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**Work Plan for
Interim Remedial
Design Services
Niagara Transformer Site**

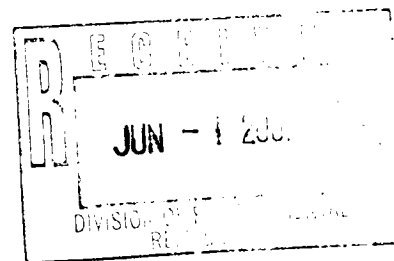
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Site Number 9-15-146

May 2001



Prepared for:

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Division of Hazardous Waste Remediation
50 Wolf Road
Albany, New York 12233-7010



ecology and environment engineering, p.c.

BUFFALO CORPORATE CENTER 363 Pleasant View Drive, Lancaster, New York 14086
Tel: 716/684-8060, Fax: 716/684-0844

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List of Acronyms

CAP	Contractor Applications for Payment
CO	change order
DAR	Design Analysis Report
DHWR	Division of Hazardous Waste Remediation
E & E	Ecology and Environment Engineering, P.C.
EEO	Equal Employment Opportunity
IRM	Interim Remedial Measure
LOE	level of effort
MBE/WBE	Minority-owned Business Enterprise/Woman-owned Business Enterprise
NTC	Niagara Transformer Corporation
NYSDEC	New York State Department of Environmental Conservation
PM	project manager
RI	Remedial Investigation
ROD	Record of Decision
SR	site representative
WA	Work Assignment

1

Introduction

Pursuant to Work Assignment (WA) No. D003493-28 received on February 22, 2001, Ecology and Environment Engineering, P.C. (E & E) is submitting to the New York State Department of Environmental Conservation (NYSDEC), referred to as the Department, Division of Hazardous Waste Remediation (DHWR), this work plan for Interim Remedial Measure (IRM) design services for the Niagara Transformer Site located in Cheektowaga, New York.

Section 2 of this work plan summarizes the site background and the work plan scope. Section 3 details the major tasks and sub-tasks. Section 4 presents a discussion of major milestones of the project and a project schedule. Section 5 discusses opportunities for subcontracting within this work assignment. Section 6 provides a detailed budget prepared in accordance with contractual reporting requirements, including the 2.11 Forms. Section 7 provides our staffing plan for key team members. Section 8 presents the Minority-owned Business Enterprise/Woman-owned Business Enterprise (MBE/WBE) utilization plan.

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Background/Scope of Work

This section provides information on the background and scope of the IRM to be completed at the Niagara Transformer site.

2.1 Site Background

This 3.6-acre site, located in the Town of Cheektowaga, is owned by Niagara Transformer Corporation (NTC), a manufacturer/repairer of electrical transformers. An active manufacturing/office facility, a storage building, and aboveground oil storage tanks are located on the site. Releases of PCB-contaminated transformer oil have contaminated soil, groundwater, surface ditches, and a retention pond. The December 1993 Record of Decision (ROD) selected excavation and off-site disposal of soil and sediment as the site remedy. Design of the remedy began in April 1994 and the project was bid in the fall of 1995. During design, it was determined that soil contamination in the parking lot "corridor" extended much deeper than expected (more than 20 feet). It was determined that removing all of the soil was not feasible and the design would limit the soil removal to 4 feet.

A Consent Decree with NTC was entered in March 1996 that settled cost recovery issues for the NTC site. The decree requires NTC to make 18 annual payments of \$300,000 to the Department for a total of \$5,400,000.

Construction began in April 1996 and was completed in December 1997 at a cost of \$5.5 million. After remediation was substantially completed, oil-drying equipment in the plant malfunctioned and sprayed transformer oil onto the roof and soils along the west side of the building. Although NTC states they did not handle transformer oils containing PCBs over 50 ppm, the soil was found to contain PCBs at concentrations of up to 460 ppm. NTC removed contaminated soils and replaced roofing materials at their own expense. Roof drains were also flushed.

After the roof contamination was discovered, a storm water treatment system was installed at the head of the remediated drainage

2. Background/Scope of Work

ditches at the site. Sampling of sediments in downstream ditches indicated that ditches near the site became recontaminated. Sampling of the roof and drainage piping was completed to determine the effectiveness of the replacement roofing. The results showed low-level continuing releases of PCBs. Additional work was completed by the NYSDEC to flush and reroute drain lines.

In 1999, additional field investigations were initiated to determine the source, or sources, of the continuing releases of PCBs to surface water and to determine the extent of recontamination of ditches both on and off site (E & E 2000). The data generated indicated that on-site storm sewers may be acting as a preferential pathway for migration of residual contamination at the site (mainly from under the active building).

2.2 Work Plan Scope

Objectives of this work plan as identified in the WA are:

- Preparation of the design for abandonment and replacement of the current on-site storm water drainage system;
- Performance of an evaluation to determine whether the crushed stone in recontaminated sections of the ditch should be cleaned, reused, or disposed of and replaced;
- Preparation of the design for remediation of ditches;
- Preparation of the design for the hard piping of a section of the east-west ditch to mitigate the potential recontamination from this area;
- Procurement of construction contractor services or provide bid support during the bid process (Note: If the construction costs are to be less than \$100,000, E & E will procure the contractor and the WA will be amended for associated costs.); and
- Performance of construction oversight during the implementation of the IRM.

Although the above are identified in the WA as objectives, several issues (e.g., manner of storm sewer abandonment/replacement, disposition of contaminated sediments, etc.) regarding elements of the IRM require further analysis to help determine the best course of action for the IRM. Based on discussion with NYSDEC, it is understood that the ultimate objective of the IRM is the mitigation of risks associated with exposure to surficial PCB contamination in the north-south ditch and the east-west ditch. As part of this work

2. Background/Scope of Work

plan, the suspected preferential pathway for PCB migration along or within the existing storm water pipe is to be eliminated. The scope identified above includes evaluation of alternative approaches addressing these issues. E & E has expanded the alternative analysis outlined in the WA. For example, E & E will evaluate the viability of grouting storm sewer bedding material in place and a limited sediment removal to reduce overall construction costs. The scope of work as well as evaluation of various alternative approaches is discussed in Section 3.0.

The scope of work included herein is an interim measure. It does not address the source area contamination believed to exist in the vicinity of monitoring wells MW-IN, MW-OUT, the loading bay, the southwest corner of the site, and in the cemetery where unmarked graves were encountered during the remediation. This IRM will be effective in reducing current risks posed by surficial contamination at the site. It is recognized, however, that this IRM will not address potential sources believed to exist under the building and in and around grave sites since these areas are not accessible. Since contamination in these areas will remain in place, the possibility will exist for re-contamination of areas addressed by the IRM. This IRM will include measures to reduce this potential.

3

Major Tasks and Subtasks

Tasks and requirements of this WA are specified in Schedule 1, of E & E's standby contract, *Work Element IV and V (Remedial Design and Remedial Construction Management)*. The following is a summary of tasks including project-specific considerations and details of the WA scope.

This WA includes four separate and independent design elements described as separate tasks. However, all four elements will be developed as one bid package. These elements include:

- Abandonment of the Current Storm Sewer System;
- Installation of a New Storm Sewer System;
- Remediation of Drainage Ditches; and
- Storm Pipe Installation in the East-West Ditch.

To simplify this text, the tasks included in the original WA have been rearranged. Pursuant to conventional NYSDEC Superfund standby assignments, Task 1 is designated to describe project scoping and work plan development; Task 2 describes alternative evaluation and development of the design basis for the four design elements; Task 3 describes the preparation of the Contract Documents (plans and specifications); Task 4 describes the contractor procurement/bid support services to be provided; Task 5 describes construction oversight; and Task 6 describes the preparation of the Remediation Report.

Task 1: Work Plan

E & E's Program Manager, Director, and Project Manager (PM) have reviewed components of the work assignment and the required scope. A level of effort (LOE) estimate (hours and staffing) and associated cost for completing all tasks and associated deliverables have been submitted for negotiation with this work plan (see Section 7). The purpose of this work plan is to:

3. Major Tasks and Subtasks

1. Provide detail to the scope of work, where necessary, to support E & E's LOE estimates in the project budget; and
2. Present a work plan that includes, at a minimum, a Statement of Work, including a description and purpose of the major tasks and subtasks; a detailed schedule with milestones and deliverables; a staffing plan; a MBE/WBE and Equal Employment Opportunity (EEO) Utilization Plan; and a proposed list of subcontractors.

It is E & E's understanding that when an acceptable work plan is produced, a Notice to Proceed will be issued to execute this work assignment. Furthermore, E & E understands that it is the goal of NYSDEC to formally approve the work plan within 90 days of issuing the WA.

Task 2: Design Analysis

A design analysis will be completed for the four design elements. Note that WA design elements 1 and 2 have been combined into design analysis Subtask 2.1. The following sections describe the analysis to be completed for each. Submittals associated with the design analysis are described as Subtask 2.4.

Subtask 2.1: Design of Abandonment and Replacement of Current Storm Sewer

Background. Data generated during the field investigation completed in 1999 indicated that on-site storm sewers may provide a preferential pathway for migration of PCB contamination. This pathway may be along the pipe bedding or through infiltration of water into the storm sewer pipe and migration within the pipe. The Department has determined that this pathway needs to be eliminated. This may include removing the existing storm sewer system from service. In the event the storm sewer system is removed from service, a new system will have to be installed to provide adequate site drainage. In addition, it may be desirable to separate the two storm flows (i.e., roof drainage and parking lot runoff) to allow separate analysis of these flows.

Objective. The objective of this design element is to reduce the potential for preferential contaminant migration along the existing storm pipe bedding and the potential for infiltration into the pipe.

Analysis: The analysis will involve an evaluation of three related issues.

3. Major Tasks and Subtasks

1) Pipe Abandonment: This evaluation will examine the feasibility of two alternative approaches to abandoning the existing storm piping. These approaches will include excavation and removal and grouting in place.

2) Site Drainage: This evaluation will examine the feasibility of two alternative approaches to site drainage. These approaches will include providing new equivalent piping in a manner that reduces the potential for infiltration and site grading to achieve the desired drainage.

3) Source Stabilization: This evaluation will evaluate the feasibility of stabilization by pressure grouting of known source areas. If it is determined that a new storm sewer system is to be installed, E & E will consult with the Department regarding the configuration of the new system. Issues to clarify with regard to a new system include:

1. Should the roof and parking lot storm water be kept separate?
2. What is the appropriate depth of installation considering groundwater elevation and freezing?

Each option will be evaluated based on effectiveness, implementability, and cost. To support this evaluation, additional analyses must be completed including hydrologic modeling and an assessment of potential impacts to the building foundation resulting from pipe bedding blockage, which currently serves as a pathway for drainage.

The hydrologic analysis will be completed using TR-55 or another method appropriate for the size of the drainage area (i.e., the Rational Method). It is assumed that the drainage area is limited to the site and the immediate adjacent area. Surface cover will be based on site observations. Site topography and drainage paths will be based on record drawings from the site's previous remediation. E & E will select an appropriate design storm recurrence period based on consultation with NYSDEC. Runoff coefficients will be based on published values for identified surface covers.

Since the existing pipe bedding is believed to be acting as a drain for water that accumulates around the foundation, removal of the drain may cause an excessive accumulation of water beneath the foundation. This accumulation may have impacts on the structural integrity of the foundation as the clay swells due to increased moisture content or freeze/thaw. A preliminary assessment of potential impacts to the building foundation will be completed by

3. Major Tasks and Subtasks

E & E. Data used to complete the evaluation will be limited to those presented in the Remedial Investigation (RI) report and those collected in the 1999 study. If a determination is made that accumulation of water under the building may damage the foundation, E & E will subcontract a local geotechnical engineering consultant to provide a peer review of the evaluation and provide a second opinion. It has been assumed that no additional site data will be required to complete this evaluation. E & E will consider results of this assessment in its evaluation of alternatives and make a recommendation with regard to ways in which any significant impacts may be mitigated.

Subtask 2.2: Design of the Remediation of Drainage Ditches

Background. Following the remedial activities performed in 1997, drainage ditches were lined with geotextile and backfilled with a layer of crushed stone. Since the completion of these activities, there has been accumulation of some sediment within the ditches. In areas where sediment has accumulated, samples were collected as part of the 1999 investigations. The results indicate some contamination of ditch sediments at concentrations typically below 15 ppm.

Objective. The objective of this design element task is to mitigate risks associated with surficial contamination in the north-south and east-west drainage ditches.

Analysis. Three alternative approaches will be evaluated as part of this design element. These include:

1. Excavating contaminated ditch material (stone and sediment), cleaning the stone on-site and reusing the stone.
2. Excavating contaminated ditch material for disposal off-site and replacing with new material.
3. Installing a new storm water pipe in the north-south ditch, off-site disposal of contaminated sediments above 10 ppm and burial of the remaining contaminated stone and sediments in place.

Each alternative will be evaluated with respect to effectiveness, implementability, and cost. For purposes of estimating quantities of sediments and stone, E & E will assume an average thickness of 12 inches multiplied by the average bottom width and length of the ditch. Supporting analysis to be completed as part of this evalua-

3. Major Tasks and Subtasks

tion will include pipe sizing based on flows generated during the hydrologic method described as part of Subtask 2.1. E & E will select an appropriate storm sewer design based on consultation with NYSDEC.

Subtask 2.3: Design of Storm Sewers/Pipe in East West Ditch

Background. There is potential for residual contamination along the path of the east-west ditch located near the southwest corner of the NTC property and adjacent to the cemetery to discharge into the ditch resulting in recontamination. The Department has determined that a sewer pipe is to be installed within the ditch with the intent to mitigate potential contamination from seepage into the ditch.

Objective. The Department has established the following design objectives for pipe installation.

1. Constructed to minimize the potential for infiltration of contamination into the pipe.
2. Designed to mitigate the potential for contaminant migration through the pipe bedding.
3. Designed to handle appropriate storm flows from upstream locations.

In addition, the Department indicated that the design should account for appropriate surface drainage of the cemetery property.

Analysis. Supporting analyses to be completed as part of this evaluation will include pipe sizing based on flows generated during the hydrologic analysis described as part of Subtask 2.1. E & E will select an appropriate storm sewer design based on consultation with NYSDEC.

Subtask 2.4: Design Analysis Submittals

The WA includes no formal preparation of design analysis reports to support the design. In lieu of a formal design report, E & E will submit a Technical Memorandum for each of the three design elements. The Technical Memoranda will detail the analyses performed in letter format. Attachments to the Technical Memoranda will include engineering calculations and supporting information as necessary. It is assumed that a Draft and a Final Technical Memorandum will be submitted for each analysis a budget has been in-



3. Major Tasks and Subtasks

cluded for six copies of the draft and final technical memoranda to be submitted.

It should be noted that E & E will not proceed with the design until all three Technical Memoranda have been finalized.

Task 3: Plans and Specifications

E & E will prepare general contracts for three design elements with plans and specifications to be used in competitive bidding for the IRM construction using the Department standard construction contract. In addition, E & E will prepare a construction cost estimate, a schedule, and a limited site data document.

In order to develop costs for this work, it was necessary to make assumptions regarding final design components. Initial assumptions for final design components are provided below.

- A draft design will be submitted at the 90 percent complete level. Department comments on the draft submittal will be incorporated into the final design.
- Drawings and specifications listed in Subtasks 3.1 and 3.2 represent the assumed level of effort required to complete this project. It is expected that the exact number and contents of drawings and specifications will not be known until the analysis described in Task 2 are completed. Significant changes to the project requiring preparation of additional sheets and/or specifications will require an additional LOE.
- It has been assumed for purposes of this text that construction costs will be greater than \$100,000 and the project will be put out to bid by the Department. The LOE is expected for this task is expected to be the same regardless of the contracting approach.
- For purposes of estimating costs, it has been assumed that on-site treatment of sediments will not be viable.
- The Limited Site Data document will include:
 1. Excerpts from the Additional Investigations Report including the well construction logs, boring logs, analytical test results, water level measurements.
 2. A copy of the November 25, 1998 NYSDEC memorandum describing drainage sampling.
 3. Other information provided by NYSDEC for inclusion.

Subtask 3.1: Drawings

It has been assumed that this project will require preparation of eight drawings including:

- Title Sheet
- Existing Conditions – Building and North-South Ditch
- Existing Conditions – East-West Ditch
- New Work – Building and North-South Ditch
- New Work – East-West Ditch
- New Work – Grading Plan
- Sections
- Details

Drawings will be prepared using AutoCAD Release 12. Drawings will be produced on 24 inch by 36-inch sheets of paper. Limits of work, access requirements and contractor staging areas will be identified on the draft drawings.

Subtask 3.2: Specifications

Construction specifications will be prepared using Construction Specification Institute format. E & E will incorporate NYSDEC standard construction contract boilerplate language as Division 0. It is assumed that the following specification sections will be prepared.

■ **Division 1 – General Requirements**

- Summary of Work
- Measurement and Payment
- Surveying
- Minimum Requirements for Health and Safety
- Pre-Work Conference
- Progress Meetings
- Submittal Procedures
- Project Schedule
- Project Photographs
- Environmental Protection
- Environmental Sample Collection and Testing
- Erosion and Sediment Control
- Temporary Site Utilities
- Temporary Construction Facilities
- Control of Materials
- Project Record Documents

■ **Division 2 – Site Work**

- Selective Demolition



3. Major Tasks and Subtasks

- Dewatering During Construction
- Earthwork
- Grouting
- Transportation and Disposal of Contaminated Materials
- Bituminous Paving
- Storm Sewers
- Site Restoration

Subtask 3.3: Construction Cost Estimate and Schedule

As part of the final design process, E & E will prepare a construction cost estimate that will include the basis for development of unit and lump sum costs. The cost estimate will be presented under a separate cover with the draft and final designs. E & E will prepare a construction schedule in Gantt chart format.

Subtask 3.4: Design Submittals

A budget has been included for a draft and final submittal of plans, specifications, cost estimate and schedules. Six copies will be provided as the draft. Twenty-five copies will be provided as the final design and specifications submittal.

Task 4: Subcontractor Procurement or Support During Bid Process

It is understood that if the construction cost estimate is below \$100,000, the Department will require E & E to procure the contractor and complete the work. If the costs are estimated to be above \$100,000, the project will be put out for competitive bid. This task includes a budget for E & E to provide support whether the subcontractor is procured by E & E or the work is put out for bid. Also included in this task is general support during pre-construction coordination. It is assumed that the Department will coordinate with Niagara Transformer and interested rail companies in the event that access to the rail property is required to complete the work. Although the scope of this task is not known at this time, a LOE of 60 hours has been provided for this task. E & E will notify the state should it become evident that additional LOE is required.

If additional LOE is required for E & E to procure the subcontractor, these costs will be included in the amendment. In addition, the amendment to this work plan will include a detailed protocol to address authorization of field change orders during construction. This amendment will be developed with input from the Department.

3. Major Tasks and Subtasks

Task 5: Construction Oversight

This task involves providing on-site representation for the Department during the construction phase of this IRM. For purposes of this task, it has been assumed that this work will be put out to bid and the Department will hold the contract. Subtasks that may be included under this task include attendance at meetings, review of contractor submissions, and remedial construction inspections. For budget estimating purposes, it has been assumed that there will be one kick-off meeting at the beginning of the project with the PM and the site representative (SR) in attendance. Thereafter, the required LOE has been estimated at five 40-hour weeks for a full-time SR. Based on E & E's experience with similar projects, the LOE for engineering support and management during the construction period is estimated at 10 hours per week, in addition to progress meetings.

The following is a summary of subtasks that may be required for this task.

Subtask 5.1: Meetings Attendance

Preconstruction Meeting. E & E's PM and SR will attend the preconstruction meeting, where the following will be reviewed: the scope of work, the health and safety plan, Department comments made to the plans submitted with the bid and the 5- and 14-day post-bid submissions, and the Project Schedule. In addition, lines of communication and reporting will be established for technical and contractual matters. This meeting will be held at the site.

Job Meetings. Due to the short duration and relatively small scope of this project, job meetings will be held on an as-needed basis and attended by E & E's SR. E & E's PM will attend meetings on an as needed basis. For cost estimating purposes three meetings at 4 hours each have been assumed.

Subtask 5.2: Review of Contractor Submissions

Following the Contractor's Notice to Proceed and prior to construction startup, the Contractor will submit to E & E submissions as required by the Contract Documents under Section XI - Supplementary Specifications, Section 00500.11 Submittals, Parts 11.2, Shop Drawings and 11.3, Other Submittals. E & E will record all submissions and track them through the review process. E & E will evaluate submittals according to project objectives and requirements and forward them to NYSDEC with written recommendations. E & E will use engineering personnel experienced in elements of this project to review submissions.



3. Major Tasks and Subtasks

If the project is put out to bid by the Department, E & E will assume the role of Engineer during the construction phase as defined in Department standard construction boilerplate. For the duration of the project, E & E will review shop drawings, air monitoring data, material test results, and other documents submitted by the Contractor in connection with this project. The Engineer will stamp submissions as "Approved", "Approved as Noted", "Revise and Resubmit", or "Disapproved".

Subtask 5.3: Remedial Construction Inspection

The purpose of remedial construction inspection is to provide professional engineering services for proper monitoring of remedial construction projects. These services include acting as liaison between NYSDEC and the Contractor for all issues related to the project, quality assurance of construction, monitoring of health and safety conditions, and complete record keeping of all construction activities. However, E & E is not responsible for the Contractor's means and methods to complete the Work.

HASP: E & E will update the existing health and safety plan for the site to include the additional field work to be included under this WA. The HASP will be prepared for use by E & E staff.

Inspection of Work. E & E will assist the Department in enforcement of all requirements of the Contract Documents by providing an experienced project team including an SR during construction activities. E & E plans to have the SR on site full-time during construction.

E & E's SR will notify, by use of a nonconformance form, the Contractor and the Department in the event the Contractor fails to perform the work as specified in the Contract. The SR will recommend to the Department the acceptance, disapproval, or rejection of the Contractor's work. E & E will issue instructions, field orders, interpretations, and clarification of contract language to the Contractor only with the Department's prior knowledge.

In the event a change order (CO) is required, E & E's PM will negotiate, develop, and submit the CO to the Department for approval along with an independently developed, detailed cost estimate, and other pertinent documentation. E & E's PM, with the assistance of the SR, will document, evaluate, and recommend a course of action for all disputes and claims with the Contractor.

E & E will sign, for NYSDEC, manifests and bills of lading for disposal of hazardous and nonhazardous wastes.

3. Major Tasks and Subtasks

E & E will inspect the Contractor's progress, review the Contractor's progress schedule every other week (notifying the Contractor of its status), and, if necessary, review recovery schedules.

E & E will review all Contractor Applications for Payment (CAP). The review will be to ascertain quantities are accurate and line item extensions are correct. Furthermore, the Engineer will provide recommendation for CAP processing based upon the Contractor's compliance with performance criteria precedent to payment, as stated in the Contract Documents.

Construction Records and Reports. E & E will maintain complete and detailed records associated with all construction and related activities during the project's duration. The master file for these records will be kept at the site project office when such office exists, and in E & E's Buffalo offices at times when a site project office does not exist. This task includes the monthly narrative status reports (to be submitted to the Department's PM and the compilation of all records. These records and reports include, but are not limited to, the following:

- Daily work completed, visitors on site, and important conversations (prepared by E & E);
- Copies of the Contractor's daily report of personnel, material, and equipment utilized (verified by E & E);
- All nonconformance forms documenting the Contractor's deviation from work as specified in the contract, and any instructions issued regarding deviations (prepared by E & E);
- Event reports documenting unusual circumstances (weather conditions, labor disputes, environmental health and safety hazards encountered, etc.) (prepared by E & E);
- Copies of the Contractor's daily site visitors log, security log, health and safety log, air monitoring log, and sampling log (verified by E & E);
- Progress record of Contractor in reference to the work schedule submitted by the Contractor (prepared by E & E);
- General files, including correspondence, and other documentation related to the project (maintained by E & E);



3. Major Tasks and Subtasks

- Job meeting minutes with documentation of issues raised (prepared by E & E);
- Records of Contractor's submittals, including shop drawings, COs, soil tests, material tests, and actions taken (e.g., approval) (maintained by E & E);
- Digital construction photos (approximately 50 photographs) (prepared by E & E);
- Record Drawings (developed and maintained by Contractor, reviewed by E & E);
- Records of telephone conversations (prepared by E & E);
- Copies of Contractor's manifests and bills of lading for disposal of wastes (verified by E & E);
- Copies of Contractor's certification of disposal (verified by E & E); and
- Copies of certifications of Substantial and Final Completion (prepared by E & E).

Contract Completion. E & E's PM and SR together with the Department's PM will conduct an inspection upon Substantial Completion of the Work and Final Completion inspection upon project completion. At Substantial Completion, E & E will prepare a detailed list of work items remaining unfinished and an estimate of the value of the work that must still be completed. E & E's PM and SR will coordinate the Substantial Completion and Final Completion inspections with the Department's PM.

E & E will participate in the Final Completion inspections to determine if all work is completed and meets requirements of the construction contract. Once these inspections have been performed, E & E will deliver a written notice with regard to the disposition of the project to the Department. If E & E determines that the project has been satisfactorily completed according to the contract plans and specifications, certification to this fact will be made to the Department by E & E.

For cost estimating purposes a total of 20 hours has been budgeted for contract completion under this task.

3. Major Tasks and Subtasks

The Engineer will review Record Drawings prepared by the Contractor for reasonableness and will prepare Record Drawings based on this information.

All project records (files, reports, documentation, etc.) shall be delivered to the Department at the completion of the project including an electronic version on CD and on microfilm.

Task 6: Remediation Report

E & E will prepare a Final Remediation Report for approval by the Department. E & E will provide the Department with certification in the Final Remediation Report that the Contract was completed in substantial accordance with Contract Documents.

The report will include a summary of work performed at the site and will reflect variations from the Contract Documents, confirmatory sampling locations, and results. A rough outline of the report is as follows:

1. Background
 - 1.1 Site Description and History
 - 1.2 Summary of Design Objectives
2. Summary of Remedial Work
 - 2.1 General Overview
 - 2.2 Variations from Contract
 - 2.3 Quantity and Cost Adjustments
 - 2.4 Change Order Summary
3. Engineer's Certification

Appendices

- A Summary of Analytical Data
- B Record Drawings
- C Photo Index

All digital photos taken will be included with the report and will include a date and a brief log description of work depicted. E & E will submit six hard copies of the report and the report and photos on a CD and microfilm.



3. Major Tasks and Subtasks

Task 7: Bid Document Reproduction

If the project is bid by the Department, a total of 75 copies of the final plans and specification will be required. This task includes costs for reproduction of 50 copies of the plans and specifications in addition to the 25 copies identified for reproduction in Subtask 3.4.

4

Progress Schedule

The schedule below has been developed using target dates presented in the WA and discussions with the Department's Project Manager. The schedule has only been developed through the IRM design. When the contractor is contracted, a revised schedule will be developed reflecting all remaining tasks.

Table 4-1 Tentative Project Schedule Through Design

Work Assignment Element	Calendar Days from WP Approval
Notice-to-Proceed/Finalize WP	0
Design Analysis	0 - 42
NYSDEC Review of Design Analysis	42 - 49
Finalize Design Analysis*	49 - 56
Draft Plans and Specifications	42 - 84
NYSDEC Review of Draft	84 - 100
Final Plans and Specifications*	100 - 114

* Milestones for rating purposes.

It should be noted that due to the tight time frame, E & E has developed an aggressive schedule for this work. Only one week has been allotted for department review and comment on submittals. E & E will be submitting the design analysis technical memoranda as they are completed, thus submission will be staggered. E & E anticipates frequent communication with the Department to help meet this tight schedule.

5

Subcontracting Plan

Construction management WAs typically do not present many opportunities for subcontracting. However, following an initial geotechnical evaluation of potential impacts to the building foundation from project activities, a determination will be made if a geotechnical engineering subconsultant is required. If necessary, it is not expected that the LOE for this specialty subconsultant will exceed \$2,000. If the on-site work progresses at a pace that warrants an additional SR, E & E could subcontract the additional SR. However, E & E does not plan to use an additional SR at this time.

6

Cost Assumptions and Budget

E & E's proposed budget is \$114,326. This budget is predicated on the following assumptions:

- The analysis of alternatives will be limited to those described in Task 2.
- All data necessary to complete analyses required are available. No additional field data collection is included in this budget.
- Existing record drawings will be used to depict existing site conditions. No budget has been included for a pre-design survey.
- No formal Design Analysis Report (DAR) will be submitted. Three draft and three final Technical Memoranda will be submitted in lieu of a DAR.
- For purposes of estimating design costs, it has been assumed that on-site washing of ditch materials will not be considered viable. This would require a complicated design with additional specifications and drawings than those listed. This alternative will be evaluated and if selected, an amendment will be prepared for additional costs associated with this additional level of design.
- Although the actual design will depend on the design analysis, the number and type of specifications sections and drawings indicated under Task 3 are adequate for the design.
- A preconstruction kick-off meeting will be held at the site.
- A total of 60 hours has been included for contractor procurement or bid support.
- If the construction cost estimate indicates costs will be less than \$100,000, an amendment will be prepared for E & E to di-

6. Cost Assumptions and Budget

rectly contract the Contractor. The amendment will include contractor costs and administrative costs incurred by E & E.

- The inspection task includes LOE for the following:
 - SR - 25 continuous working days;
 - PM - 5 weeks at 10 hrs/week - Construction Phase for CO, claims, issues, engineering support, and management.
- The inspection task has no costs included for protective clothing. It is assumed the Contractor will provide expendables to E & E.
- The Contractor will develop and maintain the Record Drawings.
- The Department will coordinate access agreements with NTC and the railway company.
- The limited site data document will be approximately 100 pages in length.
- Six copies of draft and final technical memoranda will be provided. Six copies of the draft design and specifications will be provided. Twenty-five copies of the final design and specifications will be provided. If the project is to be bid by the Department the final submittal will include 75 copies of the final design and specifications.

The Schedule 2.11 forms and the MBE/WBE utilization plan are on the following pages in this section.

Section 7

Schedule 2.11(a) Summary of Work Assignment Price

ECOLOGY AND ENVIRONMENT ENGINEERING, P.C.

State Superfund Standby Contract #D003493

Work Assignment # : D003493-

Project Name:

1.	Direct Salary Costs (Schedule 2.11(b))	\$35,771
2.	Indirect Costs	\$66,177
3.	Direct Non-Salary costs (Schedules 2.11(c) and (d))	\$3,691

Subcontract Costs

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

	<u>Name of Subcontractor</u>	<u>Services to be Performed</u>	<u>Subcontract Price</u>
	A		
	B		
	C		
	D		
4.	Total Cost-Plus-Fixed-Fee Subcontracts		-

Unit Price Subcontracts (Schedule 2.11(f))

	<u>Name of Subcontractor</u>	<u>Services to be Performed</u>	<u>Subcontract Price</u>
	A Biels Information Technology Systems		700
	B		
	C		
	D		
5.	Total Unit Price Subcontracts		700

6.	Subcontract Management Fee	28
7.	Total Subcontract Costs (Lines 4+5+6)	728
8.	Fixed Fee	7,646
9.	Total Work Assignment Price (Lines 1+2+3+7+8)	114,013

NOTE: Rates are in accordance with Section 2.10 of the State Superfund Standby Contract #D003493

Section 7
 Schedule 2.11(b) Direct Labor Hours Budgeted

ECOLOGY AND ENVIRONMENT ENGINEERINGg, P.C.
 State Superfund Standby Contract #D003493
 Work Assignment # : D003493-
 Project Name:

DIRECT LABOR HOURS BUDGETED - BY NSPE GRADE

Rates for Year Ending February 1, 2001

TASK DESCRIPTION	NSPE Grade	IX	VIII	VII	VI	V	IV	III	II	I	Total	Labor	Overhead	Fee		
	Rate/Hour	\$70.70	\$46.88	\$40.38	\$34.16	\$30.00	\$25.00	\$24.01	\$18.71	\$14.35	Hours	Cost	185%	SUBTOTAL	7.50%	TOTAL
Work Plan		0	0	2	6	46	0	20	0	10	84	\$2,289	\$4,235	\$6,524	\$489	\$7,013
Design Analysis		0	0	6	6	60	0	172	0	0	244	6,377	11,797	18,174	1,363	19,537
Plans and Specifications		8	0	24	24	64	1	343	80	17	561	14,276	26,411	40,687	3,052	43,739
Contractor Procurement		0	0	10	10	40	0	0	0	0	60	1,945	3,598	5,543	416	5,959
Construction Oversight		0	0	10	10	48	0	220	0	0	288	7,468	13,816	21,284	1,596	22,880
Record Documents		0	0	8	0	40	0	74	0	6	128	3,386	6,264	9,650	724	10,374
Bid Document Reproduction		0	0	0	0	1	0	0	0	0	1	30	56	86	6	92
Est. Direct Labor Hours		8	0	60	56	299	1	829	80	33	1,366					
Est. Direct Labor Cost		\$566	\$0	\$2,423	\$1,913	\$8,970	\$25	\$19,904	\$1,497	\$474	TOTALS	\$35,771	\$66,177	\$101,948	\$7,646	\$109,594

**Schedule 2.11(b-1)
 Direct Administrative Labor Hours Budgeted**

NSPE Labor Classification	9	8	7	6	5	4	3	2	1	Total No. of Direct Administrative Labor Hrs. Budgeted
Task 1			1		1					2
Task 2			2		8					10
Task 3			4		18					22
Task 4			1		1					2
Task 5			2		8					10
Task 6			1		4					5
Task 7										
Task 8										
Task 9										
Task 10										
Task 11										
Task 12										
Total Hours										

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Contract/Project administrative hours would include (subject to contract allowability) but not necessarily be limited to the following activities:

1. **Work Plan Development**
 - Conflict of Interest Check
 - Develop budget schedules and supporting documentation
2. **Review work assignment (WA) progress**
 - Conduct progress reviews
 - Prepare monthly project report
 - Update WA progress schedule
 - Prepare monthly M/WBE Utilization Report
3. **Review work assignment costs**
 - Prepare monthly cost control report
 - Cost control reviews

4. **CAP Preparation**
 - Oversee and prepare monthly CAP
 - Respond to payment issues/disallowances
 - NSPE list updates
 - Equipment Inventory
5. **Manage subcontracts**
6. **Implement and manage program management and staffing plans**
7. **Conduct Health and Safety Reviews**
8. **Word processing and graphic artists**
9. **Report editing**

Contract/Project administration hours would **not** include activities such as:

1. **QA/QC reviews**
2. **Technical oversight by management**
3. **Develop subcontracts**
4. **Work plan development**
5. **Review of deliverables**

Section 7
 Schedule 2.11(c) Direct Non-Salary Costs

ECOLOGY AND ENVIRONMENT ENGINEERING, P.C.

State Superfund Standby Contract #D003493

Work Assignment # : D003493-

Project Name:

ITEM	Maximum Reimbursement Rate	Unit	Estimated No. of Units	Total Estimated Costs
A. IN-HOUSE COSTS*				
Communication Costs	\$ 5.00	Call	50	250.00
Reproduction	\$ 0.05	Page	26,715	1,335.75
Blueprinting	\$ 1.75	Page	818	1,431.50
CAD Computer Usage	\$ 10.00	Hour	-	-
Protective Clothing: Level D	\$ 15.00	Day	-	-
Protective Clothing: Level C	\$ 50.00	Day	-	-
Protective Clothing: Level B	\$ 70.00	Day	-	-
Shipping: Lab Samples		lbs.	-	-
Shipping: Equipment		lbs.	-	-
Shipping: Other Fedex Priority	\$ 22.00	5 lbs.	13	286.00
Postage (FED-EX PRIORITY)	\$ 17.00	2 lbs.	-	-
Purchased Items - Incidentals		Lump Sum		-
Outside Equipment Rental		Lump Sum		-
Miscellaneous Field Supplies/ODCs		Lump Sum		-
E&E Analytical Services		Lump Sum		-
			Subtotal	3,303.25
B. MISCELLANEOUS				
1. TRAVEL				
Airfare: Buffalo/Albany	\$ 550.00	RT	-	-
Per Diem: Albany	\$ 42.00	Day	-	-
Per Diem: Rochester	\$ 42.00	Day	-	-
Lodging: Albany	\$ 74.00	Night	-	-
Auto Rental	\$ 50.00	Day	-	-
Mini Van Rental	\$ 70.00	Day	-	-
Local Mileage	\$ 0.31	Mile	1,250.00	387.50
Parking		Day	-	-
Gasoline/Tolls		RT	-	-
			Subtotal	387.50
TOTAL DIRECT NON-SALARY COSTS				\$ 3,690.75

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NOTE: *PPL Costs are estimated. Actual costs will be billed.

Section 7
Schedule 2.11(d) Equipment Usage Schedule

ECOLOGY AND ENVIRONMENT ENGINEERING, P.C.
State Superfund Standby Contract #D003493
Work Assignment # : D003493-
Project Name:

ID No	ITEM	Maximum Reimbursement Rate	Time Period	Estimated No. of Periods	Estimated No. of Units	Total Estimated Cost
-------	------	----------------------------------	----------------	-----------------------------	---------------------------	-------------------------

NO EQUIPMENT RENTAL CHARGES ARE ALLOWED PER STANDBY CONTRACT

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TOTAL EQUIPMENT USAGE

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The following equipment will be used on this work assignment, although it was purchased on another work assignment

Equipment Purchase Items	Unit Cost (\$)	Number of Units	Tax 8%	Cost (\$)	Work Assignment Purchased Under
Camera	\$443.47	1	\$35.48	\$478.95	Luzerne Rd. RI/FS
Camera Accessory Kit	\$139.95	1	\$11.20	\$151.15	Luzerne Rd. RI/FS
Laptop PC	\$2,099.00	1	\$167.92	\$2,266.92	Luzerne Rd. RI/FS

Section 7

Schedule 2.11(g) Monthly Cost Control Report/Summary of Fiscal Information

ECOLOGY AND ENVIRONMENT ENGINEERING, P.C.

State Superfund Standby Contract #D003493

Work Assignment # : D003493-

Project Name:

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 Date Prepared _____
 Billing Period _____
 Invoice No. _____

SUMMARY SCHEDULE

	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>	<u>G</u>	<u>H</u>
<u>Expenditure Category</u>	<u>Costs Claimed This Period</u>	<u>Paid to Date</u>	<u>Total Disallowed to Date</u>	<u>Total Costs Incurred to Date (A+B+C)</u>	<u>Estimated Costs to Completion</u>	<u>Estimated Total Work Assignment Price (A+B+E)</u>	<u>Approved Budget</u>	<u>Estimated Under/Over (G-F)</u>
1. Direct Salary Costs							\$35,771	
2. Indirect Costs (185%)							\$66,177	
3. Subtotal Direct Salary & Indirect Costs							\$101,948	
4. Travel							\$388	
5. Other Non-Salary Costs							\$3,303	
6. Subtotal Direct Non-Salary Costs							\$3,691	
7a. Subcontractors							\$700	
7b. Subcontract Management Fee							\$28	
8. Total Work Assignment Cost							\$106,367	
9. Fixed Fee							\$7,646	
10. Total Work Assignment Price							<u>\$114,013</u>	

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Section 7
Schedule 2.11(g) Monthly Cost Control Report/Summary of Fiscal Information

ECOLOGY AND ENVIRONMENT ENGINEERING, P.C.
 State Superfund Standby Contract #D003493
 Work Assignment # : D003493-
Project Name:

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 Date Prepared _____
 Billing Period _____
 Invoice No. _____

Work Plan	A	B	C	D	E	F	G	H
<u>Expenditure Category</u>	<u>Costs Claimed This Period</u>	<u>Paid to Date</u>	<u>Total Disallowed to Date</u>	<u>Total Costs Incurred to Date (A+B+C)</u>	<u>Estimated Costs to Completion</u>	<u>Estimated Total Work Assignment Price (A+B+E)</u>	<u>Approved Budget</u>	<u>Estimated Under/Over (G-F)</u>
1. Direct Salary Costs							\$2,289	
2. Indirect Costs (185%)							\$4,235	
3. Subtotal Direct Salary & Indirect Costs							\$6,524	
4. Travel							\$0	
5. Other Non-Salary Costs							\$79	
6. Subtotal Direct Non-Salary Costs							\$79	
7a. Subcontractors							\$0	
7b. Subcontract Management Fee							\$0	
8. Total Work Assignment Cost							\$6,603	
9. Fixed Fee							\$489	
10. Total Work Assignment Price							<u>\$7,092</u>	

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Section 7

Schedule 2.11(g) Monthly Cost Control Report/Summary of Fiscal Information

ECOLOGY AND ENVIRONMENT ENGINEERING, P.C.

State Superfund Standby Contract #D003493

Work Assignment # : D003493-

Project Name:

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Date Prepared _____

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Design Analysis	A	B	C	D	E	F	G	H
Expenditure Category	Costs Claimed This Period	Paid to Date	Total Disallowed to Date	Total Costs Incurred to Date (A+B+C)	Estimated Costs to Completion	Estimated Total Work Assignment Price (A+B+E)	Approved Budget	Estimated Under/Over (G-F)
1. Direct Salary Costs							\$6,377	
2. Indirect Costs (185%)							\$11,797	
3. Subtotal Direct Salary & Indirect Costs							\$18,174	
4. Travel							\$0	
5. Other Non-Salary Costs							\$122	
6. Subtotal Direct Non-Salary Costs							\$122	
7a. Subcontractors							\$0	
7b. Subcontract Management Fee							\$0	
8. Total Work Assignment Cost							\$18,296	
9. Fixed Fee							\$1,363	
10. Total Work Assignment Price							\$19,659	

Schedule 2.11(g) Monthly Cost Control Report/Summary of Fiscal Information

ECOLOGY AND ENVIRONMENT ENGINEERING, P.C.
 State Superfund Standby Contract #D003493
 Work Assignment # : D003493-
Project Name:

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Plans and Specifications	A	B	C	D	E	F	G	H
Expenditure Category	Costs Claimed This Period	Paid to Date	Total Disallowed to Date	Total Costs Incurred to Date (A+B+C)	Estimated Costs to Completion	Estimated Total Work Assignment Price (A+B+E)	Approved Budget	Estimated Under/Over (G-F)
1. Direct Salary Costs							\$14,276	
2. Indirect Costs (185%)							\$26,411	
3. Subtotal Direct Salary & Indirect Costs							\$40,687	
4. Travel							\$0	
5. Other Non-Salary Costs							\$1,180	
6. Subtotal Direct Non-Salary Costs							\$1,180	
7a. Subcontractors							\$0	
7b. Subcontract Management Fee							\$0	
8. Total Work Assignment Cost							\$41,867	
9. Fixed Fee							\$3,052	
10. Total Work Assignment Price							\$44,919	

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Section 7

Schedule 2.11(g) Monthly Cost Control Report/Summary of Fiscal Information

ECOLOGY AND ENVIRONMENT ENGINEERING, P.C.

State Superfund Standby Contract #D003493

Work Assignment # : D003493-

Project Name:

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Contractor Procurement

	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>	<u>G</u>	<u>H</u>
<u>Expenditure Category</u>	<u>Costs Claimed This Period</u>	<u>Paid to Date</u>	<u>Total Disallowed to Date</u>	<u>Total Costs Incurred to Date (A+B+C)</u>	<u>Estimated Costs to Completion</u>	<u>Estimated Total Work Assignment Price (A+B+E)</u>	<u>Approved Budget</u>	<u>Estimated Under/Over (G-F)</u>
1. Direct Salary Costs							\$1,945	
2. Indirect Costs (185%)							\$3,598	
3. Subtotal Direct Salary & Indirect Costs							\$5,543	
4. Travel							\$0	
5. Other Non-Salary Costs							\$145	
6. Subtotal Direct Non-Salary Costs							\$145	
7a. Subcontractors							\$0	
7b. Subcontract Management Fee							\$0	
8. Total Work Assignment Cost							\$5,688	
9. Fixed Fee							\$416	
10. Total Work Assignment Price							<u>\$6,104</u>	

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Section 7

Schedule 2.11(g) Monthly Cost Control Report/Summary of Fiscal Information

ECOLOGY AND ENVIRONMENT ENGINEERING, P.C.

State Superfund Standby Contract #D003493

Work Assignment # : D003493-

Project Name:

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Date Prepared _____

Billing Period _____

Invoice No. _____

Construction Oversight	A	B	C	D	E	F	G	H
Expenditure Category	Costs Claimed This Period	Paid to Date	Total Disallowed to Date	Total Costs Incurred to Date (A+B+C)	Estimated Costs to Completion	Estimated Total Work Assignment Price (A+B+E)	Approved Budget	Estimated Under/Over (G-F)
1. Direct Salary Costs							\$7,468	
2. Indirect Costs (185%)							\$13,816	
3. Subtotal Direct Salary & Indirect Costs							\$21,284	
4. Travel							\$388	
5. Other Non-Salary Costs							\$263	
6. Subtotal Direct Non-Salary Costs							\$650	
7a. Subcontractors							\$0	
7b. Subcontract Management Fee							\$0	
8. Total Work Assignment Cost							\$21,934	
9. Fixed Fee							\$1,596	
10. Total Work Assignment Price							\$23,530	

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Section 7

Schedule 2.11(g) Monthly Cost Control Report/Summary of Fiscal Information

ECOLOGY AND ENVIRONMENT ENGINEERING, P.C.
 State Superfund Standby Contract #D003493
 Work Assignment # : D003493-
 Project Name:

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Record Documents

	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>	<u>G</u>	<u>H</u>
	Costs Claimed	Paid to Date	Total Disallowed	Total Costs	Estimated Costs	Estimated Total	Approved	Estimated
<u>Expenditure Category</u>	<u>This Period</u>		<u>to Date</u>	<u>Incurred to Date</u>	<u>to Completion</u>	<u>Work Assignment</u>	<u>Budget</u>	<u>Under/Over</u>
				<u>(A+B+C)</u>		<u>Price (A+B+E)</u>		<u>(G-F)</u>
1. Direct Salary Costs							\$3,386	
2. Indirect Costs (185%)							\$6,264	
3. Subtotal Direct Salary & Indirect Costs							\$9,650	
4. Travel							\$0	
5. Other Non-Salary Costs							\$190	
6. Subtotal Direct Non-Salary Costs							\$190	
7a. Subcontractors							\$700	
7b. Subcontract Management Fee							\$28	
8. Total Work Assignment Cost							\$10,568	
9. Fixed Fee							\$724	
10. Total Work Assignment Price							<u>\$11,292</u>	

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Section 7

Schedule 2.11(g) Monthly Cost Control Report/Summary of Fiscal Information

ECOLOGY AND ENVIRONMENT ENGINEERING, P.C.

State Superfund Standby Contract #D003493

Work Assignment # : D003493-

Project Name:

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Bid Document Reproduction	A	B	C	D	E	F	G	H
Expenditure Category	Costs Claimed This Period	Paid to Date	Total Disallowed to Date	Total Costs Incurred to Date (A+B+C)	Estimated Costs to Completion	Estimated Total Work Assignment Price (A+B+E)	Approved Budget	Estimated Under/Over (G-F)
1. Direct Salary Costs							\$30	
2. Indirect Costs (185%)							\$56	
3. Subtotal Direct Salary & Indirect Costs							\$86	
4. Travel							\$0	
5. Other Non-Salary Costs							\$1,325	
6. Subtotal Direct Non-Salary Costs							\$1,325	
7a. Subcontractors							\$0	
7b. Subcontract Management Fee							\$0	
8. Total Work Assignment Cost							\$1,411	
9. Fixed Fee							\$6	
10. Total Work Assignment Price							<u>\$1,417</u>	

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Section 7
 Schedule 2.11(h) Summary of Labor Hours

ECOLOGY AND ENVIRONMENT ENGINEERING, P.C.
 State Superfund Standby Contract #D003493
 Work Assignment # : D003493-
 Project Name:

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 Date Prepared _____
 Billing Period _____
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Rates for Year Ending February 1, 2001

TASK	IX		VIII		VII		VI		V		IV		III		II		I		TOTAL	
	EXP/	EST.	EXP/	EST.	EXP/	EST.	EXP/	EST.	EXP/	EST.	EXP/	EST.	EXP/	EST.	EXP/	EST.	EXP/	EST.	EXP/	EST.
Work Plan	0	0	0	0	0	2	0	6	0	46	0	0	0	20	0	0	0	10	0	84
Design Analysis	0	0	0	0	0	6	0	6	0	60	0	0	0	172	0	0	0	0	0	244
Plans and Specifications	0	8	0	0	0	24	0	24	0	64	0	1	0	343	0	80	0	17	0	561
Contractor Procurement	0	0	0	0	0	10	0	10	0	40	0	0	0	0	0	0	0	0	0	60
Construction Oversight	0	0	0	0	0	10	0	10	0	48	0	0	0	220	0	0	0	0	0	288
Record Documents	0	0	0	0	0	8	0	0	0	40	0	0	0	74	0	0	0	6	0	128
Bid Document Reproduction	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
TOTAL HOURS	8		0		60		56		299		1		829		80		33		1,366	
TOTAL COST	\$566		\$0		\$2,423		\$1,913		\$8,970		\$25		\$19,904		\$1,497		\$474		\$35,772	

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**CONSULTANT/CONTRACTOR DETAILED M/WBE-EEO UTILIZATION PLAN
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION**

Consultant/Contractor Name: Ecology & Environment Engineering, P.C.			
Contract Type/Number: D003493-28		Contract Award Date:	
Address: 368 Pleasant View Drive	City: Lancaster	State: New York	Zip Code: 14086
Project Owner Name: New York State Department Of Environmental Conservation		Project/Grant No.:	
Address: 50 Wolf Road	City: Albany	State: New York	Zip Code: 12233
Authorized Representative:		Title:	
Authorized Signature:			

EEO AND MBE/WBE CONTRACT SUMMARY

M/WBE CONTRACT SUMMARY			EEO CONTRACT SUMMARY			
	%	Amount		%	No./Emp.	Wk./Hrs.
1. Total Dollar Value of the Prime Contractor	100	114,326	6. Total for all Employees			
2. State Share Amount			7. Total Goal for Minority Employees			
3. MBE Goal/Amount	15	17,149	8. Total Goal for Female Employees			
4. WBE Goal/Amount	5	5,716	9. EEO Combined Totals			
5. MBE/WBE Combined Totals	20	22,865				

Office of Minority & Women's Business Programs Use Only

Proposed Goals		Date Approved	Date Disapproved	Initials
MBE (%)	EEO-Minorities (%)			
WBE (%)	EEO-Minorities (%)			

SECTION I - MBE INFORMATION: In order to achieve the WBE Goals, New York State Certified WOMEN-OWNED firms are expected to participate in the following manner

WBE Firm	Projected WBE Contract Amount and Award Date	Description of Work WBE	Contract Schedule/Start Date(s)	Contract Payment Schedule	Project Completion Date
Name: Address: City: State/Zip Code: Telephone No.:	\$ _____ DATE: _____				
Name: Address: City: State/Zip Code: Telephone No.:	\$ _____ DATE: _____				
Name: Address: City: State/Zip Code: Telephone No.:	\$ _____ DATE: _____				

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SECTION III - EEO INFORMATION: In order to achieve the EEO Goals, Minorities and Females are expected to be employed in the following job categories for the specified amount of work hours.

Job Categories	Total Work Hours of Contract	All Employees		Minority Employees			
		Male	Female	African-American	Asian	Native American	Hispanic
Officials/ Managers							
Professionals							
Technicians							
Sales Workers							
Office/Clerical							
Craftsman							
Laborers							
Services/ Workers							
Totals							

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Staffing Plan

E & E proposes the following primary staffing plan for completion of this work assignment.

Program Manager: J. Sundquist, Ph.D.
Project Director: D. Albers, P.E.
Project Manager: S. Blair, P.E.
Project Engineer/Site Inspector: W. Kawar

Task 1: Work Plan

D. Albers, P. E. – Senior Engineer Review
S. Blair, P.E. – Preparation

Task 2: Design Analysis

G. Strobel, P.E. – Engineer-in-Charge
D. Albers, P.E. – Senior Engineer Review
S. Blair, P.E. – Management, Analysis
W. Kawar – Analysis

Task 3: Plans and Specifications

G. Strobel, P.E. – Engineer in Charge
D. Albers, P.E. – Senior Engineer Review
S. Blair, P.E. – Management, Design
W. Kawar – Design
J. Kohler – CAD

Task 4: Subcontractor Procurement or Support During Bid Process

D. Albers, P.E. – Senior Engineer Review
S. Blair, P.E. – Management, Design
W. Kawar – Design

Task 5: Construction Oversight

D. Albers, P.E. – Senior Engineer Review
S. Blair, P.E. – Management



7. Staffing Plan

M. Steffan. – Review of technical submissions and comments to non-technical submissions, COs, Claims, Clarifications, Issues, Management, and Substantial and Final Inspections

W. Kawar – Site Inspector

T. Siener, CIH – Review of Health and Safety Plan and Spill Response Plan

Task 6: Remediation Report

S. Blair, P.E./D. Albers, P.E. – Review and Preparation

D. Miller, P.E. – Principle Engineer Review

W. Kawar – Preparation

Task 7: Bid Document Reproduction

S. Blair, P.E. – Coordination and Preparation

W. Kawar – Preparation

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MBE/WBE Utilization Plan

Introduction/Objective

E & E fully subscribes to the New York State policy that MBE/WBE firms be afforded the maximum opportunity to participate in contracts offered by New York State agencies. As a prime contractor to NYSDEC, E & E is committed to full compliance with Executive Law Article 15-A and pertinent federal regulations to further MBE/WBE goals and to achieve significant participation of MBE/WBE firms to a level commensurate with their capabilities and responsibilities.

In this section, E & E's MBE/WBE Utilization Plan is described, including goals for this work assignment, and details regarding the services, firms, and portion of work scheduled to be provided by MBE/WBE firms.

Contract Goals

E & E fully expects to commit to the following established percentage goals. Actual dollar amounts will be contingent upon the total dollar value of the awarded contract.

Table 8-1 MBE/WBE Contract Goals

	Percentage	Dollar Amount
Total Percentage of MBE/WBE Work	20	22,865
Total percent of MBE work goal	15	17,149
Total percent of WBE work goal	5	5,716
Total Project Amount		114,326

E & E maintains an up-to-date Affirmative Action Plan and MBE/WBE hiring plan to ensure equal opportunity for all job applicants, employees, and subcontractors. For the New York State Superfund standby contract, E & E will use the following procedures and resources to meet established MBE/WBE goals:

8. MBE/WBE Utilization Plan

- The E & E PM will consult with the E & E MBE/WBE sub-contracting coordinator to identify and evaluate work that requires subcontractor services. The subcontracting opportunities will then be divided into discrete tasks that may be completed by MBE or WBE firms.
- Following identification of discrete tasks, the MBE/WBE sub-contracting coordinator will review the New York State Directory of Certified Minority and Women-Owned Business Enterprises and E & E's MBE/WBE database.
- E & E has developed a database to facilitate the acquisition of qualified MBE and WBE firms for work on various state and federal government contracts. This database consists of the following:

- MBE and WBE firms listed in the current New York State Department of Commerce Directory of Minority and Women-Owned Businesses, entered and cross-referenced by nine categories of services most frequently used by E & E. The categories are as follows:

Environmental Consulting	Engineering
Drilling/Geophysics	Laboratories
Community Relations	Construction Management
Supplier/Equipment	Miscellaneous Services
General Contractors	

This listing and cross-referencing facilitates E & E's rapid identification of potentially qualified MBE/WBE firms for use in various projects.

- Firms identified in the database as performing environmental consulting, engineering/geophysical, or drilling services were sent questionnaires requesting detailed information regarding the background of each firm. Any firm responding to this first-tier questionnaire was requested to submit additional information in a supplemental questionnaire that provided E & E with adequate information in a standardized format enabling comparison and selection of potential firms using methodical and consistent evaluation criteria.
- Following identification of qualified, potential MBE/WBE contractors, the PM will solicit firms for bids as delineated below under Criteria for Selection.

Subcontracted Services

Typically, E & E has found that opportunities exist for MBE/WBEs in the following work categories:

- Site security fencing;
- Protective services;
- Drilling and monitoring well installation;
- Soil borings;
- Physical soil tests;
- Site and topographical surveys;
- Title searches;
- Engineering services;
- Structural engineering;
- Geophysical engineering;
- Geophysical surveys;
- Photographic services;
- Heavy equipment;
- Laboratory data validation; and
- Photocopying report reproduction services.

Criteria for Selection

Criteria described below are used to obtain and evaluate bids for other nonprofessional services. Following identification of discrete tasks and potential MBE/WBE firms by the PM and MBE/WBE subcontracting coordinator, bid solicitations will be requested from qualified firms and, to the extent possible, one or more MBE/WBE firms will be requested to bid on each task. If the bids exceed \$10,000, at least five bids will be obtained. If the bids range between \$5,000 and \$10,000, three bids will be obtained. In either case, based on the bids submitted, an award will be made to the most responsible MBE/WBE bidder. If the bids are less than \$5,000, E & E plans to solicit three verbal quotes from MBE/WBE firms. Professional services will be subcontracted to



8. MBE/WBE Utilization Plan

MBE/WBE firms pursuant to applicable New York State regulations.

MBE/WBE Services Proposed for this Work Assignment
No MBE/WBE Services are posed for this at this time.

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References

Ecology and Environment, 2000, Additional Investigation Report,
Niagara Transformer Corporation Site, Town of Cheek-
towaga, Erie County, New York.