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REMEDIAL DESIGN
WORK PLAN

APPROVED
6/29/04

AMERICAN CLEANERS SITE
SITE NO. 7-04-030
BINGHAMTON, NEW YORK

WORK ASSIGNMENT NO. D003600-39

PREPARED FOR

NEW YORK STATE DEPARTMENT
OF ENVIRONMENTAL CONSERVATION

BY

DVIRKA AND BARTILUCCI CONSULTING ENGINEERS
WOODBURY, NEW YORK

JUNE 2004

REMEDIAL DESIGN
WORK PLAN

AMERICAN CLEANERS SITE

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Section 1

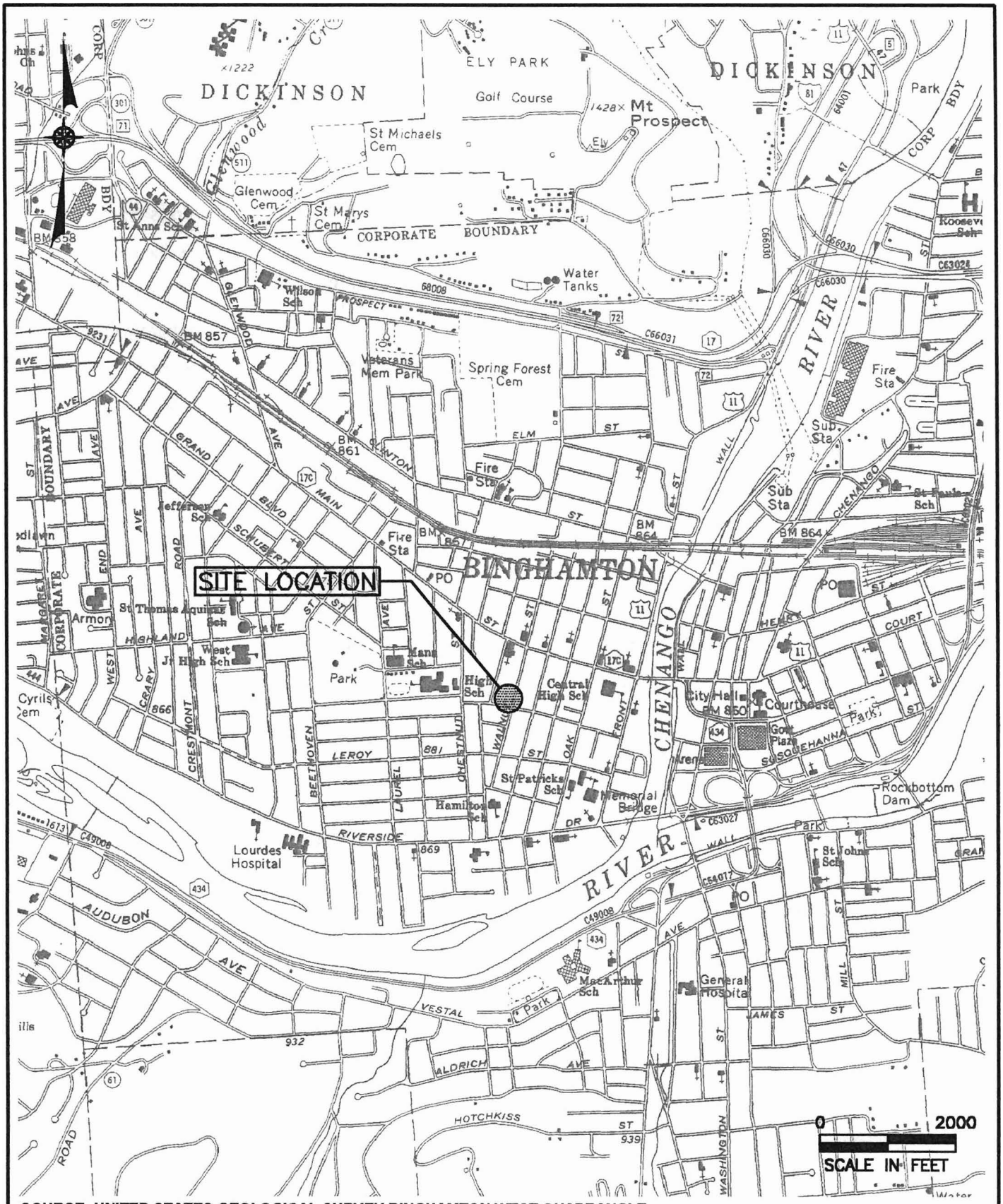
1.0 INTRODUCTION

As part of New York State's program to investigate and remediate hazardous waste sites, the New York State Department of Environmental Conservation (NYSDEC) has issued a work assignment to Dvirka and Bartilucci Consulting Engineers of Woodbury, New York under its Superfund Standby Contract with NYSDEC to provide a scope of services and budget to prepare a remedial design for the American Cleaners Site located in Binghamton, New York (see Figure 1-1). The site is a Class 2 New York State Superfund site (Registry No. 7-04-030).

The major elements of the American Cleaners Site remedy, as presented in the Record of Decision (ROD), are as follows:

1. Demolition of all aboveground and below-ground structures at the site.
2. Excavation and off-site disposal of contaminated soil.
3. Site restoration, including backfill of excavations and foundation areas, and placement of 6 inches of topsoil to promote vegetation cover and seeding.

Remediation of the American Cleaners Site is being performed with funds allocated under the New York State Superfund Program. This Work Plan includes a detailed description of the project tasks, a project schedule and budget for the project. In addition, key project milestones are identified and D&B project team organization is presented.



SOURCE: UNITED STATES GEOLOGICAL SURVEY BINGHAMTON WEST QUADRANGLE

AMERICAN CLEANERS SITE REMEDIAL DESIGN
BINGHAMTON, NEW YORK

SITE LOCATION MAP

Dvirka and Bartilucci CONSULTING ENGINEERS
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FIGURE 1-1

Section 2

2.0 SITE HISTORY AND BACKGROUND

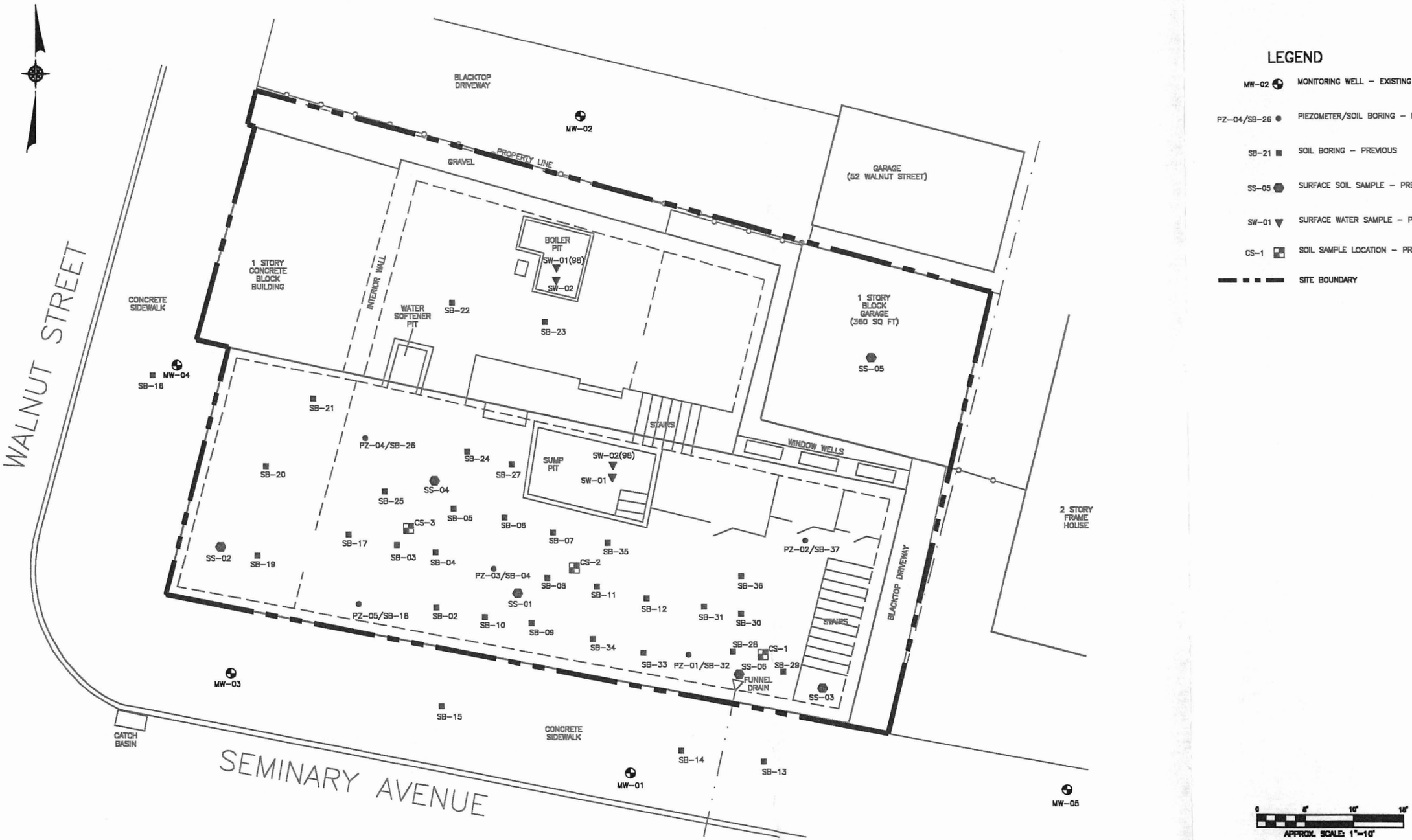
The American Cleaners Site is an abandoned dry cleaner located at 48-50 Walnut Street in the City of Binghamton, Broome County. The site is approximately 0.1 acre in size and is bounded on the north by a house and driveway, on the south by Seminary Avenue, on the east by a house and on the west by Walnut Street. The site is occupied by a dilapidated 1-story masonry building that is attached to a 2-story wooden building and a smaller masonry block building. The site layout is shown on Figure 2-1.

The dry cleaner closed in 1991, and the site has been vacant since that time. In 1998, a records search conducted by the NYSDEC revealed that tetrachloroethene (PCE) was stored and disposed at the site. The PCE was stored in a 275-gallon tank in the basement of the main building for use as the dry cleaning solvent. Based on a site visit by D&B in March 2004, it appears that all storage tanks have been removed from the site. Substantial amounts of dry cleaning solvents were spilled, reportedly due to poor housekeeping practices. The spilled solvents contaminated soil and groundwater underlying the building, apparently through three sumps identified in the building basement.

According to information from the NYSDEC, other dry cleaning equipment and solvents were also stored in the small masonry building at the site. The specific materials and quantities that were stored in this building are unknown.

To date, five environmental investigations have been conducted at the site. The first of these was an environmental assessment conducted in April 1995. As part of this assessment, a composite soil sample was found to contain PCE at a concentration exceeding 200 milligrams per kilogram (mg/kg). The NYSDEC Recommended Soil Cleanup Objective (RSCO) for PCE is 1.4 mg/kg.

In May 1995, five soil samples were collected for analysis of PCE only. Detected concentrations ranged from 1.4 mg/kg to 410 mg/kg.



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AMERICAN CLEANERS SITE REMEDIAL DESIGN
BINGHAMTON, NEW YORK

SITE LAYOUT

FIGURE 2-1

A subsurface investigation was conducted at the site by a prospective buyer in July 1995. Since soil contamination had previously been identified at the site, the purpose of this investigation was to evaluate groundwater quality. PCE and toluene were detected in soil vapor samples collected from four direct push sample locations. The detected concentrations were not reported. Since the direct push rig could not penetrate deeper than 6 feet below ground surface, no groundwater samples could be collected. The reported depth to groundwater at the site is approximately 12 feet below ground surface.

In February and March 1998, the NYSDEC conducted an Immediate Investigation Work Assignment (IIWA) at the site. The activities of the IIWA included:

- construction of four soil borings;
- collection of four subsurface soil samples for laboratory analysis;
- collection of five soil samples from beneath the foundation of the main building;
- collection of a surface soil sample from the floor of the smaller building;
- collection of one sediment sample and two water samples from two of the three sumps in the basement of the main building;
- construction of four piezometers to determine the site-specific groundwater flow direction; and
- construction and sampling of three groundwater monitoring wells.

The soil beneath the basement foundation was found to contain PCE at concentrations up to 4,400 mg/kg. PCE concentrations in groundwater ranged up to 24,000 micrograms per liter (ug/l). The NYSDEC Class GA groundwater standard for PCE is 5 ug/l.

Based on the results from these investigations, the American Cleaners Site was listed on the NYSDEC Registry of Hazardous Waste Sites (Site No. 7-04-30) in January 1999.

In November 2000, the NYSDEC conducted the initial phase of a remedial investigation (RI) at the site. The second phase of the RI was conducted in January and February 2001. The

field activities conducted during the RI included subsurface soil sampling to delineate the horizontal and vertical extent of contamination, construction of piezometers and monitoring wells to define the site-specific groundwater flow direction and characterize groundwater quality, and collection of indoor air samples from the main building to evaluate whether the volatile organic compounds (VOCs) detected beneath the building were impacting air quality within the building. The results of the RI were presented in a Remedial Investigation Report, dated July 2001. Based on the RI results, the contaminants of concern identified for this site are VOCs, in particular PCE, trichloroethene (TCE) and 1,2-dichloroethene (1,2-DCE). TCE and 1,2-DCE are breakdown products of PCE.

Potential remedial alternatives were identified, screened and evaluated in a Feasibility Study (FS) Report, dated May 2002. In November 2002, the NYSDEC issued a Record of Decision (ROD) which identified the selected remedy for the site. The selected remedy includes the following elements:

- remedial design program;
- demolition of all aboveground and below-ground structures;
- excavation and off-site disposal of contaminated soil; and
- site restoration, including backfill of open excavations and foundation areas, grading placement of 6 inches of topsoil and seeding.

Section 3

3.0 SCOPE OF WORK

The services to be provided by Dvirka and Bartilucci Consulting Engineers (D&B) include a pre-design investigation and preparation of plans and specifications (contract documents) for procurement of a remedial contractor. If requested by NYSDEC, D&B also will provide assistance with pre-award services, including attendance at a pre-bid conference and review of bids.

Because of the difficulty in accessing the basement of the American Cleaners building and the limited space available for excavation and removal of contaminated soil beneath the basement floor, and based on a site visit and comments provided by a remedial contractor, the approach to the remedial design will involve demolition of the building and cover of the area to be excavated with a sprung structure to allow access to the area of soil contamination and to control the release of vapors during excavation. Based on the data obtained during the remedial investigation, definition of the aerial extent of contaminated soil to be removed appears to be adequate for design purposes.

The major elements of the remedial design are the following:

- Above and below ground building demolition and excavation of contaminated soil
- Contaminated soil and building demolition debris removal and proper off-site disposal

  Backfill of excavated area with clean soil, including topsoil, seed and mulch.

The goal of the remedial action is to provide unrestricted use of the site, which would require removal of all soil containing contaminants at concentrations above the NYSDEC Technical and Administrative Guidance Memorandum (TAGM) 4046 Recommended Soil Cleanup Objectives. However, it is recognized that this may not be possible due to engineering constraints, such as the presence of subsurface utilities and proximity of structures on adjacent properties that will limit the ability to remove all contaminated soil.

Presented below is a description of each task to be performed in connection with the remedial design program.

3.1 Task 1 - Work Plan Preparation

This task includes review of project records and reports, and preparation of this Work Plan. This task also includes telephone discussions with NYSDEC representatives, a site inspection, a scoping meeting with the NYSDEC, preparation and submittal of a draft work plan for NYSDEC and New York State Department of Health (NYSDOH) review and comment, and finalization of the work plan.

3.2 Task 2 - Pre-design Field Activities

The pre-design field activities will consist of four elements. The first element will involve two rounds of depth to groundwater measurements in each of the accessible monitoring wells and piezometers on, and adjacent to, the American Cleaners Site (see Figure 2-1). The purpose of the water level measurements is to determine the thickness of unsaturated soil beneath the building for use in calculating the volume of soil to be excavated during remediation. It is assumed that all unsaturated soil within the property boundary will be excavated as part of site remediation. In addition, it is also assumed that the concrete basement floor is contaminated and will be considered impacted material to be disposed with subsurface soil. The first round of water levels will be collected in the spring during anticipated high groundwater conditions and the second round will be collected in late summer during anticipated low groundwater conditions.

The second pre-design work element involves the collection of groundwater samples, if necessary, from each of the five groundwater monitoring wells located outside of the American Cleaners building. The purpose of groundwater sampling is to verify the results of previous investigations that indicate that groundwater is not significantly contaminated with site related

compounds and does not require remediation. Groundwater samples, if collected, will be analyzed for target compound list (TCL) volatile organic compounds (VOCs) and TCL semivolatile organic compounds (SVOCs). All chemical analyses will be performed by a laboratory approved under the NYSDOH Environmental Laboratory Approval Program (ELAP) and the NYSDOH Contract Laboratory Program (CLP).

The third pre-design work element includes asbestos and lead paint surveys of the building, and a certified property survey of the site. The results from the asbestos and lead paint surveys will be used to evaluate disposal options for the demolition debris, and to determine any special measures, such as abatement or dust control, that may be required before or during building demolition. The results of the pre-design investigation will be presented in a letter report that will be submitted as part of the 30 Percent Design Submittal.

The following assumptions have been made in connection with this task:

1. Standard laboratory turnaround time of 28 days will be provided for analysis of the groundwater samples.
2. There will be no restrictions to access of the site for the field investigation program. It has been assumed that the NYSDEC will make arrangements for access to the site and any off-site properties, as necessary, to perform the work.
3. Underground clearance for utilities will be obtained at no charge.
4. Purge water generated during the groundwater sampling will be drummed for proper disposal as part of remedial construction activities, along with the drums of drill cuttings and purge water from the previous investigations that are currently on-site.

The fourth pre-design work element involves the collection of subsurface soil samples for waste disposal characterization. Three subsurface soil samples will be collected from beneath the concrete floor in the basement. The concrete will be removed using an electric hammer drill equipped with a chisel bit to cut an approximately 6-inch by 6-inch hole in the floor. Soil will be removed from beneath the floor using a disposable sterile scoop. Sample locations are shown on Figure 2-1. The samples will be analyzed for Toxicity Characteristic Leaching Procedure

(TCLP) VOCs, TCLP SVOCs, TCLP pesticides/herbicides, TCLP metals, PCBs, reactivity, ignitability and paint filter.

3.3 Task 3 – Plans and Specifications (Contract Documents)

Draft and final performance based specifications and drawings will be prepared for the purpose of competitively bidding the remedial construction in conformance with the latest version of the NYSDEC Standard Contract Documents (clauses and format). The specifications will conform to the selected remedy in the Record of Decision, and will conform with New York State laws, rules, regulations and guidelines. As noted below, this task includes optional items that would be conducted at the request of the NYSDEC.

3.3.1 30 Percent Design Submittal

The design documents will specify the requirements for building demolition and debris disposal, limits and depths of soil removal, remediation criteria, endpoint sampling requirements, fill material limits and specifications, specifications for site preparation/restoration and control of noise, odor, dust and soil erosion, and submittal requirements, including preparation of a site-specific sampling and analysis plan (SAP), quality assurance/quality control (QA/QC) plan, and a site-specific health and safety plan (HASP). In addition, the Contract Documents will contain a bid schedule, estimated quantities for each bid item, contractor qualification and experience requirements, maximum time period for remediation and a cost estimate for the construction project. The limits and depths of soil removal and the associated fill material limits will be developed based on the results from previous investigations at the site, and the results of the pre-design investigation.

Six copies of draft plans and specifications will be provided to NYSDEC for review and comment when the design is 30 percent complete. Supporting data, documentation and design calculations will be provided with the design documents in the form of a letter report. This information will include identification of potentially impacted property owners and parties with

property rights, an updated tax map, a preliminary list of temporary and permanent easements, rights-of-way and permits necessary to perform the remediation, and identification of all non-property permits with which the remediation must be in substantial compliance.

A preliminary construction cost estimate will be prepared under this task. The estimate will be prepared on a bid item basis as provided in the bid schedule in the Contract Documents in order to provide an estimate for each bid item. The estimated quantities on the bid schedule in the final Contract Document will be utilized to provide a total engineering cost estimate for the remedial construction project. A draft construction cost estimate will be submitted to NYSDEC for review and comment as part of the 30 percent design submittal. Based upon the comments from the Department, D&B will revise and submit the final cost estimate to NYSDEC, which will be submitted with the final plans and specifications.

As part of this task, D&B will also verify field conditions. It should also be noted that D&B will verify that the Contract Documents contain specific requirements for submittal of a project schedule, MBE/WBE goals and bid forms. As stated above, the construction documents will be based upon the latest version of the NYSDEC Standard Contract Documents (clauses and format).

3.3.2 60 Percent Design Submittal (Optional)

If requested by the NYSDEC, an additional draft of the plans and specifications will be submitted when the design is 60 percent complete. Six copies of the 60 percent submittal will be provided. At this time, no budget has been established for this optional task.

3.3.3 Final Plans and Specifications

Following receipt of comments from the NYSDEC on the 30 percent (or 60 percent) design submittal, a 95 percent complete bid package (draft final design submittal) will be prepared. This submittal will comprise drawings, specifications, measurement and payment

sections, bid forms and other section of the contract documents as required. Six copies of the draft final design submittal will be submitted to the NYSDEC for review and comment.

After receipt of NYSDEC approval of the draft final design submittal, D&B will submit 75 copies of the final contract documents, including NYSDEC's Standard Contract Documents, to the NYSDEC for bidding. The drawings and specifications will be sealed and signed by a New York State Licensed Professional Engineer.

As part of the final contract documents, a Limited Site Data Summary Report will be prepared. This report will describe site conditions and provide analytical data to assist bidders. Seventy-five (75) copies of the Limited Site Data Report will be provided to the NYSDEC, as well as electronic copy in Portable Document Format (PDF).

3.3.4 Design Report

A Design Report will be submitted following approval of the final plans and specifications by the NYSDEC. The Design Report will describe the major elements of the project, the basis of design, supporting data, documentation, design calculations, assumptions and uncertainties. Appropriate portions of the Design Report will be prepared and submitted to the NYSDEC for review with each submittal of the plans and specifications [30%, 60% (if required) and final submittals]. As a result, a draft Design Report will not be prepared.

3.4 Task 4 - Pre-award Services (Optional)

If requested by the NYSDEC, under this task, D&B will provide pre-award services to the Department in conjunction with the competitive bidding of the remedial construction project. The services under this task have been organized into four subtasks as described below. It is assumed that the advertising for bids, and distribution of bid documents and any addenda will be performed by the NYSDEC. D&B will support the NYSDEC in advertising the project.

3.4.1 Pre-Bid Conference

D&B will assist the NYSDEC in conducting the pre-bid conference and site visit with prospective bidders. D&B will respond to technical questions regarding the plans and specifications, and prepare and submit meeting minutes for the pre-bid conference to the NYSDEC. It is assumed that the pre-bid conference will be held at the site.

3.4.2 Addenda

D&B will prepare written responses to questions raised at the pre-bid conference, and any necessary addenda to the plans and specifications for the timely transmittal by the NYSDEC to the prospective bidders. D&B will provide up to 75 copies of addenda to the NYSDEC for distribution to the bidders. For budget purposes, it is assumed that one addendum will be prepared.

3.4.3 Bid Review

Following the receipt of bids, D&B will perform a technical evaluation of the bids and prepare a tabulation of the bids that will be submitted to the NYSDEC. D&B will review the submittals required by the Contract Documents as part of the bid, including, but not limited to, the health and safety plans submitted by the three lowest responsive and responsible bidders.

3.4.4 Public Meetings

If requested by the NYSDEC, D&B will attend one public meeting to answer questions regarding the project design, construction techniques and project schedule. D&B will also prepare minutes of the meeting that will be provided to the NYSDEC.

Section 4

4.0 PROJECT MANAGEMENT

4.1 Project Schedule and Key Milestones/Reports

A project schedule for remedial design for the American Cleaners Site is provided in Figure 4-1. Key milestones are identified in order to monitor work progress. Specific deadlines for completion of tasks and subtasks are established throughout the project to ensure timely completion of work. The following is the list of the milestones for this project:

1. Submittal of Draft Work Plan
2. Submittal of 30% Plans and Specifications, and Preliminary Cost Estimate
3. Submittal of 60% Plans and Specifications (if requested by NYSDEC)
4. Submittal of Final Contract Documents, Final Cost Estimate and Limited Site Data Summary Report
5. Submittal of Design Report

4.2 Project Management, Organization and Key Technical Personnel

Dvirka and Bartilucci Consulting Engineers will be the prime consultant responsible for preparation of the remedial design. Subcontractors that are expected to be used on the project, include the following:

- Emilcott Associates - health and safety
- Mitkem Corporation (MBE) - chemical analyses
- YEC, Inc. (MBE) - asbestos and lead paint surveys, and certified site survey
- Jamaica Blueprint Company, Inc. (WBE) - document reproduction

The project organization, illustrating both management and project responsibility functions for the project team and key personnel, is provided in Figure 4-2.

Figure 4-1
Project Schedule
American Cleaners Site

Item	Action	Start Date	Duration (weeks)	Completion Date
TASK 1 - WORK PLAN DEVELOPMENT				
1	Issue Work Assignment		(time zero)	2/23/04
2	Site Visit/Scoping Session		3	3/3/04
3	Submission of Draft Project Management Work Plan		5	4/16/04
4	NYSDEC Review		4	5/14/04
5	Submission of Final Project Management Work Plan		6	6/25/04
6	Notice to Proceed		1	7/2/04
TASK 2 - PRE-DESIGN FIELD ACTIVITIES		7/2/04		
7	Field Work		8	8/27/04
8	Draft Pre-design Field Activities Report		8	10/22/04
9	NYSDEC Review		4	11/19/04
TASK 3 - PLANS & SPECIFICATIONS		10/23/04		
10	Preliminary Design (30% Design)		16	2/12/05
11	Intermediate Design (60% Design)		9	4/16/05
12	Final Design		3	5/7/05
13	NYSDEC Review		4	6/4/05
TASK 4 - PRE-AWARD SERVICES		6/4/05	8	7/30/05

REMEDIAL DESIGN
AMERICAN CLEANERS SITE, BINGHAMTON, NEW YORK
PROJECT TEAM ORGANIZATION CHART

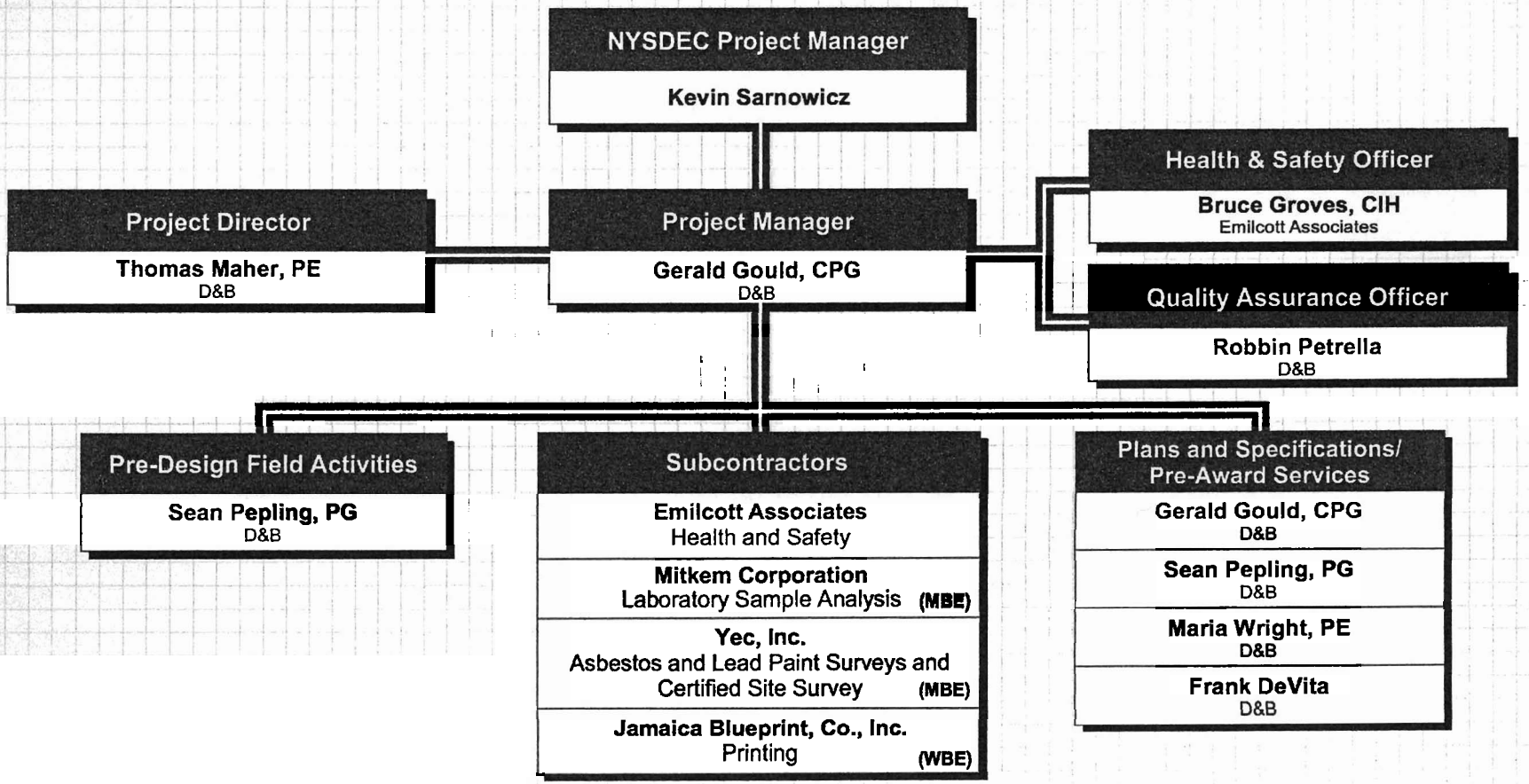

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FIGURE 4-2

Section 5

5.0 SITE-SPECIFIC QUALITY ASSURANCE/QUALITY CONTROL PLAN

5.1 Sampling Scope

The pre-design field activities for the American Cleaners Site will include collection of groundwater samples from five existing monitoring wells at the site. Well locations are shown on Figure 2-1. In addition, three soil samples will be collected from beneath the concrete basement floor.

5.1.1 Groundwater Sampling Procedures

The following procedures will be utilized for collection of the groundwater samples:

1. Measure the depth of water using a decontaminated water level indicator and compute the volume of standing water in the well.
2. Remove three to five times the volume of standing water from the well until field measurements (pH, conductivity, temperature and turbidity) stabilize, or until the well is dry, whichever occurs first.
3. Remove the laboratory precleaned sample containers from sample cooler, label container with an indelible marker, fill out Sample Information Record and Chain of Custody Form.
4. Obtain a sample by using a disposable polyethylene bailer.
5. Gently pour the sample into the sample container taking care not to spill on the outside of the container or overfill container and replace the cover on the sample container. Samples for volatile organic analyses will have no air space in the sample vial prior to sealing. This is done by filling the vial such that there is a meniscus on top. Carefully slide the septum, Teflon side down, onto the top of the vial and cap the vial. Check for bubbles by turning the vial upside down and tapping it lightly. If bubbles appear, reopen the vial, remove the septum and add more sample (or resample). Replace the septum, recap and check for bubbles. Continue until vial is bubble-free.
6. Return sample containers to iced sample cooler. Sample coolers will be shipped via overnight courier under chain of custody procedures.

5.1.2 Soil Sampling Procedures

The following procedures will be utilized for collection of the soil samples:

1. Be certain that the sample location is noted on Location Sketch.
2. Be certain that non-disposable sampling equipment (scoop) has been decontaminated.
3. Remove laboratory precleaned sample containers from sample cooler, label bottle with an indelible marker, fill out Sample Information Record and Chain of Custody Form.
4. Retrieve the sample with either a disposable polyethylene scoop or decontaminated stainless steel scoop and immediately obtain an organic vapor measurement and fill out Sample Information Record.
5. Place the sample into the open sample container and replace the container cover.
6. Return the sample container to the cooler.

5.2 Analytical Parameters

The groundwater samples will be analyzed for TCL VOCs and TCL SVOCs as identified in the NYSDEC 2000 Analytical Services Protocol (ASP) and USEPA Contract Laboratory Program (CLP) Statement of Work 5/99 (OLMO 4.2 and ILMO 4.0). All sample analyses will be performed by a laboratory approved under the New York State Department of Health Environmental Laboratory Approval Program (ELAP).

The soil samples will be analyzed for TCLP VOCs, TCLP SVOCs, TCLP pesticides/herbicides, TCLP metals, PCBS, ignitability, reactivity and paint filter as identified in the NYSDEC 2000 ASP and USEPA CLP Statement of Work 5/99 (OLMO 4.2 and ILMO 4.0). All sample analyses will be performed by a laboratory approved under the New York State Department of Health ELAP.

Table 5-1 presents a summary of the parameters/sample fraction to be analyzed together with the sample location, type of sample, sample matrix, type of sample container, method of

Table 5-1
SUMMARY OF MONITORING PARAMETERS

Sample Location	Sample Type	Sample Matrix	Sample Fraction	Container Type/Size/No.	Sample Preservation	Maximum Holding Time	Analytical Method
Monitoring Well Locations	Grab	Groundwater	Volatile Organics	Glass, clear/40 mL/3 ICHEM 300 series or equivalent	Cool to 4°C	7 days after VTSR for analysis	6/00 NYSDEC ASP, Method OLMO 4.2
	Grab	Groundwater	Semivolatile Organics	Glass, amber/ 1L/2 ICHEM 300 series or equivalent	Cool to 4°C	5 days after VTSR for extraction, 40 days after extraction for analysis	6/00 NYSDEC ASP, Method OLMO 4.2
Basement Subslab	Grab	Soil	TCLP Volatile Organics	Glass, clear/ 40 mL/1 ICHEM 300 series or equivalent	Cool to 4°C	7 days after VTSR for extraction, 7 days after extraction for analysis	SW846, Method 1311/8260
	Grab	Soil	TCLP Semivolatile Organics	Glass, clear/ 8 oz/1 ICHEM 300 series or equivalent	Cool to 4°C	5 days after VTSR for extraction, 40 days after extraction for analysis	SW846, Method 1311/8270
	Grab	Soil	TCLP Pesticides/Herbicides	Glass, clear/ 8 oz/1 ICHEM 300 series or equivalent	Cool to 4°C	5 days after VTSR for extraction, 40 days after extraction for analysis	SW846, Method 1311/8081
	Grab	Soil	TCLP Metals	Glass, clear/ 8 oz/1 ICHEM 300 series or equivalent	Cool to 4°C	180 days after VTSR for extraction, 180 days after extraction for analysis	SW846, Method 1311/3010
	Grab	Soil	PCBs	Glass, clear/ 8 oz/1 ICHEM 300 series or equivalent	Cool to 4°C	5 days after VTSR for extraction, 40 days after extraction for analysis	SW846, Method 1311/8082
	Grab	Soil	Reactivity	Glass, clear/ 8 oz/1 ICHEM 300 series or equivalent	Cool to 4°C		SW846, Method 9014/9034
	Grab	Soil	Ignitability	Glass, clear/ 8 oz/1 ICHEM 300 series or equivalent	Cool to 4°C		SW846, Method 1010
	Grab	Soil	Paint Filter	Glass, clear/ 8 oz/1 ICHEM 300 series or equivalent	Cool to 4°C		SW846, Method 9095
Site	Trip Blank	Water	Volatile Organics	Glass, clear/ 40 mL/1 ICHEM 300 series or equivalent	Cool to 4°C	7 days after VTSR for analysis	6/00 NYSDEC ASP, Method OLMO 4.2
	Matrix Spike and Matrix Spike Duplicate	Water	Volatile Organics	Glass, clear/ 40 mL/1 ICHEM 300 series or equivalent	Cool to 4°C	7 days after VTSR for analysis	6/00 NYSDEC ASP, Method OLMO 4.2
	Matrix Spike and Matrix Spike Duplicate	Water	Semivolatile Organics	Glass, amber/ 1L/2 ICHEM 300 series or equivalent	Cool to 4°C	5 days after VTSR for extraction, 40 days after extraction for analysis	6/00 NYSDEC ASP, Method OLMO 4.2
	Matrix Spike Blank	Water	Volatile Organics	Glass, clear/ 40 mL/1 ICHEM 300 series or equivalent	Cool to 4°C	7 days after VTSR for analysis	6/00 NYSDEC ASP, Method OLMO 4.2
	Matrix Spike Blank	Water	Semivolatile Organics	Glass, amber/ 1L/2 ICHEM 300 series or equivalent	Cool to 4°C	5 days after VTSR for extraction, 40 days after extraction for analysis	6/00 NYSDEC ASP, Method OLMO 4.2
Laboratory	Method Blank	Water	Volatile Organics	Glass, clear/ 40 mL/1 ICHEM 300 series or equivalent	Cool to 4°C	7 days after VTSR for analysis of water 10 days for soil	6/00 NYSDEC ASP, Method OLMO 4.2
	Method Blank	Water	Semivolatile Organics	Glass, amber/ 1L/2 ICHEM 300 series or equivalent	Cool to 4°C	5 days after VTSR for extraction, 40 days after extraction for analysis	6/00 NYSDEC ASP, Method OLMO 4.2
	Holding Blank	Water	Volatile Organics	Glass, clear/ 40 mL/1	Cool to 4°C	7 days after VTSR for analysis	6/00 NYSDEC ASP, Method OLMO 4.2

VTSR - Verified Time of Sample Receipt at the laboratory

sample preservation, holding time and analytical method. Category B deliverables are required for all analytical results in order to allow for complete validation of the results, if warranted.

5.3 Matrix Spikes/Matrix Spike Duplicates and Matrix Spike Blanks

Matrix spike samples are quality control procedures, consistent with 2000 NYSDEC ASP specifications, used by the laboratory as part of its internal Quality Assurance/Quality Control program. The matrix spikes (MS) and matrix spike duplicates (MSD) are aliquots of a designated sample (water or soil), which are spiked with known quantities of specified compounds. MS/MSD samples are used to evaluate the matrix effect of the sample upon the analytical methodology, as well as to determine the precision of the analytical method used. Samples to be analyzed as MS/MSDs may be designated in the field (that is, additional aliquots of a particular sample from the site may be collected) or they may be selected by the laboratory.

A matrix spike blank is an aliquot of analyte-free water, prepared in the laboratory, and spiked with the same solution used to spike the MS and MSD. The matrix spike blank (MSB) will be subjected to the same analytical procedure as the MS/MSD and used to indicate the appropriateness of the spiking solution by calculating the spike compound recoveries. The procedure and frequency regarding the MS, MSD and MSB samples are defined in the NYSDEC ASP.

5.4 Field Blank (Field Rinsate Blank)/Equipment Blank

Based upon discussion with the NYSDEC, field blanks will not be required for field investigations in which dedicated, disposable sampling equipment (for example, bailers or sterile scoops) are being utilized for sample collection.

5.5 Trip Blanks (Travel Blanks)

The primary purpose of a trip blank is to detect other sources of contamination that might potentially influence contaminant values reported in actual samples, both quantitatively and qualitatively. The following have been identified as potential sources of contamination:

- Laboratory reagent water;
- Sample containers;
- Cross contamination in shipment;
- Ambient air or contact with analytical instrumentation during preparation and analysis at the laboratory; and
- Laboratory reagents used in analytical procedures.

A trip blank will consist of a set of 40 ml sample vials filled at the laboratory with laboratory demonstrated analyte free water. Trip blanks will be handled, transported and analyzed in the same manner as the samples acquired that day, except that the sample containers themselves are not opened in the field. Rather, these sample containers only travel with the sample cooler. The temperature of the trip blanks will be maintained at 4°C while on-site and during shipment. Trip blanks will return to the laboratory with the same set of bottles they accompanied in the field.

The purpose of a trip blank is to control sample bottle preparation and blank water quality as well as sample handling. Thus, the trip blank will travel to the site with the empty sample bottles and back from the site with the collected samples in an effort to simulate sample handling conditions. Contaminated trip blanks may indicate inadequate bottle cleaning or blank water of questionable quality. Trip blanks will be implemented only when collecting water samples, including field blanks, and analyzed for volatile organic compounds only.

5.6 Method Blanks/Holding Blanks

A method blank is an aliquot of laboratory water or soil, which is spiked with the same internal and surrogate compounds as the samples. The purpose of the method blank is to define and determine the level of laboratory background contamination. Frequency, procedure and maximum laboratory containment concentration limits are specified in the 2000 NYSDEC ASP. A holding blank is an aliquot of analyte-free water that is stored with the environmental samples in order to demonstrate that the samples have not been contaminated during laboratory storage. This blank will be analyzed using the same analytical procedure as the samples.

5.7 Decontamination Procedures

Since dedicated disposable equipment will be utilized for soil sampling, well purging and groundwater sampling, field decontamination will not be conducted.

5.8 Data Usability Summary Report

A Data Usability Summary Report (DUSR) will be prepared instead of full data validation. The DUSR is prepared by reviewing and evaluating the analytical data. The parameters to be evaluated in reference to compliance with analytical method protocols include all chain-of-custody forms, holding times, raw data (instrument print out data and chromatograms), calibrations, blanks, spikes, controls, surrogate recoveries, duplicates and sample data. If available, field sampling notes should also be reviewed and any quality control problems should be evaluated as to their effect on the usability of the sample data.

The DUSR shall describe the samples and analysis parameters reviewed. Data deficiencies, analytical protocol deviations and quality control problems shall be described, and their effect on the data discussed.

Resampling and reanalysis recommendations will be made, if necessary. Data qualifications are documented for each sample analyte following the NYSDEC ASP 6/00 guidelines.

Section 6

6.0 SITE-SPECIFIC HEALTH AND SAFETY PLAN

The following site-specific information comprises information not included in the Generic Work Plan. The Generic Work Plan includes a Generic Health and Safety Plan. The following information will be utilized in conjunction with the Generic Health and Safety Plan. Information with regard to contaminants of concern, personal protective equipment, exposure limits and monitoring requirements are provided in the Generic Health and Safety Plan.

Site Name:	American Cleaners Site
Address:	48-50 Walnut Street Binghamton, New York
Telephone:	None
Dates of Field Investigations:	May to August 2004
Entry Objectives:	Monitoring groundwater levels, sample monitoring wells and evaluate for the presence of asbestos and lead paint in on-site structures.

Site Organization Structure:	Name	Phone
Project Director:	T. Maher	315-437-1142
Project Manager:	G. Gould	315-437-1142
Health and Safety Officer (HSO)	B. Groves	973-765-0991
Field Operations Manager/Alternate HSO	S. Pepling	315-437-1142

Subcontractors:	YEC, Inc.	914-268-3203
	Mitkem Corporation	401-732-4300

Medical Assistance:

Physician:	Industrial Medical Associates
Address:	961 Canal Street
	Syracuse, NY 13210
Telephone:	315-478-1977

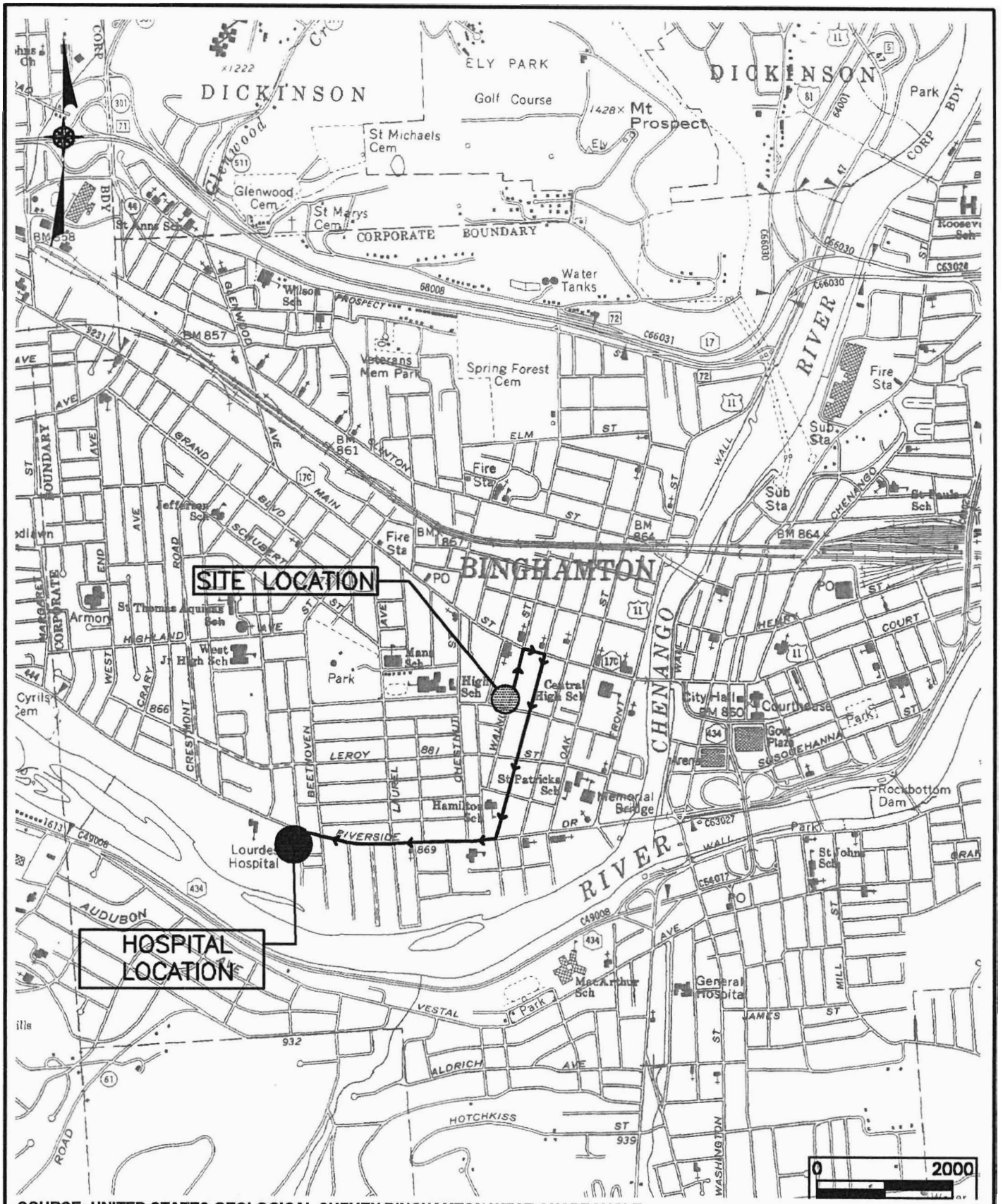
Name of Hospital:	Lourdes Hospital
Address:	169 Riverside Drive
	Binghamton, NY 13905
Telephone:	607-798-5111
Directions:	From the site, travel north on Walnut Street. Turn right onto Main Street/Route 17C. At the next intersection, turn right onto Chapin Street and travel approximately 0.5-mile to Riverside Drive. Turn right onto Riverside Drive. Hospital is approximately 0.5-mile on the left.

Emergency Telephones:

Agent/Facility	Telephone	Emergency Number
EMS - Ambulance	911	911
Police Department	---	911
Fire Department	---	911
Hospital	607-798-5111	607-798-5231
Poison Control Center	315-476-4766	800-252-5655

Additional site-related information (including, special hazards, site control, waste storage and disposal, personal protective equipment, decontamination area location, special engineering controls, etc.).

None identified.



SOURCE: UNITED STATES GEOLOGICAL SURVEY BINGHAMTON WEST QUADRANGLE

AMERICAN CLEANERS SITE REMEDIAL DESIGN
BINGHAMTON, NEW YORK

HOSPITAL ROUTE

Dvirka and Bartilucci CONSULTING ENGINEERS
A DIVISION OF WILLIAM F. COSULICH ASSOCIATES, P.C.

FIGURE 6-1

Section 7

7.0 COMMUNITY AIR MONITORING PLAN

Community air monitoring will be conducted by real-time air monitoring for volatile organic compounds (VOCs) and particulate levels at the perimeter of the work area. Based on existing environmental data and the work tasks to be performed in this work plan, the likelihood for the air quality of the general public being affected by Remedial Design activities is low. The plans and specifications portion of the remedial design will specifically address community air monitoring requirements during the implementation of remediation and require contractor bid packages to include a Community Air Monitoring Plan (CAMP).

The CAMP for this Remedial Design requires real-time monitoring for VOCs and particulates (i.e. dust) at the downwind perimeter of each designated work area when certain activities are in progress at the site. This CAMP is not intended for use in establishing action levels for worker respiratory protection. Rather, its intent is to provide a measure of protection for the downwind community (i.e. off-site receptors including residences and businesses and on-site workers not directly involved with the subject work activities) from potential airborne contaminant releases as a direct result of investigative and remedial work activities. The action levels specified herein require increased monitoring, corrective actions to abate emissions, and/or work shutdown. Additionally, the CAMP helps to confirm that work activities do not spread contamination off-site through the air.

Reliance on the CAMP should not preclude simple, common-sense measures to keep VOCs, dust, and odors at a minimum around the work areas.

Continual monitoring will be required for all ground intrusive activities and during the pre-design investigation activities. Ground intrusive activities include, but are not limited to, soil/waste excavation and handling, test pitting or trenching, and the installation of soil borings or monitoring wells.

Periodic monitoring for VOCs will be required during non-intrusive activities such as the collection of surface soil and sediment samples or the collection of groundwater samples from existing monitoring wells. "Periodic" monitoring during sample collection will consist of taking a measurement upon arrival at a sample location, monitoring while opening a well cap or overturning soil, monitoring during well baling/purging, and taking a measurement prior to leaving a sample location. In some instances, depending upon the proximity of potentially exposed individuals, continual monitoring may be required during sampling activities. Examples of situations requiring air monitoring include groundwater sampling at wells in or near a public roadway, in the midst of adjacent properties, or adjacent to a school or residence.

7.1 VOC Monitoring, Response Levels, and Actions

VOCs will be monitored at the downwind perimeter of the immediate work area (i.e. the exclusion zone) on a continual basis or as otherwise specified. Upwind concentrations will be measured at the start of each workday and periodically thereafter to establish background conditions. The monitoring work will be performed using equipment appropriate to measure the types of contaminants known or suspected to be present. The equipment will be calibrated at least daily for the contaminant(s) of concern or for an appropriate surrogate. The equipment will be capable of calculating 15-minute running average concentrations, which will be compared to the levels specified below.

- If the ambient air concentration of total organic vapors at the downwind perimeter of the work area or exclusion zone exceeds 5 parts per million (ppm) above background for the 15-minute average, work activities must be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities can resume with continued monitoring.

- If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities must be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities can resume provided that the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less - but in no case less than 20 feet, is below 5 ppm over background for the 15-minute average.

- If the organic vapor level is above 25 ppm at the perimeter of the work area, activities must be shutdown.

All 15-minute readings will be recorded and will be available for State (NYSDEC and NYSDOH) personnel to review. Instantaneous readings, if any, used for decision purposes will also be recorded.

7.2 Particulate Monitoring, Response Levels, and Actions

Particulate concentrations will be monitored continually at the upwind and downwind perimeters of the exclusion zone at temporary particulate monitoring stations. The particulate monitoring will be performed using real-time monitoring equipment capable of measuring particulate matter less than 10 micrometers in size (PM-10) and capable of integrating over a period of 15 minutes (or less) for comparison to the airborne particulate action level. The equipment must be equipped with an audible alarm to indicate exceedance of the action level. In addition, fugitive dust migration should be visually assessed during all work activities.

- If the downwind PM-10 particulate level is 100 micrograms per cubic meter (mcg/m^3) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques must be employed. Work may continue with dust suppression techniques provided that downwind PM-10 particulate levels do not exceed 150 mcg/m^3 above the upwind level and provided that no visible dust is migrating from the work area.

- If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than 150 mcg/m^3 above the upwind level, work must be stopped and a re-evaluation of activities initiated. Work can resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within 150 mcg/m^3 of the upwind level and in preventing visible dust migration.

All readings will be recorded and be available for State (DEC and DOH) personnel to review.

Section 8

8.0 SCHEDULE 2.11 FORMS

Schedule 2.11 (a)

Summary of Work Assignment Price
American Cleaners Site

Work Assignment Number D003600-39

1.	Direct Salary Costs (Schedules 2.10 (a) and 2.11(b))	$37,735
2.	Indirect Costs (Schedule 2.10 (g))	$59,735
3.	Direct Non-Salary Costs (Schedules 2.11 (c)and (d))	$1,780

Subcontract Costs

Cost-Plus-Fixed-Fee Subcontracts (Schedules 2.11(e))

Name of Subcontractor	Services To Be Performed	Subcontract Price
YEC, Inc. (MBE)	Asbestos and Lead Paint Surveys	$4,489
YEC, Inc. (MBE)	Certified Boundary Survey	$7,471

4.	Total Cost-Plus-Fixed-Fee Subcontracts	$11,960

Unit Price Subcontracts (Schedules 2.11(f))

Name of Subcontractor	Services To Be Performed	Subcontract Price
Mitkem Corporation (MBE)	Sample Analysis	$5,665
Jamaica Blueprint Co., Inc. (WBE)	Document Reproduction	$8,188

5.	Total Unit Price Subcontracts	$13,853
6.	Subcontract Management Fee	$0
7.	Total Subcontract Costs (lines 4 + 5 + 6)	$25,813
8.	Fixed Fee (Schedule 2.10 (h))	$8,187
9.	Total Work Assignment Price (lines 1 + 2 + 3 + 7 +8)	$133,250

SCHEDULE 2.11 (b)
SUMMARY
American Cleaners Site
WORK ASSIGNMENT NUMBER D003600-39

Average NSPE Wage Rates	IX	VIII	VII	VI	V	IV	III	II	I	TOTAL HOURS
as of July 1, 2003	$65.61	$61.47	$53.43	$43.03	$36.16	$30.54	$27.72	$24.06	$19.19	
as of July 1, 2004	$67.58	$63.31	$55.03	$44.32	$37.24	$31.46	$28.55	$24.78	$19.77	
Task 1	20	0	0	68	26	0	0	24	0	138
Task 2	4	0	0	24	54	0	0	4	0	86
Task 3	16	0	0	40	232	0	248	160	0	696
Task 4	6	0	0	32	68	0	40	20	0	166
Total 2003 Hours	20	0	0	68	26	0	0	24	0	138
Total 2004 Hours	26	0	0	96	354	0	288	184	0	948
Total Direct Labor Cost	$3,069	$0	$0	$7,181	$14,125	$0	$8,223	$5,137	$0	$37,735

SCHEDULE 2.11 (b)-1
SUMMARY
American Cleaners Site
WORK ASSIGNMENT NUMBER D003600-39

Average NSPE Wage Rates	IX	VIII	VII	VI	V	IV	III	II	I	TOTAL HOURS
as of July 1, 2003	$65.61	$61.47	$53.43	$43.03	$36.16	$30.54	$27.72	$24.06	$19.19	
as of July 1, 2004	$67.58	$63.31	$55.03	$44.32	$37.24	$31.46	$28.55	$24.78	$19.77	
Task 1	0.5	0	0	4	0	0	0	8	0	12.5
Task 2	0.5	0	0	0	2	0	0	4	0	6.5
Task 3	0.5	0	0	0	2	0	0	4	0	6.5
Task 4	0.5	0	0	0	2	0	0	4	0	6.5
Total 2003 Hours	0.5	0	0	4	0	0	0	8	0	12.5
Total 2004 Hours	1.5	0	0	0	6	0	0	12	0	19.5
Total Direct Labor Cost	$134	$0	$0	$172	$223	$0	$0	$490	$0	$1,020

Dvirka & Bartilucci Consulting Engineers
American Cleaners Site
Work Assignment Number: D003600-39

BREAKDOWN OF ADMINISTRATIVE LOE HOURS ON SCHEDULE 2.11(b-1)

ADMIN ACTIVITY	WORK PLAN DEVELOPMENT														REVIEW WORK ASSIGNMENT (WA) PROGRESS													
	Conflict of Interest Checks						Prepare 2.11 Schedules								Conduct Progress Reviews						Prepare Monthly Report & Update Schedules							
NSPE	IX	VIII	VII	VI	V	IV	VIII	VII	VI	V	IV	III	II	I	VIII	VII	VI	V	IV	III	VIII	VII	VI	V	IV	III	II	I
TASK 1	0.5								4																			
TASK 2																								2				
TASK 3																								2				
TASK 4																								2				
TOTAL	0.5	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0

ADMIN ACTIVITY	REVIEW WORK ASSIGNMENT (WA) PROGRESS														CAP PREPARATION											
	MBE/WBE Activities								Program Management						Prepare Monthly Cost Control Report & CAP								Oversee CAP			
NSPE	VIII	VII	VI	V	IV	III	II	I	IX	VIII	VII	VI	V	IV	VIII	VII	VI	V	IV	III	II	I	IX	VIII	VII	VI
TASK 1																					8					
TASK 2									0.5												4					
TASK 3									0.5												4					
TASK 4									0.5												4					
TOTAL	0	0	0	0	0	0	0	0	1.5	0	0	0	0	0	0	0	0	0	0	0	20	0	0.0	0	0	0

ADMIN ACTIVITY	MISCELLANEOUS																									
	Update NSPE List								Equipment Use and Inventory				Word Proc. and Report Preparation				Total Adm. LOE (hrs)									
NSPE	VIII	VII	VI	V	IV	III	II	I	IV	III	II	I	IV	III	II	I	IX	VIII	VII	VI	V	IV	III	II	I	
TASK 1																	0.5			4	0			8		
TASK 2																	0.5			0	2			4		
TASK 3																	0.5			0	2			4		
TASK 4																	0.5			0	2			4		
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	4	6	0	0	20	0	

SCHEDULE 2.11 (c)
DIRECT NON-SALARY COSTS
SUMMARY
American Cleaners Site
Work Assignment No. D003600-39

ITEM	MAXIMUM REIMBURSEMENT RATE	UNIT	ESTIMATED NUMBER OF UNITS	TOTAL ESTIMATED COSTS
IN-HOUSE				
Outside Services*	$200.00	set	0	$0.00
Express Mail	$25.00	package	8	$200.00
Sample Shipping	$75.00	shipment	3	$225.00
Level D Safety Equipment	$14.00	$/person/day	5	$70.00
Level C Safety Equipment	$40.00	$/person/day	0	$0.00
Level B Safety Equipment	$50.00	$/person/day	0	$0.00
TRAVEL				
Transportation (Personal Car)	$0.375	mile	1,600	$600.00
TOTAL DIRECT NON-SALARY COSTS				$1,095.00

* Includes photo finishing, slides and any other costs not associated with in-house capabilities.

Schedule 2.11 (c)1
Direct Non-Salary Costs
American Cleaners Site
Work Assignment No. D003600-39
Summary

Item	Reimbursement Rate	Task 1 Est. No. of Units	Task 1 Total Cost	Task 2 Est. No. of Units	Task 2 Total Cost	Task 3 Est. No. of Units	Task 3 Total Cost	Task 4 Est. No. of Units	Task 4 Total Cost	Task 5 Est. No. of Units	Task 5 Total Cost	Task 6 Est. No. of Units	Task 6 Total Cost	Task 7 Est. No. of Units	Task 7 Total Cost	Total Est. No. of Units	Total Estimated Cost
Travel																	
1. Meals	$31 /day*		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00	0	$0.00
2. Lodging	$55 /day		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00	0	$0.00
3. Air Travel	/round trip		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00	0	$0.00
4. Transportation (Personal Car)	$0.375 /mile	400	$150.00	800	$300.00		$0.00	400	$150.00		$0.00		$0.00		$0.00	1,600	$600.00
5. Tolls	$20.00 /trip		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00	0	$0.00
6. Car Rental	$255.00 /week		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00	0	$0.00
7. Gas	$80.00 /week		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00	0	$0.00
																0	$0.00
Subtotal (Travel)			$150.00		$300.00		$0.00		$150.00		$0.00		$0.00		$0.00		$600.00
Miscellaneous (Expenses)																	
1. Outside Services**	$200.00 /set		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00	0	$0.00
2. Express Mail	$25.00 /package	2	$50.00		$0.00	5	$125.00	1	$25.00		$0.00		$0.00		$0.00	8	$200.00
3. Sample Shipping	$75.00 /shipment		$0.00	3	$225.00		$0.00		$0.00		$0.00		$0.00		$0.00	3	$225.00
Subtotal (Misc. Expenses)			$50.00		$225.00		$125.00		$25.00		$0.00		$0.00		$0.00		$425.00
Personal Protective Equipment																	
1. Level D Safety Equipment	$14.00 ($/person/day)		$0.00	5	$70.00		$0.00		$0.00		$0.00		$0.00		$0.00	5	$70.00
2. Level C Safety Equipment	$40.00 ($/person/day)		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00	0	$0.00
3. Level B Safety Equipment	$50.00 ($/person/day)		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00	0	$0.00
Subtotal (Protective Equipment)			$0.00		$70.00		$0.00		$0.00		$0.00		$0.00		$0.00		$70.00
TOTAL			$200.00		$595.00		$125.00		$175.00		$0.00		$0.00		$0.00		$1,095.00

Footnote:
In-house costs for computer services, postage, reproduction, printing,and teleph re not allowable as direct non-salary costs. These costsshould be included in the indir st pool used to determinethe indirect cost percentage for the engineer.
Maximum allowable rate for Cattaraugus County, NY
Includes photo finishing, reproduction and any other costs not associated with in e capabilities.

SCHEDULE 2.11 (d) 1

EQUIPMENT PURCHASED UNDER THE CONTRACT
SUMMARY
American Cleaners Site
Work Assignment No. D003600-39

ITEM	ESTIMATED PURCHASE PRICE	O&M RATE ($/per month)	TERM OF USAGE (MONTHS)	ESTIMATED USAGE COST (COL. 2 + [3X4])
			TOTAL	$0.00

Schedule 2.11 (d) 2
Summary

Maximum Reimbursement Rates for Consultant/Subconsultant - Owned Equipment
American Cleaners Site
Work Assignment No. D003600-39

ITEM	PURCHASE PRICE X 85%	USAGE RATE ($/day)	CAPITAL RECOVERY RATE ($/Unit of Time)	O & M RATE ($/Unit of Time)	ESTIMATED USAGE (days)	ESTIMATED USAGE COST (Col. 3x6)
						$0
					TOTAL	$0

Notes:
Usage Rate = Capital Recovery Rate + O&M rate

The maximum usage rate for an item of equipment reverts to the O&M rate when the total usage reimbursement exceed 85% of the purchase price.

SCHEDULE 2.11 (d) 3
EQUIPMENT
VENDOR RENTED
SUMMARY
American Cleaners Site
Work Assignment No. D003600-39

ITEM	MAXIMUM REIMBURSEMENT RATE	TIME PERIOD	ESTIMATED USAGE (period of time)	ESTIMATED USAGE COST (Col. 2 X 3)
Century OVA 128	$125.00	day	0	$0.00
Photovac Microtip	$125.00	day	1	$125.00
MIE Miniram Digital Dust Indicator	$85.00	day	0	$0.00
Horiba U22 Water Quality Meter	$100.00	day	1	$100.00
Solinst Water Level Indicator	$25.00	day	2	$50.00
Generator	$55.00	day	2	$110.00
Peristaltic Pump	$50.00	day	0	$0.00
Grunfos Pump	$125.00	day	0	$0.00
			Total	$385.00

SCHEDULE 2.11 (d) 4
SUMMARY
EXPENDABLE SUPPLIES
American Cleaners Site
Work Assignment No. D003600-39

ITEM	ESTIMATED QUANTITY	UNITS	UNIT COST	TOTAL BUDGETED COST (COL. 2 X 3)
Disposable polyethylene bailers	0.25	Case of 24	$200.00	$50.00
Drums for containment of purge water	2	Each	$75.00	$150.00
			TOTAL	$200.00

SCHEDULE 2.11 (d) 5
CONSUMABLE SUPPLIES
SUMMARY
American Cleaners Site
Work Assignment No. D003600-39

ITEM	ESTIMATED QUANTITY	UNIT COST	TOTAL BUDGETED COST (COL. 2 X 3)
Miscellaneous Supplies	1	$100.00	$100.00
		TOTAL	$100.00

SCHEDULE 2.11 (f) 4
UNIT PRICE SUBCONTRACTS
SUMMARY
American Cleaners Site
Work Assignment No. D003600-39

NAME OF SUBCONTRACTOR	SERVICES TO BE PERFORMED	SUBCONTRACT PRICE	MANAGEMENT FEE
Mitkem Corporation	**Sample Analysis**	**$5,665**	**$0**

Item	Method	Maximum Reimbursement Rate		Estimated Units	Total Estimated Cost
Groundwater					
VOCs	EPA SOW OLM04.2 (6/00 ASP)	$110.00	per sample	5	$550.00
SVOCs	EPA SOW OLM04.2 (6/00 ASP)	$200.00	per sample	5	$1,000.00
Soil					
TCLP VOCs/SVOCs/Pest/ Herb/Metals	EPA Method 1311/8260/8270/ 8081/3010	$750.00	per sample	3	$2,250.00
PCBs	EPA Method 8082	$140.00	per sample	3	$420.00
Reactivity	EPA Method 9014/9034	$60.00	per sample	3	$180.00
Ignitability	EPA Method 1010	$25.00	per sample	3	$75.00
Paint Filter	EPA Method 9095	$50.00	per sample	3	$150.00
QA/QC Samples					
Groundwater					
Matrix Spike/Matrix Spike Duplicate/Matrix Spike Blank					
VOCs	EPA SOW OLM04.2 (6/00 ASP)	$110.00	per sample	3	$330.00
SVOCs	EPA SOW OLM04.2 (6/00 ASP)	$200.00	per sample	3	$600.00
Trip Blank					
VOCs	EPA SOW OLM04.2 (6/00 ASP)	$110.00	per sample	1	$110.00

SUBTOTAL	**$5,665.00**
SUBCONTRACT MANAGEMENT FE	**$0.00**
TOTAL	**$5,665.00**

Schedule 2.11 (e)
Cost Plus Fixed-Fee Subcontracts

American Cleaners Site

April 2, 2004

NAME OF SUBCONTRACTOR	SERVICES TO BE PERFORMED	SUBCONTRACT PRICE
YEC, INC.	Certified Boundary Survey & CAD	$7,470.92

A. Direct Salary Costs

Professional Responsibilty Level	Labor Classi-fication	Average Reimbursement Rate ($/Hr.)		Maximum Reimbursement Rate ($/Hr.)		Estimated Number of Hours	Total Estimated Direct Salary Cost ($)
Principal	VIII	2004	59.42	2004	64.19	0	0.00
Senior Geologist/Scientist/ Engineer/ Licensed Surveyor	V	2004	39.29	2004	43.22	38	1,493.02
Staff Geologist/ Scientist/Engineer	IV	2004	34.16	2004	37.57	0	0.00
Staff Geologist/ Scientist/Engineer/CAD Operator	III	2004	29.64	2004	32.89	6	177.84
Senior Technician/Staff Engineer/Scientist/Geologist	II	2004	21.92	2004	24.57	24	526.08
Technician/Draftsperson	I	2004	19.86	2004	22.26	24	476.64
					Total Direct Salary Costs:		2,673.58

B. Indirect Costs - 117% of direct salary cost

Indirect Costs: 3,128.09

C. Maximum Reimbursement Rates for Direct Non-Salary Costs:

Item	Maxium Reimbursement Rate	Estimated No. of Units	
Mileage	0.34 /mile	400 miles	136.00
Tolls	10.00 /trip	1 trips	10.00
Per Diem	92.00 Overnight	4 Man-Days	368.00
CAD Equipment Costs	15.00 /hr	6 hrs	90.00
Survey Equipment Rental	65.00 day	3 day	195.00
		Total Direct Non Salary Costs:	799.00

D. Fixed Fee (15% of Total Direct and Indirect Salary Costs)

Fixed Fee: 870.25

* An approximate boundary survey will be conducted instead a certified boundary survey

Schedule 2.11 (c)
Cost Plus Fixed-Fee Subcontracts

American Cleaners Site

April 1, 2004

NAME OF SUBCONTRACTOR	SERVICES TO BE PERFORMED	SUBCONTRACT PRICE
YEC, INC.	Asbestos/Lead Paint Sampling	$4,488.90

A. Direct Salary Costs

Professional Responsibilty Level	Labor Classi-fication	Average Reimbursement Rate ($/Hr.)		Maximum Reimbursement Rate ($/Hr.)		Estimated Number of Hours	Total Estimated Direct Salary Cost ($)
Principal	VIII	2004	59.42	2004	64.19	0	0.00
Senior Geologist/Scientist/ Engineer/ Licensed Surveyor	V	2004	39.29	2004	43.22	0	0.00
Staff Geologist/ Scientist/Engineer	IV	2004	34.16	2004	37.57	8	273.28
Staff Geologist/ Scientist/Engineer/CAD Operator	III	2004	29.64	2004	32.89	32	948.48
Senior Technician/Staff Engineer/Scientist/Geologist	II	2004	21.92	2004	24.57	0	0.00
Technician/Draftsperson	I	2004	19.86	2004	22.26	0	0.00
						Total Direct Salary Costs:	1,221.76

B. Indirect Costs - 117% of direct salary cost

Indirect Costs: 1,429.46

C. Maximum Reimbursement Rates for Direct Non-Salary Costs:

Item	Maxium Reimbursement Rate	Estimated No. of Units	
Travel	0.35 /Mile	400 miles	138.00
Per Diem	92.00 /Overnight	1 Overnight	92.00
Laboratory Cost(All 24 hrs turn around):			
1. PLM	10.00 /Sample	24 Samples	240.00
2. NOB Prep	10.00 /Sample	20 Samples	200.00
3. TEM	25.00 /Sample	20 Samples	500.00
4. Lead Paint	15.00 /Sample	18 Samples	270.00
		Total Direct Non Salary Costs:	1,440.00

D. Fixed Fee (15% of Total Direct and Indirect Salary Costs)

Fixed Fee: 397.68

SCHEDULE 2.11 (f)
UNIT PRICE SUBCONTRACTS
American Cleaners Site
Work Assignment Number D003600-39

NAME OF SUBCONTRACTOR	SERVICES TO BE PERFORMED	SUBCONTRACT PRICE	MANAGEMENT FEE
Jamaica Blueprint Comapny, Inc.	Document Reproduction	**$8,188.45**	**$0.00**

Item	Maximum Reimbursement Rate	Estimated No. of Units	Total Estimated Costs
Drawings			
Item 1 Bound 30" by 42" Blue Prints, Each Set Consisting of 17 Sheets	$27.68	5	$138.40
Item 2 Bound 30" by 42" Blue Prints, Each Set Consisting of 17 Sheets	$18.58	7	$130.06
Item 3 Bound 30" by 42" Blue Prints, Each Set Consisting of 17 Sheets	$11.65	77	$897.05
Specifications			
Item 4 Bound Books, Each Consisting of 1000 Double-Sided Sheets	$119.08	5	$595.40
Item 5 Bound Books, Each Consisting of 1000 Double-Sided Sheets	$118.30	7	$828.10
Item 6 Bound Books, Each Consisting of 1000 Double-Sided Sheets	$72.72	77	$5,599.44
		Total	$8,188.45

Project Name: American Cleaners Site
Work Assignment No.: D003600-39
Task No./Name: All Tasks
Complete: 0.00%

SCHEDULE 2.11 (g)
SUMMARY

Date Prepared:
Billing Period:
Invoice No.:

MONTHLY COST CONTROL REPORT
SUMMARY OF FISCAL INFORMATION

Expenditure Category	A Costs Claimed This Period	B Paid To Date	C Total Disallowed To Date	D Total Costs Incurred To Date (A+B+B1)	E Estimated Costs To Completion	F Total Work Assignment Price (A+B+E)	G Approved Budget	H Estimated Under/(Over) (G-F)
1. Direct Salary Costs	0.00	0.00	0.00	0.00	0.00	0.00	$37,735	0.00
2. Indirect	0.00	0.00	0.00	0.00	0.00	0.00	$59,735	0.00
3. Subtotal Direct Salary Costs and Indirect Costs	0.00	0.00	0.00	0.00	0.00	0.00	$97,470	0.00
4. Travel	0.00	0.00	0.00	0.00	0.00	0.00	$600	0.00
5. Other Non-Salary Costs	0.00	0.00	0.00	0.00	0.00	0.00	$1,180	0.00
6. Subtotal Direct Non-Salary Costs	0.00	0.00	0.00	0.00	0.00	0.00	$1,780	0.00
7. Subcontractors	0.00	0.00	0.00	0.00	0.00	0.00	$25,813	0.00
8. Total Work Assignment Cost	0.00	0.00	0.00	0.00	0.00	0.00	$125,063	0.00
9. Fixed Fee	0.00	0.00	0.00	0.00	0.00	0.00	$8,187	0.00
10. Total Work Assignment Price	0.00	0.00	0.00	0.00	0.00	0.00	$133,250	0.00

Project Manager (Engineer) _____ Date _____

Project Name: American Cleaners Site
Work Assignment No.: D003600-39
Task No./Name: 1/Work Plan Development
Complete: 0.00%

SCHEDULE 2.11 (g)

Date Prepared:
Billing Period:
Invoice No.:

MONTHLY COST CONTROL REPORT
SUMMARY OF FISCAL INFORMATION

Expenditure Category	A Costs Claimed This Period	B Paid To Date	C Total Disallowed To Date	D Total Costs Incurred To Date (A+B+B1)	E Estimated Costs To Completion	F Total Work Assignment Price (A+B+E)	G Approved Budget	H Estimated Under/(Over) (G-F)
1. Direct Salary Costs	0.00	0.00	0.00	0.00	0.00	0.00	$5,756	0.00
2. Indirect	0.00	0.00	0.00	0.00	0.00	0.00	$9,111	0.00
3. Subtotal Direct Salary Costs and Indirect Costs	0.00	0.00	0.00	0.00	0.00	0.00	$14,867	0.00
4. Travel	0.00	0.00	0.00	0.00	0.00	0.00	$150	0.00
5. Other Non-Salary Costs	0.00	0.00	0.00	0.00	0.00	0.00	$50	0.00
6. Subtotal Direct Non-Salary Costs	0.00	0.00	0.00	0.00	0.00	0.00	$200	0.00
7. Subcontractors	0.00	0.00	0.00	0.00	0.00	0.00	$0	0.00
8. Total Work Assignment Cost	0.00	0.00	0.00	0.00	0.00	0.00	$15,067	0.00
9. Fixed Fee	0.00	0.00	0.00	0.00	0.00	0.00	$1,249	0.00
10. Total Work Assignment Price	0.00	0.00	0.00	0.00	0.00	0.00	$16,316	0.00

Project Manager (Engineer) _____ Date _____

Project Name: American Cleaners Site
Work Assignment No.: D003600-39
Task No./Name: 2/Pre-Design Field Activities
Complete: 0.00%

SCHEDULE 2.11 (g)

Date Prepared:
Billing Period:
Invoice No.:

MONTHLY COST CONTROL REPORT
SUMMARY OF FISCAL INFORMATION

Expenditure Category	A Costs Claimed This Period	B Paid To Date	C Total Disallowed To Date	D Total Costs Incurred To Date (A+B+B1)	E Estimated Costs To Completion	F Total Work Assignment Price (A+B+E)	G Approved Budget	H Estimated Under/(Over) (G-F)
1. Direct Salary Costs	0.00	0.00	0.00	0.00	0.00	0.00	$3,444	0.00
2. Indirect	0.00	0.00	0.00	0.00	0.00	0.00	$5,452	0.00
3. Subtotal Direct Salary Costs and Indirect Costs	0.00	0.00	0.00	0.00	0.00	0.00	$8,897	0.00
4. Travel	0.00	0.00	0.00	0.00	0.00	0.00	$300	0.00
5. Other Non-Salary Costs	0.00	0.00	0.00	0.00	0.00	0.00	$980	0.00
6. Subtotal Direct Non-Salary Costs	0.00	0.00	0.00	0.00	0.00	0.00	$1,280	0.00
7. Subcontractors	0.00	0.00	0.00	0.00	0.00	0.00	$17,625	0.00
8. Total Work Assignment Cost	0.00	0.00	0.00	0.00	0.00	0.00	$27,802	0.00
9. Fixed Fee	0.00	0.00	0.00	0.00	0.00	0.00	$747	0.00
10. Total Work Assignment Price	0.00	0.00	0.00	0.00	0.00	0.00	$28,549	0.00

Project Manager (Engineer) _____ Date _____

Project Name: American Cleaners Site
Work Assignment No.: D003600-39
Task No./Name: 3/Plans and Specifications
Complete: 0.00%

SCHEDULE 2.11 (g)

Date Prepared:
Billing Period:
Invoice No.:

MONTHLY COST CONTROL REPORT
SUMMARY OF FISCAL INFORMATION

Expenditure Category	A Costs Claimed This Period	B Paid To Date	C Total Disallowed To Date	D Total Costs Incurred To Date (A+B+B1)	E Estimated Costs To Completion	F Total Work Assignment Price (A+B+E)	G Approved Budget	H Estimated Under/(Over) (G-F)
1. Direct Salary Costs	0.00	0.00	0.00	0.00	0.00	0.00	$22,541	0.00
2. Indirect	0.00	0.00	0.00	0.00	0.00	0.00	$35,682	0.00
3. Subtotal Direct Salary Costs and Indirect Costs	0.00	0.00	0.00	0.00	0.00	0.00	$58,223	0.00
4. Travel	0.00	0.00	0.00	0.00	0.00	0.00	$0	0.00
5. Other Non-Salary Costs	0.00	0.00	0.00	0.00	0.00	0.00	$125	0.00
6. Subtotal Direct Non-Salary Costs	0.00	0.00	0.00	0.00	0.00	0.00	$125	0.00
7. Subcontractors	0.00	0.00	0.00	0.00	0.00	0.00	$8,188	0.00
8. Total Work Assignment Cost	0.00	0.00	0.00	0.00	0.00	0.00	$66,536	0.00
9. Fixed Fee	0.00	0.00	0.00	0.00	0.00	0.00	$4,891	0.00
10. Total Work Assignment Price	0.00	0.00	0.00	0.00	0.00	0.00	$71,427	0.00

Project Manager (Engineer) _____ Date _____

Project Name: American Cleaners Site
Work Assignment No.: D003600-39
Task No./Name: 4/Pre-Award Services
Complete: 0.00%

SCHEDULE 2.11 (g)

Date Prepared:
Billing Period:
Invoice No.:

MONTHLY COST CONTROL REPORT
SUMMARY OF FISCAL INFORMATION

Expenditure Category	A Costs Claimed This Period	B Paid To Date	C Total Disallowed To Date	D Total Costs Incurred To Date (A+B+B1)	E Estimated Costs To Completion	F Total Work Assignment Price (A+B+E)	G Approved Budget	H Estimated Under/(Over) (G-F)
1. Direct Salary Costs	0.00	0.00	0.00	0.00	0.00	0.00	$5,994	0.00
2. Indirect	0.00	0.00	0.00	0.00	0.00	0.00	$9,489	0.00
3. Subtotal Direct Salary Costs and Indirect Costs	0.00	0.00	0.00	0.00	0.00	0.00	$15,483	0.00
4. Travel	0.00	0.00	0.00	0.00	0.00	0.00	$150	0.00
5. Other Non-Salary Costs	0.00	0.00	0.00	0.00	0.00	0.00	$25	0.00
6. Subtotal Direct Non-Salary Costs	0.00	0.00	0.00	0.00	0.00	0.00	$175	0.00
7. Subcontractors	0.00	0.00	0.00	0.00	0.00	0.00	$0	0.00
8. Total Work Assignment Cost	0.00	0.00	0.00	0.00	0.00	0.00	$15,658	0.00
9. Fixed Fee	0.00	0.00	0.00	0.00	0.00	0.00	$1,301	0.00
10. Total Work Assignment Price	0.00	0.00	0.00	0.00	0.00	0.00	$16,958	0.00

Project Manager (Engineer) _____ Date _____

SCHEDULE 2.11 (g) SUPPLEMENTAL
MONTHLY COST CONTROL REPORT
SUBCONTRACTS

Subcontract Name	Subcontract Costs Claimed This Application Incl. Resubmittals	Subcontract Costs Approved for Payment on Previous Application	Total Subcontract costs to Date (A plus B)	Subcontract Approved Budget	Management Fee Budget	Management Fee Paid	Total Costs To Date
1. YEC, Inc.	$0.00	$0.00	$0.00	$11,960	$0		
2. Mitkem Corporation	$0.00	$0.00	$0.00	$5,665	$0		
3. Jamaica Blueprint Co., Inc.	$0.00	$0.00	$0.00	$8,188	$0		
Total				$25,813	$0		

Schedule 2.11 (h)

Date Prepared:

Project Name: American Cleaners Site

Billing Period

Work Assignment No.: D003600-39

Invoice No.

Monthly Cost Control Report
Summary of Labor Hours
Expended to Date/Estimated To Completion

N: Labor Classification	EXP/EST	VIII EXP/EST	VII EXP/EST	VI EXP/EST	V EXP/EST	IV EXP/EST	III EXP/EST	I & II EXP/EST	ADMIN/ SUPPORT	TOTAL NUMBER OF DIRECT LABOR HOUR EXP/EST
Task 1	0/ 20	0/ 0	/ 0	/ 68	0/ 26	0/ 0	0/ 0	/ 16	0/	0/ 138
Task 2	0/ 4	0/ 0	0/ 0	0/ 24	0/ 54	0/ 0	0/ 0	0/ 0	0/ 4	0/ 86
Task 3	0/ 16	0/ 0	0/ 0	0/ 40	0/ 232	0/ 0	0/ 248	0/ 156	0/ 4	0/ 696
Task 4	0/ 6	0/ 0	0/ 0	0/ 32	0/ 68	0/ 0	0/ 40	0/ 16	0/ 4	0/ 166
Total 2003 Hours	0/ 20	0/ 0	0/ 0	0/ 68	0/ 26	0/ 0	0/ 0	0/ 16	0/ 8	0/ 138
TOTAL HOURS	0/ 20	0/ 0	0/ 0	0/ 68	0/ 26	0/ 0	0/ 0	0/ 16	0/ 8	0/ 138

MBE/WBE
UTILIZATION PLAN
SUMMARY
American Cleaners Site
Work Assignment No. D003600-39

Areas to be Subcontracted	Subcontractor Name	MBE/WBE	Total Subcontract Value	% MBE/WBE Utilization
1. Asbestos and Lead Paint Surveys and Certified Site Survey	YEC, Inc.	MBE	$11,960	9.0%
2. Sample Analysis	Mitkem Corporation	MBE	$5,665	4.3%
3. Document Reproduction	Jamaica Blueprint Co., Inc.	MBE	$8,188	6.1%

Total MBE Utilization	MBE Subcontract Value / Total Contract Value	=	$17,625 / $133,250	13.2%
Total WBE Utilization	WBE Subcontract Value / Total Contract Value	=	$8,188 / $133,250	6.1%