REPORT

Basis of Design
Spectrum Finishing Corporation Site
Town of West Babylon,
Suffolk County, NY
Site Number 1-52-029

New York State Department of
Environmental Conservation

October 2007

Job No. 10653/34101

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James R. Heckathorne, P.E.
O'Brien & Gere Engineers, Inc.

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O'BRIEN & GERE

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1. Introduction

1.1 Scope

This report provides the design rationale, criteria, computations and analysis for the remedial design to be conducted at the Spectrum Finishing Corp. Site #1-52-029. This work is being performed for the New York State Department of Environmental Conservation - Division of Environmental Remediation (NYSDEC-DER) under work assignment #D004090-13 of the NYSDEC Engineering Standby Contract. This document represents the basis of design for the remedy at this site. The remedy addresses contaminated soil and ground water at the Spectrum Finishing Corporation Site.

1.2 Approach

The site remedy was described in the *Final Focused Feasibility Study* prepared by GZA Geoenvironmental in March 2002 and the *Record of Decision (ROD)* prepared by the NYSDEC in March 2003. As documented in the ROD, NYSDEC selected the following remedy for the site:

- Soil excavation and off-site disposal of contaminated soils within source areas. Shallow soil excavation within the alleyways and hot-spot areas inside the building. Clean and properly close all cesspools and drainage structures. Seal excavated areas with asphalt or concrete to prevent surface soil exposure.
- A soils management plan will be developed to address residual contaminated soils that may be excavated from the site during future redevelopment.
- A deed restriction will be imposed that will require compliance with the soils management plan.
- Since the site metals- and tetrachloroethene- contaminated groundwater plumes have migrated off-site, a monitoring program will be instituted. Three outpost wells for the Suffolk County Water District Wells at Tenth Street will be installed. Samples will be analyzed for metals and volatile organic compounds.
- Since there is existing groundwater contamination, institutional controls will be imposed in the form of existing use and development restrictions preventing the use of groundwater as a source of potable or process water without necessary water quality treatment as determined by the Suffolk County Department of Health Services.
- A notification will be sent to the Suffolk County clerk for filing, to notify owners of the residual contaminants remaining in ground water on the site.

The following remedial approach will be used to implement this remedy:

- Soil in the alleyways between 51 Cabot Street and 45 Cabot Street, 50 Dale Street and 40 Dale Street, and 40 Dale Street and 45 Cabot Street will be excavated.
- Soil within the building beneath the former sump will be excavated.
- Soil from the bottom of 11 sanitary cesspools (CP) and 12 drainage structures (DS) will be removed to the extent practicable to a depth of approximately 18 feet below grade surface (bgs).
- Once the soil from the bottom of the CP and DS structures has been removed, the structures and all connected piping will be abandoned by filling with flowable fill.
- Abandoned CP and DS structures will be replaced with 13 new drainage structures. Roof drains will be redirected to new, dedicated drainage structures.

- Three additional cesspools are suspected to exist and if found will also be removed.
- Nine on site Underground Storage Tanks (USTs) will be decommissioned or removed along with surrounding soil.
- One new septic system will be installed for each of the buildings at 50 Dale Street, 60 Dale Street, 51 Cabot Street, and 61 Cabot Street. Sanitary drainage from toilets and sinks will be redirected to the replacement septic systems. Floor drains, if discovered during construction to be present, will be abandoned.
- Environmental easements will be imposed to restrict soil and ground water use at 50 Dale Street, 60 Dale Street, 51 Cabot Street, and 61 Cabot Street.
- Three sentinel ground water monitoring wells will be installed as a well nest downgradient of the Site and upgradient of the Suffolk County Water Supply Wells.
- The remedial contractor will complete one round of ground water sampling following installation of the outpost ground water monitoring wells.
- Surface restoration of the grass and asphalt impacted by remedial activities will be conducted.
- A soil management plan will be prepared.

Since the issuance of the March 2003 ROD, the structural integrity of 50 Dale Street has been evaluated by O'Brien & Gere, and it has been recommended to NYSDEC that this structure be demolished prior to excavation activities within the building.

1.3 Site History and Description

The Spectrum Site is about 0.67 acre in size and consists of one concrete block building and the parking lot north of the Spectrum building. The Spectrum Site is situated between Cabot Street on the west side and Dale Street on the east side. To the north is the property located at 60 Dale Street, a former Class 2a inactive hazardous waste disposal site known as the NTU Circuits Site. Since the NTU Circuits Site and the Spectrum Site have the same owner, the parking lot between the two sites was added to the Spectrum Site when the NTU Circuits Site was de-listed (NYSDEC 2003).

Spectrum operated at this site from 1968 to 1994. The company specialized in electroplating high strength alloys and descaling titanium alloys for the aerospace industry. The industrial operations took place mostly in the eastern section of the building. After Spectrum ceased operations, the building was subdivided into three units. The east end of the building is used to store automobiles, refrigerators, and other equipment. The center and west end of the building contain a machine shop and a door manufacturer, respectively (NYSDEC 2003).

The site and surrounding area are provided with public water. Stormwater and sanitary sewage are discharged into stormwater dry wells (drainage structures) and sanitary septic systems (cesspools), respectively. Site inspections and sampling from 1970 to 1975, performed by the Suffolk County Department of Health Services (SCDHS), revealed discharges of hazardous wastes into storm drains and leaks from holding tanks. Heavy metals were noted from sediment samples taken from a leaching tank, the storm drains, and site runoff. Analysis revealed the presence of cadmium at a concentration of 12,000 parts per million (ppm), copper at 340 ppm, and nickel at 83 ppm (NYSDEC 2003).

Soil, groundwater, and underground storage tank (UST) product samples were collected at the site to characterize the nature and extent of contamination. The main categories of contaminants which

exceed the standards, criteria, and guidance (SCGs) are inorganics and volatile organic compounds (VOCs) (TAMS/GZA 2001).

The inorganic contaminants of concern are cadmium, copper, nickel, and chromium based on the distribution, toxicity, and number of exceedances of cleanup guidelines. The primary VOC of concern is tetracholorethene (PCE) (TAMS/GZA 2001).

1.3.1 Surface Soil

The Spectrum Site is mostly paved and is situated in an industrial area where it is not likely for the public to come in contact with the surface soil. Surface soil samples were collected in the alleyway and parking lot. The highest concentrations of VOCs, metals, and PCBs in surface soils occurred in the alleyway (TAMS/GZA 2001). During the feasibility study, a figure was developed to show these soil concentrations in exceedance of recommended soil cleanup objectives (SCOs). This figure is presented in Exhibit A.

1.3.2 Subsurface Soil

The primary contaminant type exceeding cleanup objectives in the subsurface soils is inorganics. The highest concentrations of inorganic constituents in subsurface soils were present in the cesspools and the drainage structures, the alleyway, and the area within and surrounding the sump inside the building (TAMS/GZA 2001).

1.3.3 Cesspools & Drainage Structures

The cesspools and drainage structures are located in the parking lot area north of the building, with the exception of three cesspools located in the grassy areas proximate to Dale Street (two structures) and Cabot Street (one structure). The drainage structures have perforated walls and, in most cases, no bottoms. RI results indicated that soil in cesspools and drainage structures exhibited concentrations of VOC, inorganics, and SVOC above soil cleanup levels. Post-IRM confirmation results indicated that while soil containing VOCs, PCBs, and SVOCs above SCOs have been removed, residual metals concentrations in soil remain above the SCOs in many of the cesspools and drainage structures (TAMS/GZA 2001).

1.3.4 Underground Storage Tanks

Nine on site USTs have been identified on-site. No spills were documented related to these USTs. No record of pressure testing is available for these USTs. Eight USTs are located within the paved and grassy areas surrounding each building, and one UST is located beneath the building slab at 50 Dale Street. One sample from the following USTs was collected and analyzed for petroleum products and poly-chlorinated biphenyls (PCBs): UST-1, UST-2, UST-3, UST-4, UST-6, and UST-8. UST-5 and UST-9 were not sampled because of restricted access. UST-7 appeared empty and was not sampled. Each sample was identified as Diesel Fuel (Fuel Oil #2). PCB was not detected. (GZA 1999). Table H1 is a schedule of estimated septic tank size and liquid volume existing at the time of sampling.

2. Pre-Design Activities

Pre-design activities were performed to obtain information to complete the remedial design. Pre-design activities consisted of a pipe survey, geotechnical borings, drainage structure soil sampling, and a building evaluation.

2.1 Pipe Survey

The objective of the pipe survey was to identify sanitary and room drainage discharging to the existing cesspools and drainage structures. The survey was performed by O'Brien & Gere on June 20, 2007. The survey found that the buildings at 51 and 61 Cabot Street have 4 roof drains per structure discharging to subsurface basins. One drain at 61 Cabot street discharges to grade in the parking lot. Buildings, except the 50 Dale Street, have functional bathrooms discharging to sub-surface cesspools, however, the final discharge location of sanitary wastewater from any of the buildings locations could not be verified. Observations from the pipe survey suggest that wastewater is conveyed from each building from two separate locations generally located along the street-side and the parking lot-side of each building. A schematic of the sanitary and roof drainage based on this piping survey and available documents is included in Appendix A.

2.2 Geotechnical Borings

The objective of the geotechnical borings was to obtain information regarding the soil types present at the site to assist remedial contractors in developing a proposed excavation approach. A total of two soil borings were completed by Aquifer Drilling and Testing, Inc on June 20, 2007. Boring logs, providing blow counts and soil characteristics, are included as Exhibit B. The soil within this borings was found to be sand over the entirety of the penetrated depth. Ground water was observed at approximately 20 feet below grade surface across the site.

2.3 Building Survey

A building survey was performed by O'Brien & Gere to evaluate the structural integrity of the 50 Dale Street Property and to evaluate the potential presence of asbestos at 50 Dale Street. This information was obtained to evaluate the potential need for building demolition and the possibility of the need to manage demolition debris containing asbestos and lead paint.

The survey found that the building roof is in disrepair and that it has been supported by wood framing materials and that it is likely incapable of providing expected lateral support to the walls. It concludes that the building structure is in a deteriorated condition and may collapse should excavation be performed within the standing structure. The building survey recommends that the building be demolished or the roof be removed and the walls temporarily braced prior to excavation of the sump and adjacent area. Bracing may not be effective in providing long term safety for occupants following excavation, or to maintain building integrity following excavation.

The presence of asbestos was confirmed in window glazing and roofing materials. The presence of lead paint is suspected in paint observed on painted surfaces. This assumptions is based on the age of the building, and the observance of painted surfaces.

A detailed summary of the building survey is included as Appendix B.

2.4 Drainage Structure and Cesspool Sampling

The objective for the drainage structure and cesspool soil sampling was to characterize soil in each individual structure/cesspool as hazardous or non-hazardous for off site disposal purposes. The sampling was conducted June 18 through June 20, 2007 in accordance with the Pre-Design Activities Work Plan prepared by O'Brien Gere, Inc. dated June 15, 2007. Aquifer Drilling and Testing used geoprobe equipment to advance Macrocore samplers, from which samples were taken and sent to Mitkem Laboratories for analysis. Cesspool structures CP-2, and CP-5 were not located during this effort and, therefore, were not sampled. CP-2 and CP-5 were not uncovered as they are believed to be located beneath a fence post and beneath a tree, respectively. In addition, CP-10 was not sampled, as it appeared to have a solid bottom in the field.

The results of the sampling indicate that material generated during excavation from the following structures is characteristic of hazardous waste DS-2, DS-5, DS-6, CP-3 and CP-4. For purposes of this design, the structures not sampled (CP-2, CP-5, and CP-10) are also assumed to be hazardous. Material generated from the remaining structures is characterized as non-hazardous material.

Results of laboratory analysis for these samples are tabulated and included as Appendix C.

2.5 Drainage Structure CP-3

The vicinity of CP-3 will be further investigated to ascertain if excavation outside CP-3 will be required. This work will be performed by others on behalf of the NYSDEC, and may result in additional soil requiring management. The results from this investigation will be provided in a separate document.

3. Cesspools and Drainage Structures

3.1 Description

Twenty-three cesspools and drainage structures have been identified on site (TAMS/GZA, 2001). These structures are 8-ft outer diameter concrete ring structures with perforated sides and open bottoms (i.e. no concrete bottom). The location of 23 structures is known; three structures are suspected to be present but have not been located to date. Each CP and DS is to be cleaned out and abandoned. CP and DS will be abandoned by filling with flowable fill to the ground surface. Abandoned CP and DS are to be replaced with replacement structures, such that sanitary and storm water is discharged to site subsurface. Piping for sanitary discharges (toilets and sinks) will be field verified and rerouted to replacement septic systems. Roof drains will be rerouted to new, dedicated drainage structures. One floor drain is assumed to be present per structure and will be abandoned with flowable fill.

As necessary, the removed materials are to be treated or otherwise stabilized to meet Land Disposal Regulations (LDRs) prior to landfill disposal at an off-site location. To facilitate the removal of soil, dewatering of the cesspools and storm drainage structures may be necessary, and collected water is to be transported to an off-site treatment or disposal facility. Alternatively, the collected water may be treated on-site for disposal to a local publicly-owned treatment works (POTW) if permitted by the Department and local POTW authority. The nearest POTW is Bergen Point Sewage Treatment Plant in West Babylon, NY.

3.2 Design Criteria

3.2.1 Clean-out and Abandon Existing Structures

Soil and debris will be removed from within each structure to the extent practicable to a maximum depth of 18 feet below grade surface (bgs), or just above ground water if encountered at less than 18 ft bgs. Material generated from these structures will be segregated as "hazardous" or "non-hazardous". DS-2, DS-5, DS-6, CP-2, CP-3, CP-4, CP-5 and CP-10 are assumed to be hazardous.

3.2.2 New Septic Systems

Septic systems will be installed as replacements for cesspools. Sizing and placement of structures was based on the Suffolk County Department of Health Services Standards for "Approval of Plans and Construction For Sewage Disposal Systems for Other Than Single Family Residences" that incorporated an estimation of flow based on servicing general industrial space and consideration of minimum structure requirements. Septic System plans and calculations must be approved by the Suffolk County Department of Public Works. State Environmental Quality Review and Assessment (SEQRA) findings will be required for review and approval.

3.2.3 New Stormwater Drainage Structures

Sizing and placement of drainage structures was based on the Town of Babylon Planning Board Site Improvement and Subdivision Specifications that incorporated drainage areas, design rainfall, and runoff coefficients. Drainage structures and all site work must be approved by the Town of Babylon Planning Department. Departmental Review of Site Plans and calculations will be required for approval. Approval of drainage system designs will be required to complete Town review.

3.3 Design Parameters

3.3.1 Clean-out and Abandon Existing Structures

A total of approximately 272 cubic yards of soils/sediment are anticipated to be removed based on the depth and diameter of existing structures tabulated in the Focused Remedial Investigation Report (TAMS/GZA, 2001). Approximately 29 cubic yards of the total is estimated to be contained within structures whose location was not found and has, therefore, been assumed to be hazardous. Approximately 65 cubic yards of material is known or assumed to be characteristic of hazardous waste according to the Toxicity Characteristic Leaching procedure. The remaining approximately 207 cubic yards of material has not been found to be characteristic of hazardous waste. A schedule of soils and debris volumes is presented in Appendix D.

3.3.2 New Septic System

The following assumptions were used in calculations:

- Each building would require a dedicated septic system.
- Flows for a "General Industrial Space" were estimated at 0.04 gallons per day (gpd) for each square foot (sf) of floor area.
- Septic tanks were sized to hold a minimum of 2 days estimated daily flow volume.
- Leaching structures have a sidewall leaching rate of 25 gal/sf/day for each vertical linear foot.
- Groundwater is located at 18 feet below grade.
- Design and placement of structures adheres to the minimum requirements of the County Standards as follows:
  - Septic tanks shall be a minimum of 5 feet from any structure.
  - Drainage structures shall be a minimum of 15 feet from the septic tank and each other.
  - Sanitary lateral piping shall be laid at a slope of ¼-inch per lineal foot.
  - Septic tank discharge piping shall be laid at a slope of 1/8-inch per lineal foot.

Building areas used and septic system design calculations are detailed in Appendix E.

3.3.3 New Stormwater Drainage Structures

The following assumptions were used in calculations:

- Roof drains require dedicated drainage structures that do not receive site drainage.
- Based on a design rainfall event with a total of 0.12 ft of rain as specified in Town Specifications.
- Placement of structures as designed adheres to the following minimum offsets as required by the Town Specifications:
  - Drainage Structures shall be a minimum of 10 feet from any structure.
  - Drainage structures shall be a minimum of 15 ft from each other.

Site drainage areas, drainage area run-off coefficients and drainage calculations are detailed in Appendix F.

4. Underground Storage Tanks

4.1 Description

Nine underground storage tanks (USTs), as shown on Exhibit C, are believed to be present at the site (GZA, 1999). No spills were documented related to these USTs. No record of pressure testing is available for these USTs. Exhibit C also shows three USTs that are not located on the site (UST-10, UST-12, and UST-13); these are not part of this remedial action. Investigations to date have not provided information regarding the size, purpose or registration status of USTs on site. Each UST is to be decommissioned and removed in accordance with NYSDEC and Suffolk County Department of Health Services requirements. Confirmatory sampling will also be conducted.

4.2 Design Criteria

NYSDEC and Suffolk County Department of Health Services provide guidance and requirements for the proper abandonment of underground storage tanks. These guidance and requirements are summarized in a memorandum included in Appendix G. Eight tanks are reported to be 4 feet in diameter and 11 feet long, and one tank is reported to be 6 feet in diameter and 13 feet long. For purposes of design, it is assumed that each tank will be excavated to a width 2 feet wider than its width and length dimensions, and to a depth equal to the existing elevation of the tank bottom. UST sizing is tabulated in Appendix H.

4.3 Design Parameters

The USTs will be decommissioned and removed in accordance with NYSDEC and Suffolk County Department of Health Services requirements. These include:

- Verification that USTs are registered. Applicant will be responsible for registration fees.
- Notification of Suffolk County Department of Health Services at (631) 854-2523 at least three business days prior to the commencement of tank removal activities.
- Removal of liquid and sludge from the tank by a licensed industrial waste hauler for waste oil. Disposal of tank contents to a licensed waste disposal facility.
- Removal of the tank and remote fill ports.
- Sampling of excavation sidewalls, bottom and ground water if present in accordance with NYSDEC Guidance Documents (STARS #1 and SPOTS#14).
- Backfilling and compaction of the excavation with clean fill, as necessary.

A record of sludge removal, transport, and disposal shall be kept on file to document proper tank closure procedures.

In the event that soil contamination is present, NYSDEC will be responsible for notification of spills.

Approximately 94 cubic yards of material will be removed during the excavation of the nine USTs. It is assumed that this material will be returned to the excavation as backfill pending confirmatory sampling. Approximately 175 cubic yards of backfill and pavement sub-base will be placed prior to repaving. UST-9 will not require paving as this is located within the limits of the building slab; backfill shall extend to slab grade.

5. Monitoring Wells

5.1 Description

The remedy requires the installation of downgradient outpost wells for ground water monitoring. The outpost wells will serve to assess off-site migration of volatile organic compounds (VOC) both horizontally off-site as well as vertically to deeper groundwater

5.2 Design Criteria

The ROD calls for three wells to be installed downgradient of the site, screened starting at 50 ft bgs. One well is to be installed at the intermediate ground water level and two wells are to be installed to the deeper ground water level.

5.3 Design Parameters

Three wells will be installed as a well cluster. One well will be installed at the depth of the ground water table, approximately 50 feet bgs, and will target intermediate ground water. Two other wells will be installed to a depths of approximately 100 and 150 feet bgs. The latter two wells will target different levels of deep ground water. This well cluster will be located approximately 3,500 linear feet to the southeast of the Site along 7th Ave between 15th Street and 17th Street. All work will occur within the public right of way.

Each well will be constructed of 2 -inch diameter PVC casing and screen. The screen will be installed along the bottom-most 10-ft interval of each well. The screen mesh sizing will be selected by the remedial contractor based on field conditions at the time of installation.

Each well will be developed to remove collected sediments and attain a uniform inflow. Subsequent to development, each well will be sampled for VOCs and inorganics to assess the baseline ground water condition at the time of installation.

6. Soil removal

6.1 Description

The remedy includes the excavation and disposal of soil from the western, eastern and southern alleyways, and the sump pit and immediate vicinity within the building interior. To facilitate the removal of soil in the alleyways, a natural gas line located in the alleyway most likely will require removal or relocation.

As necessary, the excavated soils are to be treated or otherwise stabilized to meet LDRs prior to landfill disposal at an off site location. To facilitate the removal of soil, dewatering of the excavations and excavated soil may be necessary. Collected water is to be transported to an off site treatment or disposal facility. Alternatively, the collected water may be treated on site for disposal to a local POTW if permitted by the Department and local POTW authority. The nearest POTW is Bergen Point Sewage Treatment Plant in West, Babylon, NY.

Following excavation, the excavated areas will be backfilled. The surface in the alleyways will be paved with asphalt following backfilling.

6.2 Design Criteria

The ROD calls for excavation to a depth of 2 ft below ground surface in the alleyways, 8 ft below the bottom of the sump pit located inside the building at 50 Dale Street, and 2 ft below ground surface in the area in the vicinity of the sump pit. The ROD calls for backfilling of the excavation with clean fill and covering the surface of the excavation footprint with asphalt or concrete. Excavation in the alleyways is to be conducted in the areas shown on the figure included in Exhibit D, as adapted from Figure 6 of the ROD (NYSDEC 2003). Sampling to assess the materials to be removed from the alleyways and interior areas has not been performed during remedial or pre-design investigations as the extent of excavation in these areas is driven by physical constraints, rather than material type. To estimate the volume of material, the "rule of 20" was applied to the total metals results generated during the remedial investigation (total metals results at least 20 times the TCLP limit for the constituent is assumed to be hazardous). Using the "rule of 20", the entirety of the alleyway and interior contained within the criteria above will be assumed to be hazardous for disposal purposes.

6.3 Design Parameters

6.3.1 Western Alleyway

Approximately 56 cubic yards of hazardous soil is to be excavated from the western alleyway. This is based on a surface area of approximately 750 square feet, and a depth of 2 feet below grade surface (bgs). Excavated soil is to be disposed off-site. The excavation is to be backfilled with clean fill. Following excavation and backfilling, the western alleyway is to be paved using asphalt.

6.3.2 Eastern and Southern Alleyway

Approximately 101 cubic yards of hazardous soil is to be excavated from the eastern alleyway. This is based on a surface area of approximately 1,360 square feet and a depth of 2 feet bgs. Approximately 37 cubic yards of soil is to be excavated from the southern alleyway. This is based on

a surface area of approximately 500 square feet and a depth of 2 feet bgs. Excavated soil is to be disposed off-site. The excavations are to be backfilled with clean fill. Following excavation and backfilling the eastern and southern alleyways are to be paved using asphalt.

6.3.3 Interior of Building

The remedial action for the interior portion of the building consists of excavation of hazardous soil from the sump, an area adjacent to the sump, and the removal of an underground storage tank (UST-9) under the building slab. The sump is located approximately centered along the northern wall in the northwestern corner of an interior room and is to be excavated to approximately 8 feet below the bottom of the sump, to a total depth of 14 feet bgs. The area adjacent to the sump is located approximately 25 feet to the east of the sump and is to be excavated to approximately 2 feet below slab grade. (NYSDEC 2003). UST-9 is located near the northwestern corner of the building and is to be removed. The removal of UST-9 is discussed in Section 4.

Excavated soil is to be disposed off-site. The excavations are to be backfilled with clean fill, including the sump, which is to be backfilled to slab grade.

Approximately 35 cubic yards of hazardous material is to be excavated from beneath the sump based on a sump bottom area of 10 feet wide by 12 feet long and an excavation depth of 8-ft below the sump bottom. The area to be excavated to a depth of 2 feet adjacent to the sump is approximately 470 square feet in area, resulting in approximately 35 cubic yards of additional hazardous material to be excavated from the building interior.

7. Demolition

The ROD states that the building shall not be demolished or altered for completion of the interior excavation. However, a building assessment, detailed in Section 2.3, concluded the building is not sufficiently structurally sound to safely allow for excavation work to be performed within the structure. While the building assessment indicates that roof removal followed by temporary bracing of remaining walls is an option to stabilize the walls during excavation it is not intended to provide long-term stability to the structure with the roof removed. Further, long-term stability would be unknown. Therefore, demolition has been incorporated into the design. As such, the building will be demolished prior to excavation of the sump and underlying soils. Abatement of asbestos containing material (ACM) will be required prior to demolition.

7.1 Design Criteria

The building at 50 Dale Street will be demolished to leave only the existing concrete slab. Asbestos abatement will occur prior to demolition of the walls and roof. That material not containing asbestos will be disposed of as construction and demolition debris.

Demolition design assumes that all stored material within the building has been removed by the Owner prior to construction.

7.2 Design Parameters

7.2.1 Building Demolition

The following assumptions were used in calculating the volume of construction and demolition (C&D) debris:

- Approximately 480 linear feet of exterior masonry block walls.
- Approximately 150 linear feet of interior masonry block walls.
- Approximately 70 linear feet of interior wood framed walls.
- Approximately 10,500 square feet of roof comprised of corrugated roof deck.
- Walls are assumed to be 18 feet high.

It is estimated that approximately 750 tons of C&D debris will be generated by demolition. Interior lighting, where present, will be removed and segregated prior to building demolition to prevent the potential introduction of PCB and metals containing lighting and ballasts to general C&D debris.

7.2.2 Asbestos Abatement

It is assumed that ACM will be removed prior to demolition. The following materials will be removed as non-friable ACM:

- Interior building joint caulk.
- Interior roof-to-wall seam caulk.
- Exterior window patch caulk.
- Exterior tar wall patch.
- Exterior curb and roof-to-wall flashing.
- Roof patching material.

It is estimated that approximately 5 cubic yards of ACM will be generated. The location of these materials is detailed in the Table 1 of Appendix B.

Some stucco-type material has been identified as less than 1% asbestos by weight and, as such, does not meet the NYS or USEPA definition of ACM. However, it is assumed that the Contractor will perform an exposure assessment to satisfy potential OSHA requirements for this material.

8. Site Restoration

8.1 Design Criteria

The site will be divided into four drainage areas (basins), each containing one of the buildings on-site and its surrounding land area. Site grading will be such that surface water originating within each basin (for all volumes equal to up to 1.5 inches of rain over the basin area) will be directed to drainage structures for that basin. Site grading will be such that volumes generated greater than the design storage volumes will flow from the site in a manner similar to the existing condition.

The site will be restored in kind with existing surface material.

8.2 Design Parameters

8.2.1 Grassed Areas

Grassed areas will be restored to the existing grades and slopes. Approximately 9,200 square feet will be re-seeded.

8.2.2 Paved Areas

Asphalt areas will be restored by placing a new, contiguous course of pavement over existing pavement subbase. The existing asphalt will be removed to the existing subbase material prior to re-paving. Approximately 30,000 square feet of asphalt will be placed for restoration. Asphalt within the paved areas shall comprise a 3-inch thickness of NYSDOT Type 3 asphalt overlain by 2 inches of NYSDOT Type 6 asphalt.

8.2.3 Excavated Soils Areas

The excavated areas within the alleyways will be restored with approximately 195 cubic yards of clean fill and paved with approximately, 3,200 square feet of asphalt comprising a 3-inch thickness of NYSDOT Type 3 asphalt.

8.2.4 Sump Pit and Adjacent Area

The excavated areas corresponding to the sump pit and adjacent areas will be restored with approximately 70 cubic yards of clean fill. The excavation resulting from decommission of UST-9 will be restored with approximately 18 cubic yards of clean fill.

9. Existing Utilities

Electric, natural gas, and water utilities are present on site and around the Site. Buried natural gas piping and overhead utilities are present within the eastern alleyway area to be excavated. The location of utility poles and buried gas lines are shown on the Boundary, Topographical and Utility Survey prepared by Munoz Engineering, 4/15/05. This survey is presented as Exhibit E.

These utilities will be disconnected prior to demolition of the building at 50 Dale Street. The existing overhead pole located within the southern alleyway will be supported as necessary and appropriate to accomplish the excavation and backfilling operations described in Section 6.3. Proof of disconnection will be required by the Town and/or appropriate utility company.

10. Permits and Notification Requirements

This project is not subject to NYS permit requirements; however, the substantive requirement of applicable permits will be met. Preliminary evaluation indicates that notification may be required for the discharge of water, hazardous waste disposal, well installation, sanitary installation, UST removal, and property access. Other notifications may be required.

Local permits will be required for applicable portions of this proposed construction. Required permits from the Town of Babylon will include:

- A building permit to be secured through departmental review of the site plan. This review will address the adequacy of design of stormwater facilities and grading.
- Demolition Permit to be secured through departmental review of the site plan
- A storm water pollution prevention plan
- Right-of-way permit for installation of sentinel wells.

Septic system design and placement must be reviewed and approved by the Suffolk County Department of Health prior to construction. This approval is also required by the Town of Babylon prior to issuance of a building permit.

11. OM&M

OM&M activities shall include ground water monitoring and site soil management. Ground water monitoring will be further described in the OM&M Plan for the site to be finalized during the later stages of design. Site soil management is further described in the Soil Management Plan for the site. These plans are provided separately.

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TAMS Consultants, Inc. and GZA GeoEnvironmental of New York. 2001. Focused Remedial Investigation, Spectrum Finishing Corporation Site, Site No. 1-52-029. December 2001.

GZA GeoEnvironmental of New York. 2002. Focused Feasibility Study, Spectrum Finishing Corporation Site, Site No. 1-52-029. March 2002.

GZA GeoEnvironmental of New York. 1999. Draft Summary of UST Information, Spectrum Finishing Corporation Site. December 1999.

APPENDIX A

Sanitary and Roof Drainage Piping Schematic and Summary

To:	File	*cc:*	David Chiusano
From:	Amy Lawrence		Clare Leary
Re:	NYSDEC Spectrum Finishing Corporation Site – Piping Survey		Edwin Rahn
File:	I:\DIV71\Projects\10653\34101\5_rpts\Piping Survey\Memo.doc		
Date:	July 5, 2007		

A field inspection was performed on June 20, 2007 to visually identify storm water and sanitary drainage for the four existing buildings at the Spectrum Finishing Corporation Site. A ladder was used to examine the roofs of the buildings. The following observations were noted during the field inspection:

- Roof drains exist on Cabot Street buildings (51 and 61 Cabot Street). There are approximately 4 drains per structure. The roofs are pitched towards the central parking lot and piping for the roof drains is located along the interior walls of the buildings, with the exception of one roof drain on 61 Cabot Street that is connected to PVC piping running along the exterior of the building. Underground piping is used to convey the storm water from the interior piping to the drainage structures located in the central parking lot. The PVC piping on the exterior of 61 Cabot Street drains onto the surface of the central parking lot. The roof drains appear to be clogged. At the time of the field inspection, it had just rained and water was accumulating on the roof and pouring over the sides of the 61 Cabot Street building.

- The 60 Dale Street building did not appear to have roof drains. Although the interior of the south wall was not completely accessible, piping for the roof drains was not observed inside the building. At the time of the inspection, water was pooled on the roof.

- The 50 Dale Street building has an addition that is approximately 14-feet wide along the north wall of the building. The roof on the addition drains to gutters, which are currently detached from the downspouts. Drains were not observed on the roof of the main portion of the building, however there was PVC piping located along the interior north wall of the building. At the time of the inspection, water was accumulating on the roof.

- There are generally 3-4 bathrooms per building with the exception of 50 Dale Street, which does not currently have any bathrooms. The bathroom arrangement is similar for each building, with 1-2 bathrooms located along the middle portion of the parking lot side of the buildings and 1-2 bathrooms located along the street sides of the buildings. A septic system vent is present adjacent to the buildings at each of these locations. The 51 Cabot Street building has bathrooms located in a different location, however it is because the bathrooms were relocated. Due to the location of septic system vents, it is likely that 50 Dale Street previously had bathrooms in a similar arrangement.

This information combined with historical sewer system design drawings and detailed information from the Remedial Investigation on pipe inlets and outlets in the drainage structures and cesspools led to the following observations:

- There may be unidentified cesspools for the 61 Cabot Street and 60 Dale Street buildings, which are likely to be active.

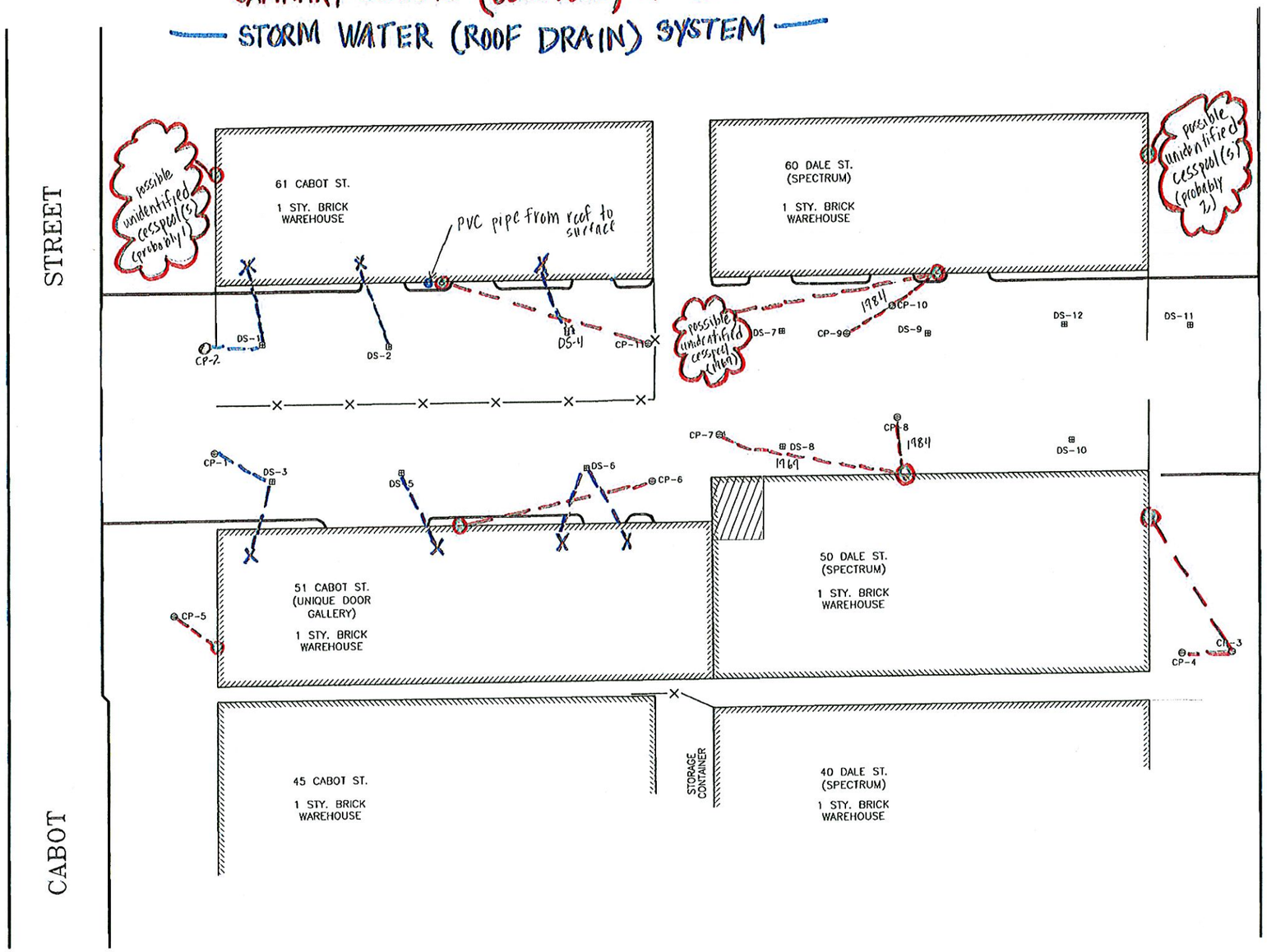
- Some of the cesspools installed in 1969 may not be currently active, as newer cesspools (installed in 1984) appear to connect to the same point.

- Several cesspools appear to be connected to "overflow" cesspools. Other cesspools appear to act as "overflow" basins for drainage structures.

The attached drawing illustrates the assumed sanitary and storm water piping connections, however, field-testing (*e.g.* dye testing) is recommended for confirming this data. As noted above, the lines marked with "1969" may not currently be active. A photographic log is also attached.

Jun 11, 2007 - 1:28pm

— SANITARY SEWER (CESSPOOL) SYSTEM —
— STORM WATER (ROOF DRAIN) SYSTEM —



LEGEND

—X— FENCE

⊙CP-10 CESSPOOL SAMPLE LOCATION

DS-11 ⊞ DRAINAGE STRUCTURE SAMPLE LOCATION

Notes:

1) Sanitary sewer (cesspool) system drainage information obtained through review of historical drawings, RI information, and field observation. Not confirmed through dye testing.

2.) Storm sewer (roof drain) system drainage information obtained from field observation. Not confirmed through dye testing.

THIS DRAWING WAS PREPARED AT THE SCALE INDICATED IN THE TITLE BLOCK. INACCURACIES IN THE STATED SCALE MAY BE INTRODUCED WHEN DRAWINGS ARE REPRODUCED BY ANY MEANS. USE THE GRAPHIC SCALE BAR IN THE TITLE BLOCK TO DETERMINE THE ACTUAL SCALE OF THIS DRAWING.

IN CHARGE OF _____
DESIGNED BY _____ CHECKED BY _____
DRAWN BY _____

1"=20' 20 0 20 40

NO.	DATE	REVISION	INIT.

O'BRIEN & GERE ENGINEERS INC.

NYSDEC
SPECTRUM FINISHING CORPORATION
BABYLON, NEW YORK

GENERAL

EXISTING SITE PLAN

FILE NO. 10653.34101

DATE JULY 2007

Photo 1: 50 Dale Street (looking east)

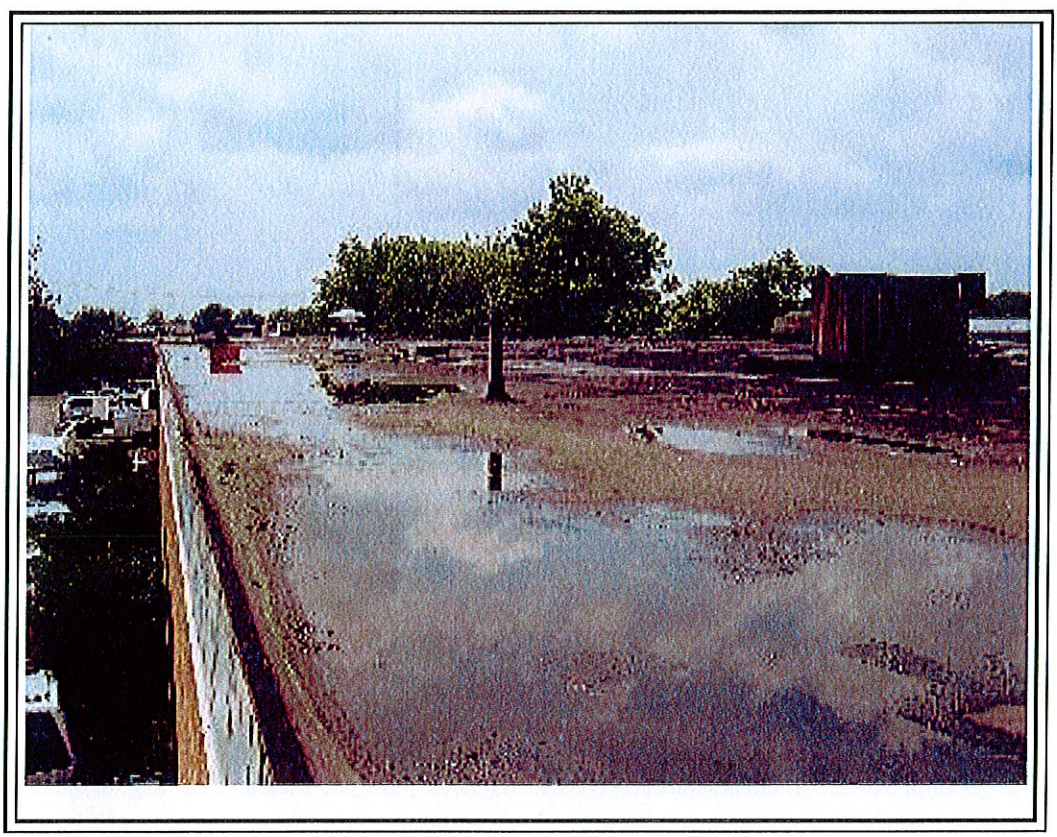


Photo 2: 60 Dale Street (looking west)

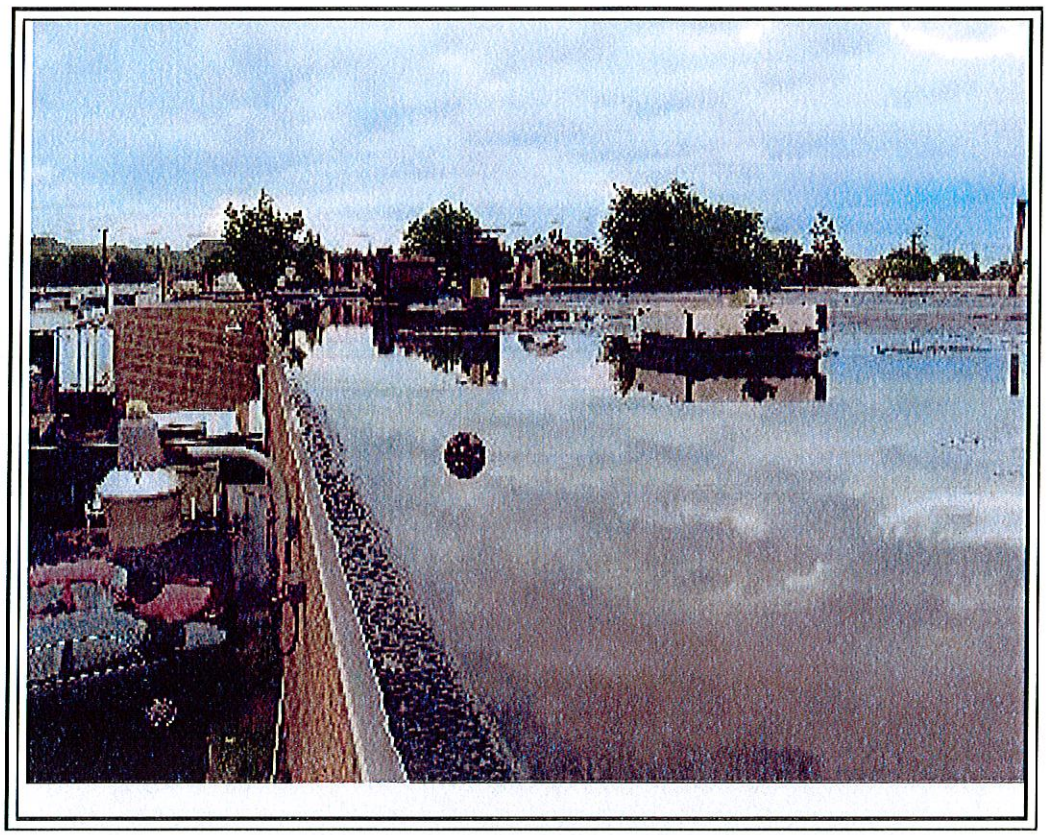


Photo 3: 51 Cabot Street (looking east)

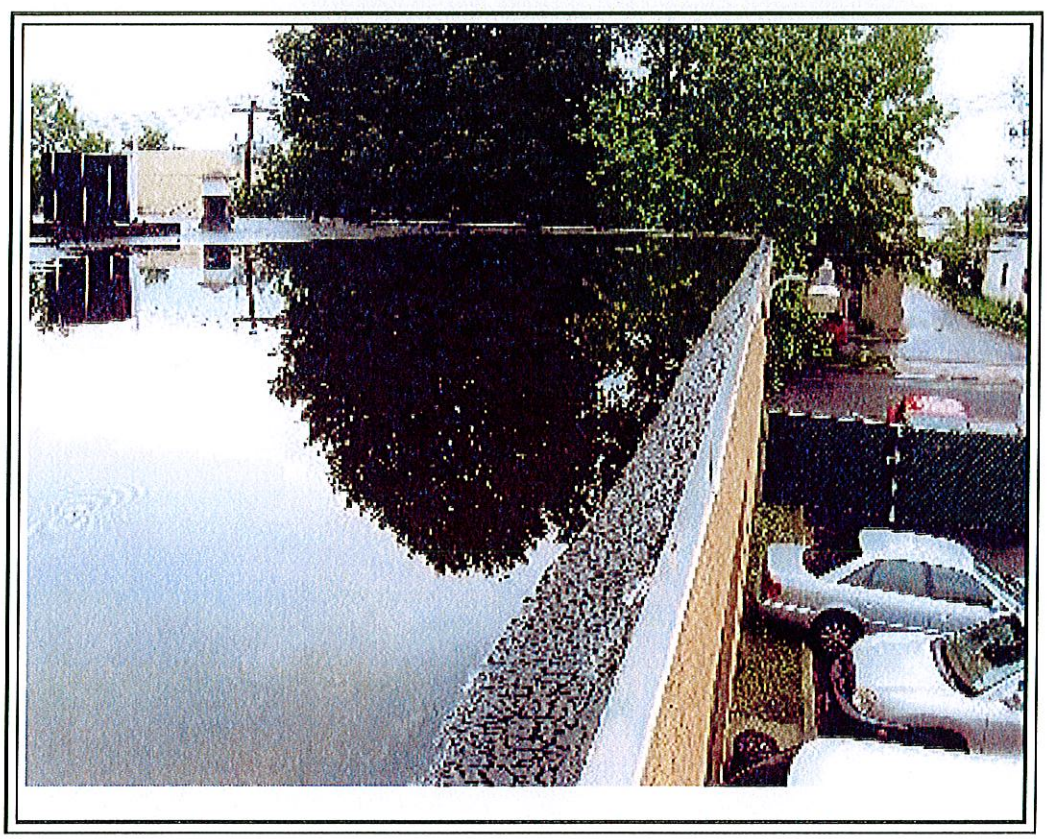


Photo 4: 51 Cabot Street (looking west)

Photo 5: 61 Cabot Street (looking east)

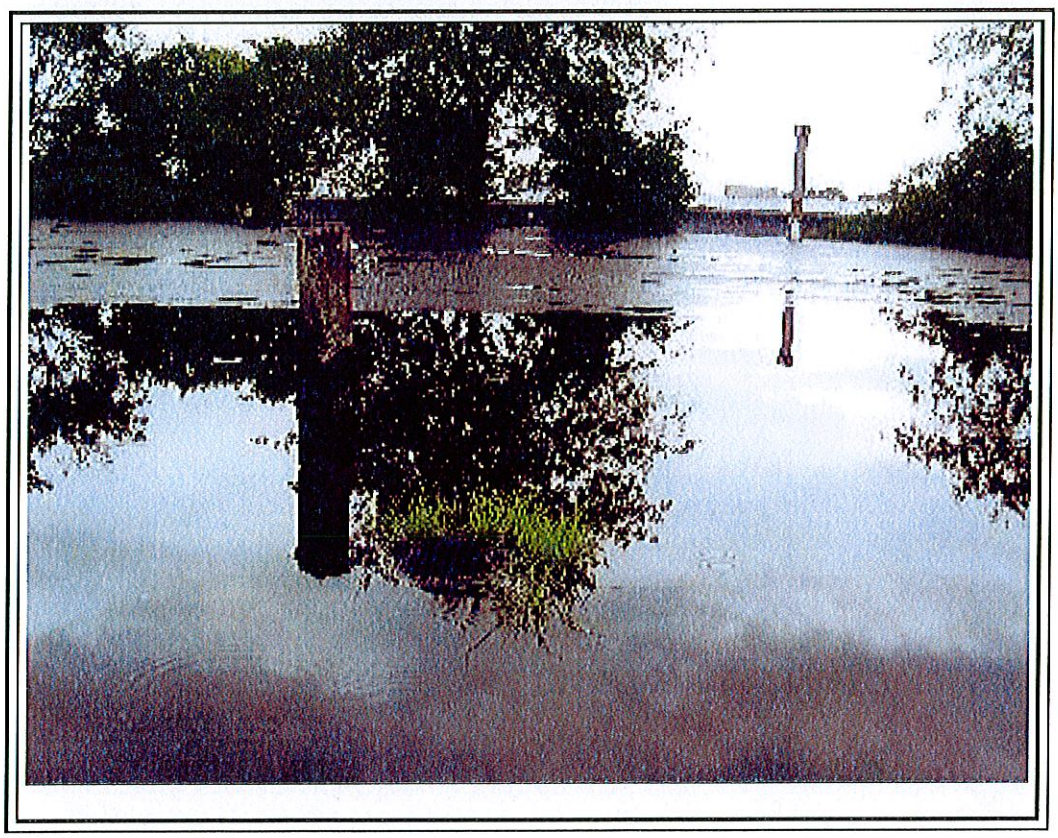


Photo 6: 61 Cabot Street (looking north)

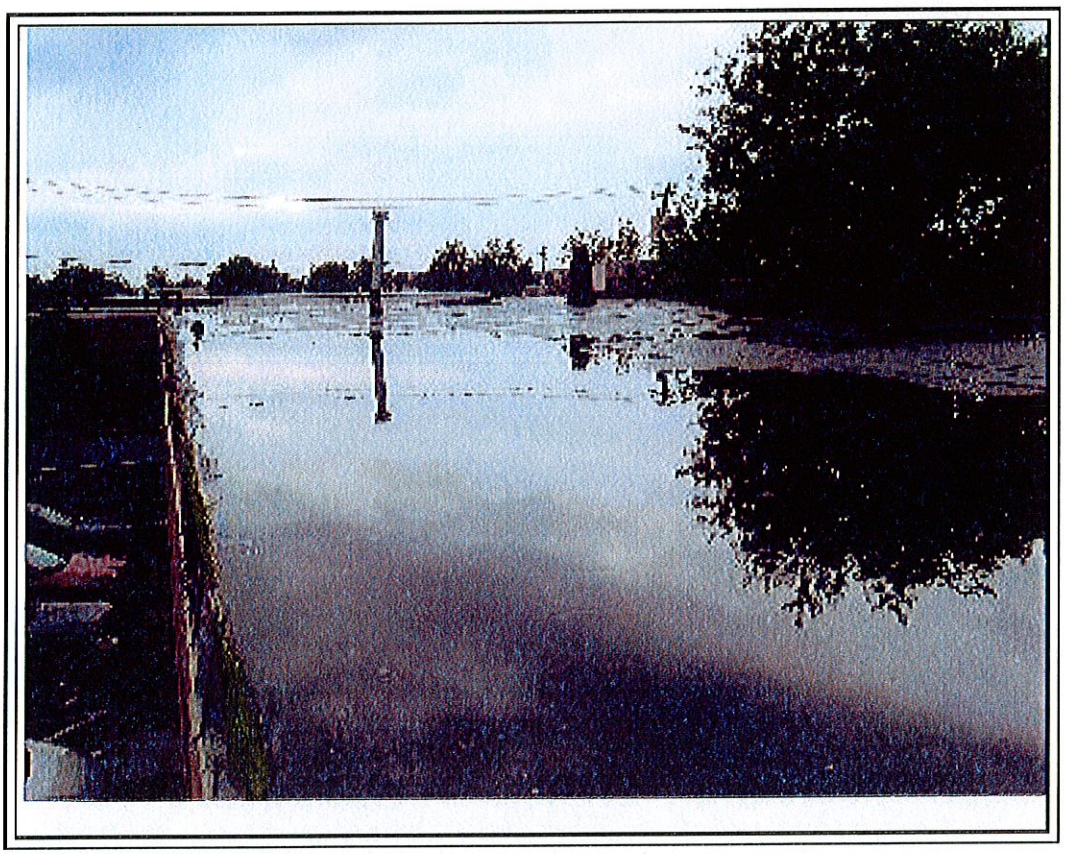


Photo 7: 61 Cabot Street (looking west)

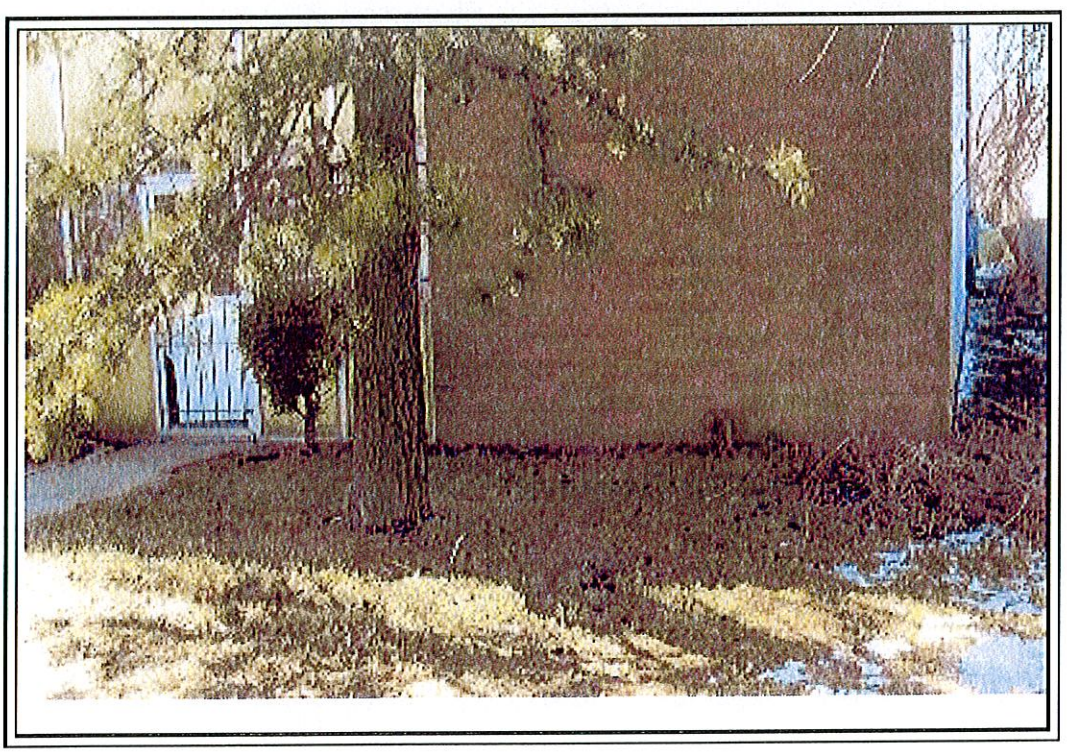


Photo 8: Sewer vent outside of 51 Cabot Street (west wall)

APPENDIX B

Building Survey Summaries

O'BRIEN & GERE

October 16, 2007

Mr. David Chiusano
New York State Department of Environmental Conservation
Division of Environmental Remediation
Bureau A
625 Broadway, 11th Floor
Albany, NY 12233-7015

Re: Building Evaluation Report
Work Assignment #D004090-13
Spectrum Finishing Corp.
Site #1-52-029 Remedial Design

File: 10653/34101 #5

Dear Mr. Chiusano:

At the request of New York State Department of Environmental Conservation (NYSDEC), O'Brien & Gere developed a scope of work to conduct a structural building evaluation at the Spectrum Finishing Corporation building located at 50 Dale Street in the Town of West Babylon (Suffolk County), New York. The scope of work included: a structural condition survey to observe the existing condition of the structural portions of the building and an evaluation as to whether the building is structurally sound and safe to allow access by field personnel for activities associated with the remedial investigations. The scope of work was approved by NYSDEC on May 23, 2007.

SITE VISIT

On July 6, 2006, Mr. Thomas W. Storrie, P.E. of O'Brien & Gere Engineers, Inc. performed a structural condition survey of Spectrum Finishing Corporation. The building called 50 Dale Street is connected to another building called 51 Cabot Street and appears to share a common partition wall. Site observations were limited only to the 50 Dale Street portion.

OBSERVATIONS AND FINDINGS

The existing building appears to have been constructed in several phases with several additions attached to the original construction. We observed several different roof framing types throughout the building. We also observed exterior brick facing on several interior walls. Areas identified as D & F appear to be the original building, with areas A, B, C, E, G & H following as additions. Areas C, E, G & H appear to be one addition and areas A & B appear to be two independent additions.

The roof construction in areas D & F consists of steel bar joists with a gypsum board deck as shown in photos 7 and 8. The roof construction in areas A, C, E, G & H consists of steel bar joists with a steel deck as shown in photos 3 & 4. Area B was constructed using wood joists and a wood deck. The walls were constructed using masonry block, with some brick facing, and are used as bearing walls for the roof structure and lateral bracing. A set of record drawings for the building

or the additions was not available for review of the foundations. We did observe concrete floors and concrete footings or grade beams.

The following conditions were observed and noted during the condition survey:

The roof was observed from below and found to have experienced excessive deterioration and damage. The roof membrane has failed in many areas, leaks extensively, and allows water to penetrate into the building and saturate the materials below the membrane. The gypsum deck has deteriorated to the point where the owner has installed wood bracing to support the deck between the steel joist. The installed wood roof bracing was observed to be deflecting excessively in several areas.

The masonry walls were observed to be in good condition in some areas and in poor condition in other areas. The walls have experienced the most deterioration in the areas where the roof has leaked the most. The high humidity in these areas appears to be the cause of the deterioration.

The floors and visible portions of the concrete foundation were observed to be in good condition except for area F where the roof has leaked the most.

CONCLUSIONS AND RECOMMENDATIONS

It is O'Brien & Gere's opinion that the building is not safe to be occupied by work crew unless significant structural repairs are implemented to reinforce the roof structure. At this point, most of roof system would need to be removed and properly replaced. The gypsum portions of roof structure have experienced significant deterioration and have lost most of their load carrying capacity. The bracing system that is installed appears not to be properly designed. In some areas it may have lost the capacity to carry its own weight. Portions of the roof structure could fail without warning or with vibrations caused by construction equipment.

The stability of the walls is also at risk because the walls rely on the roof structure for lateral support. The roof appears to be designed as a diaphragm to provide horizontal support for the tops of the CMU walls. Failure of the roof would leave the walls at risk of failure.

If you have questions or would like to further discuss this project, please feel free to contact Clare Leary or me at (315) 437-6100.

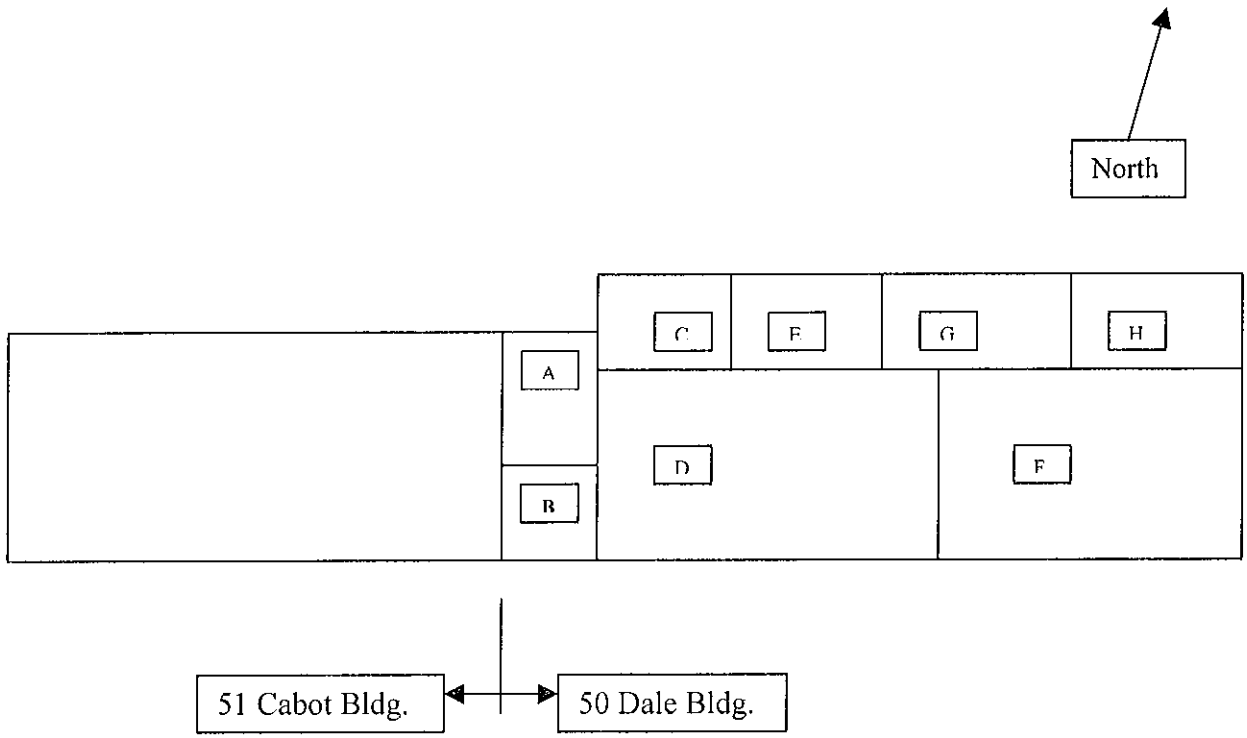
Very truly yours,

O'BRIEN & GERE ENGINEERS, INC.

Thomas W. Storrie, P.E.
Technical Director

I:\DIV71\Projects\10653\34101\2_corres\Aug 2006 Structural Eval Rpt.doc

cc: Clare Leary – O'Brien & Gere
Leonard Campolieta – O'Brien & Gere


North
C
E
G
H
A
D
F
B
51 Cabot Bldg.
50 Dale Bldg.

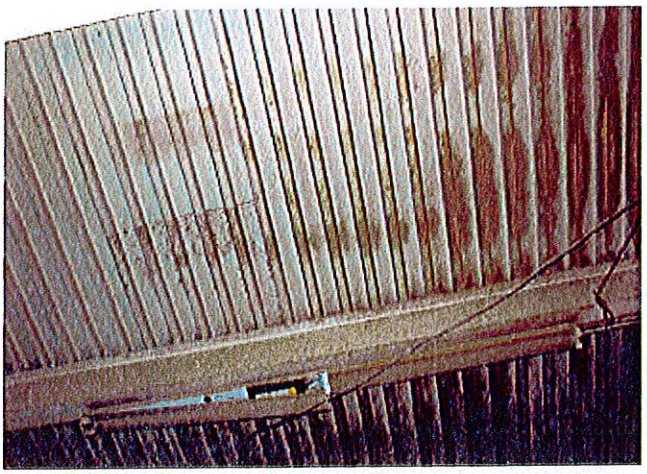


Photo 1

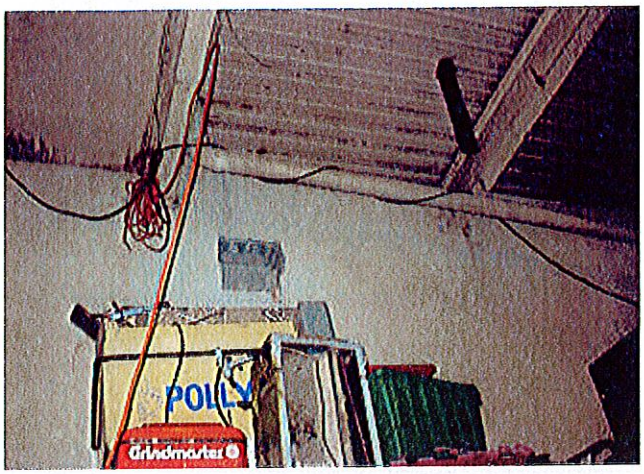


Photo 2

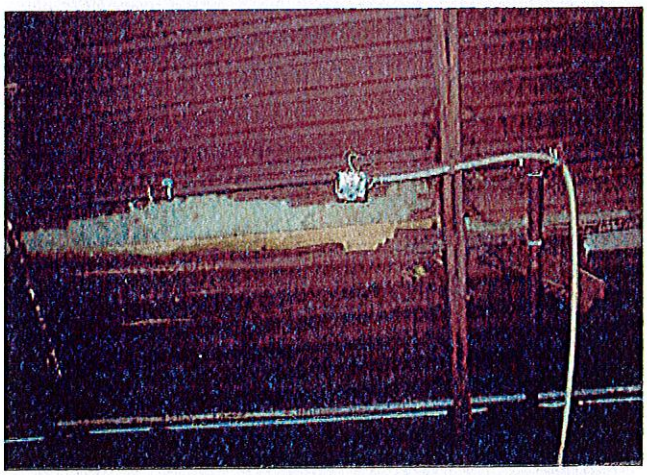


Photo 3

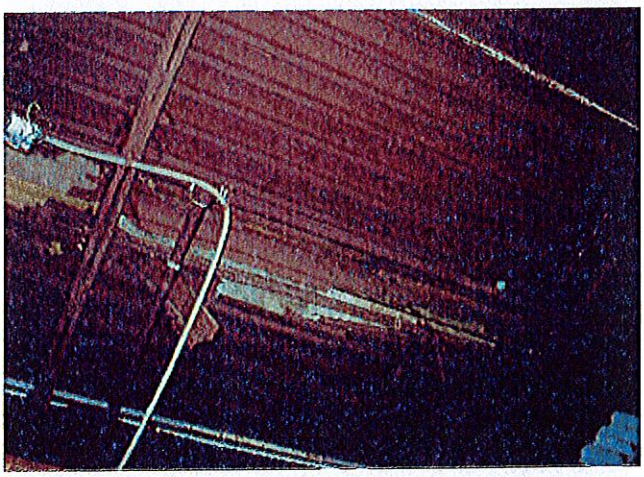


Photo 4

Photo 5

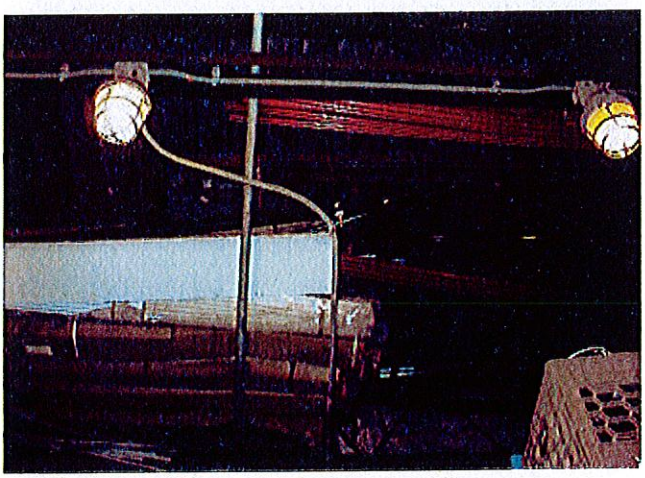


Photo 6

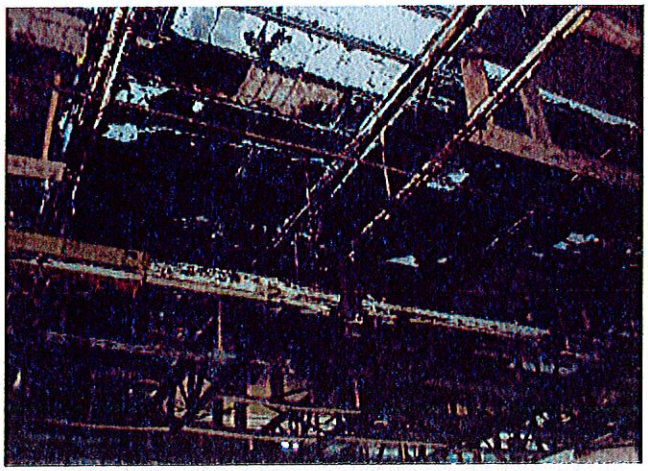


Photo 7

Photo 8

Photo 9

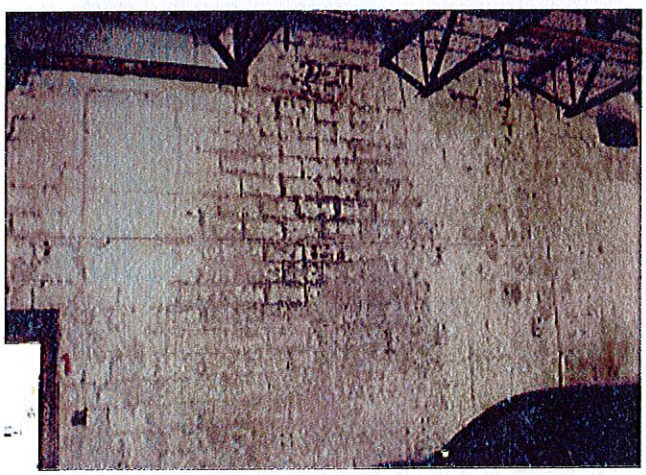


Photo 10

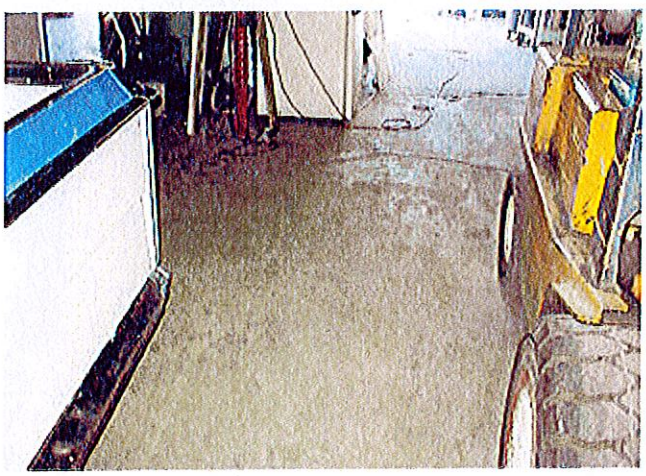


Photo 11

Photo 12

O'BRIEN & GERE

August 10, 2007

Mr. David Chiusano
New York State Department of Environmental Conservation
Bureau of Environmental Remediation
Bureau A
625 Broadway, 11th Floor
Albany, NY 12233-7015

Re: Spectrum Metal Finishing Site, Babylon, NY
Predemolition Asbestos Survey

File: 10653/34101

Dear Mr. Chiusano:

On July 6, 2007, O'Brien and Gere personnel performed a pre-demolition asbestos survey of the former Spectrum Metal Finishing building, 50 Dale Street, Babylon, Long Island, New York. The purpose of this inspection was to identify and quantify asbestos-containing materials (ACM) within the interior and on the exterior of the building. It is our understanding that this structure may require demolition as part of the New York State Department of Environmental Conservation (DEC) ground water monitoring and remediation project. This letter report has been prepared as a pre-demolition asbestos survey.

BUILDING OVERVIEW

The building at 50 Dale Street is a single story masonry structure with additions on the north side and on the west side. The original building has a concrete floor, masonry walls and a gypsum roof deck with rolled or built-up roofing felt and tar. The west addition has a concrete floor, masonry walls and a corrugated metal roof deck with rolled or built-up roofing felt and tar. The western addition adjoins the adjacent building, 51 Cabot Street. It is unclear whether the western addition was constructed by enclosing an alley between the two buildings or by partitioning off space within the adjacent building and creating an access from the 50 Dale Street building. The western addition has a concrete floor, masonry walls and wood joists and roof deck with rolled or built-up roofing felt and tar.

SURVEY PROCEDURES

This asbestos survey was performed by O'Brien & Gere personnel certified in asbestos inspection by the New York State Department of Labor (NYSDOL) and experienced in the identification of ACM. The asbestos survey included a walk-through addressing both the interior and exterior of the building. Accessible spaces were inspected and the location, quantity and condition of suspected ACM were recorded. At the time of the survey, there was a large amount of stored equipment and materials within the building restricting access to some wall and floor areas. It is believed, however, that suspect ACM present has been addressed in this survey as representative building materials and systems appeared to be generally exposed and accessible. This survey did not address below-grade or sub-slab materials such as foundation sealers.

Representative bulk samples of suspect ACM were collected and subsequently submitted to a New York State certified laboratory for analysis of asbestos content. Friable materials were analyzed utilizing polarized light microscopy (PLM) in accordance with federal regulations (40 CFR 763, Subpart F, Appendix A). In accordance with New York State Department of Health (NYSDOH) requirements, non-friable organically bound (NOB) materials were analyzed by PLM subsequent to matrix reduction techniques. NOB samples that were identified as non-ACM by PLM methods were reanalyzed by transmission electron microscopy (TEM) for confirmation purposes. NOB materials include such materials as sealants, roofing, and similar materials in which asbestos is difficult to identify accurately by standard PLM methods. Laboratory reports of analyses are attached and include sample descriptions and locations.

SURVEY FINDINGS

Materials Found to Contain Asbestos

A summary of materials found to contain asbestos follows. More detailed information is provided on Table 1, attached. Interior materials found to contain asbestos included building joint caulk, sampled in the northeast entry/storage space of the north side addition. The intersection of the roof deck and tops of walls in the original building were not accessible for inspection and sampling due to the presence of stored materials. Accordingly, it is assumed that a bead of caulk is present at this intersection, and that the caulk is ACM. The presence and asbestos content of caulk or other sealers should be confirmed once stored materials are removed from the building. Plaster or stucco coating on interior walls was found to contain trace amounts of asbestos, that is, less than 1% asbestos by weight. Accordingly, plaster or stucco does not meet the New York State or US Environmental Protection Agency (EPA) definition of 'asbestos-containing material' (ACM). This material may, however, trigger US Occupational Safety and Health Administration (OSHA) regulations as described below.

Exterior materials found to contain asbestos consisted of caulking patches at window frames (sampled on the east wall), building joint caulk, miscellaneous tar patching over masonry wall block mortar at the west addition building joint, and roofing materials. Specifically, roofing materials found to be ACM included roof flashing on perimeters, roof-to-wall counterflashing and on roof curbs on the original building and both additions; roof patching material on the original building roof and on ductwork; and the center of three roofing layers of built-up roofing on the west addition. The center layer of built-up roofing on the north addition was found to contain trace amounts of asbestos.

Materials Found Not to Contain Asbestos

Materials sampled and found not to contain asbestos included:

- Epoxy floor coating remnant
- Bituminous joint sealer on concrete floors
- Joint caulk patching over bituminous joint sealer on concrete floors
- Insulation within a safe door in the original building
- Window glazing compound
- Caulk remnant at the northeast roll-up door
- Miscellaneous roofing debris on the ground on the south side of the building
- Tar remnant on the masonry wall on the south face of the building, above the west exit door

- Roofing felts and tar on the main field of the original building
- Miscellaneous patching tar on the roof of the original building (considered ACM in this report as other samples of patching tar were found to contain asbestos)
- Top layer of built-up roofing on the west addition (considered ACM as it cannot reasonably be separated from the ACM center layer or the bottom layer [assumed ACM])
- Top, third and fourth (bottom) layer of built-up roofing on the north addition (second layer was found to contain trace amounts of ACM; accordingly, the main field of roofing on the north addition is considered non-ACM for the purposes of this report)
- Gypsum roof deck and gypsum roof deck debris on the original building.

REGULATORY CONCERNS

There are state and federal regulations that could potentially apply to the demolition of this structure. These regulations include EPA regulations 40 CFR 61 and 40 CFR 763, New York State Industrial Code Rule 56, and Occupational Safety and Health Administration (OSHA) regulations 29 CFR 1910.1001 and 1926.1101, as well as waste transportation and disposal requirements.

The National Emission Standards for Hazardous Air Pollutants (NESHAPS - 40 CFR Part 61 Subpart M) requires that a pre-demolition asbestos survey be performed by a certified asbestos building inspector. Notification of demolition, and notification of large asbestos removal projects, must be provided to the EPA's NESHAP office at least 10 days prior to demolition or asbestos removal. EPA also requires persons working in the asbestos disciplines to be appropriately trained. In New York State, asbestos training required by EPA as well as by the state is administered by the New York State Department of Health.

New York State regulations (12 NYCRR 56 - Industrial Code Rule 56) require that, prior to building demolition, the results of an asbestos survey be provided to both the NYSDOL and the local entity that issues demolition permits or the city clerk. O'Brien & Gere has not provided copies of this report to the required agencies; rather, it is assumed that the Owner, the DEC or its agent will provide notifications if required and as appropriate. A third copy of this report must be maintained on-site throughout the project.

In addition to providing copies of the survey (in the case of demolition), a notification must be provided to the NYSDOL prior to asbestos abatement. Completing these notifications is typically made the responsibility of the asbestos contractor. Asbestos abatement must be performed by a licensed New York State Asbestos Contractor using appropriately trained and state certified personnel.

OSHA regulations address the disturbance of asbestos-containing materials and regulate the level of airborne asbestos fibers in the work environment. Materials containing any amount of asbestos, including those containing less than 1% asbestos by weight, may trigger the need to comply with OSHA regulations. Generally, an Exposure Assessment is required to identify whether OSHA airborne fiber levels could potentially be exceeded by the proposed work.

It is recommended that these regulations be reviewed with counsel for potential applicability. Additional information, including copies of these regulations, can be provided for your use upon request.

It has been a pleasure to provide asbestos-related services to the NYS Department of Environmental Conservation. If we can provide additional information or assistance, please contact me at your convenience.

Very truly yours,

O'BRIEN AND GERE ENGINEERS, INC.

John A. Shaheen, P.E.
Managing Engineer

Attachments: Table 1 – Schedule of Identified ACM
Laboratory Analytical Reports
NYS DOL Asbestos Certification - Thomas Laramay & John Shaheen, P.E.
NYS DOL Asbestos License – O'Brien and Gere
NYS DOH Laboratory Certification – AmeriSci New York

cc: Clare Leary – O'Brien & Gere
James B. Evans – O'Brien and Gere

TABLE 1

Schedule of Identified ACM

Table 1 *Schedule of Identified Asbestos-Containing Materials(ACM)*

SPECTRUM METAL FINISHING SITE
50 DALE STREET, BABYLON, NY

Location	Type of ACM	Approx. Quantity	EPA NESHAP Assessment [1]
Interior			
North Addition, Northeast room	Building joint caulk	10 lf	2-NF, damaged
Original Building perimeter at roof	Caulk at roof-to-wall seam [2]	300 lf	2-NF, undamaged
Exterior			
Window frames	Caulking (patch)	7 windows	2-NF, damaged
South building face, west end	Tar patch over building joint	20 lf	2-NF, damaged
Original Building Roof	Roof perimeter, curb and roof-to-wall flashing	825 sf (550 lf)	1-NF, undamaged
North Addition Roof	Roof perimeter, curb and roof-to-wall flashing	720 sf (480 lf)	1-NF, undamaged
West Addition Roof	Built-up roofing and roof flashing	1,100 sf	1-NF, undamaged

(1) NESHAP - National Emissions Standards for Hazardous Air Pollutants (NESHAP 40 CFR 61 Subpart M)

Assessment Key:

1-NF: NESHAP Category 1 Nonfriable
2-NF: NESHAP Category 2 Nonfriable
F: Friable

(2) Caulk at intersection of roof deck and wall assumed to be present and to be ACM. Presence of this material could not be confirmed during the asbestos survey due to building condition and stored materials. No samples of this material were collected or analyzed. It is recommended that the presence and asbestos content of this material be confirmed during construction or demolition efforts.

Laboratory Analytical Report

AMERI SCI

AmeriSci New York
117 EAST 30TH STREET
NEW YORK, NY 10016
TEL: (212) 679-8600 • FAX: (212) 679-9392

July 22, 2007

O'Brien & Gere Engineers, Inc.
Attn: John Shaheen
P.O. Box 4873
Syracuse, NY 13221-4873

RE: O'Brien & Gere Engineers, Inc.
Job Number 207073111
P.O. # 10653.34101
10653.34101; Former Spectrum Facility: Pre-Demo, 50 Dale Street Babylon, NY

Dear John Shaheen:

Enclosed are the results of Asbestos Analysis - Bulk Protocol of the following O'Brien & Gere Engineers, Inc. samples, received at AmeriSci on Tuesday, July 17, 2007, for a 5 day turnaround:

50F1-1, 50F2-1, 50F2-2, 50F3-1, 50W1-1, 50W2-1, 50W3-1, 50M1-1, 50M2-1, 50M2-2, 50M3-1, 50M4-1, 50M5-1, 50M6-1, 50M7-1, 50M8-1, 50R1-1, 50R1-2, 50R2-1, 50R2-2, 50R3-1, 50R4-1, 50R5-1, 50R6a-1, 50R6b-1, 50R6c-1, 50R7-1, 50R8a-1, 50R8b-1, 50R8c-1, 50R8d-1, 50R9-1, 50R10-1, 50R11-1, 50R11-2, 50R11-3

The 36 samples, placed in Zip Lock Bag, were shipped to AmeriSci via Federal Express. O'Brien & Gere Engineers, Inc. requested ELAP PLM/TEM analysis of these samples.

The results of the analyses which were performed following ELAP Protocols 198.1 PLM Friable and/or 198.6 for PLM NOB. ELAP Protocol 198.4 TEM NOB guidelines are presented within the Summary Table of this report. The presence of matrix reduction data in the Summary Table normally indicates an NOB sample. For NOB samples the individual matrix reduction, combined PLM and TEM analysis results are listed in the Summary Bulk Asbestos Analysis Results in Table I. Complete PLM results for individual samples are presented in the PLM Bulk Asbestos Report. This combined report relates ONLY to sample analysis expressed as percent composition by weight and percent asbestos. This report must not be used to claim product endorsement or approval by these laboratories, NVLAP, ELAP or any other associated agency. The National Institute of Standards and Technology Accreditation requirements, mandates that this report must not be reproduced, except in full without the written approval of the laboratory. This report may contain specific data not covered by NVLAP or ELAP accreditations respectively, if so identified in relevant footnotes.

AmeriSci appreciates this opportunity to serve your organization. Please contact us for any further assistance or with any questions.

Sincerely,

Paul J. Mucha
Laboratory Director

AMERI SCI

AmeriSci New York
117 EAST 30TH ST.
NEW YORK, NY 10016
TEL: (212) 679-8600 • FAX: (212) 679-3114

PLM Bulk Asbestos Report

O'Brien & Gere Engineers, Inc.
Attn: John Shaheen
P.O. Box 4873
Syracuse, NY 13221-4873

Date Received 07/17/07 **AmeriSci Job No.** 207073111
Date Examined 07/20/07 **P.O. #** 10653.34101
ELAP Number 11480 **Page** 1 **of** 7
RE 10653.34101; Former Spectrum Facility: Pre-Demo, 50 Dale Street Babylon, NY

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
50F1-1	207073111-01	*No*	NAD
	Location: 1st Floor, Main Storage Area# 2 (East Side Of Bldg.), Epoxy Floor Coating Remnant		(by NYS ELAP 198.6) by Charmel A. Dozier on 07/20/07
Analyst Description: Grey, Homogeneous, Non-Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 18.1 %			
50F2-1	207073111-02	*No*	NAD
1	**Location:** 1st Floor, Main Storage Area# 1 (West Side Of Bldg.), Concrete Floor Joint Sealer (Bituminous)		(by NYS ELAP 198.6) by Charmel A. Dozier on 07/20/07
Analyst Description: Black, Homogeneous, Non-Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 4.1 %			
50F2-2	207073111-03	*No*	NAD
1	**Location:** 1st Floor, Main Storage Area# 2 (East Side Of Bldg.), Concrete Floor Joint Sealer (Bituminous)		(by NYS ELAP 198.6) by Charmel A. Dozier on 07/20/07
Analyst Description: Black, Homogeneous, Non-Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 9.8 %			
50F3-1	207073111-04	*No*	NAD
	Location: 1st Floor, Main Storage Area# 2 (East Side Of Bldg.), Concrete Floor Joint Caulk (Patching Over F2-2)		(by NYS ELAP 198.6) by Charmel A. Dozier on 07/20/07
Analyst Description: Grey, Homogeneous, Non-Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 4.9 %			
50W1-1	207073111-05	*Yes*	0.5 %
	Location: 1st Floor, West Storage# 1 (West End Addition), Plaster Coating Over CMU (West Wall)		(ELAP 198.1; 400pc) by Charmel A. Dozier on 07/20/07
Analyst Description: White, Homogeneous, Non-Fibrous, Cementitious, Bulk Material			
Asbestos Types: Chrysotile 0.5 %			
Other Material: Non-fibrous 99.5 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

10653.34101; Former Spectrum Facility: Pre-Demo, 50 Dale Street Babylon, NY

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
50W2-1	207073111-06	*Yes*	0.3 %
	Location: 1st Floor, West Storage# 1 (West End Addition), Stucco Coating Over Concrete (South Wall)		(ELAP 198.1; 400pc) by Charmel A. Dozier on 07/20/07
Analyst Description: White, Homogeneous, Non-Fibrous, Cementitious, Bulk Material			
Asbestos Types: Chrysotile 0.3 %			
Other Material: Non-fibrous 99.7 %			
50W3-1	207073111-07	*Yes*	0.5 %
	Location: 1st Floor, West Storage# 1 (West End Addition), Stucco Coating Over CMU At Door Opening Into Main Storage Area# 1		(ELAP 198.1; 400pc) by Charmel A. Dozier on 07/20/07
Analyst Description: White, Homogeneous, Non-Fibrous, Cementitious, Bulk Material			
Asbestos Types: Chrysotile 0.5 %			
Other Material: Non-fibrous 99.5 %			
50M1-1	207073111-08	*No*	NAD
	Location: 1st Floor, Main Storage Area# 1 (East Side Of Bldg.), Insulation From Inside Of Safe Door		(by NYS ELAP 198.1) by Charmel A. Dozier on 07/20/07
Analyst Description: Grey, Homogeneous, Non-Fibrous, Cementitious, Bulk Material			
Asbestos Types:			
Other Material: Cellulose Trace, Non-fibrous 100 %			
50M2-1 2	207073111-09	*No*	NAD
	Location: 1st Floor, Main Storage Area# 2 (East Side Of Bldg.), Window Glazing Compound (South Windows)		(by NYS ELAP 198.6) by Charmel A. Dozier on 07/20/07
Analyst Description: Grey, Homogeneous, Non-Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 16.7 %			
50M2-2 2	207073111-10	*No*	NAD
	Location: 1st Floor, Main Storage Area# 2 (East Side Of Bldg.), Window Glazing Compound (East Windows)		(by NYS ELAP 198.6) by Charmel A. Dozier on 07/20/07
Analyst Description: Grey, Homogeneous, Non-Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 6.2 %			
50M3-1	207073111-11	*Yes*	1.3 %
	Location: 1st Floor, N.E. Entry/Storage (North Side Addition), Building Joint Caulk		(by NYS ELAP 198.6) by Charmel A. Dozier on 07/20/07
Analyst Description: Grey, Homogeneous, Non-Fibrous, Bulk Material			
Asbestos Types: Chrysotile 1.3 %, Anthophyllite <1 % pc			
Other Material: Fibrous Talc 2 %, Non-fibrous 8.5 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

10653.34101; Former Spectrum Facility: Pre-Demo, 50 Dale Street Babylon, NY

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
50M4-1	207073111-12	*No*	NAD
	Location: Exterior, North Elev. At N.E. Roll-Up Door, Misc. Caulk Remnant (White)		(by NYS ELAP 198.6) by Charmel A. Dozier on 07/20/07
Analyst Description: White, Homogeneous, Non-Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 35.2 %			
50M5-1	207073111-13	*No*	NAD
	Location: Exterior, East Elev. At Window Frames, Patch Caulking		(by NYS ELAP 198.6) by Charmel A. Dozier on 07/20/07
Analyst Description: Grey, Homogeneous, Non-Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Fibrous Talc 3 %, Non-fibrous 17.9 %			
50M6-1	207073111-14	*No*	NAD
	Location: Exterior, South Alleyway On Ground, Misc. Roofing Debris		(by NYS ELAP 198.6) by Charmel A. Dozier on 07/20/07
Analyst Description: Black, Homogeneous, Non-Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Fibrous glass 1 %, Non-fibrous 13 %			
50M7-1	207073111-15	*No*	NAD
	Location: Exterior, South Alleyway At West End Above Exit Door, Misc. Tar Remnant On CMU Wall		(by NYS ELAP 198.6) by Charmel A. Dozier on 07/20/07
Analyst Description: Black, Homogeneous, Non-Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Fibrous glass 2 %, Non-fibrous 12.2 %			
50M8-1	207073111-16	*Yes*	7.5 %
	Location: Exterior, South Alleyway At West End Bldg. Joint, Misc. Tar Patching (Over Mortar)		(by NYS ELAP 198.6) by Charmel A. Dozier on 07/20/07
Analyst Description: Grey, Homogeneous, Non-Fibrous, Bulk Material			
Asbestos Types: Chrysotile 7.5 %			
Other Material: Non-fibrous 22.5 %			
50R1-1	207073111-17	*No*	NAD
3	**Location:** Roof, Original Bldg. West End Of Large Section, Main Rolled Roofing Tar & Felts		(by NYS ELAP 198.6) by Charmel A. Dozier on 07/20/07
Analyst Description: Black, Homogeneous, Non-Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 3.1 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

10653.34101; Former Spectrum Facility: Pre-Demo, 50 Dale Street Babylon, NY

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
50R1-2 3	207073111-18 **Location:** Roof, Original Bldg. Center Of Large Section, Main Rolled Roofing Tar & Felts	*No*	NAD (by NYS ELAP 198.6) by Charmel A. Dozier on 07/20/07
Analyst Description: Black, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 4.9 %			
50R2-1 4	207073111-19 **Location:** Roof, Original Bldg. North Perimeter, Edge Flashing Tar & Felts	*Yes*	3.9 % (by NYS ELAP 198.6) by Charmel A. Dozier on 07/20/07
Analyst Description: Black, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** Chrysotile 3.9 % **Other Material:** Fibrous glass 2 %, Non-fibrous 13.8 %			
50R2-2 4	207073111-20 **Location:** Roof, Original Bldg. South Perimeter, Edge Flashing Tar & Felts		NA/PS
Analyst Description: Bulk Material **Asbestos Types:** **Other Material:**			
50R3-1	207073111-21 **Location:** Roof, Original Bldg. North Side Of Large Section, Misc. Patch Tar & Felts	*Yes*	5.2 % (by NYS ELAP 198.6) by Charmel A. Dozier on 07/20/07
Analyst Description: Black, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** Chrysotile 5.2 % **Other Material:** Non-fibrous 20.8 %			
50R4-1	207073111-22 **Location:** Roof, Original Bldg. South Side Of Large Section, Misc. Patch Tar	*No*	NAD (by NYS ELAP 198.6) by Charmel A. Dozier on 07/20/07
Analyst Description: Black, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 16.2 %			
50R5-1	207073111-23 **Location:** Roof, Original Bldg. Center Of Large Section, Misc. Patch Tar On Ductwork	*Yes*	8.4 % (by NYS ELAP 198.6) by Charmel A. Dozier on 07/20/07
Analyst Description: Black, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** Chrysotile 8.4 % **Other Material:** Non-fibrous 14.6 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

10653.34101; Former Spectrum Facility: Pre-Demo, 50 Dale Street Babylon, NY

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
50R6a-1 5	207073111-24 **Location:** Roof, West End Addition, Main Rolled Roofing Tar & Felts (Layer# 1 Top)	*No*	NAD (by NYS ELAP 198.6) by Charmel A. Dozier on 07/20/07
Analyst Description: Black, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 5 %			
50R6b-1 5	207073111-25 **Location:** Roof, West End Addition, Main Rolled Roofing Tar & Felts (Layer# 2 Mid)	*Yes*	4.3 % (by NYS ELAP 198.6) by Charmel A. Dozier on 07/20/07
Analyst Description: Black, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** Chrysotile 4.3 % **Other Material:** Fibrous glass Trace, Non-fibrous 12.8 %			
50R6c-1 5	207073111-26 **Location:** Roof, West End Addition, Main Rolled Roofing Tar & Felts (Layer# 3 Bottom)		NA/PS
Analyst Description: Bulk Material **Asbestos Types:** **Other Material:**			
50R7-1	207073111-27 **Location:** Roof, West End Addition North Perimeter, Edge Flashing Tar & Felts	*Yes*	Trace (<0.25 % pc) (ELAP 198.6; 400pc) by Charmel A. Dozier on 07/20/07
Analyst Description: Black, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** Chrysotile <0.25 % pc **Other Material:** Fibrous glass Trace, Non-fibrous 9.9 %			
50R8a-1 6	207073111-28 **Location:** Roof, North Side Addition, Main Rolled Roofing Tar & Felts (Layer# 1 Top)	*No*	NAD (by NYS ELAP 198.6) by Charmel A. Dozier on 07/20/07
Analyst Description: Black, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 4.7 %			
50R8b-1 6	207073111-29 **Location:** Roof, North Side Addition, Main Rolled Roofing Tar & Felts (Layer# 2 Mid)	*Yes*	Trace (<0.25 % pc) (ELAP 198.6; 400pc) by Charmel A. Dozier on 07/20/07
Analyst Description: Black, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** Chrysotile <0.25 % pc **Other Material:** Non-fibrous 4 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

10653.34101; Former Spectrum Facility: Pre-Demo, 50 Dale Street Babylon, NY

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
50R8c-1 6	207073111-30 **Location:** Roof, North Side Addition, Main Rolled Roofing Tar & Felts (Layer# 3 Mid)	*No*	NAD (by NYS ELAP 198.6) by Charmel A. Dozier on 07/20/07
Analyst Description: Black, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 20.7 %			
50R8d-1 6	207073111-31 **Location:** Roof, North Side Addition, Main Rolled Roofing Tar & Felts (Layer# 4 Bottom)	*No*	NAD (by NYS ELAP 198.6) by Charmel A. Dozier on 07/20/07
Analyst Description: Black, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 8.6 %			
50R9-1	207073111-32 **Location:** Roof, North Side Addition South Perimeter, Roof To Wall Counter Flashing Tar & Felts	*Yes*	6.5 % (by NYS ELAP 198.6) by Charmel A. Dozier on 07/20/07
Analyst Description: Black, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** Chrysotile 6.5 % **Other Material:** Non-fibrous 19.4 %			
50R10-1	207073111-33 **Location:** Roof, North Side Addition, Mechanical Curb Flashing Tar & Felts	*Yes*	4.8 % (by NYS ELAP 198.6) by Charmel A. Dozier on 07/20/07
Analyst Description: Black, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** Chrysotile 4.8 % **Other Material:** Fibrous glass 1 %, Non-fibrous 12.3 %			
50R11-1 7	207073111-34 **Location:** First Floor, Main Storage Area# 2 (East Side Of Bldg.), Gypsum Roof Deck Debris	*No*	NAD (by NYS ELAP 198.1) by Charmel A. Dozier on 07/20/07
Analyst Description: Grey, Homogeneous, Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Cellulose Trace, Non-fibrous 100 %			
50R11-2 7	207073111-35 **Location:** Roof, Original Bldg. West End Of Large Section, Gypsum Roof Deck	*No*	NAD (by NYS ELAP 198.1) by Charmel A. Dozier on 07/20/07
Analyst Description: Grey, Homogeneous, Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Cellulose Trace, Non-fibrous 100 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

10653.34101; Former Spectrum Facility: Pre-Demo, 50 Dale Street Babylon, NY

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
50R11-3 7	207073111-36	*No*	NAD (by NYS ELAP 198.1) by Charmel A. Dozier on 07/20/07

Location: Roof, Original Bldg. Center Of Large Section, Gypsum Roof Deck

Analyst Description: Grey, Homogeneous, Fibrous, Bulk Material

Asbestos Types:

Other Material: Cellulose Trace, Non-fibrous 100 %

Reporting Notes:

Analyzed by: Charmel A. Dozier

*NAD/NSD =no asbestos detected; NA =not analyzed; NA/PS=not analyzed/positive stop; PLM Bulk Asbestos Analysis by EPA 600/M4-82-020 per 40 CFR 763 (NVLAP Lab Code 200546-0), ELAP PLM Method 198.1 for NY friable samples or 198.6 for NOB samples (NY ELAP Lab ID11480); Note:PLM is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. NAD or Trace results by PLM are inconclusive, TEM is currently the only method that can be used to determine if this material can be considered or treated as non asbestos-containing in NY State (also see EPA Advisory for floor tile,FR 59,146,38970,8/1/94). National Institute of Standards and Technology Accreditation requirements mandate that this report must not be reproduced except in full without the approval of the lab. This PLM report relates ONLY to the items tested. AIHA Lab # 102843.

Reviewed By:

END OF REPORT

Table I
Summary of Bulk Asbestos Analysis Results

10653.34101; Former Spectrum Facility: Pre-Demo, 50 Dale Street Babylon, NY

AmeriSci Sample #	Client Sample# Location	HG Area	Sample Weight (gram)	Heat Sensitive Organic %	Acid Soluble Inorganic %	Insoluble Non-Asbestos Inorganic %	** Asbestos % by PLM/DS	** Asbestos % by TEM
01	50F1-1		0.243	51.9	30.0	18.1	NAD	NAD
	1st Floor, Main Storage Area# 2 (East Side Of Bldg.), Epoxy Floor Coating Remnant							
02	50F2-1	1	0.590	91.7	4.2	4.1	NAD	NAD
	1st Floor, Main Storage Area# 1 (West Side Of Bldg.), Concrete Floor Joint Sealer (Bituminous)							
03	50F2-2	1	0.763	84.3	5.9	9.8	NAD	NAD
	1st Floor, Main Storage Area# 2 (East Side Of Bldg.), Concrete Floor Joint Sealer (Bituminous)							
04	50F3-1		0.658	41.0	54.1	4.9	NAD	NAD
	1st Floor, Main Storage Area# 2 (East Side Of Bldg.), Concrete Floor Joint Caulk (Patching Over F2-2)							
05	50W1-1		----	----	----	----	Chrysotile 0.5	NA
	1st Floor, West Storage# 1 (West End Addition), Plaster Coating Over CMU (West Wall)							
06	50W2-1		----	----	----	----	Chrysotile 0.3	NA
	1st Floor, West Storage# 1 (West End Addition), Stucco Coating Over Concrete (South Wall)							
07	50W3-1		----	----	----	----	Chrysotile 0.5	NA
	1st Floor, West Storage# 1 (West End Addition), Stucco Coating Over CMU At Door Opening Into Main Storage Area# 1							
08	50M1-1		----	----	----	----	NAD	NA
	1st Floor, Main Storage Area# 1 (East Side Of Bldg.), Insulation From Inside Of Safe Door							
09	50M2-1	2	1.310	13.2	70.1	16.7	NAD	NAD
	1st Floor, Main Storage Area# 2 (East Side Of Bldg.), Window Glazing Compound (South Windows)							
10	50M2-2	2	1.039	13.4	80.5	6.2	NAD	NAD
	1st Floor, Main Storage Area# 2 (East Side Of Bldg.), Window Glazing Compound (East Windows)							
11	50M3-1		0.566	17.8	70.3	10.5	Chrysotile 1.3 Anthophyllite <1	NA
	1st Floor, N.E. Entry/Storage (North Side Addition), Building Joint Caulk							
12	50M4-1		0.529	64.7	0.2	35.2	NAD	NAD
	Exterior, North Elev. At N.E. Roll-Up Door, Misc. Caulk Remnant (White)							
13	50M5-1		0.733	15.4	63.7	18.8	NAD	Anthophyllite 2.1
	Exterior, East Elev. At Window Frames, Patch Caulking							

See Reporting notes on last page

Table I
Summary of Bulk Asbestos Analysis Results

10653.34101; Former Spectrum Facility: Pre-Demo, 50 Dale Street Babylon, NY

AmeriSci Sample #	Client Sample# Location	HG Area	Sample Weight (gram)	Heat Sensitive Organic %	Acid Soluble Inorganic %	Insoluble Non-Asbestos Inorganic %	** Asbestos % by PLM/DS	** Asbestos % by TEM
14	50M6-1		0.681	80.5	5.6	14.0	NAD	NAD
	Exterior, South Alleyway On Ground, Misc. Roofing Debris							
15	50M7-1		0.584	85.6	0.2	14.2	NAD	NAD
	Exterior, South Alleyway At West End Above Exit Door, Misc. Tar Remnant On CMU Wall							
16	50M8-1		0.407	60.7	9.3	22.5	Chrysotile 7.5	NA
	Exterior, South Alleyway At West End Bldg. Joint, Misc. Tar Patching (Over Mortar)							
17	50R1-1	3	0.862	93.7	3.1	3.1	NAD	NAD
	Roof, Original Bldg. West End Of Large Section, Main Rolled Roofing Tar & Felts							
18	50R1-2	3	1.066	89.0	6.1	4.9	NAD	NAD
	Roof, Original Bldg. Center Of Large Section, Main Rolled Roofing Tar & Felts							
19	50R2-1	4	0.696	77.3	3.0	15.8	Chrysotile 3.9	NA
	Roof, Original Bldg. North Perimeter, Edge Flashing Tar & Felts							
20	50R2-2	4	1.287	77.9	7.3	14.8	NA/PS	NA
	Roof, Original Bldg. South Perimeter, Edge Flashing Tar & Felts							
21	50R3-1		1.439	58.6	15.4	20.8	Chrysotile 5.2	NA
	Roof, Original Bldg. North Side Of Large Section, Misc. Patch Tar & Felts							
22	50R4-1		0.685	79.0	4.8	16.2	NAD	NAD
	Roof, Original Bldg. South Side Of Large Section, Misc. Patch Tar							
23	50R5-1		0.818	73.1	3.9	14.6	Chrysotile 8.4	NA
	Roof, Original Bldg. Center Of Large Section, Misc. Patch Tar On Ductwork							
24	50R6a-1	5	1.206	94.3	0.7	5.0	NAD	NA
	Roof, West End Addition, Main Rolled Roofing Tar & Felts (Layer# 1 Top)							
25	50R6b-1	5	1.207	80.7	2.2	12.8	Chrysotile 4.3	NA
	Roof, West End Addition, Main Rolled Roofing Tar & Felts (Layer# 2 Mid)							
26	50R6c-1	5	0.965	84.1	2.5	13.4	NA/PS	NA
	Roof, West End Addition, Main Rolled Roofing Tar & Felts (Layer# 3 Bottom)							

See Reporting notes on last page

Table I
Summary of Bulk Asbestos Analysis Results

10653.34101; Former Spectrum Facility: Pre-Demo, 50 Dale Street Babylon, NY

AmeriSci Sample #	Client Sample# Location	HG Area	Sample Weight (gram)	Heat Sensitive Organic %	Acid Soluble Inorganic %	Insoluble Non-Asbestos Inorganic %	** Asbestos % by PLM/DS	** Asbestos % by TEM
27	50R7-1		0.775	87.9	2.2	8.4	Chrysotile <0.25	Chrysotile 1.5
	Roof, West End Addition North Perimeter, Edge Flashing Tar & Felts							
28	50R8a-1	6	0.806	92.6	2.7	4.7	NAD	NAD
	Roof, North Side Addition, Main Rolled Roofing Tar & Felts (Layer# 1 Top)							
29	50R8b-1	6	0.606	94.6	1.5	3.9	Chrysotile <0.25	Chrysotile Trace
	Roof, North Side Addition, Main Rolled Roofing Tar & Felts (Layer# 2 Mid)							
30	50R8c-1	6	0.458	76.6	2.6	20.7	NAD	NAD
	Roof, North Side Addition, Main Rolled Roofing Tar & Felts (Layer# 3 Mid)							
31	50R8d-1	6	0.606	88.1	3.3	8.6	NAD	NAD
	Roof, North Side Addition, Main Rolled Roofing Tar & Felts (Layer# 4 Bottom)							
32	50R9-1		1.594	74.0	0.1	19.4	Chrysotile 6.5	NA
	Roof, North Side Addition South Perimeter, Roof To Wall Counter Flashing Tar & Felts							
33	50R10-1		0.631	80.2	1.7	13.3	Chrysotile 4.8	NA
	Roof, North Side Addition, Mechanical Curb Flashing Tar & Felts							
34	50R11-1	7	----	----	----	----	NAD	NA
	First Floor, Main Storage Area# 2 (East Side Of Bldg.), Gypsum Roof Deck Debris							
35	50R11-2	7	----	----	----	----	NAD	NA
	Roof, Original Bldg. West End Of Large Section, Gypsum Roof Deck							

See Reporting notes on last page

Table I
Summary of Bulk Asbestos Analysis Results

10653.34101; Former Spectrum Facility: Pre-Demo, 50 Dale Street Babylon, NY

AmeriSci Sample #	Client Sample# Location	HG Area	Sample Weight (gram)	Heat Sensitive Organic %	Acid Soluble Inorganic %	Insoluble Non-Asbestos Inorganic %	** Asbestos % by PLM/DS	** Asbestos % by TEM
36	50R11-3	7	----	----	----	----	NAD	NA
	Roof, Original Bldg. Center Of Large Section, Gypsum Roof Deck							

Analyzed by: Madell E. Collins; Date Analyzed 7/22/2007

**Quantitative Analysis (Semi/Full); Bulk Asbestos Analysis - PLM by EPA 600/M4-82-020 per 40 CFR or ELAP 198.1 for New York friable samples or ELAP 198.6 for New York NOB samples; TEM (Semi/Full) by EPA 600/R-93/116 (not covered by NVLAP Bulk accreditation); or ELAP 198.4 for New York samples; NAD = no asbestos detected during a quantitative analysis; NA = not analyzed; Trace = <1%; Quantitation for beginning weights of <0.1 grams should be considered as qualitative only; Qualitative Analysis: Asbestos analysis results of "Present" or "NVA = No Visible Asbestos" represents results for Qualitative PLM or TEM Analysis only (no accreditation coverage available from any regulatory agency for qualitative analyses); AIHA Lab # 102843, NVLAP Lab Code 200546-0, NYSDOH ELAP LAB ID 11480.

Warning Note: PLM limitation, only TEM will resolve fibers <0.25 micrometers in diameter. TEM bulk analysis is representative of the fine grained matrix material and may not be representative of non-uniformly dispersed debris for which PLM evaluation is recommended (i.e. soils and other heterogenous materials).

Reviewed By:

O'BRIEN & GERE ENGINEERS, INC.

20707311 1

Asbestos Bulk Sample Chain of Custody

Requested Turn Around Time: **5 Days**
Client Name:
Project Name: Former Spectrum Facility: Pre-demo.
Building: 50 Dale Street Babylon, NY

Project Number: 10653.34101
Sample Date: July 6, 2007
Sampled By: TW Laramay
Page Number: 1 of 2

SAMPLE NUMBER	FLOOR	SAMPLE LOCATION	SAMPLE DESCRIPTION	NOB Y/N	POSITIVE STOP/HOLD*
50F1-1	1st	Main storage area #2 (east side of bldg.)	Epoxy floor coating remnant	Y	
50F2-1	1st	Main storage area #1 (west side of bldg.)	Concrete floor joint sealer (bituminous)	Y	
50F2-2	1st	Main storage area #2 (east side of bldg.)	Concrete floor joint sealer (bituminous)	Y	
50F3-1	1st	Main storage area #2 (east side of bldg.)	Concrete floor joint caulk (patching over F2-2)	Y	
50W1-1	1st	West storage #1 (west end addition)	Plaster coating over CMU (west wall)	N	
50W2-1	1st	West storage #1 (west end addition)	Stucco coating over concrete (south wall)	N	
50W3-1	1st	West storage #2 (west end addition)	Stucco coating over CMU at door opening into Main storage area #1	N	
50M1-1	1st	Main storage area #1 (east side of bldg.)	Insulation from inside of safe door	N	
50M2-1	1st	Main storage area #2 (east side of bldg.)	Window glazing compound (south windows)	N	
50M2-2	1st	Main storage area #2 (east side of bldg.)	Window glazing compound (east windows)	N	
50M3-1	1st	N.E. Entry/storage (north side addition)	Building joint caulk	N	
50M4-1	Exterior	North elev. at N.E. roll-up door	Misc. caulk remnant (white)	Y	
50M5-1	Exterior	East elev. at window frames	Patch caulking	N	
50M6-1	Exterior	South alleyway on ground	Misc. roofing debris	Y	
50M7-1	Exterior	South alleyway at west end above exit door	Misc. tar remnant on CMU wall	Y	
50M8-1	Exterior	South alleyway at west end bldg. joint	Misc. tar patching (over mortar)	Y	
50R1-1	Roof	Original bldg.-west end of large section	Main rolled roofing tar & felts	Y	
50R1-2	Roof	Original bldg.-center of large section	Main rolled roofing tar & felts	Y	
50R2-1	Roof	Original bldg.-north perimeter	Edge flashing tar & felts	Y	
50R2-2	Roof	Original bldg.-south perimeter	Edge flashing tar & felts	Y	

* Samples identified with a homogeneous sampling group (HSG) number in this column are categorized with "Positive Stop" analysis. Perform sequential analysis on each HSG until a positive result is obtained (i.e. > 1% asbestos content). After a positive result is obtained in a particular HSG, "STOP"; do not analyze any of the next samples in the HSG. If a sample is marked **HOLD**, please set aside for future authorization and analysis.

Chain of Custody	Signature	Company Name / Air bill No.	Date	Time
Relinquished By:		O'Brien & Gere Engineers	7/8/07	13:30
Received By:			7/17	1100
Relinquished By:				
Received by:				
Relinquished By:				
Received by:				

O'BRIEN & GERE
ENGINEERS, INC.

Asbestos Bulk Sample Chain of Custody

207073111

Requested Turn Around Time: **5 Days**
Client Name:
Project Name: Former Spectrum Facility: Pre-demo.
Building: 50 Dale Street Babylon, NY

Project Number: 10653.34101
Sample Date: July 6, 2007
Sampled By: TW Laramay
Page Number: 2 of 2

SAMPLE NUMBER	FLOOR	SAMPLE LOCATION	SAMPLE DESCRIPTION	NOB Y/N	POSITIVE STOP/HOLD*
50R3-1	Roof	Original bldg.-north side of large section	Misc. patch tar & felts	Y	
50R4-1	Roof	Original bldg.-south side of large section	Misc. patch tar	Y	
50R5-1	Roof	Original bldg.-center of large section	Misc. patch tar on ductwork	Y	
50R6a-1	Roof	West end addition	Main rolled roofing tar & felts (layer #1-top)	Y	
50R6b-1	Roof	West end addition	Main rolled roofing tar & felts (layer #2-mid)	Y	
50R6c-1	Roof	West end addition	Main rolled roofing tar & felts (layer #3-bottom)	Y	
50R7-1	Roof	West end addition-north perimeter	Edge flashing tar & felts	Y	
50R8a-1	Roof	North side addition	Main rolled roofing tar & felts (layer #1-top)	Y	
50R8b-1	Roof	North side addition	Main rolled roofing tar & felts (layer #2-mid)	Y	
50R8c-1	Roof	North side addition	Main rolled roofing tar & felts (layer #3-mid)	Y	
50R8d-1	Roof	North side addition	Main rolled roofing tar & felts (layer #4-bottom)	Y	
50R9-1	Roof	North side addition-south perimeter	Roof to wall counter-flashing tar & felts	Y	
50R10-1	Roof	North side addition	Mechanical curb flashing tar & felts	Y	
50R11-1	First	Main storage area #2 (east side of bldg.)	Gypsum roof deck debris	N	
50R11-2	Roof	Original bldg.-west end of large section	Gypsum roof deck	N	
50R11-3	Roof	Original bldg.-center of large section	Gypsum roof deck	N	

* Samples identified with a homogeneous sampling group (HSG) number in this column are categorized with "Positive Stop" analysis. Perform sequential analysis on each HSG until a positive result is obtained (i.e. > 1% asbestos content). After a positive result is obtained in a particular HSG, "STOP"; do not analyze any of the next samples in the HSG. If a sample is marked **HOLD**, please set aside for future authorization and analysis.

Chain of Custody	Signature	Company Name / Air bill No.	Date	Time
Relinquished By:		O'Brien & Gere Engineers	7/8/07	13:30
Received By:			7/11	1100
Relinquished By:				
Received by:				
Relinquished By:				
Received by:				

NYS DOL Asbestos Certifications

STATE OF NEW YORK - DEPARTMENT OF LABOR

ASBESTOS CERTIFICATE

THOMAS W LARAMAY
CLASS(EXPIRES)
D INSP(08/07)

CERT# 90-10740
DMV# 784790904

MUST BE CARRIED ON ASBESTOS PROJECTS

EYES BLU
HAIR BLN
HGT 5' 09"

IF FOUND RETURN TO:
NYSDOL - L&C UNIT
ROOM 290A BUILDING 12
STATE OFFICE CAMPUS
ALBANY NY 12240

STATE OF NEW YORK - DEPARTMENT OF LABOR

ASBESTOS CERTIFICATE

JOHN A SHAHEEN
CLASS(EXPIRES)
D INSP(04/08) E MGPL(04/08)
G SUPR(04/08) I PD (04/08)

CERT# 89-02931
DMV# 298894775

MUST BE CARRIED ON ASBESTOS PROJECTS

EYES BRO
HAIR BRO
HGT 5' 09"

IF FOUND RETURN TO:
NYSDOL - L&C UNIT
ROOM 290A BUILDING 12
STATE OFFICE CAMPUS
ALBANY NY 12240

NYS DOL Asbestos License

STATE OF NEW YORK - DEPARTMENT OF LABOR

DIVISION OF SAFETY AND HEALTH

License and Certificate Unit

BUILDING 12, STATE CAMPUS

ALBANY, NY 12240

ASBESTOS HANDLING LICENSE

RESTRICTED LICENSE
Asbestos Removal Not Permitted

Contractor: **O'BRIEN & GERE ENGINEERS, INC.**
5000 BRITTONFIELD PARKWAY
P.O. BOX 4873
SYRACUSE, NY 13221

LICENSE NUMBER: **99-0784**
DATE OF ISSUE: **1/17/2007**
EXPIRATION DATE: **1/31/2008**

Duly Authorized Representative: **SWIATOSLAV W. KACZMAR PH**

This license has been issued in accordance with applicable provisions of Article 30 of the Labor Law of New York State and of the New York State Codes, Rules and Regulations (12 NYCRR Part 56). It is subject to suspension or revocation for a (1) serious violation of state, federal or local laws with regard to the conduct of an asbestos project, or (2) demonstrated lack of responsibility in the conduct of any job involving asbestos or asbestos material.

This license is valid only for the contractor named above and this license or a photocopy must be prominently displayed at the asbestos project worksite. This license verifies that all persons employed by the licensee on an asbestos project in New York State have been issued an Asbestos Certificate, appropriate for the type of work they perform, by the New York State Department of Labor.

Anthony Germano, Director
FOR THE COMMISSIONER OF LABOR

SH 432 (6-03)

NYS DOH Laboratory Certification

NEW YORK STATE DEPARTMENT OF HEALTH
WADSWORTH CENTER
RICHARD F. DAINES, M.D.

Expires 12:01 AM April 01, 2008
Issued April 01, 2007
Revised May 07, 2007

CERTIFICATE OF APPROVAL FOR LABORATORY SERVICE

Issued in accordance with and pursuant to section 502 Public Health Law of New York State

MR. PAUL MUCHA
AMERICA SCIENCE TEAM NEW YORK INC
117 EAST 30TH ST
NEW YORK, NY 10016

NY Lab Id No: 11480
EPA Lab Code: NY01378

is hereby APPROVED as an Environmental Laboratory for the category
ENVIRONMENTAL ANALYSES POTABLE WATER
All approved subcategories and/or analytes are listed below:

Drinking Water Miscellaneous

Asbestos	EPA 100.1
	EPA 100.2

Serial No.: 33652

NEW YORK STATE DEPARTMENT OF HEALTH
WADSWORTH CENTER
RICHARD F. DAINES, M.D.

Expires 12:01 AM April 01, 2008
Issued April 01, 2007
Revised May 07, 2007

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NEW YORK, NY 10016

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EPA Lab Code: NY01378

is hereby APPROVED as an Environmental Laboratory for the category
ENVIRONMENTAL ANALYSES SOLID AND HAZARDOUS WASTE
All approved subcategories and/or analytes are listed below:

Miscellaneous

Asbestos in Friable Material	EPA 600/M4/82/020
	Item 198.1 of Manual
Asbestos in Non-Friable Material-PLM	Item 198.6 of Manual (NOB by PLM)
Asbestos in Non-Friable Material-TEM	ITEM 198.4 OF MANUAL

Serial No.: 33653

Property of the New York State Department of Health. Valid only at the address shown. Must be conspicuously posted. Valid certificates have a raised seal. Continued accreditation depends on successful ongoing participation in the Program. Consumers are urged to call (518) 485-5570 to verify laboratory's accreditation status.

NEW YORK STATE DEPARTMENT OF HEALTH
WADSWORTH CENTER
RICHARD F. DAINES, M.D.

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NEW YORK, NY 10016

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EPA Lab Code: NY01378

is hereby APPROVED as an Environmental Laboratory for the category
ENVIRONMENTAL ANALYSES AIR AND EMISSIONS
All approved subcategories and/or analytes are listed below:

Miscellaneous Air

Asbestos	40 CFR 763 APX A No. III
	YAMATE,AGARWAL GIBB
Fibers	NIOSH 7400 A RULES

Serial No.: 33654

Property of the New York State Department of Health. Valid only at the address shown. Must be conspicuously posted. Valid certificates have a raised seal. Continued accreditation depends on successful ongoing participation in the Program. Consumers are urged to call (518) 485-5570 to verify laboratory's accreditation status.

APPENDIX C

Results of Drainage Structure and Cesspool Sampling

Summary of Pre-Design Cesspool Sampling - TCLP
New York State Department of Environmental Conservation
Spectrum Finishing Corporation Site

	Regulatory level and units	CP-1	CP-3	CP-4	CP-6	CP-7	CP-8	CP-9	CP-11					
Ignitability	<140 deg F	140	150	140	150	145	145	145	140					
Corrosivity	pH <= 2, pH >= 12.5	7.6	5.9	5.9	7.6	6.9	7.6	5.8	6.4					
Cyanide	250 mg/kg	ND	ND	1.1 J	ND	ND	ND	ND	ND					
Sulfide	500 mg/kg	ND	1.8	ND	26	ND	1.6	7.4	ND					
Metals														
Arsenic	5,000 ug/L	ND	ND	ND	10.6 B	3.2 B	ND	1.8 B	ND					
Barium	100,000 ug/L	127 B E	8.5 B E	9.6 B E	34.8 B E	67.8 B E	68.8 B E	61.2 B E	29.6 B E					
Cadmium	1,000 ug/L	200 E	**6,410 E**	**13,200 E**	204 E	619 E	544 E	33.8 E	4.7 B E					
Chromium	5,000 ug/L	10.3 B	169	322	3.7 B	27.1	134	5.7 B	1.5 B					
Lead	5,000 ug/L	33.3	3.1 B	0.96 B	2.4 B	3.8 B	170	20.5	5.4 B					
Mercury	200 ug/L	ND	0.26	0.071 B	ND	ND	ND	ND	ND					
Selenium	1,000 ug/L	35.7 E	8.6 B E	15.4 B E	31.8 E	15.2 B E	32.4 E	20.6 B E	11.3 B E					
Silver	5,000 ug/L	ND	ND	ND	ND	ND	ND	ND	ND					
Volatile Organics Compounds		ND	ND	ND	ND	ND	ND	ND	ND					
Semi-Volatile Organic Compounds		ND	ND	ND	ND	ND	ND	ND	ND					
Herbicides		ND	ND	ND	ND	ND	ND	ND	ND					
Pesticides		ND	ND	ND	ND	ND	ND	ND	ND					

Notes:

Regulatory Levels for Characteristics of Hazardous Waste as defined by 6 NYCRR 371.3, 40 CFR 261 Subpart C, and EPA's Cyanide and Sulfide Reactivity Guidance Memo.

ND - Analyte was analyzed for but not detected

B - The reported value was obtained from a reading that was less than the Contract Required Detection Limit but greater than or equal to the Instrument Detection Limit.

E - The reported value is estimated because of the presence of interference.

	indicates hazardous cesspool
	gray highlighting indicates non-hazardous cesspool
6,410 E	bold indicates an exceedance of regulatory level

Summary of Pre-Design Drainage Structure Sampling - TCLP
New York State Department of Environmental Conservation
Spectrum Finishing Corporation Site

	regulatory level and units*	DS -1	DS -2	DS -3	DS -4	DS -5	DS -6	DS -7	DS -8	DS -9	DS -10	DS -11	DS -12
Ignitability	<140 deg F	145	140	140	145	145	140	140	145	140	145	140	145
Corrosivity	pH <= 2, pH >= 12.5	7.7	7.3	6.9	7.1	6.8	6	6.9	6.8	6.7	6.4	7.3	5.7
Cyanide	250 mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Sulfide	500 mg/kg	2.9	150	ND	7.2	11	21	3	21	12	11	2.7	70
Metals													
Arsenic	5,000 ug/L	2 B	12.3 B	4.2 B	2.8 B	ND	ND	3.5 B	ND	5.1 B	3.3 B	ND	7.7 B
Barium	100,000 ug/L	161 B E	338 E	238 E	135 B E	276 E	510 E	310 E	247 E	650 E	313 E	314 E	799 E
Cadmium	1,000 ug/L	518 E	**2,150 E**	701 E	68.7 E	**1,610 E**	**1,720 E**	208 E	251 E	208 E	505 E	104 E	478 E
Chromium	5,000 ug/L	6.9 B	52.6	4.3 B	5.7 B	35.4	123	15.2 B	80.2	11.0 B	73.3	1.7 B	50.9
Lead	5,000 ug/L	495	1680	79	152	185	290	4440	55.6	391	85	39.4	852
Mercury	200 ug/L	ND	ND	ND	0.18 B	ND	ND	ND	ND	ND	ND	ND	ND
Selenium	1,000 ug/L	44.7 E	34.7 E	32.9 E	28.9 B E	25.7 B E	30.4 E	15.4 B E	18.1 B E	19.3 B E	19.9 B E	51.1 E	4.1 B E
Silver	5,000 ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.1 B	ND	7.5 B
Volatile Organics Compounds		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Semi-Volatile Organic Compounds		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Herbicides		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pesticides		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:
Regulatory Levels for Characteristics of Hazardous Waste as defined by 6 NYCRR 371.3, 40 CFR 261 Subpart C, and EPA's Cyanide and Sulfide Reactivity Guidance Memo.
ND - Analyte was analyzed for but not detected
B - The reported value was obtained from a reading that was less than the Contract Required Detection Limit but greater than or equal to the Instrument Detection Limit.
E - The reported value is estimated because of the presence of interference.

	yellow highlighting indicates hazardous cesspool
6,410 E	bold indicates an exceedance of regulatory level

Summary of Pre-Design Drainage Structure Sampling - Totals
New York State Department of Environmental Conservation
Spectrum Finishing Corporation Site

	TAGM 4046	Part 375	DS -1	DS -2	DS -3	DS -4	DS -5	DS -6	DS -7
Metals (mg/kg)									
Aluminum			4920 *E	2640 * E	1310 * E	821 * E	2050 * E	2850 * E	2210 * E
Antimony			1.5 N	3.1 N	0.94 B N	0.49 B N	7 N	10.6 N	2.3 N
Arsenic	**7.5**	16	1.6	1.1	1.3	0.37 B	ND	ND	0.73 B
Barium	**300**	820	27 E	36.9 E	12.9 E	7.6 B E	30.4 E	60.9 E	39.4 E
Beryllium	**0.16**	47	ND	ND	ND	ND	0.033 B	ND	ND
Cadmium	**1**	7.5	**32.2 *E**	**143 * E**	**13.3 * E**	**2.8 * E**	**140 * E**	**112 * E**	**10 * E**
Calcium			6650 * E	15700 * E	940 * E	7320 * E	6240 * E	5250 * E	4670 * E
Chromium	**10**	19	**75.6 *E**	**152 * E**	**20.1 * E**	9.7 * E	**970 * E**	**894 * E**	**61.8 * E**
Cobalt	**30**		3.7 E	4 E	1.4 B E	0.55 B E	2.9 B E	5.2 E	2.8 B E
Copper	**25**	1,720	**176 * E**	**208 * E**	13.7 * E	10.5 * E	**187 * E**	**150 * E**	**70.1 * E**
Iron	**2,000**		**6650 E**	**6500 E**	**4370 E**	1380 E	**11200 E**	**7870 E**	**5780 E**
Lead		450	513 * E	382 * E	40.2 * E	12.2 * E	212 * E	136 * E	163 * E
Magnesium			3550 * E	8620 * E	574 * E	4310 * E	3410 * E	3050 * E	2650 * E
Manganese		2,000	63.4 * E	65.4 * E	38.5 * E	15.9 * E	33.7 * E	59.2 * E	31.3 * E
Mercury	0.1	0.73	0.077	0.1	0.026 B	**1.3**	0.1	**0.16**	0.079
Nickel	13	130	**30.7 * E**	**46 * E**	11.3 * E	5 * E	**359 * E**	**155 * E**	**25 * E**
Potassium			225	171	109	79	149	294	140
Selenium	**2**	4	0.45 B	1.1 B	ND	1.5	ND	ND	ND
Silver		8.3	2.1	0.88 B	1.1 B	ND	3.1	2.6	1.6 B
Sodium			143	49.5	18.6 B	21 B	34.1 B	69.4	52.4 B
Vanadium	**150**		34.4 E	17.3 E	7.3 E	4.6 E	15 E	19.5 E	15.4 E
Zinc	**20**	2,480	**249 * E**	**295 * E**	**74.2 * E**	**28.6 * E**	**237 * E**	**310 * E**	**157 * E**
Cyanide		40	0.15 B	4.4	1	ND	51	5.6	0.49 B
Volatile Organic Compounds (ug/kg)									
Acetone	**200**	50	ND	24	ND	11	ND	ND	ND
Carbon Disulfide	**2,700**		ND	3 J	ND	ND	ND	ND	ND
Toluene	**1,500**	700	ND	5 J	ND	1 J	ND	ND	ND
Ethylbenzene	**5,500**	1,000	ND	ND	ND	ND	ND	ND	ND
Xylene	**1,200**	1,600	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene			ND	ND	ND	ND	ND	ND	ND
Methylcyclohexane			ND	2 J	ND	ND	ND	ND	ND
PCBs (ug/kg)	**10,000 (tot.)**	3,200 (tot.)							
Aroclor 1254			63	290 P	110	18 J	1400	210	22 J
Pesticides (ug/kg)									
Heptachlor Epoxide	**20**		1.4 J P	ND	ND	ND	ND	ND	ND
Endosulfan I	**900**	102,000	ND	ND	ND	ND	1.0 J P	ND	ND
Dieldrin	**44**	100	ND	2.7 J	ND	ND	16	2.4 J P	ND
4,4' -DDE	**2,100**	17,000	ND	2.7 J P	ND	ND	13 P	ND	ND
Endosulfan Sulfate	**1,000**	1,000,000	ND	5.8 P	ND	ND	8.9 P	ND	ND
4,4' -DDT	**2,100**	136,000	ND	ND	ND	ND	9.2 P	ND	ND
Endrin Aldehyde			ND	4.8 P	ND	ND	18 P	4.6	ND
alpha-chlordane	**540**	2,900	13	1.9 J P	2.2 P	ND	ND	2.3 P	ND
gamma-chlordane	**540**		8	3.0 P	2.0 P	ND	6.4 P	3.8 P	ND

Notes:
This table only includes analytes that had at least one detection.
"TAGM 4046": NYSDEC TAGM 4046 Recommended Soil Cleanup Objectives
"Part 375": 6 NYCRR Part 375 Soil Cleanup Objectives for Protection of Ground Water
* - Indicates Relative Percent Difference for duplicate analyses was outside of the control limit.
ND - Analyte was analyzed for but not detected
B - The reported value was obtained from a reading that was less than the Contract Required Detection Limit but greater than or equal to the Instrument Detection Limit.
E - The reported value is estimated because of the presence of interference.
P - There was greater than 25% difference for detected concentrations betwenn the two GC columns. The lower of the two values is reported.
J - The reported value was estimated.

	Indicates an exceedance of Part 375 Groundwater SCOs
32.2	Bold indicates an exceedance of TAGM 4046 SCGs

Summary of Pre-Design Drainage Structure Sampling - Totals
New York State Department of Environmental Conservation
Spectrum Finishing Corporation Site

	TAGM 4046	Part 375	DS -8	DS -9	DS -10	DS -11	DS -12		
Metals (mg/kg)									
Aluminum			5840 * E	1920 * E	796 * E	1390 * E	356 * E		
Antimony			2.4 N	1.7 N	1.9 N	0.3 B N	0.71 B N		
Arsenic	**7.5**	16	ND	0.62 B	ND	1.9	0.19 B		
Barium	**300**	820	19.7 E	62.6 E	15 E	23.7 E	10.7 B E		
Beryllium	**0.16**	47	0.015 B	0.092 B	ND	0.01 B	ND		
Cadmium	**1**	7.5	**18 * E**	**12 * E**	**30.3 * E**	**3.7 * E**	**3.5 * E**		
Calcium			16200 * E	25300 * E	1840 * E	13900 * E	322 * E		
Chromium	**10**	19	**270 * E**	**63.7 * E**	**205 * E**	**15.1 * E**	**10.4 * E**		
Cobalt	**30**		1.2 B E	3.2 E	1.5 B E	3.6 E	0.32 B E		
Copper	**25**	1,720	**709 * E**	**117 * E**	**85.2 * E**	19 * E	**32.6 * E**		
Iron	**2,000**		**5680 E**	**8570 E**	**4620 E**	**6830 E**	1330 E		
Lead		450	27.8 * E	55.4 * E	25.6 * E	17.7 * E	10.4 * E		
Magnesium			8060 * E	13500 * E	1120 * E	7670 * E	199 * E		
Manganese		2,000	72.4 * E	68.9 * E	27 * E	42.9 * E	4.7 * E		
Mercury	**0.1**	0.73	0.075	**0.24**	0.062	0.05	0.096		
Nickel	**13**	130	**26.9 * E**	**28.3 * E**	**53.4 * E**	**763 * E**	5.9 * E		
Potassium			105	166	96.2	124	30.4 B		
Selenium	**2**	4	1.2 B	**2.7**	ND	0.91 B	ND		
Silver		8.3	0.31 B	0.38 B	1.1 B	0.79 B	0.89 B		
Sodium			25 B	41 B	11.5 B	23.1 B	ND		
Vanadium	**150**		5.5 E	9.7 E	3.3 E	7.9 E	1.9 B E		
Zinc	**20**	2,480	**282 * E**	**288 * E**	**183 * E**	**56 * E**	**26.1 * E**		
Cyanide		40	7.5	0.43 B	8.2	0.56 B	0.74 B		
Volatile Organic Compounds (ug/kg)									
Acetone	**200**	50	ND	5 J	ND	ND	ND		
Carbon Disulfide	**2,700**		ND	ND	ND	ND	ND		
Toluene	**1,500**	700	ND	ND	ND	ND	ND		
Ethylbenzene	**5,500**	1,000	ND	25	ND	ND	ND		
Xylene	**1,200**	1,600	ND	35	ND	ND	ND		
Isopropylbenzene			ND	3 J	ND	ND	ND		
Methylcyclohexane			ND	ND	ND	ND	ND		
PCBs (ug/kg)	**10,000 (tot.)**	3,200 (tot.)							
Aroclor 1254			27 J P	21 J P	150	ND	19 J		
Pesticides (ug/kg)									
Heptachlor Epoxide	**20**		ND	ND	ND	ND	ND		
Endosulfan I	**900**	102,000	ND	ND	ND	ND	ND		
Dieldrin	**44**	100	ND	ND	ND	ND	ND		
4,4' -DDE	**2,100**	17,000	ND	ND	2.1 J P	ND	ND		
Endosulfan Sulfate	**1,000**	1,000,000	ND	ND	ND	ND	ND		
4,4' -DDT	**2,100**	136,000	ND	ND	ND	ND	ND		
Endrin Aldehyde			ND	0.42 J P	1.9 J P	ND	ND		
alpha-chlordane	**540**	2,900	1.7 J P	0.99 J P	ND	1.1 J P	1.3 J P		
gamma-chlordane	**540**		1.9 J P	ND	1.2 J P	ND	ND		

Notes:
This table only includes analytes that had at least one detection.
"TAGM 4046": NYSDEC TAGM 4046 Recommended Soil Cleanup Objectives
"Part 375": 6 NYCRR Part 375 Soil Cleanup Objectives for Protection of Ground Water
* - Indicates Relative Percent Difference for duplicate analyses was outside of the control limit.
ND - Analyte was analyzed for but not detected
B - The reported value was obtained from a reading that was less than the Contract Required Detection Limit but greater than or equal to the Instrument Detection Limit.
E - The reported value is estimated because of the presence of interference.
P - There was greater than 25% difference for detected concentrations betwenn the two GC columns. The lower of the two values is reported.
J - The reported value was estimated.

	Indicates an exceedance of Part 375 Groundwater SCOs
32.2	Bold indicates an exceedance of TAGM 4046 SCGs

Summary of Pre-Design Cesspool Sampling - Totals
New York State Department of Environmental Conservation
Spectrum Finishing Corporation Site

	TAGM 4046	Part 375	CP-1	CP-3	CP-4	CP-6	CP-7	CP-8	CP-9	CP-11
Metals										
Aluminum			1790 * E	1580 * E	3250 * E	961 * E	1100 * E	1620 * E	1380 * E	613 * E
Antimony			0.83 B N	6.3 N	34.1 N	0.87 B N	1.4 N	1.6 N	0.48 B N	0.26 B N
Arsenic	**7.5**	16	1.4	ND	ND	0.12 B	ND	0.54 B	0.35 B	0.48 B
Barium	**300**	820	9.4 B E	8.7 E	13.3 E	13.4 E	10.5 E	6 B E	8.2 B E	3 B E
Beryllium	**0.16**	47	ND	ND	0.038 B	ND	ND	ND	ND	ND
Cadmium	1	7.5	**8.6 * E**	**606 * E**	**2170 * E**	**44 * E**	**14.9 * E**	**20.9 * E**	**3.9 * E**	0.24 B * E
Calcium			2470 * E	451 * E	1750 * E	14100 * E	481 * E	3270 * E	2010 * E	137 * E
Chromium	**10**	19	**25.4 * E**	**1360 * E**	**9140 * E**	**72.7 * E**	**150 * E**	**175 * E**	6.6 * E	1.9 * E
Cobalt	**30**		2.5 B E	1.1 B E	9.6 E	1.1 B E	1.1 B E	2.2 B E	1 B E	0.44 B E
Copper	**25**	1,720	18.9 * E	**672 * E**	**2330 * E**	**57.5 * E**	**46.5 * E**	**393 * E**	**29.6 * E**	**4.8 * E**
Iron	**2,000**		**4230 E**	**3110 E**	**3590 E**	**5430 E**	**7640 E**	**4830 E**	**3000 E**	1570 E
Lead		450	23 * E	7.7 * E	60.4 * E	9 * E	6.8 * E	51.5 * E	17.5 * E	3.5 * E
Magnesium			1580 * E	307 * E	290 * E	7700 * E	316 * E	555 * E	1250 * E	144 * E
Manganese		2,000	87.3 * E	27.5 * E	377 * E	28 * E	27.4 * E	36.4 * E	17.6 * E	16.1 * E
Mercury	**0.1**	0.73	0.037	0.066	**0.15**	**21.6**	0.093	ND	0.062	0.011 B
Nickel	**13**	130	**14.5 * E**	**306 * E**	**3220 * E**	**52.9 * E**	**27.5 * E**	**266 * E**	3.1 * E	0.9 B * E
Potassium			129	171	199	164	252	139	108	86.3
Selenium	**2**	4	ND	ND	ND	1.7 B	ND	ND	0.12 B	ND
Silver		8.3	0.92 B	0.83 B	0.75 B	0.64 B	2.2	1.1 B	0.67 B	0.38 B
Sodium			14.7 B	35.6 B	392	32.6 B	18.1 B	60.3	25.4 B	8.5 B
Vanadium	**150**		6.6 E	0.33 B E	0.18 B	2.2 B E	3.6 E	3.3 E	5.9 E	1.4 B
Zinc	**20**	2,480	**61.5 * E**	**80.7 * E**	**499 * E**	**62.6 * E**	20 * E	**59.9 * E**	19.4 * E	4.4 * E
Cyanide		40	1.3	104	131	2.2	4.9	0.59 B	ND	9.4
Volatile Organic Compounds										
Acetone	**200**	50	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	**2,700**		ND	ND	ND	ND	ND	ND	ND	ND
Toluene	**1,500**	700	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	**5,500**	1,000	ND	ND	ND	ND	ND	ND	ND	ND
Xylene	**1,200**	1,600	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene			ND	ND	ND	ND	ND	ND	ND	ND
Methylcyclohexane			ND	ND	ND	ND	ND	ND	ND	ND
PCBs	**10,000 (tot.)**	3,200 (tot.)								
Aroclor 1254			55	ND	ND	ND	65 P	ND	ND	ND
Pesticides										
Heptachlor Epoxide	**20**		ND	ND	ND	ND	ND	ND	ND	ND
Endosulfan I	**900**	102,000	ND	ND	ND	ND	ND	ND	ND	ND
Dieldrin	**44**	100	ND	ND	ND	ND	ND	ND	ND	ND
4,4' -DDE	**2,100**	17,000	ND	1.8 J	2.3 J	ND	2.0 J P	ND	ND	ND
Endosulfan Sulfate	**1,000**	1,000,000	ND	ND	ND	ND	ND	ND	ND	ND
4,4' -DDT	**2,100**	136,000	ND	3.0 J P	3.1 J P	ND	7.0 P	ND	ND	ND
Endrin Aldehyde			ND	ND	ND	ND	ND	ND	ND	ND
alpha-chlordane	**540**	2,900	ND	ND	ND	ND	ND	ND	ND	ND
gamma-chlordane	**540**		ND	ND	ND	ND	1.1 J P	ND	ND	ND

Notes:
This table only includes analytes that had at least one detection.
"TAGM 4046": NYSDEC TAGM 4046 Recommended Soil Cleanup Objectives
"Part 375": 6 NYCRR Part 375 Soil Cleanup Objectives for Protection of Ground Water
* - Indicates Relative Percent Difference for duplicate analyses was outside of the control limit.
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J - The reported value was estimated.

	Indicates an exceedance of Part 375 Groundwater SCOs
32.2	Bold indicates an exceedance of TAGM 4046 SCGs

APPENDIX D

Schedule of drainage structure volumes

Table D1; Estimated volume of material to be removed from existing structures.

Structure ID	Approx. Depths of Soils based on FRI		Approx. Volume of Soils removed during Pre-Design	Approx. Volume of Soils Remaining	Hazardous[3]
	Depth to Soils[1] (ft)	Depth of Soils[2] (ft)	(cubic yards)	(cubic yards)	(Y/N/NS)
DS-1	10	8		13.6	N
DS-2	10	8		13.6	Y
DS-3	10	8		13.6	N
DS-4	9.5	8.5	5.6	8.9	N
DS-5	15	3	6.5	0.0	Y
DS-6	10	8		13.6	Y
DS-7	1	17		28.9	N
DS-8	10	8	2.8	10.8	N
DS-9	10	8		13.6	N
DS-10	10	8	2.8	10.8	N
DS-11	12	6		10.2	N
DS-12	12	6		10.2	N
CP-1	14	4		6.8	N
CP-2	13	5		8.5	NS
CP-3	12	6	9.3	0.9	Y
CP-4	12	6	1.9	8.3	Y
CP-5	12	6	2.8	7.4	NS
CP-6	11	7	2.8	9.1	N
CP-7	13	5	2.8	5.7	N
CP-8	6	12	1.9	18.5	N
CP-9	12	6		10.2	N
CP-10	12	6		10.2	NS
CP-11	12	6		10.2	N

Est. total to be removed from known locations (cy):	243.6
Est. total in structures not yet located (cy):	29.0
Est. total hazardous soils to be removed (cy):	65.4
Est. total non-hazardous soils to be removed (cy):	207.2

General Notes:

1) Structures diameters and depth to soils based on Table 1-1 of the Focused Remedial Investigation, TAMS/GZA (2001). Where a range of depths has been given, the shallower value has been used.

2) Estimated interior diameter = 7-ft, 4-in. based on an outer diameter of 8-ft and an assumed nominal wall thickness of 4-inches.

3) Estimated volume = 1.7 cubic yards per vertical liner foot based on the estimated interior diameter.

4) "NS" indicates that the structure was not located during this investigation and, therefore, not sampled.

5) The volume of soils estiamted to be removed from structures not yet located is assumed to be hazardous.

Specific Notes:

[1] As measured from the ground surface

[2] Based on a proposed excavation bottom of 18-ft below grade surface.

[3] Based on the results of laboratory analysis performed during pre-design activities, June 20, 2007.

APPENDIX E

Septic System Calculations

O'BRIEN & GERE

SUBJECT	SHEET	BY	DATE	JOB NO.
Spectrum - Septic System Calc's	1/3	TMS	7-19-07	34101

Assumptions and Notes

- These calculations have been made in accordance with the Suffolk County Dept of Health Services guidance document: "Standards for Approval of Plans and Construction for Sewage Disposal Systems for Other Than Single Family Residences."
- A design flow rate of 0.04 gpd/sf floor area has been used. This is the prescribed value for "General Industrial Space" per Guidance.
- The following minimum values have been considered:
  - Minimum allowable septic Tank size is 900 gal.
  - The maximum leaching rate allowable is 1.5 gal/sq. ft/day
  - Minimum leaching area of drainage structure equals a side-wall area of 300 square feet.
  - Minimum septic Tank volume equal to 2 days design flow.
- Groundwater is assumed to be 18-ft below the ground surface based on observations from 49 subsurface borings and 8 monitoring wells.
- One septic System will be designed for each of the four properties at the Spectrum Finishing Site.
- TABLE A1 summarizes the design calculations for each property.

TABLE A1: Septic System Calculations

Building	Sanitary Drainage Structure	Building Area (SF)	Design Sewage Flowrate (gpd/sf Gr. Floor Area)	Volume per day = Bldg Area x Des. Sewage Flowrate	Septic Tank Size Required = gpd for 2 days Design Flow (gal)	Min. Septic Tank Size Required (gal)	Septic Tank Size Provided (gal)	Adjusted Gross Land Area (SF)	Population Density Equivalent = Adj. Gross Land Area (acres) x 600	Sewage treatment system required (yes, if Pop. Dens. Equiv. > Req. Septic Vol)	Maximum Hydraulic Leaching Rate (gal/sf/day)	Hydraulic Leaching Rate used (gal/sf/day)	Side Wall Leaching Area Required (SF)	Min. Side Wall Leaching Area (SF)	Min. Leaching Pool Depth (for 8 ft diameter rings (LF)
61 Cabot Street	Septic	8100	0.04	324	648	900	900	20000	275	No					
	Leaching										1.5	1.5	486	300	19
51 Cabot Street	Septic	9010	0.04	360.4	720.8	900	900	20000	275	No					
	Leaching										1.5	1.5	541	300	22
60 Dale Street	Septic	8100	0.04	324	648	900	900	19800	273	No					
	Leaching										1.5	1.5	486	300	19
50 Dale Street	Septic	10200	0.04	408	816	900	900	19800	273	No					
	Leaching										1.5	1.5	612	300	24

O'BRIEN & GERE

SUBJECT	SHEET	BY	DATE	JOB NO.
Spectrum Septic System Calcs	3/3	TMS	7-19-07	34101

Available Unsaturated sub surface for Leaching Basins

Assume Septic Tank inlet set at Maximum allowable depth: Inlet invert = 28" BGS
(below grade surface)
Outlet invert 6" below Inlet = 32" BGS
Assume Leaching basin within 100 LF of Septic Tank Outlet
100 LF 6-inch diameter pipe laid at 0.125" per LF
100 LF × 0.125"/LF = 13" to inlet invert of Leaching Basin = 45" BGS

Available storage between Leaching Basin invert and 2-ft above groundwater.
Leaching Basin Invert = 45" BGS = 3.75' BGS
Ground water = 18' BGS + 2' = 16' BGS

Available storage = 11.75 vertical linear feet.

Number of Leaching Basins per property:

61 Cabot ST requires: 19 VLF; 2 structures @ 10' deep

51 Cabot ST requires 22 VLF; 2 structures @ 11' deep

60 Dale ST requires 19 VLF; 2 structures @ 10' deep

50 Dale ST requires 24 VLF; 3 structures @ 8' deep.

APPENDIX F

Storm Water Drainage Structure Calculations

O'BRIEN & GERE

SUBJECT	SHEET	BY	DATE	JOB NO.
Spectrum – Drainage Structure Calc's	1/2	TMS	7-19-07	34101

Assumptions and Notes

- These calculations have been made in accordance with the Town of Babylon Planning Board Site Improvement and Subdivision Specifications.
- Drainage Areas of each Basin have been calculated by AutoCAD software from a survey performed on 4-15-05 by Munoz Engineering, Inc.
- The following values have been used in calculations:
  - Run-off Coefficient - Asphalt Roof = 1.0
    - Asphalt Parking Lot = 0.9
    - Landscaping Sod/Seed = 0.17
  - Design Rainfall = 0.12 ft
  - Structure Design Volume - 8-ft diameter ring = 42 cubic foot/VLF
    - 10-ft diameter ring = 68 cubic foot/VLF
- Groundwater is assumed to be 18-ft below the ground surface based on observations from 49 subsurface borings and 8 monitoring wells.
- TABLE B1 summarizes the design calculations for each property.

TABLE B1: Drainage Structure Calculations

Basin	Use	Material	Drainage Area (S.F.)	Runoff Coeff.	Equiv. Drain Area = Drainage Area (S.F.) x Runoff Coeff.	Design Rainfall (FT)	Equiv. Design Volume Req'd (C.F.) = Equiv. Drain Area x Design Rainfall (FT)	Structure Design (C.F./L.F.)	Equiv. L.F. Drain Req'd = Equiv. Design Volume Req'd (C.F.) / Structure Design (C.F./L.F.)	Proposed Depth of Structures (FT)	# Structures Required	Total # Structures Provided
A	Roof	Asphalt Roof	8100	1	8100	0.12	972					
					Total - Roof Drainage A		972	68	14.3	14	1.0	1
	Landscape	Sod/seed	1650	0.17	281	0.12	34					
	Parking Lot	Asphalt	7560	0.9	6804	0.12	816					
	Unknown	Conc/Gravel	486	0.9	437	0.12	52					
					Total - Site Drainage A		903	42	21.5	12	1.8	2
B												
	Roof	Asphalt Roof	9010	1	9010	0.12	1081					
					Total - Roof Drainage B		1081	68	15.9	10	1.6	2
	Parking Lot	Asphalt	8200	0.9	7380	0.12	886					
	Landscape	Sod/seed	1770	0.17	301	0.12	36					
					Total - Site Drainage B		922	68	13.6	14	1.0	2
C	Roof	Asphalt Roof	8100	1	8100	0.12	972					
					Total - Roof Drainage C		972	68	14.3	14	1.0	1
	Parking Lot	Asphalt	7410	0.9	6669	0.12	800					
	Parking Lot	Asphalt	1620	0.9	1458	0.12	175					
	Unknown	Conc/Gravel	486	0.9	437	0.12	52					
					Total - Site Drainage C		1028	68	15.1	8	1.9	2
D	Roof	Asphalt Roof	10200	1	10200	0.12	1224					
					Total - Roof Drainage D		1224	68	18.0	10	1.8	2
	Parking Lot	Asphalt	5040	0.9	4536	0.12	544					
	Landscape	Sod/seed	2100	0.17	357	0.12	43					
					Total - Site Drainage D		587	68	8.6	10	0.9	1

APPENDIX G

UST Removal Requirements

To:	File (I:DIV71\Projects\10653\34101\3_memos\UST closure procedures)	*cc:*	Clare Leary Bradley Kubiak Nathyn Knipe Edwin Rahn
From:	Amy Lawrence		
Re:	Spectrum Finishing Corp. (Site #1-52-029): UST Removal Procedures		
Date:	May 21, 2007		

Based on telephone conversations with Otto Reneberg and Kenneth Clooney at Suffolk County Department of Health Services, the following steps must be taken for removal of underground storage tanks (USTs) at the Spectrum Finishing Corp. Site (50 Dale Street, West Babylon, New York 11704):

1) Unregistered tanks must first be registered using the registration form on the Suffolk County Department of Health Services website: http://www.co.suffolk.ny.us/webtemp3.cfm?dept=6&id=999 (also in file). Registration costs are $95/tank. The completed registration form shall be signed and mailed. It then takes approximately one week to process the registration form. A separate registration form is required for each property parcel. A diagram indicating tank locations should be attached to the registration form.

2) Once the tanks are registered, Edward Olson (Suffolk County Department of Health Services) should be contacted via telephone at (631) 854-2523 at least three business days prior to the commencement of tank removal activities.

3) A Suffolk County Department of Health Services representative will be present during tank removal activities.

4) Sampling should be conducted in accordance with NYSDEC Guidance Documents (STARS #1 and SPOTS #14), which recommend a composite sample from each of the four sidewalls (one third of the way from the bottom of the excavation) and at least one composite sample from the bottom of the tank excavation, totaling five samples. Additional grab samples should be taken if staining or other evidence (PID reading) indicates soil contamination. If groundwater is encountered, a groundwater sample may also be required. It is recommended that the soils be analyzed according to EPA Standard Methods 8021 and 8270.

5) In the event that soil contamination is present, the spill must be called into NYSDEC Region 1 Office at (631) 444-0320 within two hours.

6) Suffolk County requires that remaining sludge be removed from the tank after the tank is pumped dry. A square hole, at least 18 inches by 18 inches should be cut into the top of the tank for access. A licensed industrial waste hauler for waste oil must perform these operations. A list of licensed industrial waste haulers is available from the NYSDEC Region 1 Office at (631) 444-0375. The waste must be sent to a licensed waste disposal facility. A record of sludge removal, transport, and disposal shall be kept on file to document proper tank closure procedures.

7) Upon removal of the tank from the ground, the excavation shall be backfilled with clean fill and compacted as necessary. Remote fill points should also be removed.

8) In the event that a tank cannot be removed because of utility lines or structural integrity issues, Suffolk County Department of Health Services will consider abandonment in place. A special letter of request documenting the reason for abandonment in place shall be submitted and approved prior to closure. Once approved, the tank should be pumped dry, the sludge removed, and the tank filled with inert material (e.g. sand, gravel, concrete).

9) Any further questions should be directed to Otto Reneberg (Suffolk County Department of Health Services) at (631) 854-2537.

APPENDIX H

UST Dimensions and Calculations

Table H1; UST dimensions and estimated excavation volumes generated during removal.

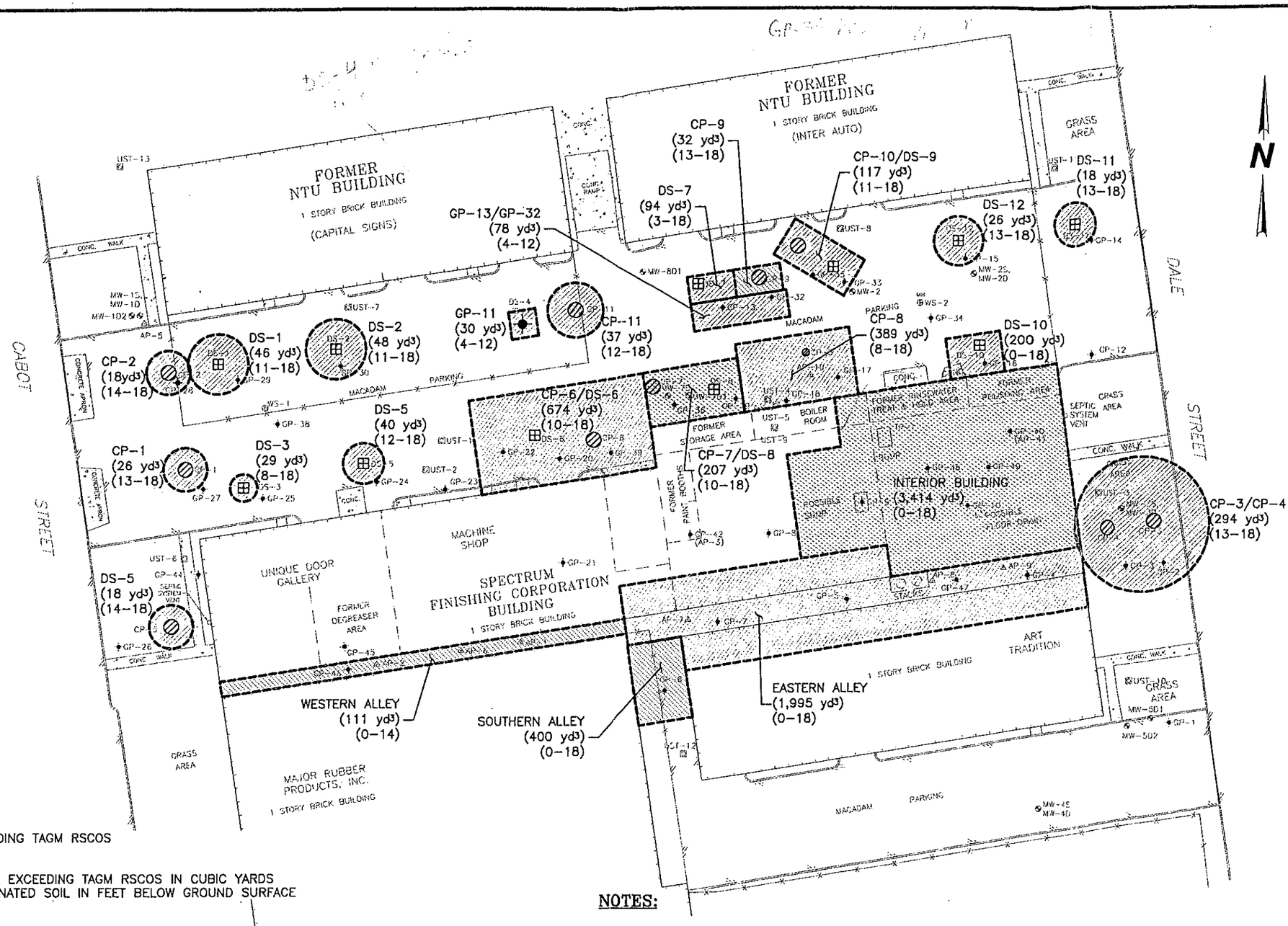
	Diameter	Length	Depth to top	Depth	Excavation Vol. (cy)	Backfill Vol. (cy)
UST-1	4	11	2.5	6.5	8.4	17.2
UST-2	4	11	2.5	6.5	8.4	17.2
UST-3	4	11	2.5	6.5	8.4	17.2
UST-4	6	13	2.5	8.5	22.5	34.8
UST-5	4	11	2.5	6.5	8.4	17.2
UST-6	4	11	1.5	5.5	7.0	12.3
UST-7	4	11	1.5	5.5	7.0	12.3
UST-8	4	11	1.5	5.5	7.0	12.3
UST-9	4	11	2.5	6.5	8.4	17.2
UST-11	4	11	2.5	6.5	8.4	17.2
					94	175

Notes:

1) Based on measurements of tank size and depth made by GZA by letter dated Dec 10, 2000
2) UST-5, -9 and -11 were not measured by GZA. The dimensions shown are assumed.
3) It is assumed that excavation will be 2-ft greater than each tank dimension.
4) It is assumed that additional material removed during excavation of USTs will be disposed of off-site as non-hazardous material and will NOT be reused as backfill on-site.
5) Assume in all areas to be backfilled then paved, pavement thickness = 12-inches, with Type F fill = 6-inches.

EXHIBIT A

Locations for Soil Exceeding TAGM RSCOS



LEGEND:

ASSUMED SOIL AREA EXCEEDING TAGM RSCOS

DS-3 – SAMPLE POINT
(29 yd³) – ASSUMED VOLUME OF SOIL EXCEEDING TAGM RSCOS IN CUBIC YARDS
(8-18) – DEPTH RANGE OF CONTAMINATED SOIL IN FEET BELOW GROUND SURFACE

- CP – CESSPOOL (MH=MANHOLE COVER)
- DS – DRAINAGE STRUCTURE
- UST – UNDERGROUND STORAGE TANK FILL PORT
- WS – FORMER WATER WELLS
- GP – GEOPROBE
- AP – HAND AUGER
- MW – MONITORING WELL (S=15-25' DEEP, D,D1=50' DEEP, D2=100'DEEP)
- CHAIN LINK FENCE
- CONCRETE
- CONCRETE CURB
- CURB CUT
- EDGE OF MACADAM

TOTAL VOLUME OF SOIL EXCEEDING TAGM RSCOS:

WESTERN ALLEY SOIL	~111 CU. YDS.
EASTERN ALLEY SOIL	~1,995 CU. YDS.
SOUTHERN ALLEY SOIL	~400 CU. YDS.
INTERIOR BUILDING SOIL	~3,414 CU. YDS.
CESSPOOLS & DRAINAGE STRUCTURE SOIL	~2,421 CU. YDS.
	CU. YDS.
TOTAL	~8,341 CU. YDS.

NOTES:

1. BASE MAP ADAPTED FROM A PLAN PROVIDED BY YEC, INC. IN AUTOCAD FORMAT DATED AUGUST 1999. DATES OF SURVEY; JUNE 4, 1999 (WELL ELEVATIONS ONLY); JULY 20-21, 1999. ADDITIONAL SURVEY SEPTEMBER 12, 2000 OF MONITORING WELLS MW-6S, MW-9S, MW-10S, MW-11S, MW-12S, AND CESSPOOL CP-11. ADDITIONAL SURVEY MAY 10, 2001 OF MONITORING WELLS MW-12D1, MW-12D2, MW-12S, MW-13D1, MW-13D2, MW-13S, MW-14D1, MW-14S, MW-15D1, MW-15S.
2. HORIZONTAL DATUM: ASSUMED; VERTICAL DATUM: NGVD 1929.
3. THE SIZE AND LOCATION OF EXISTING FEATURES SHOULD BE CONSIDERED APPROXIMATE.
4. REFER TO APPENDIX B – "CALCULATIONS OF ESTIMATED AREAS AND VOLUMES OF CONTAMINATED GROUNDWATER & SOILS" FOR SOIL EXCAVATION CROSS SECTIONAL AREAS.
5. AREAS OF CONTAMINATION SHOWN INCLUDE LIMITS OF ASSUMED LATERAL EXTENT OF CONTAMINATION EXCEEDING TAGM RSCOS WITH DEPTH.

REV No.	DESCRIPTION	BY	DATE

DRAWN BY: BWS

DATE: JANUARY 2002

SCALE IN FEET: 0, 20, 40, 80

GZA GeoEnvironmental of New York

SPECTRUM FINISHING CORPORATION
50 DALE STREET
WEST BABYLON, NEW YORK
FOCUSED FEASIBILITY STUDY

CONTAMINATED SOIL VOLUMES EXCEEDING TAGM RSCOS

PROJECT No. 55291

FIGURE No. 4-1

EXHIBIT B

Geotechnical Boring Logs

AQUIFER DRILLING AND TESTING, INC.

150 Nassau Terminal Road, New Hyde Park, New York 11040
(516) 616-6026 fax (516) 616-6194

JOB LOCATION 50 WALES W. BABYLON NY
DATE START 06/21/07
DRILLER Rudy Ries
INSPECTOR O'GERG
TYPE RIG F10
CASING O.D. 7 I.D. 3 1/4 WEIGHT OF HAMMER-CASING ____ LBS HAMMER FALL-CASING ____
SAMPLER O.D. 2 1/4 I.D. 2 WEIGHT OF HAMMER-SAMPLER 140 LBS HAMMER FALL-SAMPLER 30 inch

BORING # B2
DATE FINISH 06/21/07
SURFACE ELEVATION ____

GROUNDWATER OBSERVATION

DATE	TIME	DEPTH
06/21/07		20

DEPTH BELOW SURFACE	BLOWS ON CASING	SAMPLE NO.	BLOWS ON SAMPLER 0/.5	.5/1.0	1.0/1.5	1.5/2.0	DESCRIPTION OF SOIL AND ROCK	MOIST. CONT. %
0-2			7	14	12	18	Brown Fine to Medium sand	
5-7			20	27	27	30	Coarse sand Light Brown	
10-12			9	16	36	39/5"	Coarse sand Light Brown small Gravel	
15-17			15	30	35	37	Coarse sand light Brown small Gravel	
20-22			7	9	11	22	" Coarse sand Gravel	wet
22-24			24	14	20	18	" "	
24-26			34	5	5	10	" "	
26-28			10	11	11	12		
28-30			11	11	11	11		
30-32			11	11	11	14		
32-34			12	10	7	5		
34-36			11	21	21	27		
36-38			11	14	6	11		
38-40			11	13	12	10		
45-47			11	12	11	12	No Recovery	
50-52			16	24	25	24	Coarse sand Gravel	

SHEET ____ OF ____

AQUIFER DRILLING AND TESTING, INC.

150 Nassau Terminal Road, New Hyde Park, New York 11040
(516) 616-6026 fax (516) 616-6194

JOB LOCATION 50 Dales W. Babylon NY
DATE START 06/20/07
DRILLER Rudy Ulos
INSPECTOR Mike
TYPE RIG F10
CASING O.D. 7 I.D. 3 1/4
SAMPLER O.D. 3 1/4 I.D. 2 1/8

BORING # B2
DATE FINISH 06/20/07
SURFACE ELEVATION

WEIGHT OF HAMMER-CASING ____ LBS HAMMER FALL-CASING ____
WEIGHT OF HAMMER-SAMPLER 140 LBS HAMMER FALL-SAMPLER 30 inc

GROUNDWATER OBSERVATION

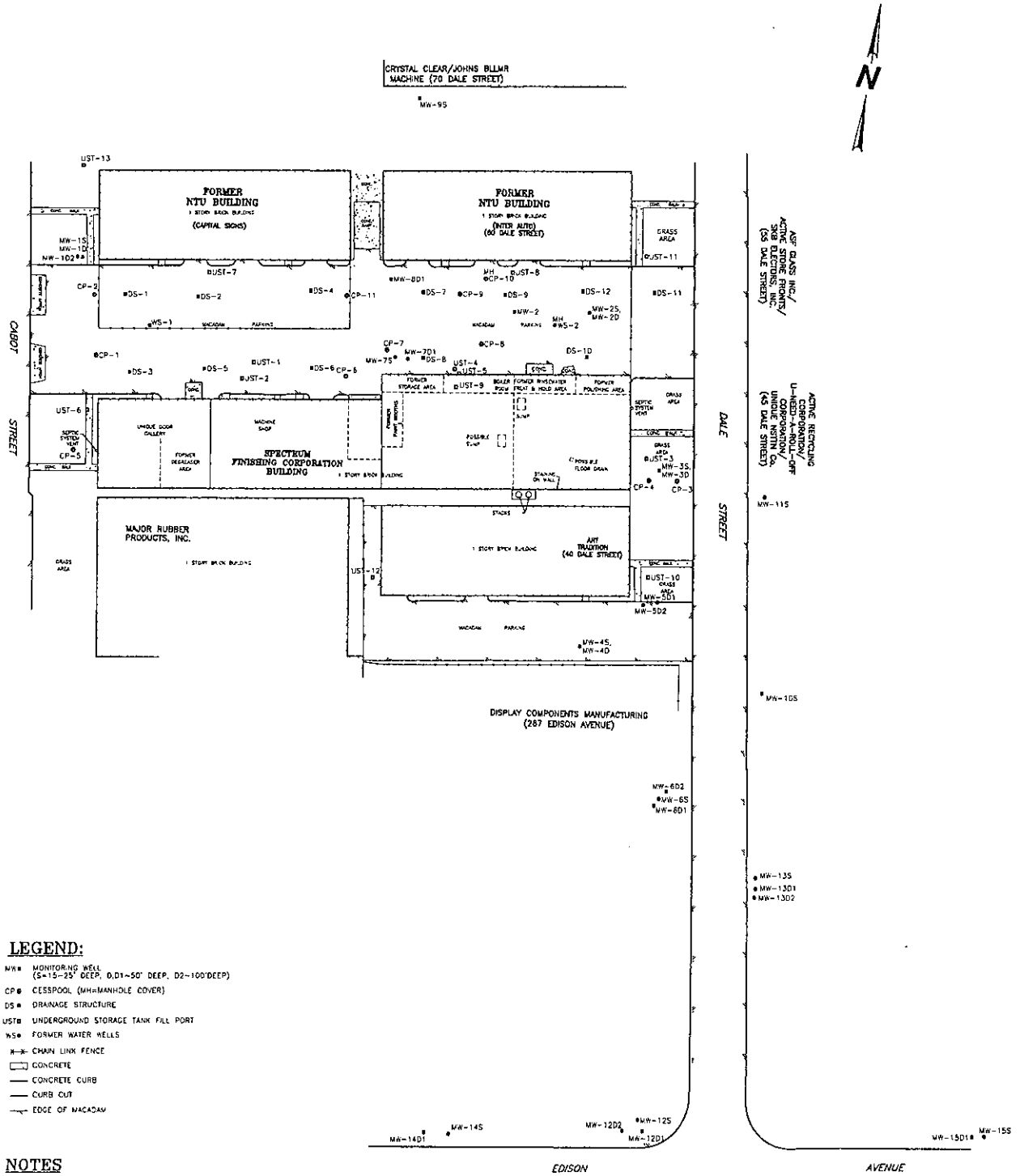
DATE	TIME	DEPTH
06/20/07		15-17

DEPTH BELOW SURFACE	BLOWS ON CASING	SAMPLE NO.	BLOWS ON SAMPLER 0/.5	.5/1.0	1.0/1.5	1.5/2.0	DESCRIPTION OF SOIL AND ROCK	MOIST. CONT. %
0-2			8	8	7	11	Brown Sand, Fine to Course Sand	
			10	16	26	27	"	
5-7								
10-12			10	12	9	20	light Brown medium to course sand with trace	
15-17			18	30	45	30	Wet Fine to medium sand trace trace Brown	
20-22			11	8	12	15	Fines medium to Course Sand light Brown	Wet
22-24			10	15	18	25	" Same As Above	
24-26			12	14	9	11	"	Wet
26-28			15	16	12	17	"	Wet
28-30			9	18	14	16	"	Wet
30-32			12	14	14	11	"	Wet
32-34			5	6	8	8	"	Wet
34-36			—	No	Recovery			Wet
36-38			13	30	24	15	"	
38-40			15	18	21	28	"	Wet
40-42			14	20	16	13	"	Wet
50-52			23	18	17	10	" Same As Above	Wet

SHEET 1 OF 1

EXHIBIT C

Locations of Underground Storage Tanks (USTs)



LEGEND:

- MW# MONITORING WELL (S=15-25' DEEP, D,D1~50' DEEP, D2~100'DEEP)
- CP# CESSPOOL (MH=MANHOLE COVER)
- DS # DRAINAGE STRUCTURE
- UST# UNDERGROUND STORAGE TANK FILL PORT
- WS# FORMER WATER WELLS
- CHAIN LINK FENCE
- CONCRETE
- CONCRETE CURB
- CURB CUT
- EDGE OF MACADAM

NOTES

1. BASE MAP ADAPTED FROM A PLAN PROVIDED BY YEC, INC. IN AUTOCAD FORMAT DATED AUGUST 1999. DATES OF SURVEY; JUNE 4, 1999 (WELL ELEVATIONS ONLY); JULY 20-21, 1999. ADDITIONAL SURVEY SEPTEMBER 12, 2000 OF MONITORING WELLS MW-6S, MW-9S, MW-10S, MW-11S, MW-12S, AND CESSPOOL CP-11. ADDITIONAL SURVEY MAY 10, 2001 OF MONITORING WELLS MW-12D1, MW-12D2, MW-12S, MW-13D1, MW-13D2, MW-13S, MW-14D1, MW-14S, MW-15D1, MW-15S.

2. HORIZONTAL DATUM: ASSUMED; VERTICAL DATUM: NGVD 1929.

3. THE SIZE AND LOCATION OF EXISTING FEATURES SHOULD BE CONSIDERED APPROXIMATE.

FIGURE No. 2-2

PROJECT No. 55291

SPECTRUM FINISHING CORPORATION
50 DALE STREET
WEST BABYLON, NEW YORK

FOCUSED REMEDIAL INVESTIGATION/FEASIBILITY STUDY

SITE PLAN

REV No.	DESCRIPTION	BY	DATE

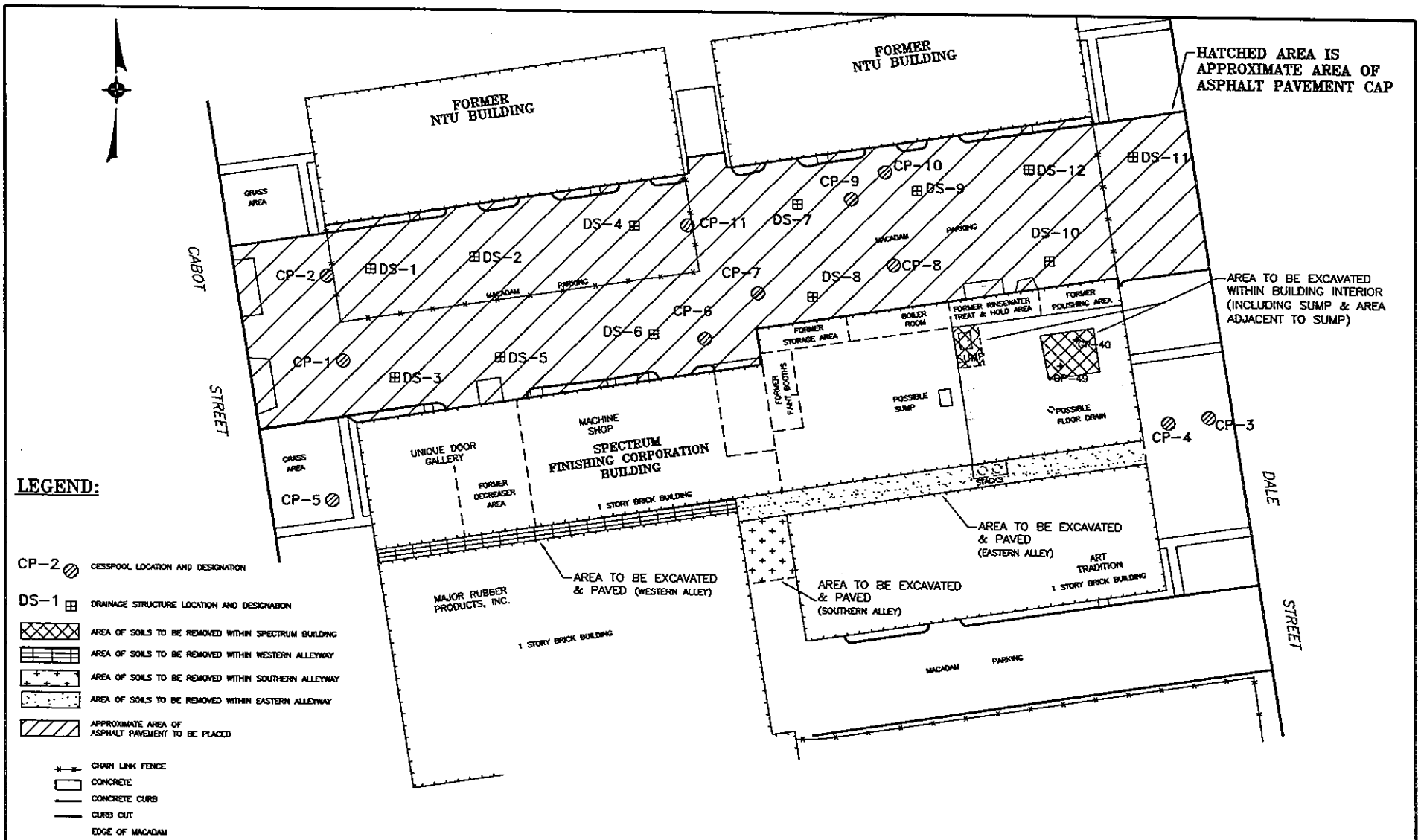
SCALE IN FEET
0 30 60 120

DRAWN BY: BWS
DATE: JANUARY 2002

GZA GeoEnvironmental of New York

EXHIBIT D

Proposed excavation within alleyways



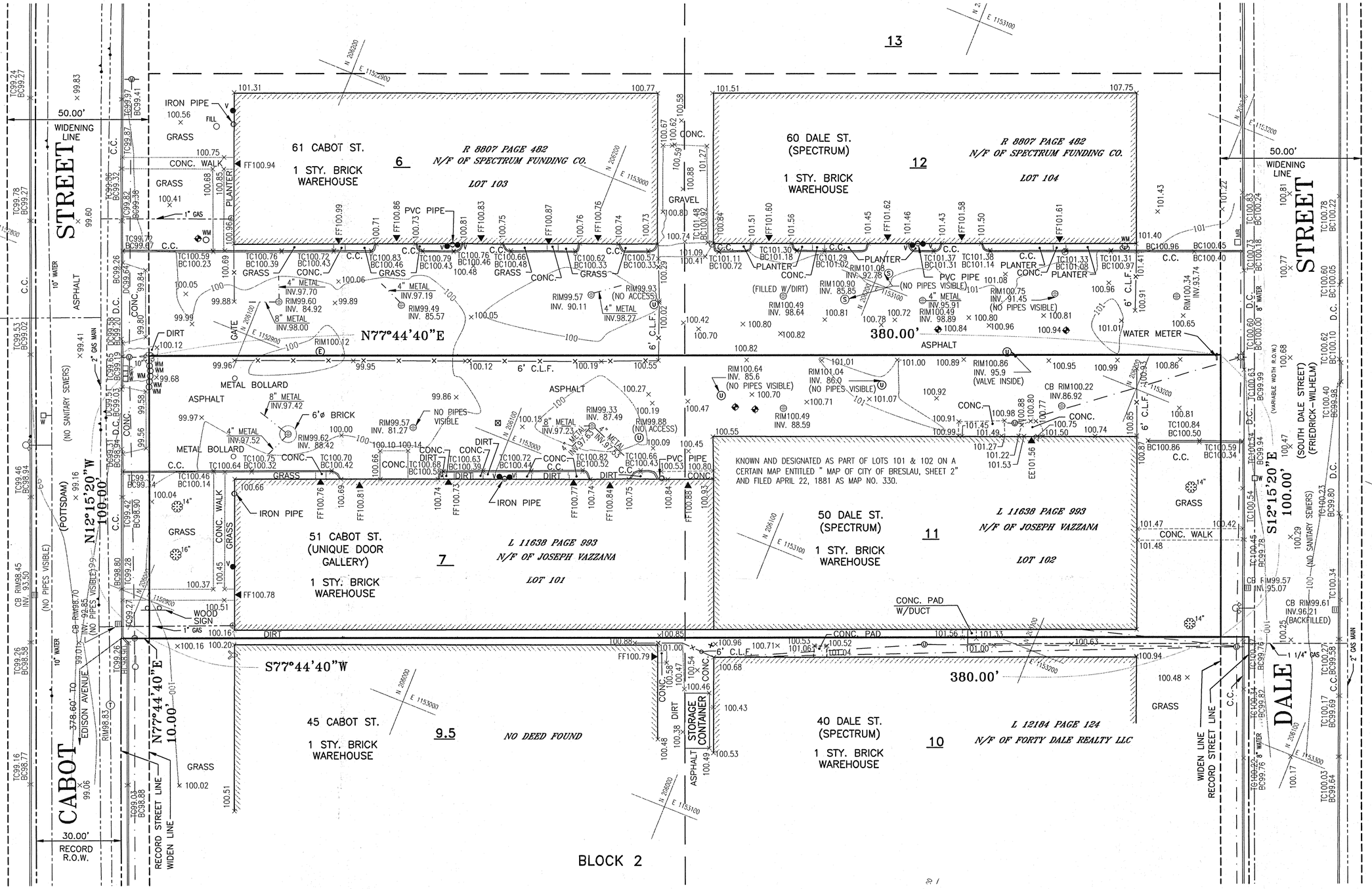
SPECTRUM FINISHING CORPORATION SITE, ID#1-52-029
WEST BABYLON, SUFFOLK COUNTY, NEW YORK

FEATURES OF SOIL ALTERNATIVES S1 AND S2

FIGURE 6

EXHIBIT E

Boundary, Topographical and Utility Survey



ES:

NDERGROUND AND OVERHEAD UTILITIES SHOWN ON THIS MAP HAVE BEEN DETERMINED BY STANDARD SURVEY PRACTICE
AILABLE RECORD INFORMATION. THE USER OF THIS MAP IS CAUTIONED THAT THE UNDERGROUND UTILITY LOCATIONS ARE
RANTEED NOR IS THERE ANY GUARANTEE THAT ALL EXISTING UTILITIES, WHETHER FUNCTIONAL OR ABANDONED, WITHIN
JECT AREA ARE SHOWN ON THIS MAP. EXACT LOCATIONS MUST BE FIELD MARKED BY THE RESPECTIVE UTILITY
Y.

ATIONS ARE REFERENCED TO AN ASSUMED DATUM AND SHALL BE USED FOR THIS PROJECT ONLY.

SURVEY WAS COMPLETED ON SEPTEMBER 14, 2004.

ONTAL POSITIONING IS BASED UPON GPS OBSERVATIONS TO N.G.S PUBLISHED STATIONS PERFORMED BY MUNOZ
RING & LAND SURVEYING, PC.

DINATE GRID BASED ON THE NEW YORK STATE PLANE COORDINATE SYSTEM FOR LONG ISLAND EAST (3104) NAD83.

NGS AND DISTANCES REFER TO DEED LIBER 11638 PAGE 993.

LEGEND:

Ⓢ	SEWER MANHOLE	◀ FF100.17	FIRST FLOOR ELEVATION
Ⓣ	TELEPHONE MANHOLE	×100.57	SPOT ELEVATION
Ⓔ	ELECTRIC MANHOLE	✿ 14"	DECIDUOUS TREE AND CALIPER
Ⓤ	UNKNOWN UTILITY MANHOLE	⊕	MONITORING WELL
W ☐	WATER VALVE	•	PK NAIL SET
WM ○	WATER METER	-Ⓤ-	WOODEN UTILITY POLE
G ☐	GAS VALVE	☼	WOODEN UTILITY POLE W/LIGHT
⊙	GAS METER	⊥	SIGN
⋗	STANDPIPE	⊸	GUY WIRE
⚲	FIRE HYDRANT	⊘	POST
◍ ▥	DRAIN	╿	UTILITY MARKOUT
FILL ○	OIL FILL		
V ●	VENT		
○	PIPE		
☒	UNKNOWN UTILITY VALVE		
MB ☐	MAIL BOX		
9.5	TAX LOT NUMBER	N 206200 / E 1153100	N.Y.S. PLANE COORDINATE GRID
BLOCK 2	TAX BLOCK NUMBER		

LINETYPES:

——— - - ———	GAS LINE
— · · — · · —	SEWER LINE
—— - - —— - - ——	TELEPHONE LINE
—— - —— - ——	WATER LINE
— · — · —	OVERHEAD ELECTRIC LINE
━━━━━━	PARCEL LINE
━━━ - - ━━━	R.O.W. LINE
— —— ——	TAX LOT LINE
━ ━ ━ ━ ━	WIDENING LINE
——×——×——	CHAIN LINK FENCE
- - - - - - - -	EDGE OF CONCRETE
D.C.	DEPRESSED CURB
⁄⁄⁄⁄⁄⁄⁄⁄	BUILDING LINE

ABBREVIATIONS:

INV.	INVERT
BC	BOTTOM OF CURB
CB	CATCH BASIN
C.C.	CONCRETE CURB
C.L.F	CHAIN LINK FENCE
CONC.	CONCRETE
STY.	STORY
TC	TOP OF CURB

REFERENCE MAPS:

1. SECTION NO.74 PROPERTY MAP, TOWN OF BABYLON, DISTRICT NO. 0100, COUNTY OF SUFFOLK, REAL PROPERTY TAX SERVICE AGENCY, COUNTY CENTER, RIVERHEAD, NY 11901.

2. MAP OF LOTS NO.7 AND NO.8 OF THE WESTERN DIVISION OF THE SQUAW PIT PURCHASE KNOWN AS SHEET NO.9 OF THE CITY OF BRESLAW, IN THE TOWN OF BABYLON, SUFFOLK COUNTY, NY, SURVEYED AND DRAWN SEPTEMBER 2, 1913.

VICINITY MAP

SCALE

NO.	DATE	DESCRIPTION

REVISIONS

CERTIFIED BY

PAUL W. WERLER
PROFESSIONAL LAND SUR
NY STATE LIC. No 49875

"UNAUTHORIZED ALTERATION OR ADDITION
SURVEY MAP BEARING A LICENSED LAND
SURVEYOR'S SEAL IS A VIOLATION OF AR
SECTION 7209, SUBDIVISION 2, OF THE NEW
STATE EDUCATION LAW"

"Copies from the original of this survey map
marked with an original of the land surveyor
seal or his embossed seal shall not be con
a valid true copy."

MUÑOZ
ENGINEERING P.C
505 EIGHTH AVENU
NEW YORK, N.Y. 100
TEL. (212) 967-658

BOUNDARY, TOPOGRA
AND UTILITY SURV

NEW YORK STATE D

SPECTRUM FINISHING CORP. REME

50 DALE STREET, BABYL

Date	Project No.	Drawn
04/15/05	40435.01	AK

Survey Date:
02/22/05-04/08/05

Dra

Computer Files:
F:\prjct\40435.01\dwg\50 Dale Street

She