SITE MANAGEMENT PLAN

INTRODUCTION AND PURPOSE

This Site Management Plan (SMP) Plan is prepared for the former Rick's Auto site located at 136-138 East Genesee Street in the Village of Baldwinsville.

This SMP is required for the former Rick's Auto site due to the placement of institutional and engineering controls on the site in accordance with the Brownfield Cleanup Program. These controls allow the site to be brought back into productive use. They are intended to protect the public from potential exposure to residual compounds in the ground. These controls require that this manual be kept at the site and be available to maintenance personnel for their use in performing maintenance and in directing utility or other workers who may disturb soils from beneath 1 foot below the ground surface or pump groundwater from the subsurface. The SMP also includes a program for groundwater monitoring.

The institutional controls for this site are the following:

- Specific requirements for personal protection and soil handling procedures for excavation into or removal of soils from beneath 1 foot below ground surface.
- Prohibition on groundwater consumption, use, or discharge to sewer or offsite.

The engineering control for this site is the following:

- Operation and maintenance of a sub-slab depressurization system.

The monitoring for this site is the following:

- Groundwater monitoring

SOIL MANAGEMENT PLAN

Applicability

This plan shall apply to any disturbance of soils below 1 foot in depth on the commercial property known as the former Rick's Auto in the Village of Baldwinsville, County of Onondaga, New York. Disturbance shall mean any digging, excavation (whether manual or mechanically), trenching, dozing, landscaping, natural or other activity that results in exposing or bringing to the surface of soils located 1 foot or more below the land surface before the disturbance began.

Soil Handling Procedure

The following steps shall be taken to minimize the potential exposure hazard at this site.

1. Before disturbance of soils that will penetrate 1 foot or more into the ground, this document shall be reviewed to identify the required steps to safely and appropriately handle subsurface soils at this site.

2. The top foot of soils can be scraped over the area of excavation and set aside for replacement.

3. All site workers who may come into physical contact with site soils from below 1 foot in depth shall wear Level D protective gloves on the hands (i.e. nitrile, chemical resistant or equivalent) suitable for handling petroleum-impacted soils. Workers in direct contact with subsurface soils should change the gloves every one to two hours, or whenever the glove becomes punctured, torn or tacky on the outside surface.

4. Plastic sheeting (thickness 6 mil or greater) shall be spread over a sufficient area and be bounded with a perimeter berm at least 3 inches high. The sheeting shall overlap the top of the perimeter berm.

5. Excavated soils taken from below 1 foot in depth shall be stockpiled on the plastic sheeting.

6. If the excavated soils are to remain on the sheeting overnight, the soil pile shall be covered by plastic sheeting that is weighted around the perimeter to prevent precipitation from infiltrating into the soil.

7. At the conclusion of the excavation activity, the soil on the plastic sheeting may be replaced into the ground. This soil must then be covered with 1 foot of clean topsoil. The soil scraped from the land surface initially may be used for this purpose, with additional clean soil brought to the site, as needed.

8. Removal of Stockpiled Soil from the Site: If all or some of the stockpiled soil cannot be returned to the subsurface, the following additional actions are required:

    a. If the soil exhibits any petroleum odor, it must be taken to a landfill. Soil testing shall be performed per specification of the landfill.

    b. If the soil exhibits no petroleum odor or other indication of petroleum contamination, the soil should be evaluated according to the New York State Department of Environmental Conservation (DEC) Spill Technology and Remediation Series (STARS) Memo #1 criteria. The appropriate number of samples shall be collected according to the table under Subsection B – Soil Piles. A fresh surface shall be exposed just prior to sample collection.

- The samples shall be analyzed for STARS volatile organic compounds (VOCs) by EPA Method 8260 and STARS semi-volatile organic compounds (SVOCs) by EPA Method 8270. If the soil does not meet the STARS Memo #1 criteria (concentrations and nuisance odors), the soil must be disposed of at a landfill (refer to item a, above).

- All soils meeting the STARS Memo #1 criteria (concentrations and nuisance odors) for soil quality can be located onsite without restriction. A 1-foot cover of clean topsoil must be placed over this soil. Contact the DEC for direction in assessing nuisance odor in soil. Offsite relocation of soils is only allowed to DEC pre-approved locations and requires a DEC determination that the soil meets the STARS Memo #1 criteria.

GROUNDWATER RESTRICTIONS

Groundwater shall not be used for consumption (i.e. drinking) or other uses, such as lawn sprinkling. If groundwater is pumped from the ground, for a utility repair for example, the groundwater may not be discharge to the sewer or off-site.

SUB-SLAB DEPRESSURIZATION SYSTEM: OPERATION AND MAINTENANCE

The sub-slab depressurization (SSD) system in the existing commercial building is to operate continuously except during routine maintenance, interruption of electrical service, mechanical failure or other temporary condition that inhibits the system function. If another building is constructed on the Site, a SSD shall be designed, installed, tested and operated in exactly the same manner.

System Description

The SSD piping consists of sub-slab Schedule 40 PVC 0.020-slot piping and risers. An exhaust fan capable or producing approximately 1.00 to 1.25 inches of water vacuum at a flow rate of approximately 120 cubic feet per minute (cfm) [Fantech FR-160-PDS, Product No. 03-022-1, or equivalent]. This fan will draw vapors from beneath the building and discharge them to the atmosphere through a 4-inch diameter pipe penetrating the roof. The system also includes a manometer/vacuum gauge, a fan speed controller and an audible/visible alarm located in the utility closet where the SSD piping penetrates the floor slab. The *As-Built Drawings* of the SSD system are attached.

Maintenance

This system is simple, with few parts. The fan, riser piping, discharge point and manometer/ vacuum gauge are the important system elements. The fan shall be inspected at least annually and maintained in accordance with the manufacturer's recommendations. The exposed run of the riser piping shall be inspected annually to assure that no cuts, cracks or punctures exist. All necessary repairs shall be made in a timely manner. The discharge point of the piping on the rooftop shall be inspected to assure that no blockage has occurred due to nesting insects. This end of the pipe has been fitted with a mesh screen with a mesh opening suitable to prevent nesting insects from crawling into the pipe to build a nest. However, an annual inspection and repair/action will assure the discharge point remains unimpeded to the discharge of air/vapor from the fan. The manometer/vacuum gauge (located in a utility closet at the floor slab level) shall be checked annually to assure it is in working order and has no deficiency that prevents it from displaying the vacuum in the system piping. The flexible tubing shall be visually inspected for cracks, punctures or abrasions, and replaced as necessary. The fan speed controller can be checked by moving it from its setpoint and observing a change in the manometer/vacuum gauge. The visible/audible alarm can be checked by temporarily shutting off the fan to trip the alarm.

Recordkeeping

Records of the repair, inspection and maintenance actions taken to sustain the SSD system operation must be made and retained at the site for review during preparation of the annual inspection report to be prepared by a licensed professional engineer or qualified environmental professional. A *Maintenance and Inspection Log* is attached to this Plan for this purpose.

Contingency Plan

The SSD system contains four main parts: a fan, a fan speed controller, an audible/visible alarm and a manometer/vacuum gauge. If a failure occurs, repair or replacement needs to be made.

These components are available from Professional Discount Supply at 1-800-688-5776. The table below provides ordering information.

PDS Part Number	Description
03-022-1	Fantech FR-160 Outdoor Exhaust Fan
05-020-1	Dwyer Mark II Magnehelic Pressure Gauge
03-019-1	Fantech Speed Control
05-025-1	Check Point Mitigation Alarm

Post Mitigation System Confirmation Testing

Post-installation confirmation testing will be performed to demonstrate proper installation and effectiveness of the SSD system, per New York State Department of Health (DOH) soil vapor mitigation guidance. The DOH guidance requires that a differential in pressure between the indoor air and the sub-slab must be a minimum of 0.002 inches of water column with the indoor air pressure being greater. After installation of the SSD system, the actual sub-slab pressure will be measured and if it does not exhibit a vacuum of equal to or greater than 0.002 inches of water column (relative to indoor air), then the system fan will be replaced with a fan capable of generating a larger static vacuum beneath the slab. If the sub-slab does not exhibit a vacuum of equal to or greater than 0.025 inches of water column relative to the indoor air, then four quarters of seasonal differential pressure monitoring are required by the DEC. This seasonal pressure monitoring would determine if the seasonal sub-slab pressure remains a minimum of 0.002 inches lower than the indoor air pressure year-round.

GROUNDWATER MONITORING PLAN

Quarterly groundwater monitoring for eight consecutive quarters shall be performed to document the trend of groundwater concentrations. Institutional controls require the performance of

quarterly groundwater monitoring at this site. Calendar quarters 1, 2 and 4 will include groundwater quality sampling and analysis for a limited number of wells. These wells include MW-4, MW-5, MW-7, MW-10R, MW-12 and MW-13.

Calendar quarter 3 will require collection of a full round of groundwater samples from the entire network of onsite and offsite monitoring wells. Samples will be collected from monitoring wells MW-1 through MW-10 and MW-12 through MW-17. [Note: Well MW-11 no longer exists.] All groundwater samples will be submitted for analysis of STARS List VOCs per EPA Method 8260. For QA/QC purposes, 90% of the samples collected in calendar quarter 3 will be analyzed and reported by the analytical laboratory with Category A documentation and 10% with Category B documentation. The third quarter round will also include four additional QA/QC samples in the form of a trip blank, field blank, a matrix spike and a matrix spike duplicate. Groundwater elevation readings will be collected during this round only.

Reporting

Reported results of sampling for calendar quarters 1, 2 and 3 shall include raw and tabular "hits" data only. Reporting of calendar quarter 4 results shall include an annual summary of groundwater quality results and the overall trend observed since completion of the IRMs in the summer of 2004. The annual report will also include a groundwater contour map based on the third quarter groundwater elevation measurements.

Sampling Procedure

Sample collection shall be performed in accordance with standard procedures for groundwater sampling. These procedures ensure that a groundwater sample collected is representative of the hydrogeologic formation and will be utilized anytime a monitoring well is sampled. There are no specific definitions for this procedure.

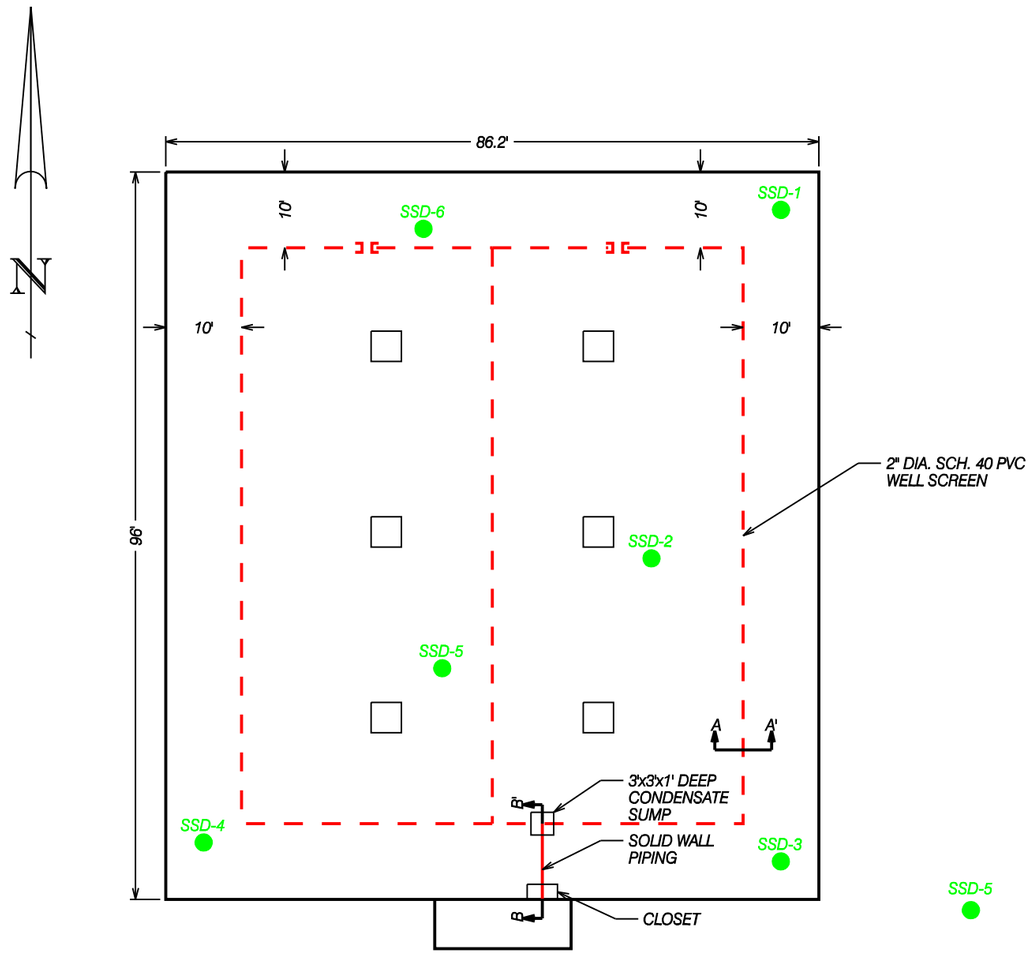
MAINTENANCE AND INSPECTION LOG
136-138 East Genesee Street, Village of Baldwinsville, Onondaga County, New York

Annual Inspection **Date of Inspection:**

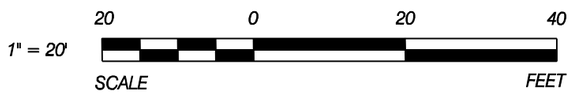
Inspection	Component	Action	OK ? (check box)		Action Taken if "No"	Inspector Initials
			Yes	No		
vaccum gauge	tubing	Check for cracks, punctures, abrasions				
	gauge	In working order? Disconnect tubing, does indicator fall to zero?				
riser pipe		Check for cracks, leaks, seam leaks				
fan		Verify if working, dust build-up, other problems				
discharge point on roof	top of 4-inch diameter stack	Verify rain cap on, no blockage from insects				
	bug screen	Is it there? Properly installed?				
fan speed controller and audible/visible alarm		Check for proper working action by shutting off fan. Does manomater show pressure drop; audible/visible alarm tripped?				

Maintenance

Action Required	Action Taken	Part Replaced	Part #	Comment	Date	Initials



Plan View



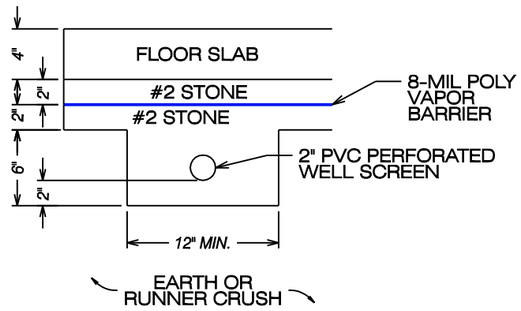
Notes:

1. *Sub-slab depressurization (SSD) system piping shall consist of 2-inch diameter schedule 40 PVC well screen.*
2. *The well screen shall have a width of 0.020 inch (commonly referred to as 20-slot well screen).*
3. *The SSD system shall be aligned as shown on the drawing and placed within the No. 2 stone base material below the floor slab. End caps shall be installed at the end of each lateral that run parallel to the north building wall.*
4. *All piping and connections shall be threaded or slipped and fastened using stainless steel screws. No solvents or cement shall be used in any portion of the SSD system prior to entering the exhaust fan.*
5. *A "tee" fitting shall be installed into the portion of the SSD system that traverses parallel to the southern wall opposite the location where a utility closet will be located along the southern wall. The utility closet is anticipated to be located adjacent to the main entryway.*
6. *A portion of solid wall 2-inch diameter schedule 40 PVC pipe will traverse from the "tee" fitting to the location of the utility closet where the SSD system will penetrate the floor slab and continue to an exhaust fan to be located by the owner on the roof.*
7. *All piping located beneath the floor slab shall be placed within a shallow trench as shown in cross-section A-A'.*
8. *See sheet SSD 2 of 2 for cross-section B-B'.*

Key

SSD-5

Sub-Slab Depressurization System Monitoring Points



Cross-Section A-A'

SCALE: 1"=40'

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Civil and Environmental Engineering

REVISIONS: DATE: BY:

NOTE: NO ALTERATION PERMITTED HEREON EXCEPT AS PROVIDED UNDER SECTION 7209 SUBDIVISION 2 OF THE NEW YORK STATE EDUCATION LAW.

PROJECT: RICK'S AUTO REDEVELOPMENT

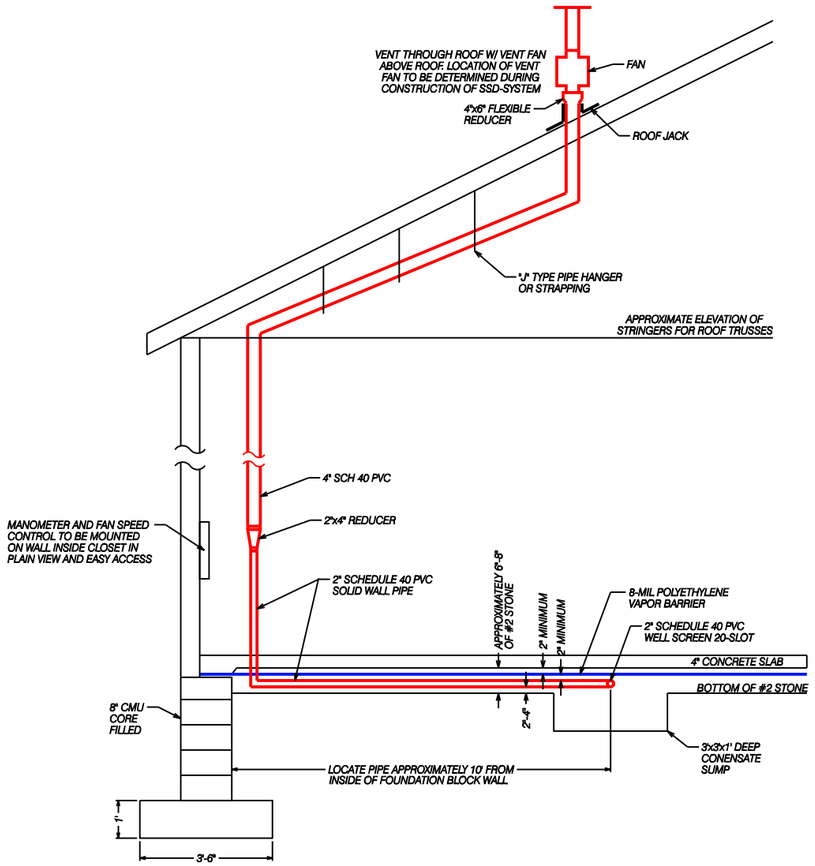
DWG. TITLE: SUB-SLAB DEPRESSURIZATION SYSTEM MONITORING LOCATIONS

CLIENT: CL DEVELOPMENT, L.L.C.

LOCATION: VILLAGE OF BALDWINSVILLE, ONONDAGA COUNTY, NEW YORK

PROJECT No.:	2003115
FILE NAME.:	BuildingPiping
SCALE:	AS NOTED
DATE:	AUG. 2006
ENG'D BY:	CTB
DRAWN BY:	JMD
CHECKED BY:	DRV

SHEET NO.: SSD 1 OF 2



Cross-Section B-B'

1" = 4'

4 0 4 8

SCALE FEET

General Notes

1. *All piping located beneath the slab shall be placed in a shallow trench as depicted in cross-section A-A' on sheet SSD 1 of 2.*
2. *A condensate sump measuring approximately 3-feet by 3-feet in plan dimension by 1-foot deep shall be excavated where the well screen portion of the SSD system laterals terminate at the "tee" fitting. This sump shall be filled with No. 2 stone.*
3. *A 2- to 4-inch thick layer of No. 2 stone shall be placed on the prepared subgrade throughout the entire floor slab footprint.*
4. *The SSD system (consisting of 2-inch well screen - see Sheet SSD 1 of 2 for piping specifications and alignment) shall be placed on top of 2- to 4-inch thick No. 2 stone layer.*
5. *The top of the SSD system shall be covered with a minimum of 2-inches of No. 2 stone within the floor slab footprint.*
6. *A vapor barrier consisting of polyethylene sheeting a minimum 8-mil in thickness shall be placed over the No. 2 stone and extend onto the top of the foundation wall. Enough sheeting should be used so that it will not be stressed and pull away from the foundations wall. The polyethylene sheeting shall cover the entire floor slab footprint and shall be sealed at seams (with a minimum of a 12-inch overlap), penetrations, around the perimeter of interior piers and along the top of the foundation wall using a non-shrink elastomeric caulk (such as Permathane SM7108 - Professional Discount Supply [PDS] product No. 06-026-1 or equivalent).*
7. *All floor slab construction joints shall be sealed using closed cell foam backer rod (PDS product No. 09-044-1 or equivalent) and/or a non-shrink caulk (PDS product No. 06-021-1 or equivalent).*
8. *All floor drains shall be Dranjer type drains with the appropriate seals to prevent vapors from entering the building.*
9. *Beginning at the "tee" fitting as shown on Figure SSD 1 of 2, 2-inch diameter solid wall schedule 40 PVC piping shall be installed to penetrate the floor slab within the utility closet adjacent to the main entry way.*
10. *Within the utility closet the 2-inch diameter solid wall schedule 40 PVC piping shall be connected to 4-inch diameter solid wall schedule 40 PVC piping using a 2"x4" reducer.*
11. *From the reducer, 4-inch diameter solid wall schedule 40 PVC pipe will extend through the ceiling of the utility closet, traverse through the attic space to a location to be determined by the owner where it will penetrate through the roof and be connected to the exhaust fan that will be located above the roof. To avoid introduction of vapors vented from beneath the building from entering the building, the fan exhaust must be:*
    - *A. Above the eave of the roof, preferably 12-inches above the surface of the roof;*
    - *B. A minimum of 10 feet above ground level;*
    - *C. A minimum of 10 feet away from any opening that is less than 2 feet below the top of the exhaust vent; and*
    - *D. A minimum of 10 feet from any adjoining or adjacent buildings, HVAC intakes or supply registers.*
12. *The 4-inch diameter solid wall schedule 40 PVC piping that traverses through the attic shall be fastened to the roof joists using appropriate hangers and/or strapping a minimum of every 6-feet or as local code requires for hanging duct work/piping.*
13. *The 4-inch diameter solid wall schedule 40 PVC piping that traverses through the attic shall not be laid horizontal in order to facilitate drainage of condensate to the condensate sump located beneath the slab.*
14. *A roof jack capable of accommodating the 4-inch diameter solid wall schedule 40 PVC piping shall be installed on the exterior of the roof where the pipe will penetrate the roof.*
15. *An exhaust fan capable of producing approximately 1.25 inches of water vacuum at a flow rate of approximately 120 cfm (such as Fantech FR-160 - PDS product No. 03-022-1 or equivalent) shall be installed to the open exposed end of the 4-inch diameter solid wall schedule 40 PVC pipe. A flexible reducer/coupler shall be used to connect the fan to the pipe.*
16. *A rain deflector/cap (such as PDS product No. 05-081-1R or equivalent) shall be installed at the discharge point to minimize rainwater from entering the system. Wire mesh insert screen (18X14) or equivalent shall be affixed to the rain cap with an exterior clamp.*
17. *The vent fan shall be protected with a shroud (such as EHS Fan Shroud - PDS product No. 05-010-1).*
18. *The vent fan shall be hard-wired on a dedicated circuit with a circuit breaker and conform to the provision of the National Electric Code and any other local electrical codes.*
19. *A fan speed control (such as Fantech Speed Control - PDS product No. 03-019-1 or equivalent) shall be incorporated within the electrical circuit to the vent fan and shall be located within the utility closet where the SSD system penetrates the floor slab.*
20. *A manometer/vacuum gauge (such as Dwyer Mark II Magnehelic Pressure Gauge - PDS product No. 05-020-1 or equivalent) shall be installed to measure the vacuum within the SSD system and shall be located in plain view within the utility closet where the SSD system penetrates the floor slab.*
21. *An audible and visual alarm (such as PDS product no. 05-025-1 or equivalent) shall be installed in the utility closet, in plain view, where the SSD system penetrates the floor slab.*
22. *The piping, manometer, fan speed control switch, audible/visible alarm, and dedicated circuit breaker shall be clearly marked and labeled to identify these as components of the vapor mitigator system.*

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PROJECT No.:	2003115
FILE NAME.:	CrossSec
SCALE:	AS NOTED
DATE:	MAR. 2006
ENG'D BY:	CTB
DRAWN BY:	JMD
CHECKED BY:	DRV

SHEET NO.: SSD 2 OF 2