas distress observed. Any identified areas of distress observed during each inspection shall be identified on a sketch of the respective grid. Notations on length, width and pattern of cracks and other anomalies, such as settling and heaving, shall also be noted on the sketches.

5. Once patterns of distress or defects have been identified, possible causes shall be evaluated, and plans for repairs thereto shall be developed and implemented.

6. The Parking and Transit Service Department is required to maintain all documents, inspection records, photographs, and maintenance and repair records related to this Pavement Management Plan.