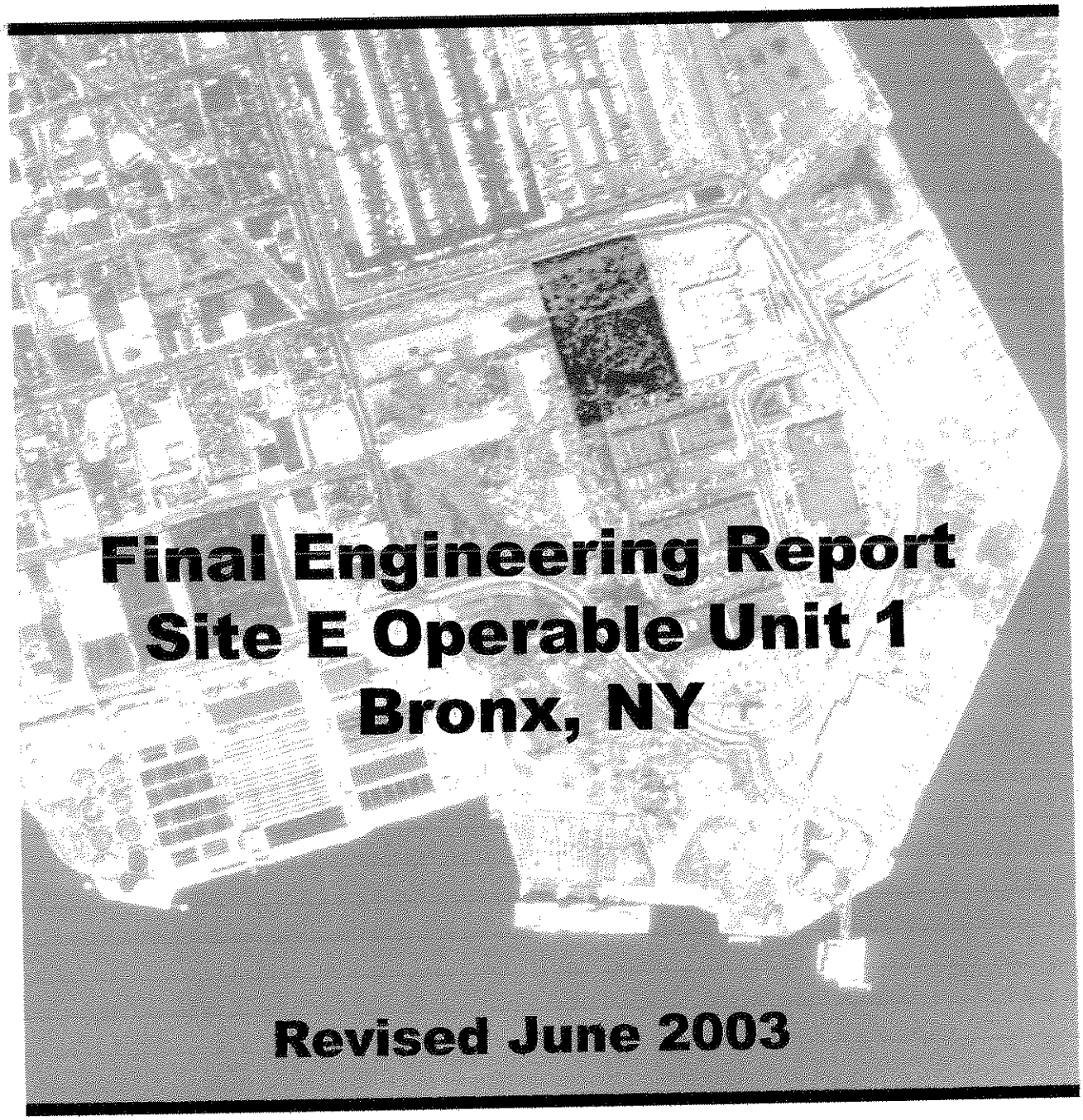
Hunts Point Cooperative Market Redevelopment Plan



Final Engineering Report Site E Operable Unit 1 Bronx, NY

Revised June 2003

Prepared by

LMS **Lawler, Matusky & Skelly Engineers** LLP
One Blue Hill Plaza • Pearl River, New York 10965

ENVIRONMENTAL SCIENCE & ENGINEERING CONSULTANTS

Hunts Point Cooperative Market
Redevelopment Plan

Final Engineering Report
Site E Operable Unit 1

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Table of Contents

LIST OF FIGURES, TABLES AND ATTACHMENTS

EXECUTIVE SUMMARY

Lawler, Matusky & Skelly Engineers LLP (LMS), is submitting under the provisions and requirements of the New York State Department of Environmental Conservation (NYSDEC) Voluntary Cleanup Agreement (VCA) with the City of New York the Final Engineering Report for the parcel identified under contract to New York City Economic Development Corporation (NYCEDC) as Site E Operable Unit 1 (OU1) located in the Hunts Point Cooperative Market (Figure 1). The Scope of Work (SOW) for the investigation (dated September 1999), Investigation Report (dated July 1999), and Response Plan (dated September 2000) were submitted to NYSDEC, New York State Department of Health (NYSDOH), and New York City Department of Environmental Protection (NYCDEP) for review and approval.

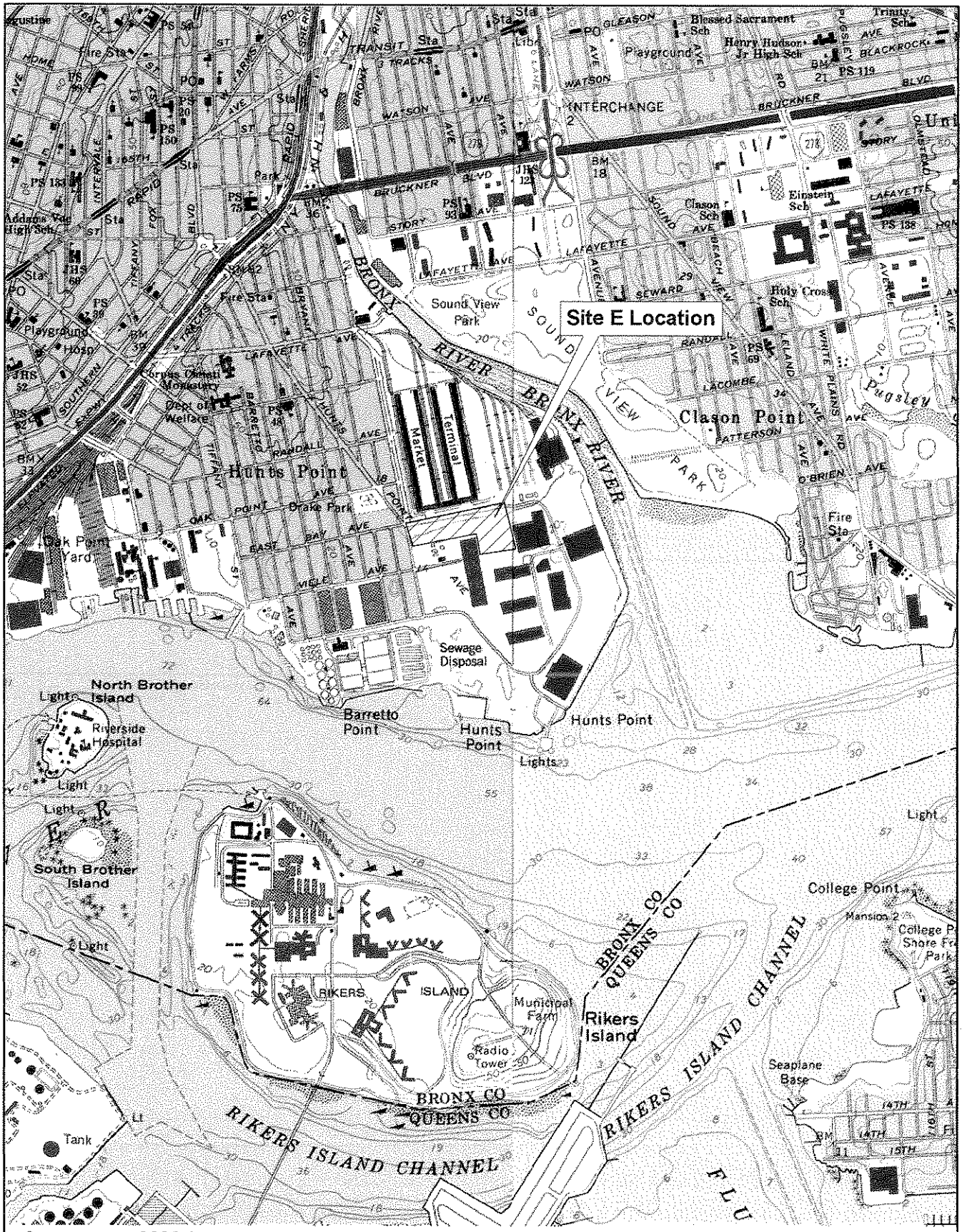
This report is being presented as documentation that the work recommended and approved in the Response Plan has been performed as it was proposed, and in the case where modifications were made to the Response Plan that they are described with recommendations. LMS performed the investigation and removal work related to actions documented in the Response Plan and work related to relocation of material generated from the final redevelopment of the Site. Work performed during the actual redevelopment of the Site that involved the construction of all permanent on-site facilities (pavement, structures, structures, and utilities) was performed by the tenant Great Atlantic & Pacific Tea Company (A&P). Inspection of the work relating to the approved Response Plan was performed by A&P's consultant, Whitestone Associates, Inc. (WA) LMS has prepared this Report to document work reviewed by LMS and WA. WA has reviewed the Report and has attached to this Report as Attachment A, a letter from a New York State Professional Engineer that indicates that the work was either performed as indicated or that revisions to the approved scope were documented.

Site E OU1 covers the eastern portion of Site E (Figure 2). The Site is bounded on the north by East Bay Avenue, the east by the existing A&P distribution warehouse, the south by the existing market, and the west by Operable Unit 2 of Site E (currently an undeveloped strip of land some 80 ft wide). The September 2000 Response Plan included recommendations for containing and preventing both exposure of soil to people working on the Site and exposure of the soil to continued precipitation. The remedy consisted primarily of an asphalt cap and building on the Site.

This Report will outline the work that was proposed, what was completed, any modifications or alterations to the proposed work, and additional recommendations that might be necessary as a result of these modifications.

The remedy selection was based on a review of, and comparison to the following criteria stated in 6 NYCRR Part 375-1.10 (c):

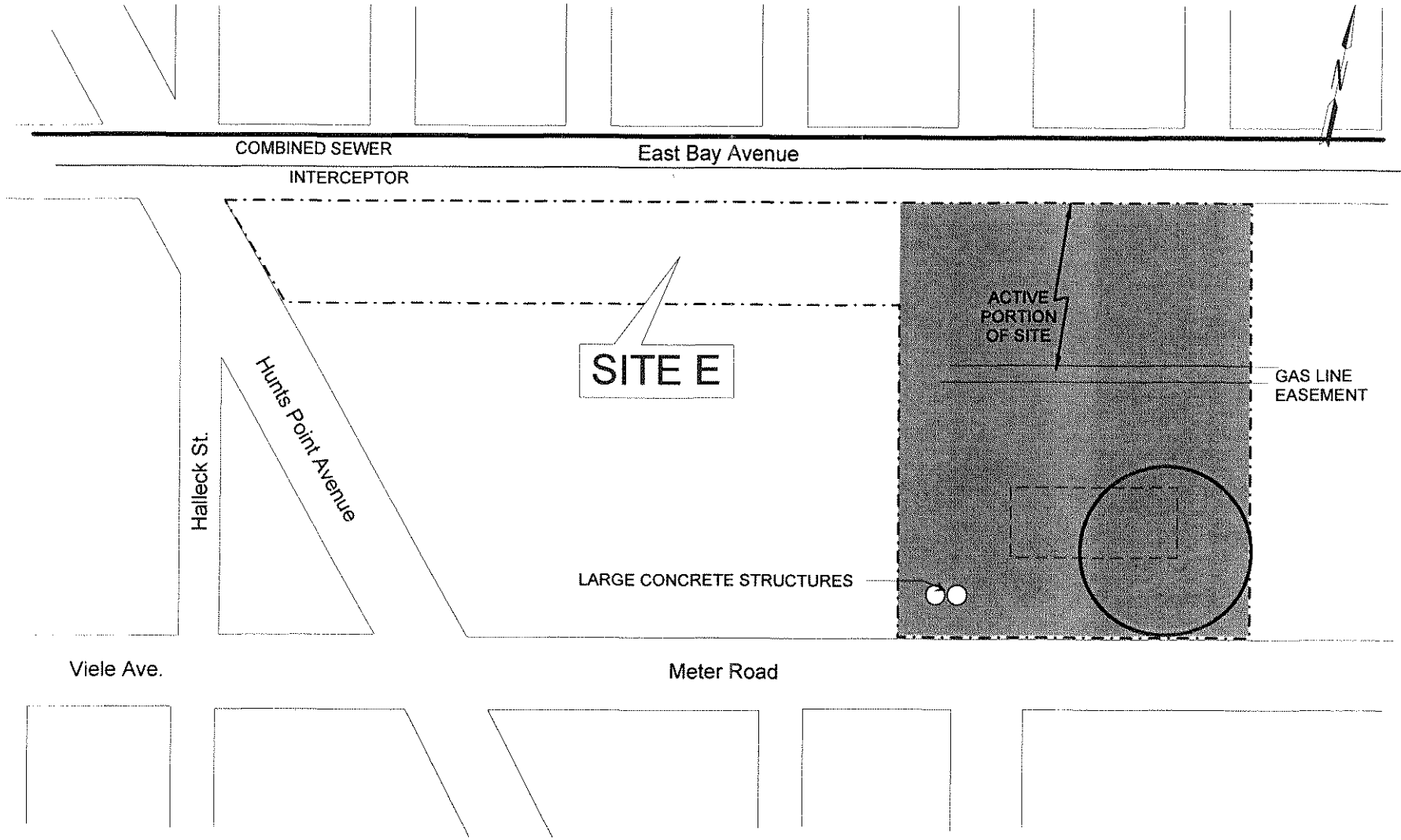
A) Standards, criteria, and guidance



Map source: USGS 7.5 minute quadrangle series, Central Park, NY-NJ, 1966, photorevised 1988.

\EDC\Sanborne site.dsf

LMS Lawler, Matusky & Skelly Engineers LLP One Blue Hill Plaza • Pearl River, New York 10965 ENVIRONMENTAL SCIENCE & ENGINEERING CONSULTANTS	**Site Location** **Hunts Point**	**Figure 1**



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Lawler, Matusky & Skelly Engineers LLP One Blue Hill Plaza • Pearl River, New York 10965 ENVIRONMENTAL SCIENCE & ENGINEERING CONSULTANTS	**Operable Unit Site E** **Hunts Point**	**Figure 2**

B) Overall protectiveness of public health and the environment

C) Short-term effectiveness

D) Long-term effectiveness

E) Reduction of toxicity, mobility, and volume with treatment

F) Feasibility

PROPOSED REMEDY

The results of the Investigation Report and Response Plan indicated that an upper layer of fill material that varies in thickness and composition is present across the Site. The fill consists of mixed soils, structural material, and remnants of the gasification incineration waste (coal slag). Several areas were found to contain some level of residual petroleum contamination within the fill material, predominantly around the tank structures. Groundwater conditions at the Site did not exhibit any dense non-aqueous phase liquid (DNAPL) or obvious contamination at any significant depth. Even using shallow groundwater samples and comparing those to the most stringent standards, it is evident that only very low concentrations of select volatile and semivolatile compounds are present. During the field investigation, some historical structures related to the former gas holder were encountered. These structures contained petroleum product and had isolated soil and groundwater impacts associated with them. A total of 427.42 tons of contaminated soil and 5,052 gallons of wastewater were removed from the Site and disposed at approved facilities. The fill material was fairly consistent across the Site, which provided a good opportunity for the implementation of a Development Plan. Two end-point samples were collected from the excavation following the removal of the oil saturated soil (see Attachment B).

The Development Plan included the construction of a new truck maintenance and parking facility consisting of a single building with a footprint located in the northern section of the Site and an asphalt parking lot that covered virtually the entire remaining portion of the Site. The parking lot was expected to cover nearly the entire Site with a minimum 6 inch asphalt and gravel layer (see Figure 3).

Additional aspects of the proposed remedy included small areas of landscaping within the parking lot that would have a minimum of 1 ft of material emplaced that would meet the definition of "clean" soil as specified in the Response Plan. When proposed, the project was a balanced Site and no additional soil would be generated during redevelopment.

ALTERATIONS TO THE PROPOSED WORK

During the performance of the project, there were several issues that were identified as being alterations or modifications to the proposed remedy. These changes do not in any way affect the approved remedy or its effectiveness. This Section will describe

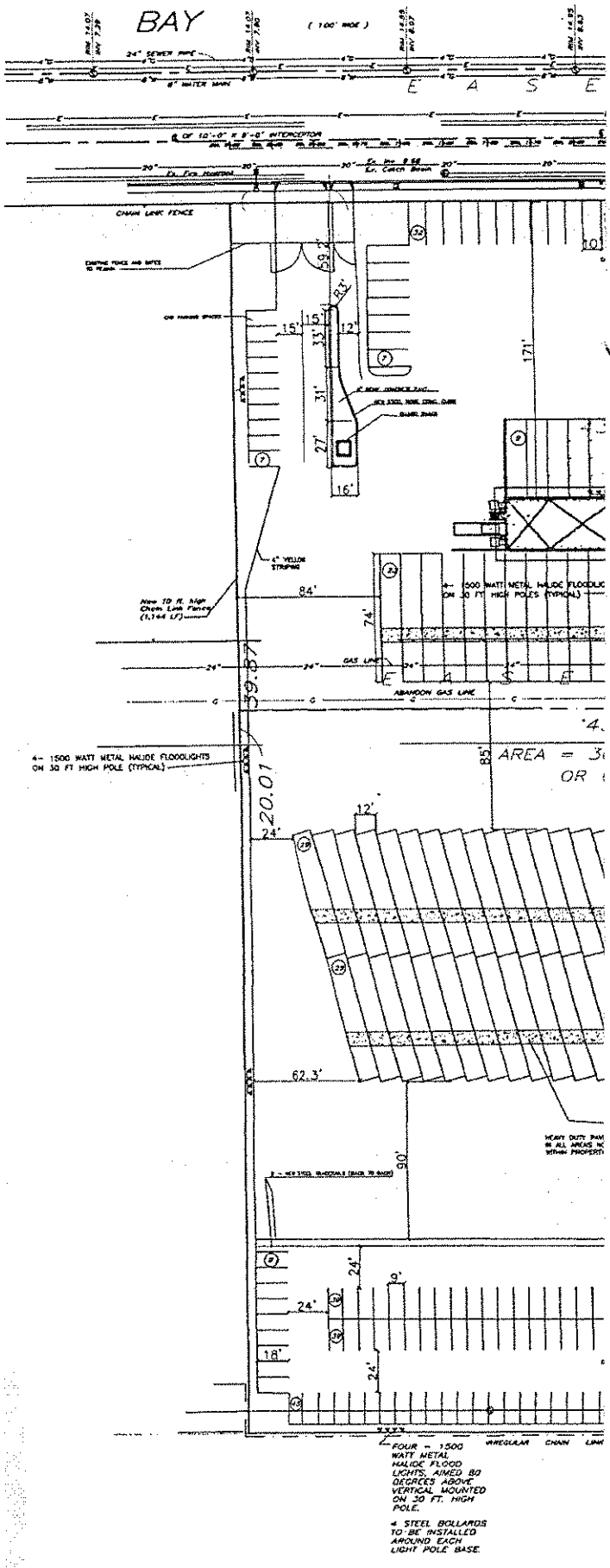

Figure 3

Site Redevelopment Plan

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those items that LMS considers to be a modification and it will be followed by a recommendation Section for additional proposed actions.

Modification 1: Full Time On-site Presence

LMS received approval of the Response Plan and notification that the public comment period had expired with no comments from NYSDEC on 22 January 2001. In that correspondence NYSDEC stated that the Engineering Report would require a certification with specific language that indicated the Response Plan and all construction activities were personally witnessed by the Engineer or someone under his/her direct supervision.

LMS notified NYSDEC that LMS would not be undertaking the supervision of the construction activities, and that the tenant's consultant, Whitestone Associates, Inc. (WA) would be responsible for construction oversight and the implementation of the Response Plan. LMS notified NYSDEC that personnel would make frequent visits to the Site during construction to ensure that the outcome of the remedy was as effective as proposed.

The Contractor and WA began earth moving, utility, and base course paving work for the truck parking area and employee parking lots in April 2001.

This Engineering Report is signed and stamped by a professional engineer, however the language included in the 22 January 2001 letter is modified.

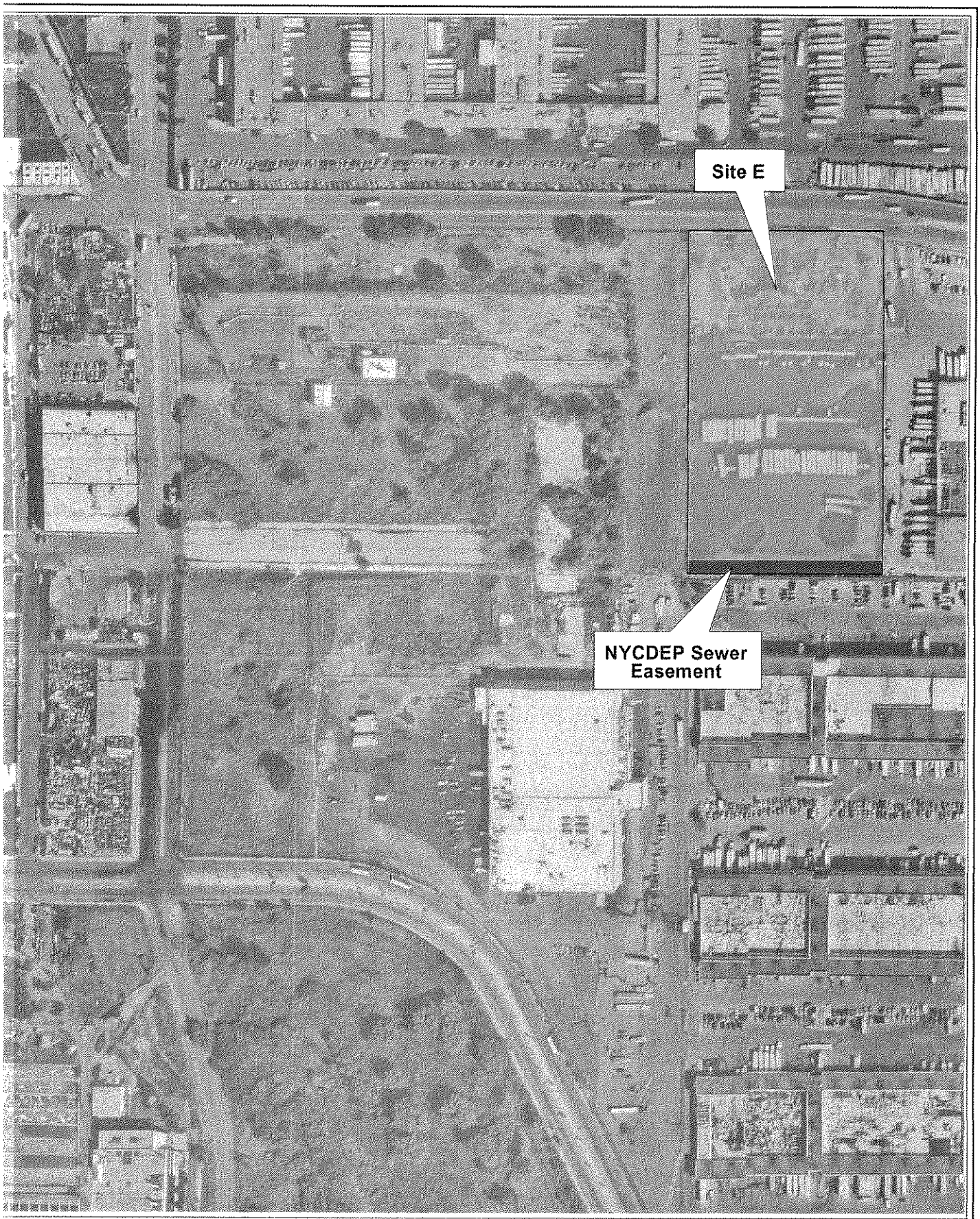
Modification 2: Open Areas and Additional Material

Open areas:

The Response Plan indicated that several small areas across Site E OU1 would have landscaping and these would contain 1 ft of clean material, as defined in the Response Plan. The final constructed parking lot design was changed and does not include any open landscaped areas within the parking lot and therefore no cover material was necessary. Photos 1 through 6 (Attachment C) show the parking areas and building before, during and after construction activities. These parking lots cover essentially all of Operable Unit 1 of Site E, with the exception of the southern most area of the Site.

A strip of exposed material exists at the southern end of the Site, adjacent to the Meat Market parking lot (Figure 4). This strip of land is approximately 20 ft wide and runs along the fence line at the southern end of Site E. It is the location of a New York City Department of Environmental Protection (NYCDEP) easement for the sewer/stormwater system. LMS was informed by WA that NYCDEP requires this area to remain unpaved. The recommendations for this easement will be addressed later in this Report.

The strip of land at the southern end of the site was capped with a minimum of 1 ft of material that was imported to the Site from a NYSDEC Part 360 registered recycling



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Lawler, Matusky & Skelly Engineers LLP One Blue Hill Plaza • Pearl River, New York 10965 :ONMENTAL SCIENCE & ENGINEERING CONSULTANTS	**Site E Open Areas**	**Figure 4**

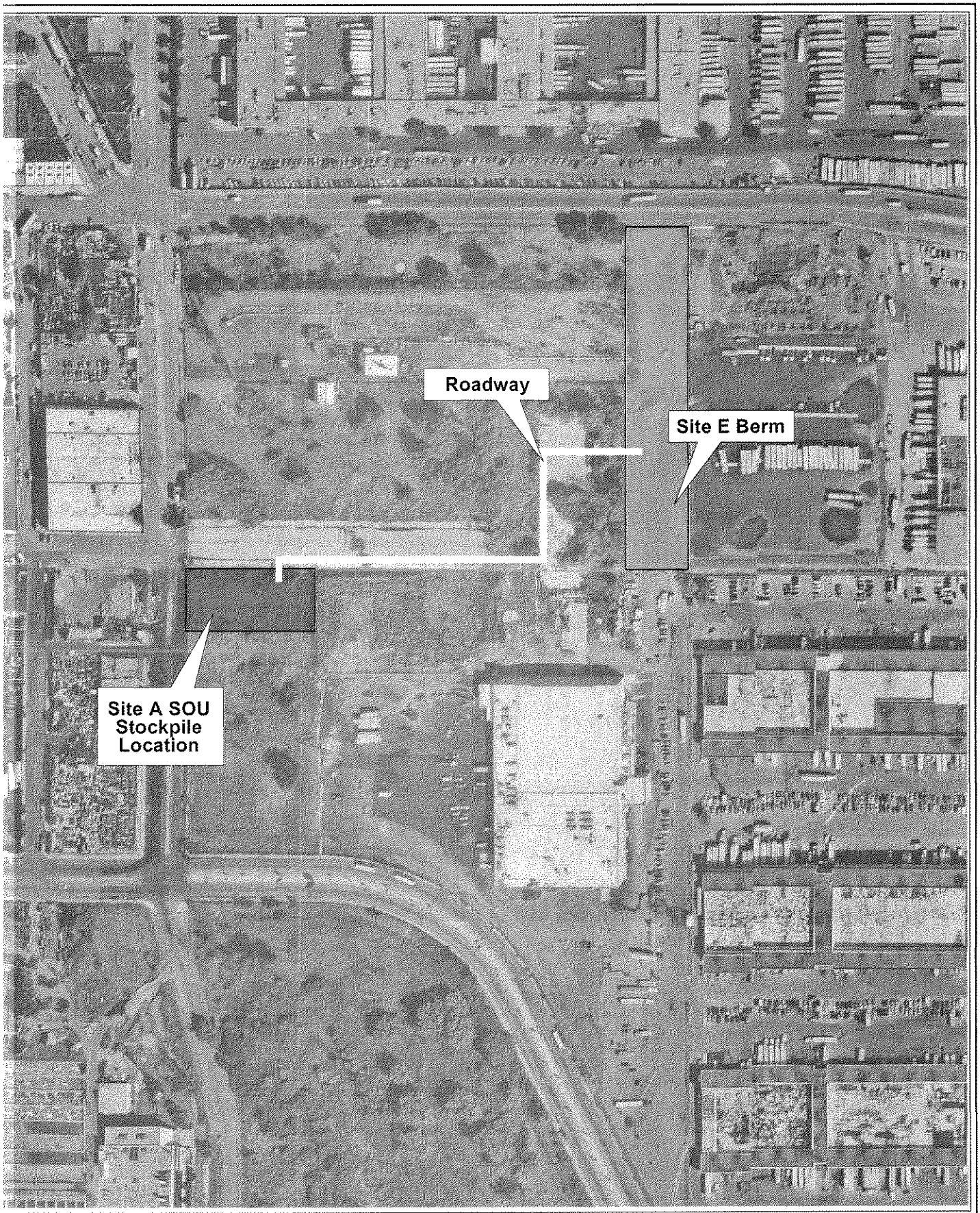
facility. Grass was not an option that was desired due to the inability to maintain it (watering, fertilizer and mowing), and the concern that erosion might be a problem.

Additional Material:

During the construction design phases, LMS met with the tenant, Contractor and their consultant and discussed the final grades for the Site and the cut and fill requirements. It was determined at that time that the Site would not require importation of material and that there would be little to no additional material generated during construction. However, during the building re-design and actual excavation of building structures, storm water retention basins, and parking lot areas, a significant amount of material was excavated and could not be reused on-site. The area along the western edge of the construction zone was used to stockpile the additional material removed from the Site during grading activities. Approximately 6,000 cubic yards of material was stockpiled (Figure 5).

The generation of extra material occurred sporadically as the construction continued; however the majority of the material came from a re-design of the storm water retention system due to the requirements of NYCDEP for the final discharge permit. These modifications required the excavation of a retention/collection area in the northern end of the site and a pump station to move stormwater to the southern holding area where it would ultimately be discharged (see Plate 1).

Soon after completion of grading and construction activities, it was determined that the stockpiled berm of soil was not located within the actual metes and bounds of Site E proper, but immediately adjacent to it on property now identified as Site E Operable Unit 2 (OU-2). The northern portion of Site E OU2 will be used by Iroquois Gas to route a new gas pipeline into the adjacent Con Edison facility, there are currently no concrete plans for the southern portion of the Site. The bermed materials had been graded evenly across the entire area to an elevation ranging from 1 ft to 6 ft above the pre-construction elevations and caused a drainage problem on the adjacent Con Edison property. Based on the need to prevent further drainage problems, to provide for minimum negative impact for the Iroquois construction project, and to properly manage this excess material, the berm was removed from the Site. LMS and WA sampled the soil berm for potential disposal characterization. The results of the sampling showed that low level PCBs were present in the material. One section contained PCBs above the 1 part per million unrestricted reuse criteria (see Table 1). This area equaled approximately 700 cubic yards and was segregated for proper off-site disposal. LMS contacted NYSDEC and gained Agency approval to relocate the remainder of the material to the northern portion of Site A Second Operable Unit (SOU) (Figure 5). Site A SOU has been investigated and found to contain a significant quantity of coal tar and purifier waste that will require removal. The relocated berm material (approximately 6,000 cubic yards) will be used as backfill on Site A SOU following coal tar and purifier waste removal. As a result of the removal of the berm, Site E OU-2 was lowered to pre-construction elevations.



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Site E and A Berm Relocation

Figure 5

During the course of the construction, LMS periodically inspected the Site and photographically documented the conditions to determine if the procedures and requirements that were discussed with the Contractors were being performed.

RECOMMENDATIONS:

This Final Engineering Report provides written confirmation of the recommended actions in the Response Plan as well as indicating any changes that took place during the construction. Those were outlined and described in the previous Section and will now be followed up with recommended actions and activities to allow for NYSDEC and NYSDOH approval for a No Further Action (NFA) sign off.

Modification 1 Full Time On-site Presence

LMS is submitting this Report with a Professional Engineers seal but without the statement that was indicated in the 22 January 2001letter. This Report was however prepared following: numerous Site visits, attendance of construction related meetings and correspondence with the construction team, and full time oversight by tenant's consultant, Whitestone Associates, Inc.. LMS does feel that based on the initial investigatory work, end-point sampling, berm characterization sampling, and information from Whitestone Associates, Inc. that the Response Plan has been carried out. The remedy which consisted of the parking lot and building to essentially "cap" the Site is and will continue to be an effective remedy for this site.

Modification 2 Open Areas and Additional Material

Open Area:

The change from small open areas to a single solid parking lot and building requires no additional recommendations with respect to the existing parking lot and building. The area at the southern end of the Site that includes the NYCDEP sewer easement has been covered with 1 ft of material that will prevent contact with the underlying material. The end result is that the site does not have any exposed areas of fill.

Additional Material:

Approximately 6000 cubic yards of material was placed adjacent to the western edge of Site E OU1 (see Figure 5). The Site is monitored by full time, 24 hour security and no material came from off-site. LMS physically walked over the pile and compared the makeup and appearance of the material to what was encountered during the Site investigation. There was no outstanding difference between the bermed material and the shallow soil and fill at Site E OU1

LMS contracted and supervised the removal of the bermed material from Site E OU-1 to Site A SOU and the removal of a total of 1,014.39 tons of material that contained PCBs above the unrestricted reuse level which was taken to Clean Earth of Philadelphia.

The bermed material will be used as fill material to replace coal tar and purifier waste that will be excavated and disposed of under a separate VCP agreement on Site A SOU.

Regarding the long-term portion of the remedy, the Site will have the following specific requirements following the approval of the completion of the work covered under this VCA and the issuance of a No Further Action (NFA) letter:

1. A Deed Restriction attached to the tenant documents and contract. The Deed Restriction will include the requirements set forth in Section X of the Voluntary Cleanup Agreement D3-0004-99-04 under which this Plan was prepared. In addition, the Deed Restriction will require that the tenant notify the Owner (City of New York) which in turn will notify NYSDEC of any intrusive work (utility, drainage additions, repairs or modifications) planned on the Site. The person or office in NYSDEC listed as the contact for this notification will be provided by NYSDEC upon completion of the remedy. The NYSDEC NFA letter should include a contact individual or Section in the Agency and a direct phone number. Since the tenants Engineer (WA) has reviewed and approved this Report, it will be presented and reviewed with the tenant by their Engineer. WA will identify the restrictions and requirements to a representative of the facility.

2. In the event of intrusive work being performed on the Site that would penetrate the top foot of "clean" imported material, a Site Safety Plan will be implemented by the "persons" or Contractor conducting the work. The Plan will serve to provide information and outline procedures used by workers to protect them from being exposed to contaminants in subsurface material. The Site Safety Plan will be reviewed by the Owner, NYSDEC, and NYSDOH prior to the initiation of work.

3. During the performance of any intrusive work, which does require the implementation of a Site Safety Plan, care will be taken with any excess material such that it will be handled and disposed of in accordance with applicable State regulations. Procedures for this will be outlined in the previously mentioned Safety Plan.

Attachment A

Engineer Sign-Off Letter

WHITESTONE ASSOCIATES, INC.

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908.754.5936 FAX

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SUITE 100
NORTH WALES, PA 19454
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215.393.8574 FAX

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STERLING, VA 20164
703.464.5858
703.464.8583 FAX

www.whitestoneassoc.com

June 10, 2003

via Federal Express

LAWLER, MATUSKY & SKELLY ENGINEERS, LLP
One Blue Hill Plaza
Pearl River, New York 10965-8509

Attention: Mr. Kevin McCarty
Project Manager

Regarding: ENGINEERING REPORT CERTIFICATION LETTER
FRESHTOWN FACILITY EXPANSION
NYCEDC HUNTS POINT SITE E
FOOD CENTER DRIVE
HUNTS POINT, BRONX, NEW YORK
WHITESTONE PROJECT NO.: WJ01-4124

Dear Mr. McCarty:

Please allow this correspondence to confirm that Whitestone Associates, Inc. (Whitestone) has reviewed the *Final Engineering Report* dated April 2003 for Parcel "C" and performed on-site field oversight and health and safety monitoring services at the above referenced property during site work and earthmoving activities conducted during the periods of April 2001 to June 2001, January 2002, March 2002 to April 2002, and July 2002.

During these periods, no conditions were encountered that required supplemental remediation, and, upon completion of the construction project, the entire site was covered with asphaltic or concrete pavements, building footprints, or at least one foot of non-regulated materials. Copies of daily site inspection reports documenting Whitestone's site observations and health and safety monitoring efforts previously have been provided to Lawler, Matusky & Skelly Engineers, LLP (LMS) under separate cover.

Hopefully, this correspondence provides adequate certification for the purposes of submittal to the New York State Department of Environmental Conservation (NYSDEC) concurrently with your pending *Final Engineering Report for the Operating Unit Portion of Parcel E, Bronx, New York* pursuant to NYSDEC's Voluntary Cleanup Program.

It has been a pleasure working with you on this project. Please do not hesitate to contact us with any questions regarding these matters.

Sincerely,

WHITESTONE ASSOCIATES, INC.

Thomas K. Uzzo, P.E.A.
Principal

Keith T. D'Ambrosio, P.E.
Director, Environmental Services

TKU/pjp X:\WStone\2001\4124\LMS-EngCertLtr-rev.wpd
Copy: Edward Slowinski, A&P
Kenneth S. Gordon, Esq., Stadtmauer Bailkin, LLP

Attachment B

End point Sampling Results

NYCEDC HUNTS POINT
SITE E
End Point Sampling
April 2001

LMS Sample ID	EP-1	EP-2	EP-2DL	
Lab Sample Number	228413-01	228413-02	228413-02DL	
Sampling Date	4/25/2001	4/25/2001	4/25/2001	RECOMMENDED
Matrix	SOIL	SOIL	SOIL	SOIL CLEANUP
Units	mg/kg	mg/kg	mg/kg	OBJECTIVE (a)
Dilution Factor	1:1	1:1	20:1	
SEMIVOLATILE ORGANIC COMPOUNDS (mg/kg)				
Naphthalene	ND	ND	**23**	13
Phenol	ND	ND	ND	0.03 or MDL
4-Methylphenol	ND	ND	ND	0.100 or MDL
2-Methylnaphthalene	ND	ND	22	36.4
Acenaphthylene	ND	ND	3	41
Acenaphthene	ND	15 e	16	50 ***
Dibenzofuran	ND	2	2.1	6.2
Fluorene	ND	15 e	19	50***
Phenanthrene	.1 j	**62 e**	**54**	50***
Anthracene	.044 j	12 e	11	50***
Flouranthene	.11 j	19 e	33	50***
Pyrene	.1 j	**90 e**	41	50***
Benzo (a) anthracene	ND	**20 e**	**18**	0.224 or MDL
Chrysene	.056 j	14 e	**15**	0.4
bis (2-Ethylhexyl) phthalate	.054 j	0.22 j	ND	50***
Benzo (b) Flouranthene	.058 j	**18 e**	**14**	1.1
Benzo (k) Flouranthene	ND	**4.8 e**	**6.5 j**	1.1
Benzo (a) pyrene	.041 j	**13 e**	**15**	0.061 or MDL
Indeno (1,2,3-cd) pyrene	ND	**3.4 e**	**6.3 j**	3.2
Dibenzo (a,h) anthracene	ND	**1.2**	**2.7 j**	0.014 or MDL
Benzo (g,h,i) perylene	ND	3.2 e	6.3 j	50***

*** - As per TAGM #4046, total VOCs < 10 ppm, total SVOCs < 500 ppm, individual SVOCs < 50 ppm.
(a) - NYSDEC Technical Administrative Guidance Memorandum, January 1994.
e - Estimated concentration; compound present above quantitation limit
j - Estimated concentration; compound present below quantitation limit
MDL - Method detection limit.
ND - Not detected at analytical detection limit

Attachment C

Site Photos

Photo 1 Site Looking Northwest - Pre-Construction

Photo 2 Looking Northwest - During Construction

Photo 3 Looking Northwest - Post-Construction

Photo 4 Looking Southeast - Pre-Construction

Photo 5 Looking Southeast During Construction

Photo 6 Looking Southeast Post-Construction