

Niagara Mohawk

A **National Grid** Company



November 21, 2002

Robert W. Schick, P.E.
Chief, MGP Section
New York State Department of Environmental Conservation
625 Broadway
Albany, New York 12233

Re: Albany (Grand Street) Non-Owned Former MGP Site, Site No. V00466-4
Final Site Specific Work Plan for Site Characterization

Dear Mr. Schick:

Enclosed are four copies (one unbound) of the Albany (Grand Street) Non-Owned Former MGP Site Specific Work Plan for Site Characterization (Albany SC Study Work Plan) revised November 2002. The Albany SC Study Work Plan is being distributed in accordance with Section XIII. Communications of the Voluntary Agreement Index Number D0-0001-0011 effective January 25, 2002.

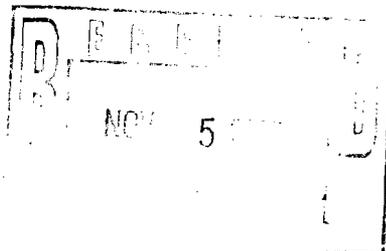
If you have any questions regarding the Albany SC Study Work Plan, you may contact me at (315) 428-3101.

Sincerely,

James F. Morgan
Environmental Analyst

:jfm
enclosure

cc: Mr. Walter F. Wintsch, New York State Department of Environmental Conservation, Region 4
Mr. Dale A. Desnoyers, Esq., New York State Department of Environmental Conservation
Mr. Gary Litwin, New York State Department of Health (2 copies)
Mr. William J. Holzhauer, Esq., Niagara Mohawk, a National Grid Company
Mr. Michael W. Sherman, Niagara Mohawk, a National Grid Company



Environmental Affairs, A-2
300 Erie Boulevard West
Syracuse, New York 13202
(315) 428-3101 Fax: (315) 460-9644
James.F.Morgan@us.ngrid.com

ALBANY (GRAND STREET) NON-OWNED FORMER MGP SITE

ALBANY, NEW YORK

**Site-Specific Work Plan
For
Site Characterization**

**October 2001
Revised November 2002**

Prepared for:

Niagara Mohawk

A National Grid Company



Niagara Mohawk, A National Grid Company
300 Erie Boulevard West
Syracuse, New York

Prepared by:

FOSTER  WHEELER

Foster Wheeler Environmental Corporation
One Park Place
300 South Street, Suite 620
Syracuse, New York

TABLE OF CONTENTS

<u>Section</u>	<u>Title</u>	<u>Page No.</u>
1.0	INTRODUCTION.....	1
2.0	SITE DESCRIPTION	1
2.1	Site History.....	2
2.2	Current Conditions.....	4
3.0	SCOPE OF INVESTIGATION.....	4
4.0	HEALTH AND SAFETY INFORMATION.....	9
5.0	PROJECT SCHEDULE	9
6.0	REFERENCES	9

Figures

Figure 1	Site Location Map.....	1
Figure 2	1892 Sanborn Map.....	3
Figure 3	Site Characterization Sampling and Test Pit Locations.....	5
Figure 4	Project Schedule	10

Tables

Table 1	Summary of Laboratory Analyses for Site Characterization	7
---------	--	---

Attachments

Attachment A	Hospital Route Map
Attachment B	Emergency and Site Contacts

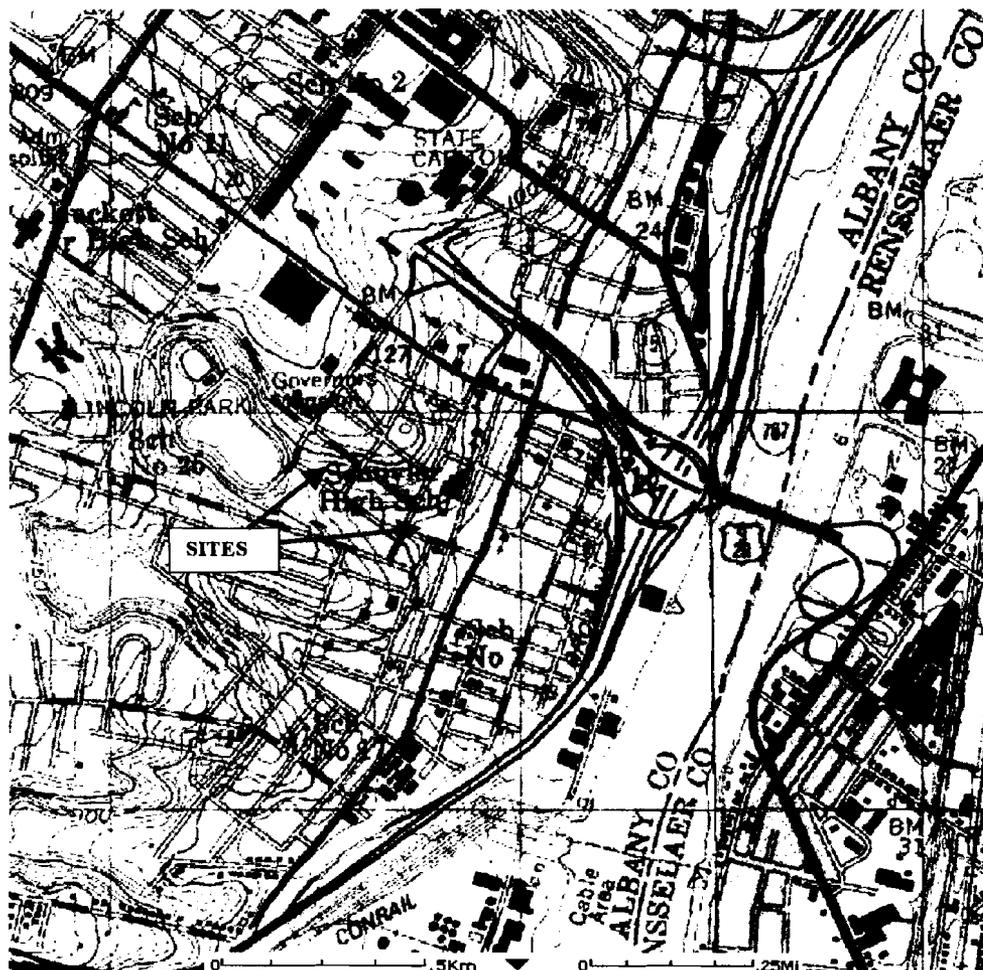
1.0 INTRODUCTION

This Work Plan presents the Site-specific scope of investigation activities and health and safety considerations for the Albany (Grand Street) Non-owned Former Manufactured Gas Plant (MGP) Site. The purpose and objectives of the investigation, rationale for the investigation approach, data quality objectives, field investigation procedures, quality assurance/quality control (QA/QC) requirements, and generic health and safety requirements are presented in the Generic Work Plan for Non-owned Former MGP Sites (Volume II).

2.0 SITE DESCRIPTION

The main historical MGP operations at the Albany Former MGP Site were located at 150 Grand Street, Albany County, Albany, New York and are comprised of approximately 4 acres. Two additional properties associated with the former MGP site are located approximately ½ block west-northwest of the Site on Park Avenue. The sites are approximately in the middle of the block (Park Avenue) on both north-northeast (approximately 0.3 acre in size) and south-southwest (approximately 1 acre in size) sides of the street. Figure 1 illustrates the location of the properties on the USGS 7.5 minute Albany Quadrangle map.

Figure 1. Site Location Map



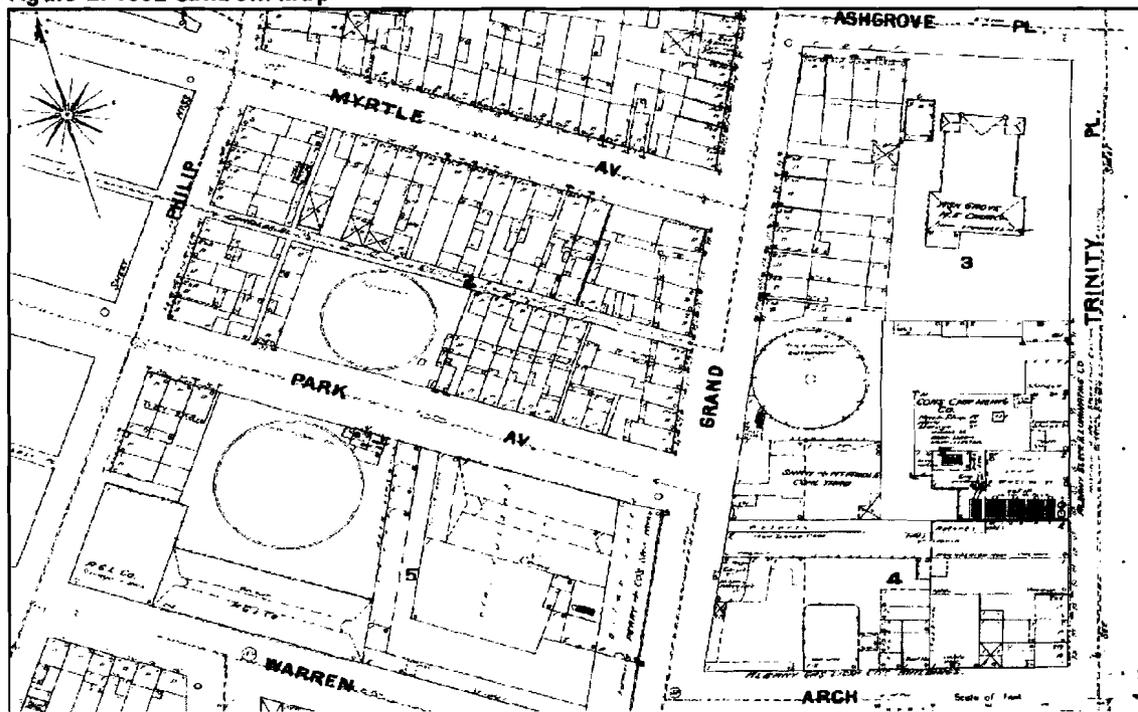
2.1 Site History

Foster Wheeler Environmental performed a review of eight Sanborn Fire Insurance maps, (1892, 1909, 1934, 1950, 1989, 1990, 1993, and 1995) depicting the Sites located along Grand Street and Park Avenue. Information on the property north-northeast of Park Avenue is not illustrated after the 1892 Sanborn map. Sanborn maps and other third party documentation are provided for informational purposes only, and Niagara Mohawk (NM) does not warrant the accuracy of such information. The results of the review are discussed, by years, below.

1892 The main MGP operations of the Albany Gas Light Co. are located in the vicinity of Trinity Place, Arch Street, and Grand Street, with additional gasometers on both sides of Park Avenue (see Figure 2). Property owned by the Albany Gas Light Co. is also noted along Warren Street, and the corners of Philip and Warren Streets and Arch and Clinton Streets (vacant). The buildings adjacent to Trinity Place include the Construction Car Heating Co. (Albany Electric Illumination Co.), retorts, storage areas, and residential structures. The buildings adjacent to Arch Street include vacant properties and the tool house. The buildings adjacent to Grand Street include vacant areas, carpenter and blacksmith shops, retorts, the Shaw and McArdle Coal Yard, and a brick enclosed gasometer (approximately 100 ft. in diameter). On the corner of Warren and Philip Streets, the Albany Gas Light Co building is used as a storage area and the property adjacent (east-southeast) to the storage area is vacant. Two gasometers are located along Park Avenue, one each north-northeast (approximately 100 ft. in diameter) and bounded by Charles Street and south-southwest (approximately 130 ft. in diameter) of the road. An office and valve house are illustrated south-southwest of Park Avenue, adjacent to the gasometer.

1909 The property formerly occupied by the Construction Car Heating Co. is now the Albany Electric Illuminating Company. The retorts are no longer shown on the map. The storage area (buildings) adjacent to the corner of Arch Street and Trinity Place is part of the Albany Gas Light Co. buildings. West-northwest of these buildings (corner of Grand and Arch Streets) is now a commercial structure (Beiermeister Brothers Co.) which produces shirts. The former coal yard adjacent to Grand Street is no longer shown; however, a commercial building and a coal trestle area where the coal yard was formerly located. A brick enclosed gasometer is illustrated along Grand Street. Also, the vacant building on the corner of Arch and Clinton Streets is no longer owned by Albany Gas Light Co. The iron gasometer located south-southwest of Park Avenue is labeled no longer in use. The Albany Gas Light Co. no longer owns the buildings adjacent to Warren Street. The building is used for wagon storage. The corner property (Warren and Philip Streets) is used for wagon storage and as stables.

Figure 2. 1892 Sanborn Map



1934 The main property along Grand Street is now owned by the New York Power & Light Corporation. The gasometer, adjacent to Grand Street, is now labeled as storage and the steel truss is noted. Also, the former A.E.I. Co. is now named the Trinity Substation, but is still owned by the New York Power & Light Corp. The building along Arch Street is owned by F. Jacobson & Sons and is a shirt factory.

McArdle & Casazza now own the entire lot between Park Avenue and Warren Street. The iron gasometer south-southwest of Park Avenue is no longer shown on the map and the office building, which was located in this lot, is vacant. A large garage occupies the property along Warren Street. The corner property of Warren and Philip Streets is occupied by an auto wrecking company.

1950 The facility is now owned by NM and contains the Trinity Substation. A private auto repair is also illustrated on the site along with storage.

The office building, which was south-southwest of Park Avenue, is no longer shown on the map. An auto repair shop is located where the iron gasometer and office building were formerly located. A garage is located along Warren Street behind the auto repair building and a private garage is located on the corner of Warren and Philip Streets.

1989 The gasometer and buildings on the main MGP site (on Grand Street) are no longer shown on the map. A NM substation occupies the property between Grand Street and Trinity Place.

An auto junkyard and a garage occupy the property between Park Avenue and Warren Street. A beverage company now occupies the corner of Warren and Philip Streets.

1990 The site appears the same as noted on the 1989 Sanborn map.

1993 The site appears the same as noted on the 1990 Sanborn map.

1995 The site appears the same as noted on the 1993 Sanborn map.

Based on a review of the "Survey of Town Gas and By-product Production and Locations in the U.S (1880-1950)", limited information is available for the Albany Former MGP Site. Gas was manufactured between 1890 and 1900, which is confirmed by the Sanborn maps; however no data were reported between 1910 and 1920.

2.2 Current Conditions

The property located at 150 Grand Street is currently an active NM electrical substation. The property where the former gasometer was located (19 Park Avenue) north-northeast of Park Avenue is currently occupied by the Plesser Brothers, a waste paper and metal company. The property contains two buildings with limited access and the surface is covered with asphalt. The nearest surface water body is the Hudson River, located less than ½ mi east of the Site. The nearest inactive hazardous waste sites and spill sites from the Site are located over 1 mi and less than ¼ mi from the Site, respectively (EDR, 2000).

3.0 SCOPE OF INVESTIGATION

The scope of the Site Characterization of the Albany (Grand Street) Non-owned Former MGP Site is described below. Preliminary sample locations are shown on Figure 3. Field activities will be performed in accordance with the Generic Plans (Volume II).

The Site Characterization at the Albany (Grand Street) Site will include the following:

1. Advancement of twenty-nine (29) soil borings; of which nineteen (19) will be advanced to a target depth of 30 feet below ground surface (bgs); nine (9) are located within the former gas holders and will be advanced to a target depth of 20 feet bgs; and one will be completed to the top of bedrock, or the first confining layer to a target depth of 40 feet bgs to assess subsurface conditions. If soil samples indicate the presence of MGP impacts, the soil borings will be advanced deeper until there is reasonable assurance we are beyond the zone of impact. The locations of the borings will be determined based on access limitations due to the urban nature of the Site. Soil sampling locations will be biased towards the holder areas, including borings inside the holders (center and perimeter) to determine the presence of DNAPL or impacted material in the holder and the configuration/construction material of the holder foundation (e.g., sloped, cone, etc.). Since the Site is three separate parcels, an upgradient background location will be designated for each parcel. If impacts are not observed at the bottom of the holder soil borings will be cased off and continued through the holder foundation. Soil borings installed within holders will be advanced to at least 5 ft below the bottom of the holder, and will be continued if MGP impacts are observed.



2. Ten (10) of the soil borings will be converted into monitoring wells. The position of three (3) of these borings will be downgradient of the holder areas to detect impacts, in groundwater, if any, from these former structures and on-site operations. Two (2) upgradient locations, one each for the Park Avenue parcels and the Grand Street parcel have been designated. The wells will be oriented for the collection of water level measurements to ascertain groundwater flow direction and to obtain representative groundwater samples. The wells will be constructed of 2-inch PVC Schedule 40 screen and riser, with a target depth of 30 feet. Well installed in areas where DNAPL is encountered will be equipped with a sump to collect mobile DNAPL, if present. If a confining geologic unit or bedrock is encountered during borings for monitoring well installation, the drilling program will be reevaluated. The nature and depth of the confining layer and the possible presence of subsurface impacts will be evaluated prior to continuation of the boring.
3. Excavation of nine (9) test pits; two (2) located across opposite walls of each of the three (3) gas holders, and one inside each of the three (3) gas holders to determine the location, dimensions, construction of these former MGP structures, and whether MGP impacts are still present. If unusual material is observed during excavation of test pits, a sample may be collected of the material, at the discretion of the on-site geologist, Niagara Mohawk, and NYSDEC.
4. Surface soil samples (a total of ten, including five background locations) will be collected (0 to 2 inches bgs). Locations of surface soil samples will be determined based on Site reconnaissance since most of the Site parcels are completely covered with asphalt and/or buildings. The background locations will be determined in the field based on consultation with NM and NYSDEC. Surface soil sample locations will be biased toward areas most frequented by people.
5. Analytical samples will be collected from specific sample locations/intervals based on field observations at the following frequency: 1) up to three (3) soil samples from each soil boring and monitoring well location will be analyzed for BTEX, PAHs and CN (total and amenable); 10% of these subsurface soil samples will be analyzed for the suite of Target Compound List (TCL) and Target Analyte List (TAL) constituents. Soil samples from the Grand Street Site will also be analyzed for PCBs; 2) one soil sample will be collected from each borehole and analyzed for total organic carbon (TOC); 3) two (2) rounds of groundwater samples from each of the wells will be analyzed for full TCL/TAL parameters; 4) surface soil samples will be analyzed for full TCL/TAL parameters (including total and amenable CN), and TOC; 5) two (2) Shelby tube samples will be collected for analysis of geotechnical parameters (i.e., porosity, permeability, bulk density, grain size, Atterberg limits, percent moisture, and specific gravity); and 6) based on field observations, samples from the holder borings and others may be designated for GC fingerprint analysis, particularly if non-MGP impacts are suspected (a holder sample will then serve as a "background" for fingerprint comparison). See Table 1 for analytical testing details.
6. A baseline ground survey of the Site will be performed to develop a base map of the Site for development of the Site GIS and for presentation of data. This baseline survey will encompass surveying surface features, elevations (2-foot contours), underground utilities,



structures, materials of construction, easements, property lines, and other relevant information located within the survey limits identified by Foster Wheeler Environmental for the Site. The second phase, Post Investigation Survey, will be conducted after Foster Wheeler Environmental conducts Site Characterization at the Site. Upon completion of the field investigation activities, a Post Investigation Survey will be performed and will include the survey of wells installed, soil borings drilled, test pit excavated, and sampling locations.

7. Analytical data from the Site Characterization will be obtained from the laboratories in GIS-compatible format and imported into GIS\Key™ for data tracking, analysis and presentation. Within the GIS, data will be compared to regulatory limits (e.g., TAGM 4046 for soils, etc.). Maps depicting the groundwater flow direction and the soil and groundwater analytical data will be developed in the GIS for incorporation into the Site Characterization Report; the figures will provide a summary of the data as well as highlighting regulatory exceedances. Boring logs and cross sections will also be developed in the GIS based on the field data for presentation in the Site Characterization Report. In the event upon review of the data generated, additional investigation is needed at the Site, we will negotiate with the NM PM a reduced deliverable (Data Deliverable) to the NYSDEC.
8. The analytical data generated from the field activities will undergo data validation. A Data Usability Summary Report (DUSR) will be prepared following completion of the data validation task.

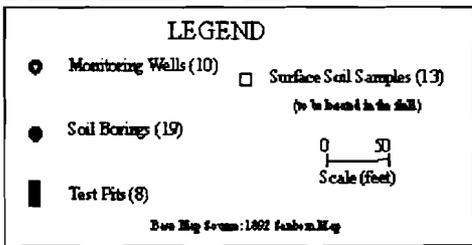
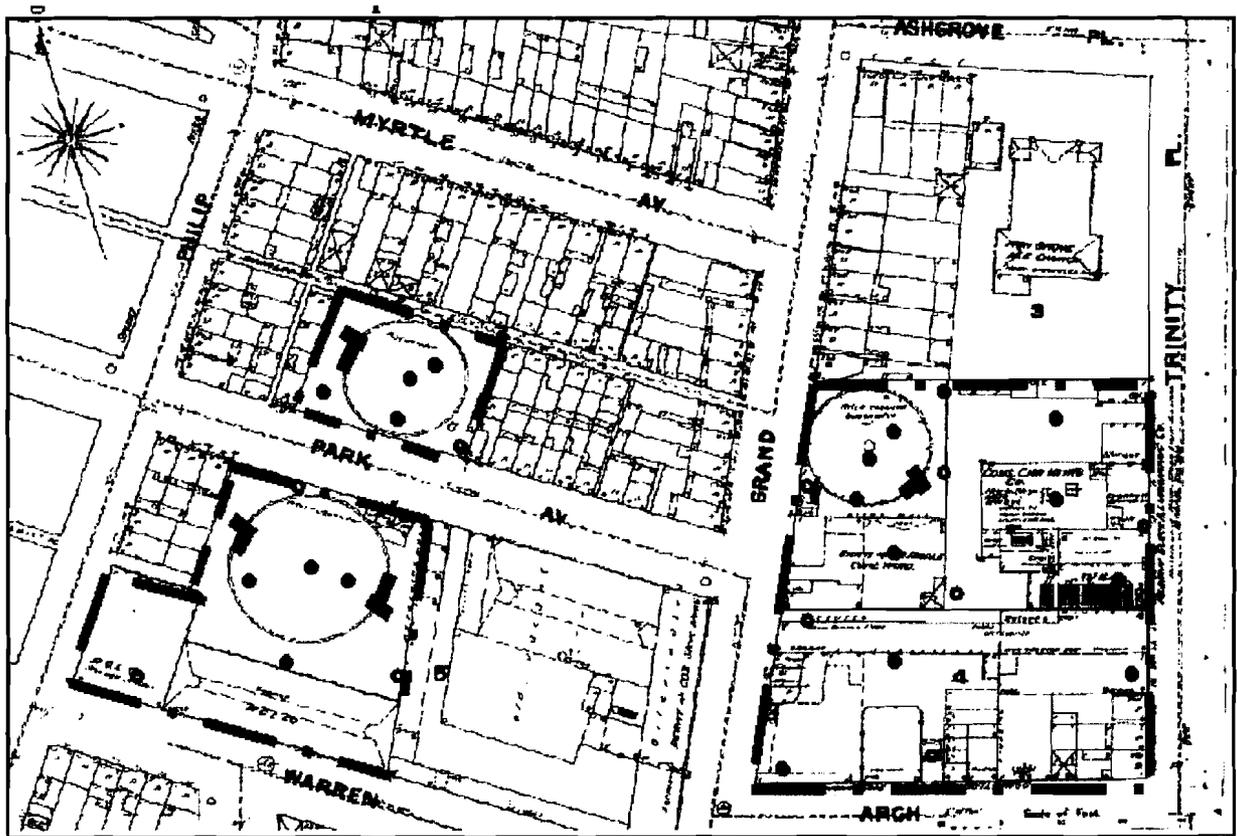


Figure 3
Site Characterization Sampling
and Test Pit Locations

TABLE 1
Summary of Laboratory Analyses for Site Characterization
Albany (Grand Street) Non-owned Former MGP Site

Subtask	Sample Matrix	Laboratory Analysis	Field QC Samples			Laboratory QC Samples			
			No. of Samples	Trip Blanks ³	Field Duplicates	Equipment/Field Blanks	MS/MSD ¹	MSB/LCS ²	Total
Surface Soil	Soil	TCL VOCs, SVOCs, TAL metals, TOC	13	0	1	1	1/1	1/1	19
Subsurface Soil	Soil	BTEX, PAHs, CN ⁻	87	0	5	5	5/5	5/5	117
		TOC	29	0	0	0	0	0	29
		GC Fingerprint	1	0	0	0	0	0	1
		TCL VOCs, SVOCs, PCBs/Pest. TAL metals,	9	0	1	1	1	1/1	14
		Geotechnical parameters ⁴	2	0	0	0	0	0	2
Groundwater	Water	TCL VOCs, SVOCs, TAL metals,	20 ⁶	6	2	2	2/2	2/2	38

NOTES:

- ¹ MS/MSD: matrix spike/matrix spike duplicate.
- ² MSB/LCS: matrix spike blank/laboratory control sample.
- ³ Trip blanks will be analyzed for TCL VOC parameters only.
- ⁴ Porosity, permeability, bulk density, grain size, Atterberg Limits, % moisture and specific gravity.
- ⁵ Based on two rounds of groundwater sampling.

4.0 HEALTH AND SAFETY INFORMATION

Health and safety requirements for Site Characterization activities are provided in the Generic Health and Safety Plan (Volume II). The Site-specific Hospital Route Map and Emergency and Site Contacts are provided as Attachments A and B, respectively, to this Work Plan.

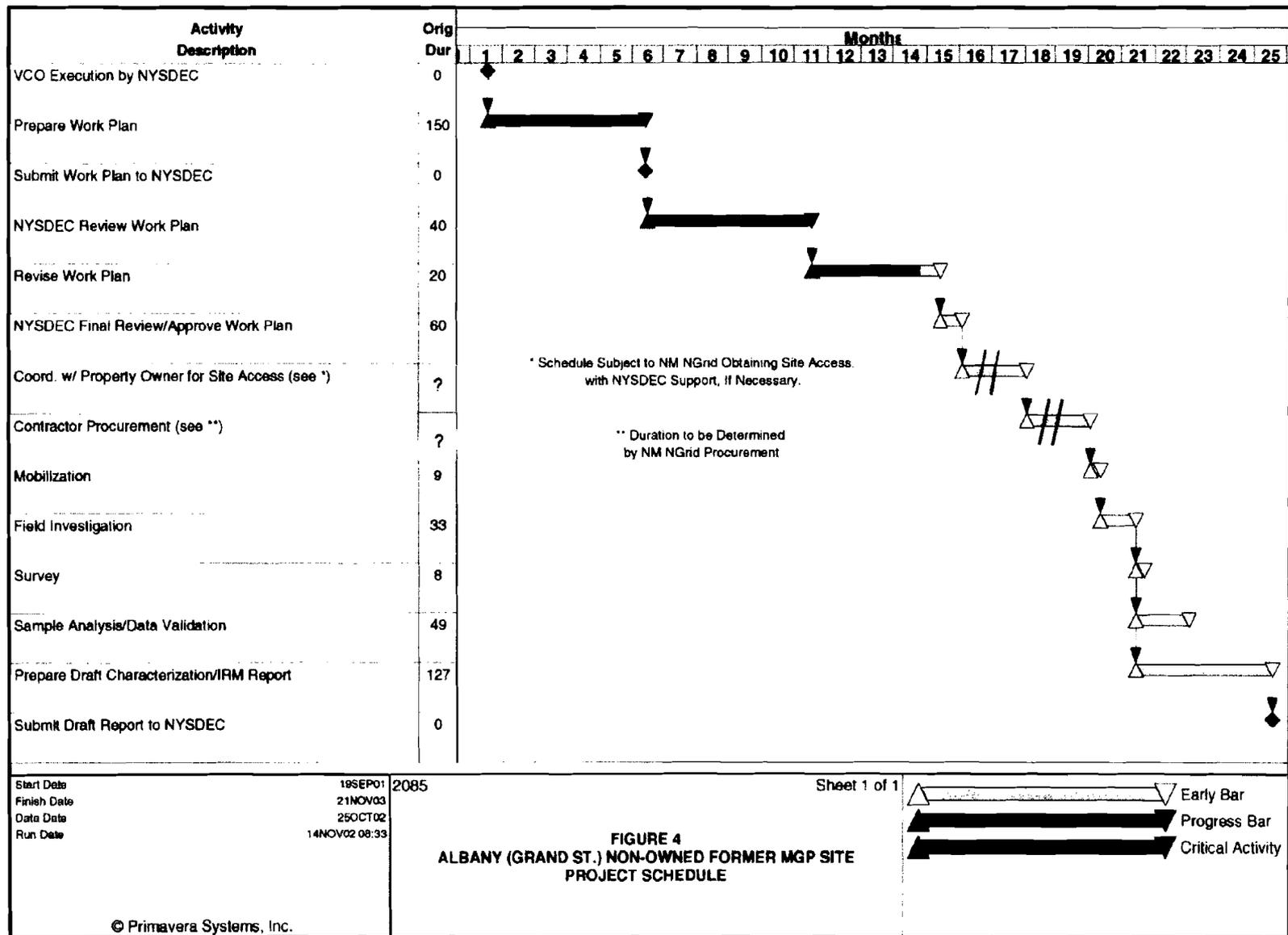
5.0 PROJECT SCHEDULE

The schedule for implementation of the Albany (Grand Street) Non-owned Former MGP Site Characterization activities is provided in Figure 4. This conceptual project schedule identifies major milestones for the overall Site Characterization for the Albany (Grand Street) Non-owned Former MGP Site. Under the Voluntary Cleanup Order, NM is concurrently performing Site Characterization activities at a number of Sites. In order to complete these investigations as efficiently as possible, NM may adjust the schedule of intermediate activities (e.g., field investigation, survey, etc.) at the Albany (Grand Street) Non-owned Former MGP Site to allow these activities to be performed sequentially with other Sites in the proximity to the Albany (Grand Street) Non-owned Former MGP Site.

6.0 REFERENCES

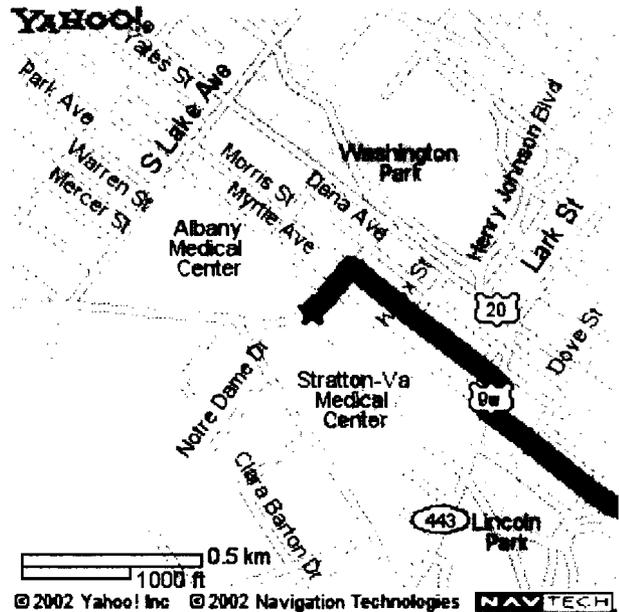
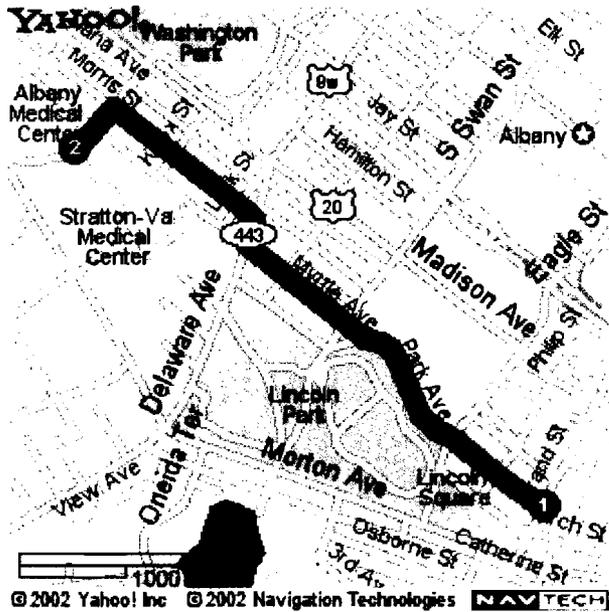
Radian, 1985: Survey of Town Gas and By-Product Productions and locations in the U.S. (1880–1950), Robert Eng, Radian Corporations for USEPA (EPA/600/7-85/004), February 1985.

EDR, 2000: The EDR-Radius Map with GeoCheck® - Albany Site, Arch St/Grand St/Park Ave, Albany, New York 12202; Environmental Data Resources, Inc. (EDR), August 21, 2000.



**ATTACHMENT A
HOSPITAL ROUTE MAP**

ALBANY MEDICAL CTR
43 NEW SCOTLAND AVE
ALBANY, NY 12208 US
518-262-3125



DIRECTIONS:

1. - Start on **GRAND ST** 0.0 miles
2. - Turn Right on **PARK AVE** 0.5 miles
3. - Continue on **MYRTLE AVE** 0.3 miles
4. - Turn Right on **DELAWARE AVE** 0.1 miles
5. - Turn Left on **MORRIS ST** 0.3 miles
6. - Turn Left on **NEW SCOTLAND AVE** 0.1 miles

ATTACHMENT B
EMERGENCY AND SITE CONTACTS

EMERGENCY AND SITE CONTACTS

CONTACT	FIRM OR AGENCY	TELEPHONE NUMBER
Police		911
Fire		911
Hospital	Albany Medical Center 43 New Scotland Ave Albany, NY 12208	518-262-3125
Ambulance		911
NM Project Manager Jim Morgan	Niagara Mohawk	315-428-3101
NM Safety Department William Todeschini	Niagara Mohawk	315-460-1303
Foster Wheeler Environmental Project Manager Kyle Thomas	Foster Wheeler Environmental Corp.	315-472-0063
Foster Wheeler Environmental Project Environmental and Safety Manager Grey Coppi	Foster Wheeler Environmental Corp.	215-702-4079
Foster Wheeler Environmental FOL John Imhoff	Foster Wheeler Environmental Corp.	973-452-4279 (Field Cell Phone)
NYSDEC Project Manager William Ottaway	New York State Department of Env. Conservation	518-402-9686
NYSDOH Project Manager Maureen Schuck	New York State Department of Health	518-402-7890
Chemtrec		800-424-9300
National Response Center		800-424-8802
NYSDEC Spill Hotline	NYSDEC	800-457-7362 518 457-7362
Poison Control Center		800-336-6997
Underground Facility Protective Organization	UFPO	800-962-7962
Utility Emergencies (Electric & Gas)	Niagara Mohawk	800-932-0301

The Emergency Phone Numbers listed are preliminary. Upon mobilization, the FOL will verify all numbers, and document the changes in the Site Logbook. Any changes will also be documented with a field change request form and appended to this Site-Specific Work Plan.