FINAL

Sampling Plan for Pre-Design Remedial Investigation: Market Basket Property Geneva, New York Site No. B-00018-8

July 2003

O'BRIEN & GERE
ENGINEERS, INC.

Sampling Plan for Pre-Design Remedial Investigation
Market Basket Property
Geneva, New York
Site No. B-00018-8

Introduction and Site Background

The Market Basket site is located on the north side of Geneva, New York, and consists of two parcels located on either side of Gates Avenue between Lehigh Street and a former railroad right-of-way (ROW). The combined site is approximately 2.6 acres in size. The parcel south of Gates Avenue was formerly nearly fully occupied by a multi-story building that was operated by Geneva Cutlery Company and Stearns Nursery, Inc., prior to being combined with the northern parcel. The parcel located north of Gates Avenue appears to have been vacant until at least 1915. The 1925 Sanborn Fire Insurance Map indicates that Market Basket had constructed several buildings on the northern site by that time. A document published by the Geneva Historical Society entitled "Industrial Pursuits: The History of Manufacturing in Geneva, New York" states that Market Basket ceased operations in 1956, and the combined site was acquired by Mr. William Yalden in September 1962. The full extent of activities at the site since that time is unclear. However, some activities that have been identified include the Great Eastern Company (a storage warehouse), and Old Town Tool Rental. In addition, the Geneva Historical Society document states that Mr. Yalden also provided rented space to the public for paint booths used for automotive body repairs. The combined property has reportedly been vacant since 1988, and the buildings on both parcels were demolished in 2002, with only foundations remaining on the site at this time.

The City of Geneva has acquired the site, and is remediating the property under the New York State Department of Environmental Conservation's (NYSDEC's) brownfield program. In 1998 and 1999, a program of subsurface sample collection and analysis was performed at both the north and south buildings (*Site Investigation and Remedial Alternatives Report*; Passaro Associates and Larsen Engineers, Revised 2000). The subsurface investigation included a soil gas survey, and the collection and analysis of subsurface soils and ground water. The conclusion of these investigations was that a source of chlorinated organics could be beneath the building slab of the east side of the south building. In addition, the investigations indicated the presence of petroleum hydrocarbons in the trench at the northeast corner of the south building. The ability to confirm the presence and extent of such source material was constrained by the presence of the south building; boring through the building slab was hampered by the structural condition of the building, which was not structurally sound. Access is now available due to the demolition of the on-site buildings.

NYSDEC issued a Record of Decision (ROD) in March 2002. The ROD proposes the following remedy:

- Building demolition, including asbestos abatement, to access potentially contaminated areas beneath the floor slab. This step has been completed;
- Sub-slab soil characterization to accurately delineate areas of contamination beneath the footprint of the building. These areas can now be investigated due to the removal of the deteriorated buildings;
- Excavation and off-site disposal of contaminated soil in the vicinity of a former tank pit (apparent gasoline spill) and the former boiler room (apparent fuel oil spill) and any contamination found beneath the footprints of the buildings;
- A ground water monitoring program for a minimum of five years to monitor natural attenuation of any residual compounds that may remain at the site; and

- Deed restrictions to prohibit the use of ground water as a potable or process water source without treatment to achieve New York State standards; and ensure that if site soil is excavated, it is managed, characterized, and properly disposed of in accordance with NYSDEC regulations and directives. The deed restrictions would also require owners to annually certify to NYSDEC that the restrictions have been adhered to and that the conditions at the site are fully protective of public health and the environment in accordance with the proposed plan and subsequent Record of Decision.

Objectives of the Sampling Plan

To allow the successful implementation of the ROD, the objectives of this Sampling Plan are as follows:

- Following demolition, further investigate subsurface soils under the former buildings to identify potential areas of contamination. A figure showing previous soil gas readings is included in Appendix 1.
- Further assess the nature and extent of soil contamination at the former gasoline underground storage tank (UST) and the former boiler room.
- Further assess potential impacts from the stained soils located in the trench located on the east end of the south building.
- Investigate subsurface conditions in the areas of the former boiler rooms at both the north and south buildings, as well as the area of the former garage located in a northwestern portion of the north parcel.
- Assess potential impacts to ground water of potential residuals from the building adjacent to the south building.
- Assess potential impacts of possible residuals near the southeast corner of the former North Building courtyard.

Scope of Work

To accomplish the previously listed objectives, the following tasks will be performed:

1. Soil borings will be installed via direct-push methods at the locations noted in Appendix 2. Borings will be advanced to a depth of 15 feet or to refusal, whichever is first encountered. Soil samples will be screened with a photoionization detector (PID) and visually inspected by an O'Brien & Gere hydrogeologist. Based on field observations, one soil sample will be selected from each boring for submission to a New York State approved environmental laboratory (Laboratory) for analysis of volatile organic compounds (VOCs) and semivolatile organic compounds (SVOCs) via USEPA Methods 8020/8021 and 8270, respectively. In addition, the samples will be analyzed for beryllium, chromium, copper, iron, mercury, nickel and zinc. These boring locations may be modified, based on field data, to better define the extent of contamination. Similarly, more than one soil sample may be collected from a boring if, based on the field hydrogeologist's judgement, evidence of separate and discrete intervals of contamination is found in the same boring.
2. The fill material previously installed following the removal of the former 8,000 gallon UST will be re-excavated and staged on (and covered with) polyethylene sheeting. The excavated soil will be visually inspected and screened with a PID. Piping that was previously observed extending northward from the pit will be traced, removed, and surrounding soils evaluated in accordance with Section 3.9(a)5 of NYSDEC's Draft Technical Guidance for Site investigation and Remediation (Tech Guide). For proper characterization of the fill material, one grab and one composite soil sample will be collected from the fill material and analyzed for VOCs and SVOCs, via USEPA

Methods 8020/8021 and 8270, respectively, as well as total lead via ESEPA Method 6010. The sample locations will be chosen based on the results of the PID screening and visual observations. Excavated soils will be disposed off-site in accordance with applicable regulations.

3. Five soil samples will be collected from the tank pit. One soil sample will be collected from each side of the pit, and one soil sample will be collected from the bottom of the excavation. These sample locations will be biased towards areas of elevated PID readings and/or any visual or olfactory evidence of contamination. The samples will be submitted to the laboratory for analysis of VOCs, SVOCs, and lead via USEPA Methods 8020/8021, 8270 and 6010.
4. Obviously impacted soils in the trench area located at the east end of the former South Building will be excavated and removed in conjunction with the tank pit excavation activities. If buried piping is encountered, it will be traced, removed and evaluated in accordance with the procedures outlined in Task 2. Six surface and subsurface soil samples will be collected in the area of the stained trench. Surface soil samples will be collected from a depth of 0 to 2 inches beneath any vegetative cover, and will exclude any non-representative material such as large gravel or cobbles. These samples will be collected at the discretion of the on-site hydrogeologist based on visual observations and PID readings. Of the six samples collected, four are anticipated as being surface soils, with the remaining two samples being collected at depths of one to two feet below grade. However, the depths of these samples may be adjusted based on the observations of field personnel, which will be documented for inclusion in the investigation report. The collected samples will be submitted to the laboratory for analysis of VOCs and SVOCs via USEPA Methods 8020/8021 and 8270. In addition, the samples will be analyzed for beryllium, chromium, copper, iron, mercury, nickel and zinc.
5. To further assess potential impacts to ground water from areas upgradient of the South Building, a soil boring/ground water monitoring well will be installed approximately 60 feet west of the southeast property corner. This location is upgradient of the existing on-site wells that have had detections of chlorinated compounds (MW-5 and MW-6). Advancement of the soil boring for this well will be conducted in accordance with the procedures outlined in the "Methods" section of this Sampling Plan, including soil sample collection. In addition, monitoring well MW-3, which was destroyed as a result of the partial building collapse during 1999, will be replaced. These wells, along with the existing monitoring wells MW-1, Mw-2, MW-4, MW-5, MW-6, MW-7, and MW-8 will be sampled, and the ground water samples will be submitted to the laboratory for analysis of VOCs (USEPA Method 8020/8021), SVOCS (USEPA Method 8270), beryllium, chromium, copper, iron, mercury, nickel, and zinc.
6. To assess potential impacts in the vicinity of the southeast corner of the former North Building courtyard, two soil borings will be installed in this area, with the samples being submitted to the laboratory for the parameters listed in Item 5 above.
7. Sample points will be staked and instrument surveyed to document the locations.

Analytical methods will be performed using NYSDEC Analytical Services Protocol (ASP) 6/2000 revisions, Exhibit E requirements and USEPA Test Methods for evaluating Solid Waste (SW-486) as applicable to chemical analyses. Analytical data packages, which are fully validatable, will conform to the data deliverable requirements as listed in the NYSDEC ASP 6/2000 revision, Category B including NYSDEC ASP forms. In addition to the hard copy version of the analytical data packages, the laboratory will provide electronic deliverables. A data usability summary report (DUSR) will be prepared for the analytical data in accordance with Appendix 2B of the Tech Guide.

Methods

Installation of Borings. Soil borings will be completed within unconsolidated materials to the water table. For this proposal, it is assumed that soil borings will be completed (Geoprobe® or similar) to a maximum depth of 15 ft using direct-push drilling methods. Soil samples will be collected continuously at each boring from the ground surface to the end depth (assumed to be 15 ft). Each soil sample will be screened

in the field using a PID to assess if VOCs are present in the soil and a boring log will be prepared. One unsaturated soil sample will be collected for analysis. The sample will be selected based on visual inspection and field monitoring results.

Installation of Monitoring Well. The well will be set approximately 7 ft below the water table. For this proposal, it is assumed that the monitoring well will be completed within unconsolidated materials to a maximum depth of 20 ft. The boring for the installation of the monitoring well will be completed using conventional hollow stem auger drilling methods using a minimum 4.25-inch inside diameter auger. The monitoring well will be constructed of a ten-foot length of 2-inch diameter PVC well screen attached to a PVC riser casing. The well screen will be positioned to straddle the water table; however, the top of the well screen will be positioned no less than 3 ft below grade to allow for the placement of an adequate annular seal. The well will be completed with above-grade protective casings. A proposed well construction drawing is included in Appendix 3.

The new wells[1] will be developed following installation to remove fine-grained sediment that may have settled in the borehole during drilling and to increase the hydraulic connection between the well and the aquifer. The new wells will be developed until evacuated water is visually clear and free of sediment, monitoring parameters have stabilized, and a minimum of three well volumes have been removed. Monitoring parameters will include pH, conductivity, temperature, and turbidity, and will be considered stabilized when they vary less than 10 percent between three successive readings taken at least three minutes apart. Turbidity will be reduced to less than 50 NTU, if attainable. Water generated during the well development will be contained pending characterization and disposal.

Subsequent to completion of the development activities, a ground water sample will be collected from each well and placed in a cooler for delivery to the laboratory for analysis. Ground water samples will be collected using low-flow purging and sampling techniques, as specified in USEPA's "Low-Flow (Minimal Drawdown) Ground-Water Sampling Procedures," and using peristaltic pumps. Field measurements of pH, conductivity, turbidity, dissolved oxygen, redox potential, and temperature will be made during evacuation and prior to collection of the sample. Monitoring parameters will be considered stabilized when three successive readings are within ± 0.1 for pH, ±3% for conductivity, ±10 mv for redox potential, and ± 10% for turbidity and dissolved oxygen. Turbidity will be reduced to less than 50 NTU if the field geologist feels this level is attainable.

Decontamination. The drilling equipment will be decontaminated following completion of each boring or well using high-pressure hot water or steam. Decontamination procedures will take place on a temporary decontamination pad constructed of plastic sheeting on-site. A drawing of the temporary decontamination pad is included in Appendix 4, and will be located in the vicinity of the former North Building. Water generated during the decontamination procedures will be contained in 55-gallon drums for off-site disposal.

Survey. The elevations and locations of the permanent monitoring wells will be surveyed to provide information pertaining to the ground water flow direction. It is assumed that the City will provide a survey of the site for use as a basis for the surveying to be completed as part of this investigation. It is further assumed that an electronic copy of this map will be provided together with any benchmark information that has been established. If possible, the survey will include a common benchmark with the adjacent Former HB Fuller Site (NYSDEC Voluntary Cleanup Program No. V-00119-8) to provide a better understanding of local ground water flow at both properties.

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[1] Previously installed wells are assumed to be in sound condition. Contractor requirements during demolition of the buildings included preserving or replacing the existing well system. If any wells are replaced, construction specifications will be obtained.

The survey will be referenced to a USGS datum or a pre-established on-site benchmark. The location and elevations (ground surface, PVC casing, steel casing) of the monitoring wells will be surveyed.

Investigation derived waste (IDW). Drill cuttings will be managed in accordance with NYSDEC's TAGM 4032 – Disposal of Drill Cuttings. IDW water will be collected in drums and will be left on the site in the location that they are generated. Upon receipt of the analytical data, the water will either be released on site to a permeable ground surface to allow infiltration, or will be disposed offsite at a permitted facility in accordance with applicable regulations.

Underground utilities. O'Brien & Gere will contact the local underground facilities protective organization (UFPO) to locate utilities at the site prior to initiating the field program. It should be noted that UFPO will only coordinate location of utilities for those companies subscribing to the service. Furthermore, the utilities will only identify the locations of subsurface lines on public property and rights-of-way. The location of on-site utilities will be reviewed with the City to approve the locations where drilling will take place.

Health and Safety. O'Brien & Gere has reviewed the "Health and Safety Plan" submitted in July 1998 for investigation activities at the Market Basket Site (see Appendix 5). This plan will be applied to the Pre-Design Remedial Investigation, with the following modifications:

1. The Project Manager will be Stuart J. Spiegel, who can be reached at (315) 437-6100.
2. The Site Health & Safety Coordinator will be Ed Wilson, CIH, who can be reached at (315) 437-6100.
3. Compounds that have been previously identified at the site include chlorinated organic compounds and petroleum hydrocarbons.
4. A route map to the Geneva Hospital is included in Appendix 6. To drive to the hospital from the site, head east on Gates Avenue to the intersection with Route 14. Turn right on Route 14, and proceed to the intersection with North Street. Turn right on North Street, and proceed to the hospital.
5. Level D personal protective equipment will be worn during drilling, with photoionization detector (PID) monitoring for VOC concentrations in the air. If VOC concentrations above background are detected, respiratory protection will be upgraded to Level C.
6. Continuous air monitoring will be performed in accordance with Appendix 1A of the Tech Guide).

Report

Following receipt of the analytical results, a report will be prepared documenting the sampling events and presenting the analytical data as compared with the cleanup objectives listed in the NYSDEC TAGM #4046 and NYSDEC ground water standards. In addition, the data developed during the 1998 and 1999 investigations also will be evaluated in light of TAGM #4046 and NYSDEC ground water standards. The report will contain:

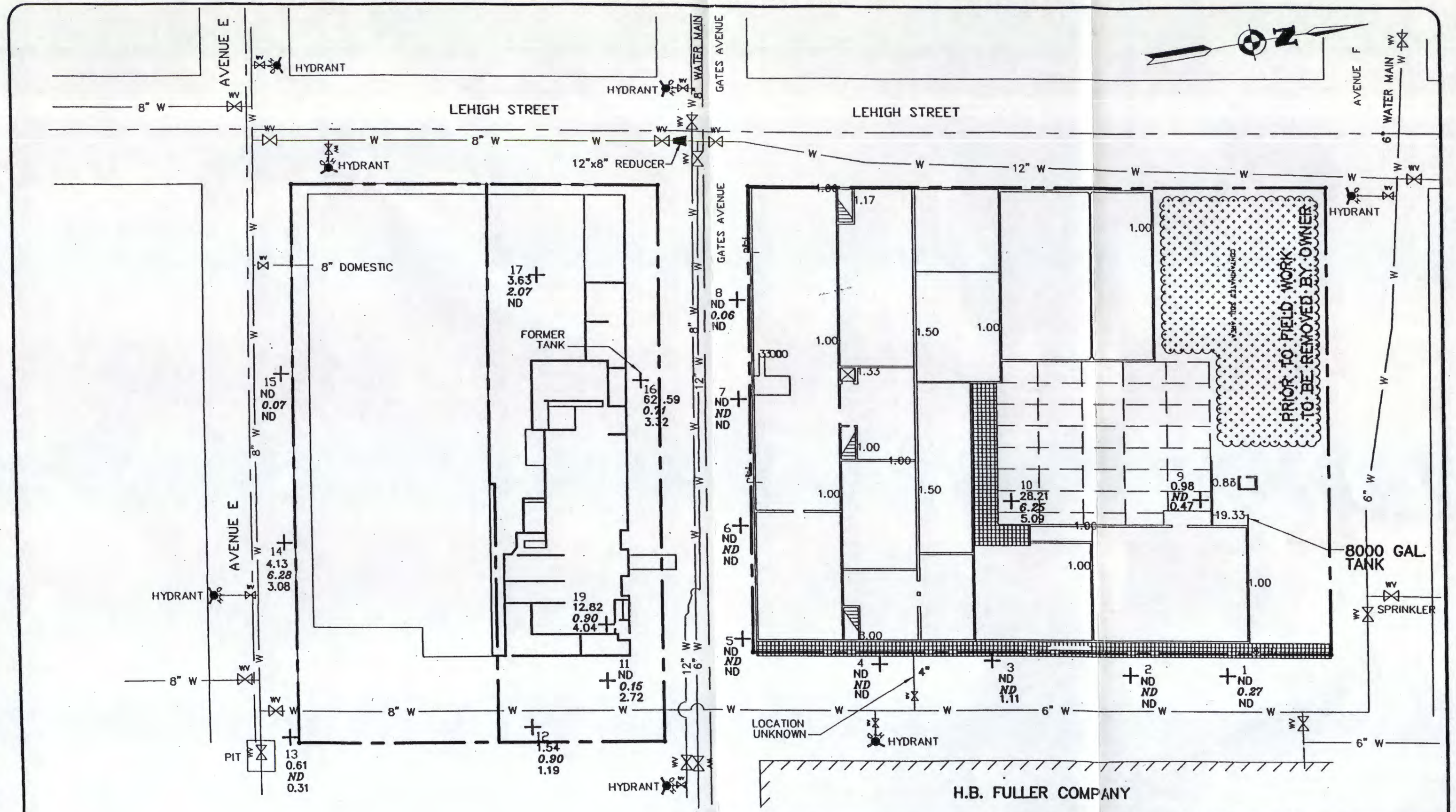
- a description of the field activities that were performed, including modifications to this plan and the reasons for those modifications
- a description of the analytical data developed by the program
- an evaluation of the data obtained to date, including that obtained during the 1998 and 1999 investigations, with respect to TAGM # 4046 guidance values for soils and New York State ground water standards

- conclusions regarding the necessity for remediation
- recommendations for remedial activities, if appropriate
- boring logs, sample location maps, and analytical data sheets will be appended to the report, as will other information as appropriate.

Based on the results of this evaluation, O'Brien & Gere will make recommendations for remedial activities at the north and south building sites.

Appendix 1

Previous Soil Gas Readings



EXPLANATION

+ TOTAL ALIPHATIC HYDRO CARBON (ng/L)

TOTAL BTEX

TOTAL CHLORINATED COMPOUNDS

PASSERO ASSOCIATES, P.C.
ARCHITECTS-ENGINEERS-SURVEYORS
100 LIBERTY POLE WAY ROCHESTER, N.Y. 14604
716-325-1000

PROJECT: MARKET BASKET SITE
CITY OF GENEVA, ONTARIO COUNTY, NEW YORK

DRAWING: PASSIVE SOIL GAS – RESULTS

CLIENT: CITY OF GENEVA
47 CASTLE STREET
GENEVA, N.Y. 14456

Partner In Charge	G.W.P.
Project Manager	A.K.
Drawn by	M.L.A.

PROJECT NO. 97119.06

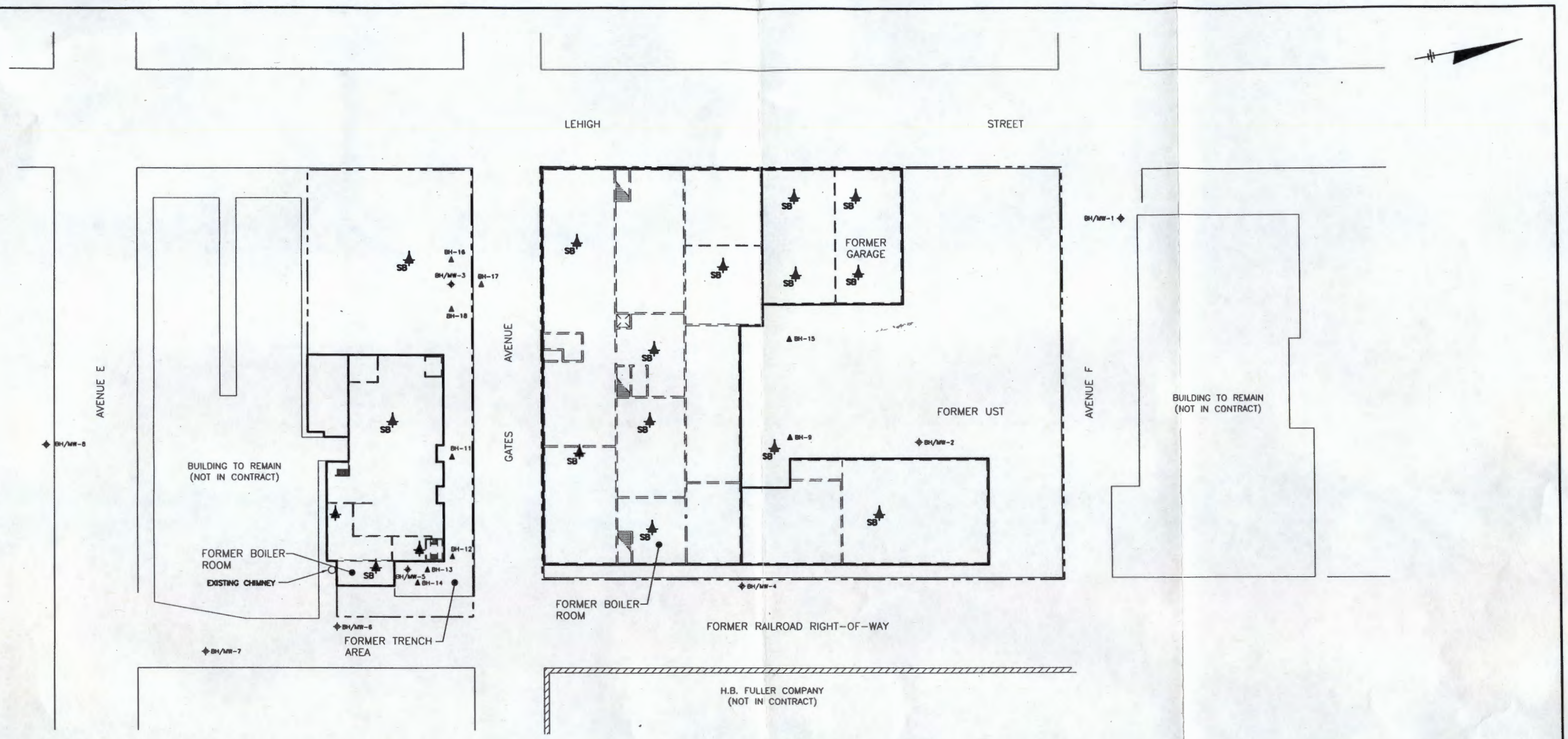
DRAWING NO. FIGURE 2

SCALE 1"=50'

DATE 11/9/98

Appendix 2

Site Plan



LEGEND

- ▲ EXISTING SOIL BORING
- ✦ EXISTING SOIL BORING WITH MONITORING WELL
- ✦ PROPOSED SOIL BORING AND/OR MONITORING WELL

PRELIMINARY NOT FOR CONSTRUCTION
DATE: 1/17/03

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED ENGINEER, TO ALTER THIS DOCUMENT.

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IN CHARGE OF
DESIGNED BY ____ CHECKED BY ____
DRAWN BY

1"=60' 60 0 60 120

NO.	DATE	REVISION	INIT.

O'BRIEN & GERE ENGINEERS INC.

CITY OF GENEVA
MARKET BASKET PROPERTY
ENVIRONMENTAL RESTORATION
ONTARIO COUNTY, NEW YORK

GENERAL

SITE PLAN

FILE NO. 1740.30852-003
DATE JANUARY 2003

G-1

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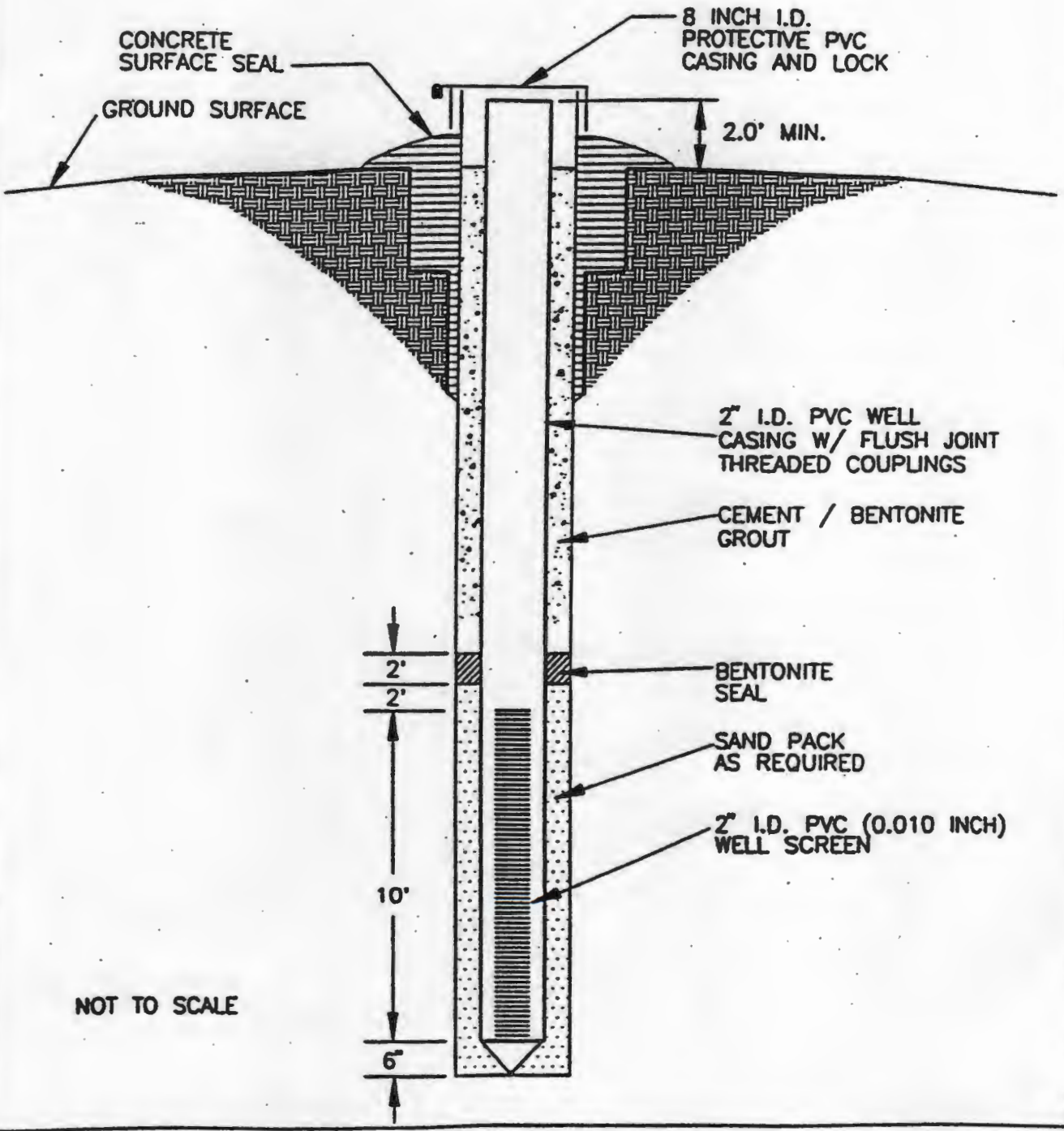
PLOT DATE: 6/30/03

Appendix 3

Well Construction Drawing



O'BRIEN & GERE
ENGINEERS, INC.

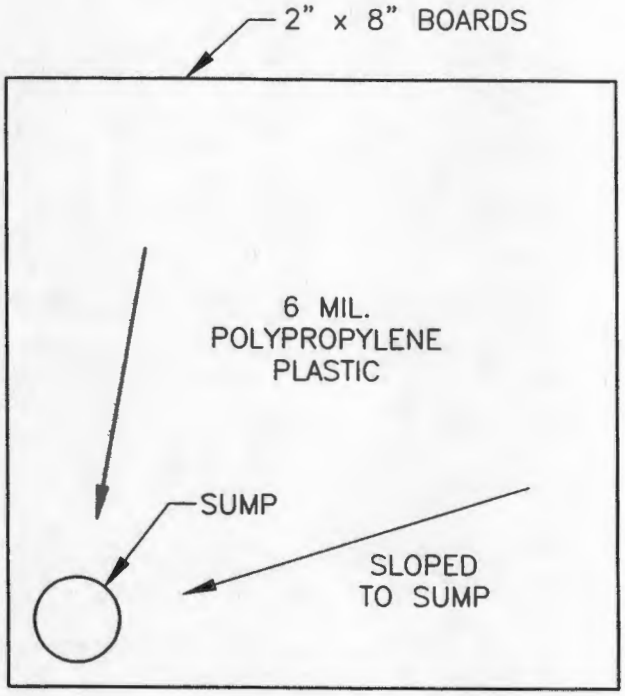
FIGURE

MONITORING WELL CONSTRUCTION DETAIL
ABOVE GRADE WELL

Appendix 4

Temporary Decontamination Pad

FIGURE 1



TEMPORARY DECONTAMINATION PAD
MARKET BASKET PROPERTY
GENEVA, NEW YORK

NOT TO SCALE

1740.30852.004
MAY 2003

O'BRIEN & GERE ENGINEERS INC.

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PLOT DATE: 5/8/03

Appendix 5

Health and Safety Plan

HEALTH AND SAFETY PLAN

FOR

MARKET BASKET PROPERTY
GENEVA, NEW YORK

Submitted By:

Passero Associates, P.C.
100 Liberty Pole Way
Rochester, New York 14604

and

Larsen Engineers
700 W. Metro Park
Rochester, New York 14623

JULY 1998 **P.N. 97119.01**

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1.0 INTRODUCTION

1.1 GENERAL

This Health and Safety Plan (HASP) was prepared to address the specific health and safety practices and procedures associated with the Site Investigation (SI) of the Market Basket Property located in Geneva, New York. The HASP presents information and procedures, including the assignment of responsibilities, personnel protection requirements, work practices and emergency response procedures, for Passero Associates, P.C. and Larsen Engineers (Passero/Larsen) employees who will be involved with field activities. This document is based on an assessment of potential health hazards at the site, using available historical information.

All Passero/Larsen personnel and subcontractors involved with remedial activities will be required to comply with this HASP. Site control during fieldwork will be monitored by the Site Health and Safety Coordinator designated by Passero/Larsen.

Adherence to this HASP will be required for all personnel who enter the site during field operations. The Passero/Larsen Project Manager and Site Health and Safety Coordinator (or his designee) are identified below and will determine and enforce compliance.

PROJECT MANAGER:

Name:	Gary W. Passero, P.E.
Telephone:	Office: (716) 325-1000

SITE HEALTH AND SAFETY COORDINATOR:

Name:	Arpad Kolozsvary, R.E.M.
Telephone:	Office: (716) 325-1000

This HASP addresses the requirements set forth in the OSHA regulations contained in 29 CFR Parts 1910 and 1926. Emergency Contacts has been included in Section 7.0 of this HASP, and can be readily detached for use in the event of an emergency requiring site evacuation, medical treatment, etc.

1.2 BACKGROUND

The Market Basket Site is located at the corner of Gates Avenue and Lehigh Street in Geneva, New York. The 2.6 acre parcel is located in a New York State Economic Development Zone within a primary industrial area north of downtown Geneva. The sit consists of two buildings in poor condition, on the north and south sides of Gates Avenue, bounded by Lehigh Street to the west.

The site history, objectives of SI are presented in the Work Plan for the Market Basket Site dated July 1998 by Passero/Larsen.

2.0 HAZARD EVALUATION

2.1 CHEMICAL HAZARDS

Possible contaminants that may be encountered are benzene/toluene/ethylbenzene/xylenes released from the gas tank noted on the 1968 Sanborn Map at the northeast corner of the northern Market Basket building. Other volatile compounds may be identified with the results of the initial passive soil gas study. Brief descriptions of the toxicology of these materials and related health and safety guidance and criteria are provided below.

—**Benzene** poisoning occurs most commonly through inhalation of the vapor; however, benzene can also penetrate the skin and poison in that way. Locally, benzene has a comparatively strong irritating effect, producing erythema and burning and, in more sever cases, edema and blistering. Exposure to high concentrations of the vapor (i.e., 3000 parts per million (PPM) or higher) may result in a cute poisoning characterized by the narcotic action of benzene on the central nervous system. In acute poisoning, symptoms include confusion, dizziness, tightening of the leg muscles and pressure over the forehead. Chronic expose to benzene (i.e., long-term exposure to concentrations of 100 PPM or less) may lead to damage of the blood-forming system. Benzene is very flammable when exposed to heat or flame, and can react vigorously with oxidizing materials.

Ethyl Benzene is a colorless, aromatic liquid, which can irritate the eyes, skin and mucous membranes at a concentration of 0.1% in air. Exposure to higher concentrations may cause dizziness and a sense of constriction of the chest. Ethyl benzene is flammable, and can react vigorously with oxidizing material.

Toluene is an organic liquid derived from coal tar. Exposure to toluene may cause narcotic effects (impairment of coordination and reaction time) loss of appetite, headache, nausea, and eye irritations. Generally, acute poisoning due to exposures to high concentrations is rare, and individuals recover easily when removed from the exposure.

Xylenes are clear, colorless liquids, which irritate the eyes at approximately 200 PPM. When exposed to heat or flame, these compounds may aquite or cause explosion. Upon heating to decomposition, acrid smoke and fumes may be emitted.

3.0 RESPONSIBILITIES OF SAFETY PERSONNEL

The following roles have been identified for Passero/Larsen project personnel:

Project Manager –The Project Manager has full responsibility for implementing and executing an effective program of employee protection and accident prevention. He is responsible for ensuring that Passero/Larsen field personnel and subcontractors are properly trained; that they have obtained medical clearance to wear respiratory protection (per 29 CFR Part 1910.134(b)(10)); and that they are properly trained in the selection, use and maintenance of personal protective equipment.

The Project Manager will also serve as scientific advisor for the duration of the project, providing guidance on data interpretation and the determination of appropriate levels of worker protection.

Site Health and Safety Coordinator – The Site Health and Safety Coordinator or his/her designee will be responsible for enforcement of this HASP for personnel at the site. Ambient air levels will be monitored with an organic meter (OVM) during all drilling and sampling activities. The Site Health and Safety Officer will inform all Passero/Larsen employees and subcontractor's of air sampling results. The coordinator will provide technical assistance to project management on problems relating to industrial hygiene and site worker safety.

If unsafe work conditions are identified, the Site Health and Safety Coordinator is authorized to order site personnel to stop work; resolution of all on-site health and safely problems will be coordinated through the Project Manager.

4.0 SAFE WORK PRACTICES

4.1 All employees shall conform to the following safe work practices during all on-site work activities:

- Eating, drinking, chewing gum or tobacco, smoking, or any practice which increases the probability of hand-to-mouth transfer of contaminated material **is strictly prohibited;**

- The hands and face must be thoroughly washed upon leaving the work area and prior to engaging in any activity indicated above;

- Any required respiratory protective equipment and clothing MUST be worn by all personnel going onsite;

- Contact with surfaces/materials either suspected or know to be contaminated will be avoided;

- Alcoholic beverage and illegal drug intake are strictly forbidden during site work;

- All personnel shall be familiar with standard operating safety procedures contained in this HASP.

- On-site personnel shall use the "buddy" system. No one may work alone, i.e., out of earshot or visual contact with other workers in the exclusion zone;

- All employees have the obligation to correct or report unsafe work conditions;

- Use of contact lenses on-site will not be permitted. Spectacle kits for insertion into full-face respirators will be provided for employees, as required.

4.2 The recommended general safety practices for working around the drilling subcontractor's equipment (i.e. drill rigs) are as follows:

- The drilling contractor's equipment will always be inspected prior to use to check for obvious structural damage, loose nuts and bolts, loose or missing guards, cable guides or protective covers, fluid leaks, damaged hoses, cables, pressure gauges or pressure relief valves, and damaged drilling tools and equipment. The equipment will also have a fire extinguisher. The drilling contractor shall report any potential problems with his equipment to the engineers Site Health and Safety Coordinator or his/her designee.

- Drilling and excavation of existing vegetation and sub-grade preparation will not be initiated without first clearing underground services such as electric, gas, water, telephone, sewer and cable television.

- Heavy equipment should not be operated within 20 feet of overhead wires. This distance may be increased if windy conditions are anticipated. The site should also be clear to ensure the project staff can move around the equipment safely.

- A drill rig must not be moved from site to site with the drill mast in the raised position.

- **Hard hats and safety boots must be worn at all times in the vicinity of the heavy equipment. Hearing protection is also recommended. Safety glasses are necessary.**

- The drilling contractor should keep the drilling location tidy. This will prevent personnel from tripping and will allow for fast emergency exit from the site.

- Drilling will be discontinued during an electrical storm.

4.3 Respiratory Protection

- During all drilling and sampling activities, ambient air will be screened with an Organic Vapor Meter (OVM). If reading greater than 25 ppm above background level is registered consistently for a 5 minute period, level C respiratory protection will be required.

- If readings greater than 50 ppm above background, work will be halted and Health and Safety issues will be re-evaluated.

4.4 Drilling on the Market Basket Site

- Level C respiratory protection will be worn to screen dust and airborne particulates while drilling.

- Earplugs are recommended for all personnel during drilling activities.

- An exclusion zone will be flagged around the drilling rig while drilling at perimeter locations in close proximity to nearby residences.

- Decontamination of drilling equipment will be performed by steam cleaning at the decontamination area between such soil boring/monitoring well location.

5.0 PERSONAL PROTECTIVE EQUIPMENT

5.1 PROTECTION LEVELS

Personnel must wear protective equipment when work activities involve known or suspected contamination; when vapors or particulate matter may be generated; or when direct contact with contaminants may occur.

Based upon current information regarding both the contaminants suspected to be present at the Property site and the various tasks that are included in the SI, the minimum required levels of protection shall be as identified in Table 5-1.

Table 5-1
LEVELS OF PROTECTION

Activity	Respirator**	Clothing	Gloves	Boots	Other
Drill Boreholes	D/C	Field/D	L	Steel Toe Work Boots	Hard Hat, Dust Mask, Safety Glasses
Install Monitoring Wells	D/C	Field/D	L	Steel Toe Work Boots	Safety Glasses, Hard Hat, Dust Mask
Monitor Ground Water Elevation	D/C	Field/D	L	Steel Toe Work Boots	Safety Glasses, Hard Hat, Dust Mask
In-situ Hydraulic conductivity Testing	D/C	Field/D	L	Steel Toe Work Boots	Hard Hat, Dust mask, Safety Glasses
Collect Ground Water Samples	D/C	Field/D	L	Steel Toe Work Boots	Safety Glasses, Hard Hat

NOTES:
(1) L = Latex
(2) At the discretion of the Site Health and Safety Officer, respirators will be donned whenever potentially contaminated airborne particulate (i.e., dust) are generated in significant amounts in the breathing zone.
- Respiratory protection shall correspond to guidelines presented in this table. The Level C requirement is an air-purifying cartridge respirator equipped with Organic Compounds/Dust cartridges.

6.0 COMMUNITY AIR MONITORING PLAN

Real-time air monitoring, for volatile compounds and particulate levels at the perimeter of the work area will be monitored.

- Volatile organic compounds must be monitored and recorded at the downwind perimeter of the work area daily at 2 hour intervals. If total organic vapor levels exceed 5 ppm above background, work activities must be halted.

Vapor Emission Response Plan

If the ambient air concentration of organic vapors exceed 5 ppm above background at the perimeter of the work area, activities will be halted and monitoring continued. If the organic vapor level decreases below 5 ppm above background, work activities can resume but more frequent intervals of monitoring, as directed by the Safety Officer, must be conducted. If the organic vapor levels are greater than 5 ppm over background but less than 25 ppm over background at the perimeter of the work area, activities can resume provided:

- the organic vapor level 200 ft. downwind of the work area or half the distance to the nearest residential or commercial structure, whichever is less, is below 5 ppm over background, and
- more frequent intervals of monitoring, as directed by the Safety Officer, are conducted.

If the organic vapor level is above 25 ppm at the perimeter of the work area, activities must be shutdown. When work shutdown occurs, downwind air monitoring as directed by the Safety Officer will be implemented to ensure that vapor emission does not impact the nearest residential or commercial structure at levels exceeding those specified in the Major Vapor Emission section.

Major Vapor Emission

If any organic levels greater than 5 ppm over background are identified 200 feet downwind from the work area or half the distance to the nearest residential or commercial property, whichever is less, all work activities must be halted.

If, following the cessation of the work activities, or as the result of an emergency, organic levels persist above 5 ppm above background 200 feet downwind or half the distance to the nearest residential or commerical property from the work area, then the air quality must be monitored within 20 feet of the perimeter of the nearest residential or commercial structure (20 Foot Zone).

If efforts to abate the emission source are unsuccessful and if the following levels persist for more than 30 minutes in the 20 Foot Zone, then the Major Vapor Emission Response Plan shall automatically be placed into effect:

- if organic vapor levels are approaching 5 ppm above background.

However, the Major Vapor Emission Response Plan shall be immediately placed into effect if organic vapor levels are greater than 10 ppm above background.

Major Vapor Emissioin Response Plan

Upon activation, the following activities will be undertaken:

1. All Emergency Response Contacts as listed in the Health and Safety Plan of the Work Plan will go into effect.
2. The local police authorities will immediately be contacted by the Safety Officer and advised of the situation.
3. Frequent air monitoring will be conducted at 30 minute intervals within the 20 Foot Zone. If two successive readings below action levels are measured, air monitoring may be halted or modified by the Safety Officer.

7.0 DECONTAMINATION

Personnel and equipment will be decontaminated with a mixture of alconox (or similar detergent) and water prior to leaving the site. All equipment will be steam cleaned and sampling equipment will be washed after each sample to prevent cross-contamination.

8.0 EMERGENCY PROCEDURES AND CONTACTS

8.1 Emergency Procedures

The following standard emergency procedures will be used by onsite personnel. The Site Safety Officer shall be notified of any onsite emergencies and be responsible for ensuring that the appropriate procedures are followed.

Personal Injury in the Work Zone: Upon notification of an injury in the Work Zone, the designated emergency signal of three blasts of a horn shall be sounded. All site personnel shall assemble at designated area determined prior to start of project. The Site Safety Officer and Project Team Leader should evaluate the nature of the injury, and the affected person should be decontaminated to the extent possible prior to movement. Contact will be made for an ambulance and with the designed medical facility. No persons shall reenter the work area until the cause of the injury or symptoms is determined.

Upon notification of an injury in the work area, the Project Team Leader and Site Safety Officer will assess the nature of the injury. If the cause of the injury or loss of the injured person does not affect the performance of site personnel, operations may continue, with the EMT initiating the appropriate first aid and necessary follow-up as stated above. If the injury increases the risk to others, the designated emergency signal of three blasts of a horn shall be sounded and all site personnel shall move to the designated area determined prior to start of project. Activities on site will stop until the added risk is removed or minimized.

Fire/Explosion: Upon notification of a fire or explosion on site, the designated emergency signal, two long blasts of a horn, shall be sounded and all site personnel assembled. The fire department shall be alerted and all personnel moved to a safe distance from the involved area.

Personal Protective Equipment Failure: If any site worker experiences failure or alternation of protective equipment that affects the protection factor, that person and his/her buddy shall immediately leave the area. Reentry shall not be permitted until the equipment has been repaired or replaced.

Other Equipment Failure: If any other equipment on site fails to operate properly, the Project Team Leader and Site Safety Officer shall be notified and then determine the effect of this failure on continuing operations on site. If the failure affects the safety of personnel or prevents completion of the Work Plan tasks, all personnel shall leave the area until the situation is evaluated and appropriate actions taken.

In all situations, when onsite emergency results in evaluation of the work area, personnel shall not re-enter until:

1. The conditions resulting in the emergency have been corrected.
2. The hazards have been reassessed.
3. The Site Safety Plan has been reviewed.
4. Site personnel have been briefed on any changed in the Site Safety Plan.

8.2 A list of emergency phone numbers follows:

Agency/Facility	Phone #	Contact
Police	315-789-1111	Desk Sargent
Fire	315-789-6966	Dispatcher
Hospital	315-789-4500	Emergency Room

All site personnel have read the above plan and are familiar with its provisions.

	(name)	(signature)
Site Safety Officer	_____	_____
Project Team Leader	_____	_____
Other Site Personnel	_____	_____

Appendix 6

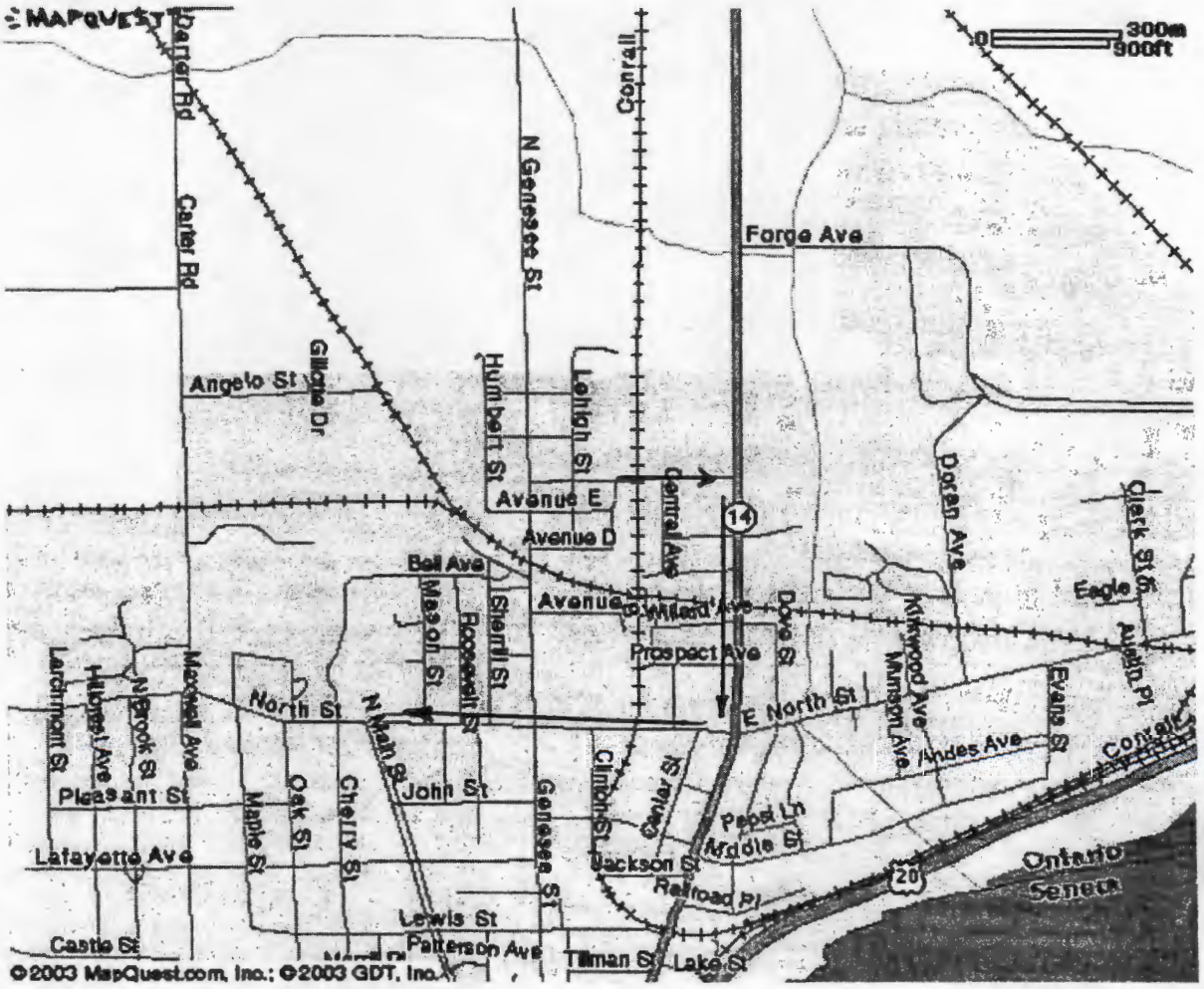
Route Map to Hospital

MAPQUEST.

Send To Printer Back to Map

Geneva NY
US

Notes:



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NAVTECH ON BOARD

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