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# FINAL

# SITE MANAGEMENT PLAN

# FORMER BUFFALO SERVICE CENTER SITE (C915194)

# **BUFFALO URBAN RENEWAL AGENCY WEST SITE (C915195)**

FOURTH AND WEST GENESSEE STREETS BUFFALO, NEW YORK



PREPARED

BY

ESC ENGINEERING OF NEW YORK, P.C.

October 2, 2006



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## Site Management Plan Index

Part 1 – Groundwater Monitoring Plan

- Part 2 Soil/Fill Management Plan
- Part 3 Environmental Easement



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# PART 1 - GROUNDWATER MONITORING PLAN

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FOURTH AND WEST GENESSEE STREETS BUFFALO, NEW YORK

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# Acronym List

BSA BTEX °C	Buffalo Sewer Authority benzene, toluene, ethylbenzene, and xylenes Celsius
COIs	constituents of interest
EPA	
	U.S. Environmental Protection Agency
HASP	health and safety plan
IRM	Interim Remedial Measures
MGP	manufactured gas plant
MS/MSD	matrix spike/matrix spike duplicate
NAPL	non-aqueous phase liquid
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
PAHs	polycyclic aromatic hydrocarbons
PPE	personal protective equipment
QA/QC	quality assurance/quality control
SOPs	Standard Operating Procedures
SSALs	Site-Specific Action Levels

#### 1.0 <u>Introduction</u>

This Groundwater Monitoring Plan was prepared in accordance with the Remedial Work Plan/Remedial Action Work Plan (ESC Engineering, August 31, 2005) as approved by the New York State Department of Environmental Conservation, (NYSDEC) and New York State Department of Health (NYSDOH) via correspondence dated October 11, 2005, for the former Buffalo Service Center Site (Brownfield Cleanup Program) site located at the northwest corner of West Genesee and Seventh Streets in Buffalo, New York (Figure 1). The Remedial Work Plan/Remedial Action Work Plan required excavation and off-site disposal of certain soil and fill material that exceeded the Site-Specific Action Levels (SSALs) or contained the presence of non-aqueous phase liquid (NAPL). Soils and soil like fill that met the SSALs were used as below grade fill on-site outside of proposed occupied building areas. As required by the developer, Duke Realty, proposed occupied building areas were excavated to satisfy TAGM 4046 guidelines or until bedrock was encountered. Only TAGM-compliant backfill was placed in proposed occupied building areas.

National Fuel Gas Supply Corporation, the Buffalo Urban Renewal Agency, and the City of Buffalo owned portions of the Brownfield Cleanup site. In connection with the Brownfield Program, Duke Realty has purchased the properties. Duke Realty is currently constructing an office complex which will be leased to HealthNow. Planned occupancy is scheduled for 2007. The main features of the office complex include a six-story building (East Wing), a seven-story connector building, an eight-story building, and an above-ground parking garage. Based on this future development, the Brownfield Cleanup site will continue to be industrial/commercial in nature.

The Remedial Action Work Plan requires monitoring groundwater at the Site following completion of the remedy. It is anticipated that groundwater monitoring for the Site will be conducted for a minimum of 2 years on a quarterly basis using a well network consisting of seven wells. The groundwater samples will be analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX) and polycyclic aromatic hydrocarbons (PAHs). A letter report for each monitoring period will be submitted to the NYSDEC. Based on the findings from the first two years of monitoring, ESC Engineering and NYSDEC will evaluate the effectiveness of the remedial action and the need for additional monitoring. It is believed that no additional

groundwater monitoring will be required after the first 2 years because the Brownfield Cleanup remedial action removed a significant portion of the source of contaminant loading to groundwater from the site and the regional groundwater quality has been affected by hundreds of years of industrial operations on neighboring properties.

#### 2.0 Site Background

#### 2.1 Site Description

National Fuel Gas Supply Corporation, the Buffalo Urban Renewal Agency, and the City of Buffalo owned portions of the Brownfield Cleanup site located at the northwest corner of West Genesee and Seventh Streets in Buffalo, New York. Buffalo Gas Light Company, a predecessor of National Fuel Gas operated a manufactured gas plant (MGP) on the Site from approximately 1848 to 1958. In connection with the Brownfield Program, Duke Realty has purchased the properties. As described in Section 1.0, Duke Realty is currently constructing an office complex which will be leased to HealthNow (Figure 2). Planned occupancy is scheduled for 2007. The Site is currently secured with a chain link fence but will be open to public access after construction is completed. At the time the site is opened to the public, approximately 60 percent of the surface will be covered by buildings; approximately 30 percent of the site will be covered with pavement, and the remaining 10 percent will be covered with a minimum of 12-inches of TAGM compliant soils and seeded.

#### 2.2 Background Information

The conditions at the Site that existed before the remedial actions had been investigated since 1989. The Site was underlain by fill, soil, and bedrock. Groundwater was contained within the overburden materials at depths ranging from 2 to 8 feet below ground surface (bgs) as well as within fractures in the bedrock. In portions of the Site, concentrations of constituents of interest (COIs) potentially related to the former MGP exceeded SSALs. Subsurface fill material covered the majority of the Site in thickness ranging from 4 to 14 feet. The fill consisted primarily of silty sand, gravel, brick fragments, concrete and metal debris, and also contained varying amounts of inert coal gasification residuals such as cinders, slag, ash, and coal fragments. During excavation activities conducted for the remedial action, the fill and soil materials exceeding SSALs were removed from the site.

Underlying the fill was a low-permeability alluvium unit comprised predominantly of fine sand to clayey silt throughout the majority of the Site. However, in some areas, a silty clay unit is found just above the bedrock. Discontinuous lenses of peat are contained within the fill and between the fill and the alluvium. The peat lenses are a few inches to 2 feet thick and are found mainly in the southern and northwestern portions of the Site. The thickness of the alluvium unit ranged from 2 to 12 feet. Nearly 75 percent of the site (by area) was excavated to bedrock completely removing all unconsolidated material from those areas. Bedrock was encountered below the alluvium at depths from 18 to 25 feet bgs. The first bedrock unit is dark gray fractured limestone. Water from the fractures flowed into the excavations.

Groundwater at the Site historically had detectable concentrations of site related COIs, but appeared to have reached a steady state, or a declining constituent concentrations condition. Groundwater is not used for potable or non-potable purposes at the Site or in the surrounding area of the Site.

Constituents identified in Site groundwater consisted primarily of BTEX and PAHs. Groundwater impacts were greatest north of the façade well near the former tar well and at one offsite, upgradient location east of the site (well MW-31). Total BTEX concentrations in these areas ranged from 370 micrograms per liter ( $\mu$ g/l) to 29,500  $\mu$ g/l. Total PAH concentrations in many of these same wells ranged from 780  $\mu$ g/l to 14,500  $\mu$ g/l. Approximately 77 percent of BTEX and PAHs formerly identified in Site groundwater is believed to have been removed during excavation of Site soils. The remaining mass was either removed by the dewatering system or is expected to naturally attenuate.

ESC Engineering of New York, P.C. (ESC Engineering) conducted remedial activities at the Site in accordance with New York State Department of Environmental Conservation (NYSDEC) Brownfield Cleanup Program. The remedial activities specifically addressed Operable Unit-1 (OU-1), portions of Operable Unit-2A (OU-2A [BURA]) of the former BSC site, BURA West, a limited area in the vicinity of RB-27 (portion of BURA East), and adjacent areas which were also excavated to accommodate future development of the site. The remedial action was performed concurrently with the Interim Remedial Measures (IRM) for Operable Units OU-2A (School), OU-2B, and OU-2C.

Excavation was conducted to address environmental conditions as well as to accommodate future development of the site. Outside proposed occupied building areas, excavation was conducted until the Site Specific Action Levels (SSALs) were satisfied or until predefined physical limits of excavation were reached. Within proposed building areas to be occupied by future tenants, excavation was conducted until the Technical and Administrative

Guidance Memorandum 4046 (TAGM 4046) guidelines were satisfied or until predefined physical limits of excavation were reached (e.g. bedrock, façade).

Excavation and off-site disposal of certain soil and fill included material that exceeded the SSALs or contained the presence of non-aqueous phase liquid (NAPL). Excavated soil and fill material that met the SSALs were used as below grade fill for areas of the site outside of the proposed occupied building locations. A minimum of one foot of material meeting the TAGM 4046 guidelines was placed at the surface as required by the Remedial Work Plan/Remedial Action Work Plan. Within proposed occupied buildings footprint areas, only backfill meeting the TAGM 4046 guidelines was placed.

Dewatering activities were conducted in advance of and concurrent with soil excavation activities. Groundwater and storm water collected during the remediation was treated on-site at the groundwater treatment plant to meet the criteria for discharge to the Buffalo Sewer Authority (BSA). A portion of the commingled groundwater and storm water met the discharge criteria without treatment and was directly discharged to the BSA. Groundwater emerging from the bedrock generally met the BSA criteria and was directly discharged. There was no discharge from the site during the remedial action except that permitted under the BSA pretreatment permit.

#### 3.0 Groundwater Monitoring Network

As a significant number of pre-existing monitoring wells were abandoned to accommodate the excavation project, three pre-existing monitoring wells (MW-02-28, MW-09, MW-08) and four proposed wells (MW-01, MW-02, MW-03, and MW-04) will be included in the groundwater monitoring network. Based on the variable groundwater flow directions formerly measured at the site, the four additional wells will be installed to better define the groundwater conditions at the site following the remedial activity (Figure 2).

Groundwater monitoring will be conducted quarterly for a minimum of 2 years using the seven wells described above. The monitoring program will consist of water level measurements to determine hydraulic gradients and groundwater flow direction, collection and analysis of groundwater samples to track the degradation of BTEX and PAHs, and inspection and maintenance of the monitoring wells. Table 1 provides a summary of the existing groundwater monitoring wells in the network. Boring logs for the existing wells are provided in Appendix A.

#### **3.1** Evaluation of Hydraulic Gradients and Groundwater Flow Direction

Groundwater was previously found between 2 to 8 feet bgs in the overburden materials. Groundwater elevation data from Site monitoring wells have suggested radial flow, away from the center of the Site with three major components of flow, one to the south, one to the east, and one to the north. The nature of the flow is more likely the result of anthropogenic influences; deep sewer lines to the north, south and east immediately adjacent to the property line and the buried Wilkeson slip to the north. However, the materials within the former slip were removed during the remedial activities conducted at the adjacent school site, low permeability fill was placed in the sewer and under the school, and therefore current and future groundwater movement across this area is expected to vary from previous conditions. Water level measurements will be collected from all wells in the network during the monitoring program to provide a better picture of the current groundwater flow regime, post-excavation and backfilling. Monitoring wells at the 4 New Seventh Street site will also be used for collection of water level measurements. The data will be used to develop contour maps of the groundwater surface.

#### 3.2 Evaluation of Groundwater Chemistry

Groundwater samples will be collected quarterly from the seven site monitoring wells for laboratory analysis of BTEX and PAHs following U.S. Environmental Protection Agency (EPA) Methods 8260 and 8270, respectively. The following list are those wells remaining at the site for inclusion in the monitoring program:

- MW-02-28
- MW-09
- MW-08

Upon completion of the installation of the four new monitoring wells, they will be incorporated into the monitoring program. The existing and proposed locations are shown on Figure 2. The monitoring program will be evaluated after 2 years to determine if any further monitoring is necessary.

Natural biological degradation and attenuation processes will continue to occur in groundwater beneath the site to achieve remedial objectives. The natural processes that are at work include a variety of physical, chemical, or biological processes that act to reduce the mass, toxicity, mobility, volume or concentration of COIs in groundwater. As the site is surrounded by other industrial legacy sites, achievement of a defined numerical standard is unlikely and is not considered a reasonable goal for this site. The groundwater conditions will likely be evaluated on a qualitative basis, while considering that satisfying numerical standards is not realistic. Initially, because the water has been removed from the site, groundwater will flow into the side from all directions and from below. The inflowing groundwater will carry the residuals from hundreds of years of industrial history in this area of Buffalo. However, after reestablishment of the steady state groundwater regime, a naturally improving trend should become evident.

#### 3.3 Groundwater Monitoring Well Installation

Four additional groundwater monitoring wells will be installed in the locations shown on Figure 2. The wells will be installed using the hollow stem auger drilling method. Borings for the wells will be completed to the top of bedrock. The wells will be constructed with 2-inch PVC casing and screen (10 feet length with 0.10-inch slot size). Sand will be placed in the annular space surrounding the screen from the bottom of the borehole to approximately 2 feet above the top of the screen. This will be followed by a 2 foot-thick bentonite seal above the sand. A cement-bentonite grout mixture will fill the remaining annular space from above the benonite seal to approximately 1-foot below the surface. The wells will be completed with a flush mount steel well cover and lockable well cap. A diagram showing construction details for a typical well is included in Figure 3. The wells will be installed to the top of bedrock similar to the existing wells (see Appendix A). The proposed wells will be screened across the lower portion of the fill and, if present, within the alluvial sediments to evaluate groundwater moving through the clean fill materials and the lower alluvial sediments that lie atop bedrock. The wells will be installed by a New York State-licensed driller, and oversight and instruction will be conducted by an ESC Engineering representative. Following installation, the wells will be surveyed by a New York State-licensed surveyor.

#### **3.4** Well Inspection and Maintenance

The existing monitoring wells remaining at the site have not been sampled in several years. Before the first sampling event, each well will be inspected for damaged locks, protective covers, and seals and repaired or replaced. In addition, the total depth of each well will be measured to determine if silting has taken place since installation. Finally, each well will be developed to ensure proper movement of groundwater through the well screen. Development will be conducted using a surge block or submersible pump.

All of the wells in the groundwater monitoring network will be inspected during each subsequent sampling event. Damaged locks, protective covers, or seals will be noted and replaced as soon as practicable. Well identification labels will be inspected for legibility and maintenance will be performed as necessary.

#### 4.0 <u>Field Procedures</u>

ESC Engineering will complete all field activities, including note taking, water level measurements, and the collection, labeling, and shipping of groundwater samples in accordance with ESC Engineering's Standard Operating Procedures (SOPs).

#### 4.1 **Pre-Sampling Procedures**

Work tasks to be completed before sample collection include procurement of sampling equipment and containers, and inspection and calibration of all field equipment.

#### 4.1.1 Equipment Procurement, Inspection, and Calibration

Before mobilizing to the site, sampling personnel will procure the necessary equipment to conduct the sampling event, including a water quality meter, a water-level indicator, and bailers. The water quality meter will be capable of measuring groundwater temperature in degrees Celsius (°C), pH in standard units, and specific conductivity in micro-ohms per centimeter. Water quality measurements can be measured using a single device (e.g., a Horiba U-10 or U-22 water quality meter) or multiple meters.

Static water levels and total well depths will be measured with an electronic water-level indicator capable of measurement to the nearest 0.01-foot. The cables and reels will be inspected for kinks, twists, or damage that could influence measurements. Any irregularities will be noted in the field notebook.

The wells will be purged and sampled using a bailer or a peristaltic pump set at a low flow rate. All disposable equipment will remain sealed in plastic until ready for use.

Field instruments not owned by ESC Engineering will be rented from an environmental equipment vendor. All equipment will be inspected to verify that it is in good working order before sampling activities begin. Instrument calibration will be conducted onsite using factory prepared solutions and in accordance with manufacturer specifications. Manufacturer-supplied manuals describing calibration, maintenance, and field operating procedures will accompany the instruments in the field.

#### 4.1.2 <u>Procurement and Preparation of Sample Bottles</u>

All groundwater samples will be analyzed for BTEX and PAHs by EPA Methods 8260 and 8270, respectively. ESC Engineering will coordinate delivery of the appropriate sampling

containers with STL Buffalo of Buffalo, New York. All sampling containers will be laboratory pre-cleaned and will contain the appropriate preservative (i.e., hydrochloric acid for VOCs). On receipt in the field, sampling personnel will inspect the sample containers for integrity and completeness. A trip blank will be supplied by the laboratory and will accompany the samples at all times.

#### 4.1.3 Storage and Handling of Sampling Equipment

All non-dedicated downhole equipment will be decontaminated before being placed in each well by washing with non-phosphate soap and water followed by a deionized water rinse. Disposable equipment will remain sealed in plastic until ready for use.

#### 4.1.4 Personal Protective Equipment

A site-specific health and safety plan (HASP) that details the known and expected hazards and the required personal protective equipment (PPE) will be available onsite during the sampling events. All groundwater sampling activities will be performed in accordance with the site-specific HASP. Field activities will be implemented in standard Level D PPE. Level D PPE includes steel toe boots, long sleeved shirts, and pants or coveralls. In addition, disposable nitrile gloves will be worn during pre-sampling and sampling activities. The nitrile gloves will be changed at each monitoring well location or more frequently if they become soiled or torn.

#### 4.1.5 Field Records

All sampling activities will be recorded with indelible ink in a bound, waterproof, surveytype field logbook. The field logbook will include enough information to reconstruct the sampling events. This information will include, at a minimum, the following:

- field equipment used
- field measurements, including water levels and geochemical parameters
- measurement, purging, and sample collection times
- purge volumes
- visual observations (e.g., water color/odor)
- physical condition of wells
- purge/decontamination water handling
- sample identification numbers (including quality assurance/quality control [QA/QC] samples)
- sample parameters

- sample collection time
- names of sampling personnel
- weather conditions

#### 4.1.6 <u>Water-Level Measuring Techniques</u>

Before beginning the well purging process, groundwater elevations will be measured using an electronic water-level meter. Groundwater levels will be allowed to equilibrate by removing the well covers and allowing the wells to stand uncapped at least 15 minutes before the water level is measured. Depth-to-water and total well depths will be measured from the surveyed reference mark at the top of the well casing to the nearest 0.01-foot. The wells will be gauged in the order of increasing constituent concentrations to limit the possibility of cross contamination. The measurements and time of measurement will be recorded in the field logbook. The total depth and depth-to-water measurements will be used to calculate the volume of water to be purged from each well.

#### 4.1.7 <u>Well Purging Techniques</u>

To obtain representative samples, each well will be purged by removing a minimum of three well volumes. A single well volume will be calculated from the groundwater elevation data using the following equation:

H (gal) = (TD [feet] – DTW [feet])(3.14)(CID [inches])<sup>2</sup>(7.48 [gal/ft<sup>3</sup>])/(12 [inches/ft]<sup>2</sup>(4))

H (gal) = (TD [feet] – DTW [feet])(CID [inches])<sup>2</sup>(0.041)

Where:

H = well volume

TD = total depth of well

DTW = depth to water

CID = casing inside diameter

The wells will be purged using a bailer or a peristaltic pump set at a low flow rate. Water quality parameters (pH, specific conductance, turbidity, and temperature) will be measured before, during, and after purging. Purging will be considered complete when three volumes or more have been removed and turbidity readings are less than 50 NTU. Wells evacuated to dryness before the removal of three well volumes will be considered purged.

#### 4.1.8 Laboratory Notification/Verification

A copy of the chain-of-custody form will be sent to ESC Engineering's chemist at the completion of the sampling activities. Either a field team member or the chemist will notify the laboratory of the number of samples in transit and their expected arrival time. A field team member or the chemist will also request verification of receipt of the samples by the laboratory. Independent verification of the sample delivery will be made via the airbill electronic tracking number.

#### 4.2 Sampling Procedures

Sampling procedures include collection of field measurements, collection of groundwater samples, completion of the chain-of-custody form, and labeling, packaging, and shipping samples to the laboratory for analysis. All sampling will be done in accordance with ESC Engineering's SOPs.

#### 4.2.1 Field Measurements and Sampling Equipment

Groundwater samples will be collected when three well volumes or more have been purged and field measurements for two consecutive volumes have stabilized to within 10 percent. The wells will be sampled using a dedicated bailer. All wells will be sampled within two hours of purging provided the well has sufficiently recharged.

#### 4.2.2 Sample Parameters and Handling Techniques

All groundwater samples will be analyzed for BTEX and PAHs using EPA Methods 8260 and 8270, respectively. Sample aliquots will be poured directly from the bailer into 40-ml sample bottles containing hydrochloric acid as a preservative for BTEX analysis and into two amber 1-liter sample bottles for PAH analysis. The samples for BTEX analysis will be collected so that no headspace exists in the containers above the liquid. The bottles will be labeled with the following information:

- sample identification number
- date and time of sample collection
- sample location (i.e., site name)
- preservative used
- analytical parameters requested
- type of sample (grab)

The filled sample bottles will be placed into shipping containers (e.g., coolers) and chilled to approximately 4°C with bagged ice. The sample containers will be subsequently packed before shipping with additional ice, bubble wrap, or other packaging material to prevent breakage during transit.

#### 4.2.3 Field Quality Assurance/Quality Control

Field QA/QC will include the collection and analysis of duplicate groundwater samples, field equipment blanks, and trip blanks. One blind duplicate sample will be collected per sampling event to evaluate the reproducibility of the sample collection and analytical procedures. The duplicate groundwater sample will be collected by alternately filling the environmental sample and the duplicate sample containers. The sample container will be labeled with a false name and time so that the laboratory cannot distinguish which sample is the duplicate. The correct sampling date, location, and time will be recorded in the field log book.

One trip blank will accompany each cooler from the laboratory to the field and then to the laboratory to assess potential cross contamination during transit. The trip blanks will be prepared by the laboratory and will remain in the coolers at all times.

An equipment blank will not be necessary because all bailers used for groundwater sampling will be dedicated to each respective well. All non-dedicated downhole equipment will be decontaminated before each use with a non-phosphate soap and water wash followed by a deionized water rinse.

The sample matrix (groundwater) will be examined to evaluate its affect on the analytical protocol. Examination will be performed by analysis of one matrix spike/matrix spike duplicate (MS/MSD) for every 20 groundwater samples of the sample matrix. If less than 20 samples of this matrix are collected, one MS/MSD will be collected.

#### 4.2.4 Sample Shipping and Chain-of-Custody Procedures

Sample custody is controlled and maintained through a set of chain-of-custody procedures that track the possession and handling of the samples from the field to the laboratory. A sample is considered to be in an individual's custody if it is physically in their possession or stored in an appropriate shipping container that has been secured to prevent tampering.

ESC Engineering field personnel will be responsible for the custody of samples from the time they are collected until they are transferred to the laboratory. The cooler will remain in the sampler's view or locked in the sampling vehicle for temporary storage.

A chain-of-custody form will be completed during the sampling event to account for each sample. The chain-of-custody form will identify:

- the project name and number
- the sampling location
- the names and signatures of the sampling personnel
- the date and time of sample collection
- the sample matrix
- the unique sample identification number
- the analyses and turnaround times requested
- number of bottles submitted for analyses
- the name and location of the laboratory
- the shipper's air bill numbers
- the chain of custody seal numbers

A copy of the chain-of-custody form will accompany each sample shipment. The sampling team will sign, date, and note the time on the chain-of-custody form before shipping the samples. The completed original chain-of-custody form will be placed in a plastic bag, sealed, and taped to the inside lid of the shipping container. If multiple shipping containers are used, separate chain-of-custody forms will be placed in each container. Signed and dated custody seals will be placed on each sample cooler before shipping to verify that the container was not opened or tampered with in transit. ESC Engineering will retain the carbon copy of the completed chain-of-custody form as part of the project file.

The laboratory will assume custody of the samples upon receipt. A designated laboratory sample coordinator will record the condition of the custody seal, note the time and date of sample receipt, and sign the chain-of-custody form. The sample coordinator will immediately inspect the shipment for damage and completeness and report any problems to ESC Engineering. The laboratory sample coordinator will then complete the appropriate laboratory tracking forms and logs. The sample coordinator will review all incoming paperwork. Once the information

has been verified, the ESC Engineering chemist or project manager will be contacted if there are any problems or discrepancies. The laboratory is responsible for the custody of the samples from the time of sample receipt to the time of disposal.

#### 4.2.5 Disposal of Purge and Decontamination Water

All purge and decontamination water will be temporarily stored in drums on the day of sampling. Ontario Specialty will be contracted to remove all drums at the close of each day and arrange for appropriate disposal. There will be no long term storage of drums on Site.

#### 5.0 <u>Laboratory Handling and Analytical Protocols</u>

ESC Engineering has selected STL Buffalo of Buffalo, New York, for analysis of all groundwater sampling associated with the Site. A summary of procedures that the laboratory must abide by is described in the following sections.

## 5.1 Laboratory Sample Handling and Analytical Methods

The laboratory is responsible for the integrity of the samples from receipt, through analysis, and until the samples are destroyed. The laboratory will verify that all appropriate holding times for BTEX and PAH samples are met. STL Buffalo cut is certified for BTEX and PAH analysis in the applicable categories under the New York State Department of Health Environmental Laboratory Approval Program. Analysis will be performed in accordance with the following guidance documents:

- NYSDEC Analytical Services Protocol Category B 2005
- EPA, 1986, "Test Methods for Evaluating Solid Wastes, Physical Chemical Methods," SW-846, 3rd Edition, with relevant updates.
- EPA, 1983, "Methods for Chemical Analysis of Water and Wastes," EPA 600/4-79-020.

The laboratory will have documented QA programs that comply with the EPA guidance. The laboratory will be responsible for documenting in each data package that both initial and ongoing instrument and analytical QC have been met. The laboratory will reanalyze any samples where method specific QC criteria are not met when sufficient sample volume is available and the holding time is not exceeded. The laboratory will report both sets of data when reanalyses are performed.

## 5.2 Data Reduction, Validation, and Reporting

STL Buffalo will generate, review, and report appropriate QC data to document the validity of the analytical results. Data reports will include at a minimum the following information:

• Analytical test methods and results for submitted samples, with appropriate data quality notations.

- A narrative of samples received and an explanation of qualifications regarding data quality and other significant items encountered during analysis. This narrative should discuss any QA/QC deficiencies or problems such as calibration or tuning criteria problems, if present. The minimum QC requirements to be provided on a routine basis will include:
  - surrogate recovery data
  - laboratory control spike data (i.e., blank spike)
  - MS/MSD data
  - laboratory blank data
  - systems monitoring and internal standards data
  - calibration curve and verification
  - sample summary forms

Data points beyond QC limits and data omissions will be identified and attempts will be made to correct such data deficiencies. The potential need for resampling will be evaluated based on the magnitude and the significance of the data deficiencies to the overall monitoring program. Samples will not be recollected if QC criteria are not met due to sample matrix interference.

#### 6.0 <u>Reporting Requirements and Schedule</u>

A letter report for each monitoring event will be submitted to the NYSDEC. The report will include a summary of the sampling procedures, details of the analytical results, and a quality assurance review of the data. At the completion of 2 years, the monitoring program will be evaluated to determine if remedial activities were effective, and recommendations for future monitoring will be presented.

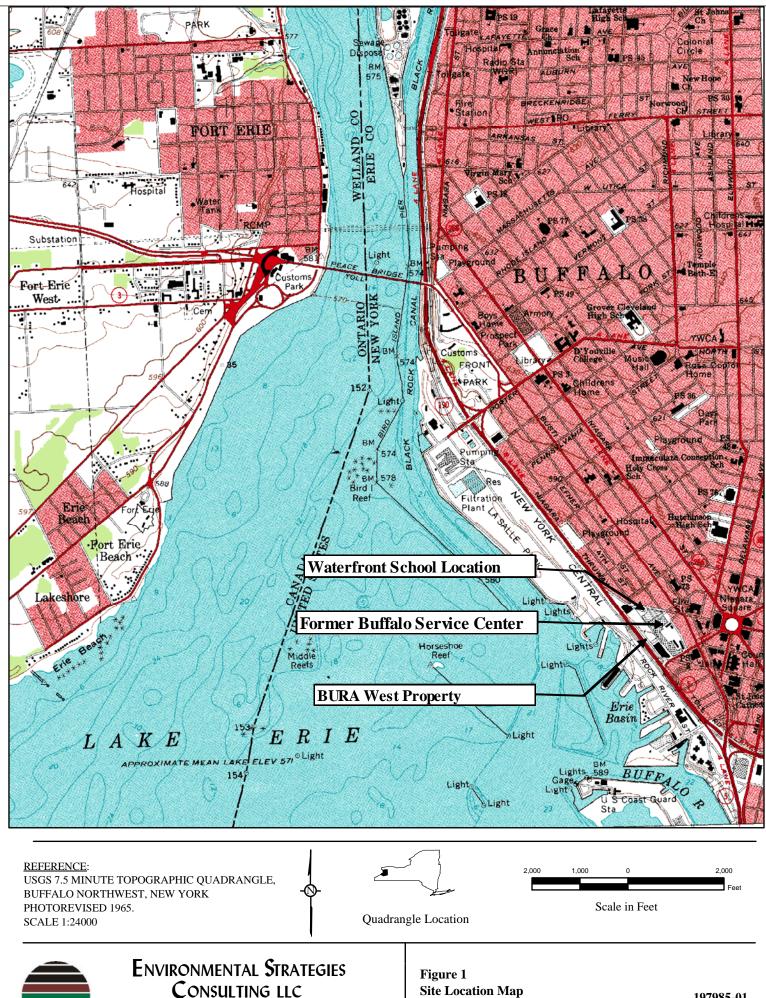
The monitoring program reports shall include a summary of the following:

- Sampling events
- Analytical data
- Supporting QA/QC documentation for groundwater sampling results
- Groundwater elevation measurements
- Groundwater flow direction(s)
- Qualitative risk analysis (quality, direction, and potential exposures)
- Concentration trend analysis
- Evaluation of well integrity and recommendation for maintenance, as necessary

The first quarterly groundwater sampling event will occur in the fall of 2006, following approval of this groundwater monitoring plan by the NYSDEC. This will allow for final placement of the proposed groundwater monitoring wells following substantial construction of the proposed buildings as well as allowing groundwater to start to equilibrate.

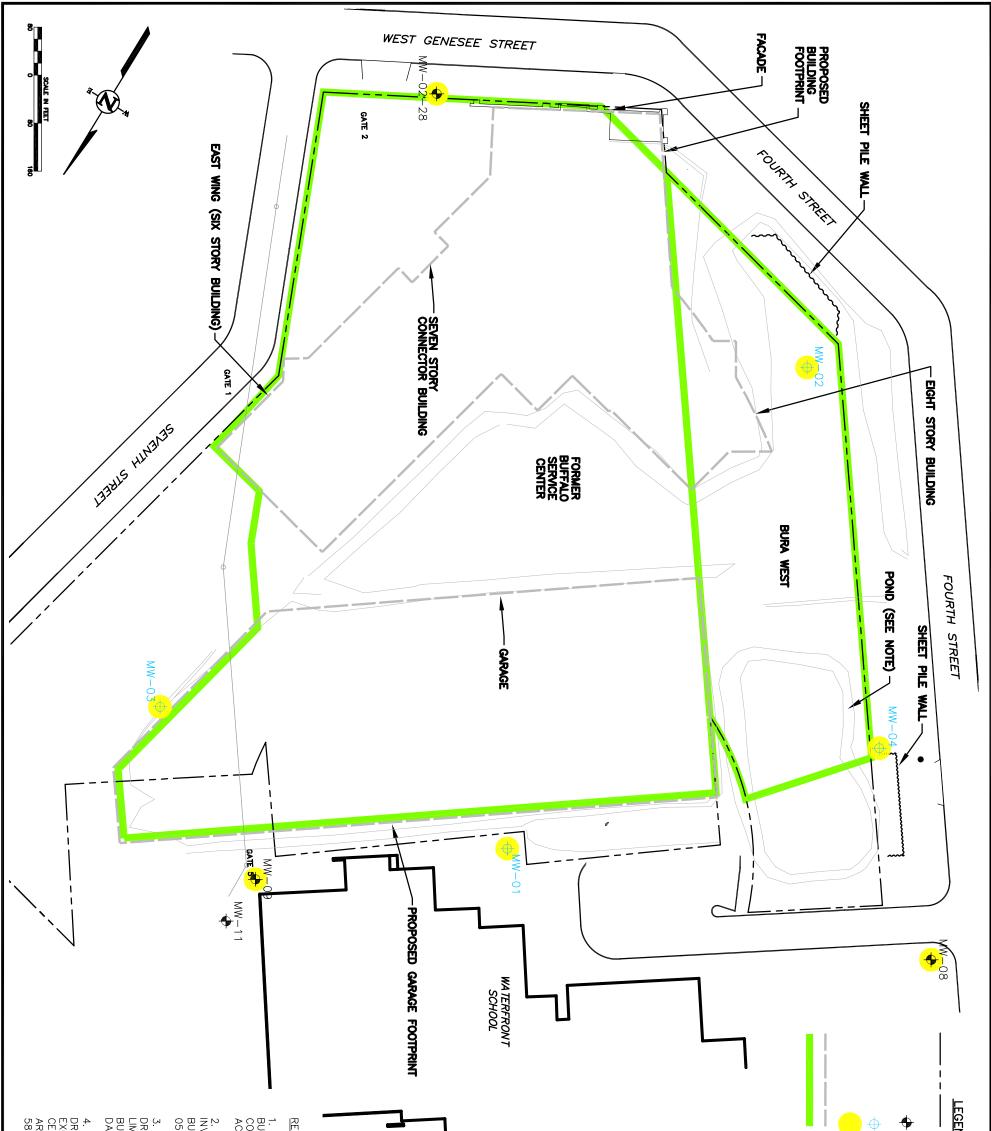
Figures



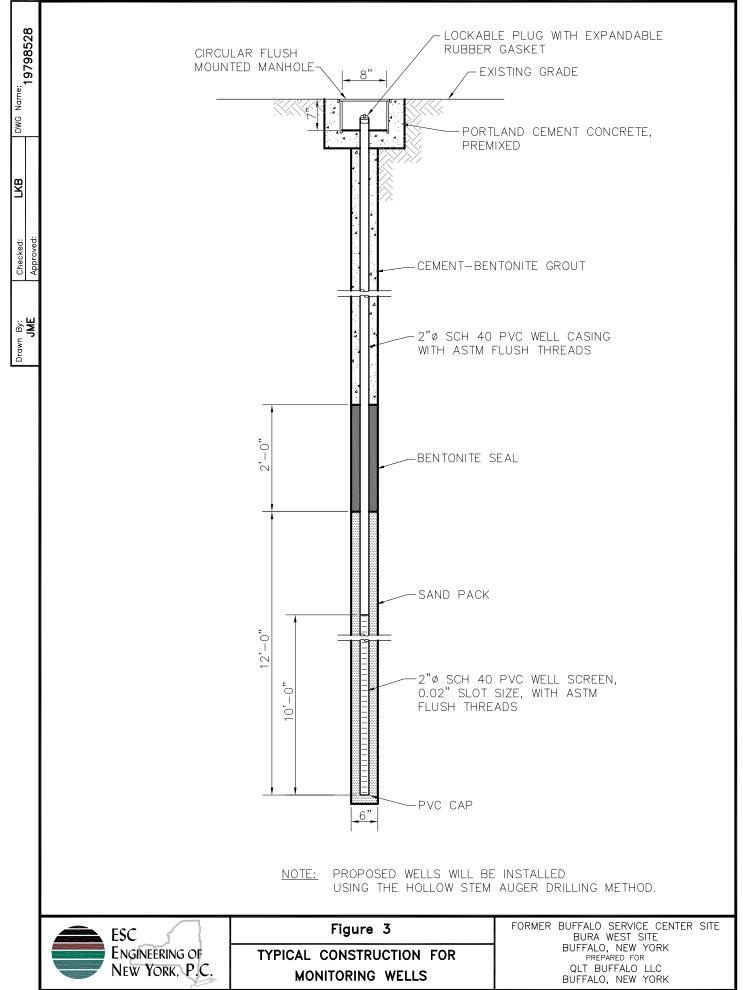


300 CORPORATE CENTER DRIVE, SUITE 200 MOON TOWNSHIP, PA 15108 412-604-1040 **Former Buffalo Service Center Buffalo, New York** 

197985-01



<ol> <li>RELEC FIGURE FOR BUFFALO SERVICE CENTLER, BUFFALO, NY, NFGD1-15979-500 TITLED EXISTING CONDITIONS, AREAS OF CONCERN AND PROPOSED ACTIONS, FIGURE PPT-1.</li> <li>LCS INC. DRAWING TITLED, "FIGURE 3- SITE INVESTIGATION PLAN, BURA 4th STREET SITE, BUFFALO, NEW YORK, APRIL 2005", PROJECT # 05B341.22. APPROXIMATE SCALE: 1"=65'</li> <li>NIAGARA BOUNDARY AND MAPPING SERVICES DRAWING TITLED, "MAP SHOWING EXCAVATION LIMITS OF FORMER BUFFALO SERVICE CENTER AND BURA WEST AREA, AREA OU1 REMEDIAL AREAS", DATED JANUARY 2006, JOB NO. 5822-05.</li> <li>NIAGARA BOUNDARY AND MAPPING SERVICES DRAWING TITLED, "MAP SHOWING BACKFILLED EXCAVATION AREA OF FORMER BUFFALO SERVICE CENTER AND BURA WEST AREA, OU1 REMEDIAL AREA", DATED FEBRUARY 2006, JOB NO.</li> </ol>		<ul> <li>PROPOSED BUILDING/GARAGE FOOTPRINT BROWNFIELD CLEANUP PROGRAM SITE BOUNDARIES</li> </ul>	<ul> <li>SEND</li> <li>→ PROPERTY LINE</li> <li>TEMPORARY FENCE LINE (APPROXIMATE)</li> <li></li></ul>
ESC	Figure 2	FORMER BUFFALO SERVICE CENTER SITE BURA WEST SITE	Drawn By: <b>RAZ 071006</b>
Engineering of New York, P.C.	SITE LAYOUT AND GROUNDWATER	BUFFALO, NEW YORK PREPARED FOR QLT BUFFALO LLC	Checked: <b>GER 7/10/06</b>
11911 Freedom Drive Suite 900 Reston, Virginia 20190 (703) 709-6500	MONITORING WELL LOCATIONS	BUFFALO, NEW YORK	Approved: DWG Name: <b>197985-B01</b>



Table

#### Table 1

#### Existing Monitoring Well Information Former Buffalo Service Center Site Buffalo, New York

	Well <u>Depth (feet)</u>	Casing <u>Diameter (inches)</u>	Screen <u>Length (feet)</u>	Casing <u>Elevation</u>	Ground Surface (a) <u>Elevation</u>	<u>(a)</u>
MW-09	19	2	12	582.69	580.50	
MW-02-28	18	2	10	582.10	582.64	
MW-08	22	2	15	583.43	581.45	

a/ feet above mean sea level

Appendix A – Monitoring Well Boring Logs

							Borehole Well	Log MW-02-28	Sheet 1 of 1
roject	•	FG Buff	1	vc, C	tr.,		Drilling Contractor: Parratt Wolff	Auger O.D. C	asing I.D.
oject	#: N	IFGD1-1	5979				Driller <b>D. Waris</b>	Protective Casing: Matl:	Dia;
		The Sh	aw G	irou	), inc.		Method: HSA	Screen: Matt.	Type: Slotted
gge							Easting: 4968.14	Dia: Size:	interval 8-18"
ate(s							Northing: 4955.17	Surface Completion: Grout	t
	<u>.                                    </u>	vel Durin		-			Ground Surface Elevation: 582.65	Back Fill: Grout	
<b>v</b> va	ter Le	evel Upon	24				Measuring Point Elevation:	Filter Seal: Bentonite	
5	₽	E		Ъ.	ace ace	e co	Total Depth: 18	Filter Pack: sand	
(the mail)	Depth (ft)	Recovery (%)	Blow Counts	Sampler Type	Headspace (ppm)	USCS Material Code	Material D	escription	월 5 영 2 Construction Log
	0 -		2			FI	0 - 0.5": FILL: dry - moist, brown; roots.		
	ļ -		2 5 4			FWSP	0.5 - 2: FILL: SAND, T; dry-moist, brown	n.	
580	2 -	`60 ¥.	3 4 4 5		126	SM	2-4: SAND, f; dry-moist; and SILT, mo black staining w. white chips @ approx.		
	4 : 5 -	<b>60</b>	1 1 2 2		٥	MĽ.	4-0': \$ILT, moist, areas of orange-brown f. @5' \$AND, m.	and black; and CLAY; some SAND,	
575	°6 -	70	4 3 3		D	ÎNE.	6 - 7.5 : SILT, very moist, brown, areas o		
<b>970</b>	8 -	80	1		0.		7.5 7.8': SAND, m, very moist, gray ;	<ul> <li>A state of a state way as a second state.</li> </ul>	
		<b>"</b>	1		ľ	ML	7.8 8: SILT, very moist, brown; and S		
	0		2	<b> </b>		ML/SP	8 - 9'; SILT, very moist, brown; and CL		
	10	ļ.	<b>–</b>				9 - 10': ŞILT, moist crumbly, dark brow	n; and SAND, f; roots; PEAT-like.	
	11	90	1 1 2 6		146	REAT	10 - 11.5': PEAT-like, moist, dark brown		
	12	<u>.</u>			Į. –	SP	11.5 - 12": SAND, v.f., moist, light brow	n'- gray.	
570		60	11 14 15		0	ML.	12 - 13: SILT, moist, brown; and CLAY;	some SAND. 1	
	13		17			SM	13 - 14" SAND, 1, moist - wet, light brou	n gray; and SILT:	
	14 15		10 11 13 14		D	SM	14 - 16': SAND, f, wet, light brown - gra	y; and S(LT:	
	16 17	- 90 -	14 7 9 7		D.	SM	18 - 17:5": SAND, f, wet - saturated, lig	nt brown - gray; and SILT:	
		1	17			1			

\*\*\*

here."

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Centractur				1	PARSONS ENGINEERING SCIEN	
	S/B Servicer lase				DRILLING RECORD	BORING NO. MW-9 (SB-1
Nitier	Doe Betzer			•		
spector.	George Hee	BARCC .			PROJECT NAME BURA - Fourth Street Sile	Sheet I of S
is Type	CME 75		_		PROJECT MUNIBER 732260	Location. Outside Fenced Area
ethod:	4.25-inch H	SA/SS				
bservatio	วกร				Weather Sunny, 70 degrees	O
epth of Water	r					South and of
iver Elevation	•				Date/Time Start 5/11/98 1505	Waterfront School MW-9
op of Boring I	Elevation					──────
					Date/Time Finish 5/11/98 1459	
10	Sample	Sample	Rec.	SPT	FIELD IDENTIFICATION OF MATERIAL	COMMENTS
Reading	Cede	Depth	(11)			(Hendspace) (Well Construction
						+2.
		0				0.0
0.00	<u> </u>	ĩ		1-3	Topsoil for 1' then black slag, coal brick in fine Sand and	0.0 ppm
0.00	SS-1	2	2.0	5-6	Silt, moist	Fill
0.00		3			mixed fill, cement, black sand and silt, trace clay, coal,	
0.00				5-6		0.0 ppm 3.0'
0.00	SS-2	4	1.4	3-4	moist	Fill
0.00	00.0	5		2-1	Black sandy fill to 5.5', then brown Sandy silt, trace Clay	0.0 ppm
	SS-3	6	1.5	1.1	moist to wet	Fill 6.0
0.00		7		w-1	Black Silt and Fine Sand, trace Clay, wood, gravel,	0.0 ppm 7.0
	SS-4	8	1.7	4-5	slag, coal, then tan fine Sand and Silt, wet dilatent	Fill
0,00		9		3-4	Red and gray Silt and fine Sand, wet, dilatent, trace Clay	0.0 ppm
	SS-5	10	1.7	7-5	in laminae, trace ine Gravel	SM
0.00		11		4-5	Same as 8' to 10'	0.0 ppm
	SS-6	12	15	6-9		SM
0,00		13		4-1	Same as 10'-12' to 12.6 then Red brown Silty Clay, trace	0.0 ppm
	SS-7	14	1.6	1-2	very fine Gravel, wet, soft	SM-CL
0.00		15		1-3	Red brown Silt and fine Sand, trace Clay, wet dilatent silt	0.0 ppm
	SS-8	16	1.5	5-7	1	SM
0.00		17		4-5	Grayish red Silt and fine Sand, wet, dilatent	0.0 ppm
	SS-9	18	2.0	5-5		SM   −[]
0.00	<u> </u>	19		2-1	Gray red Silt and fine Sand, trace very fine Gravel, trace	0.0 ppm
	SS-10	20	0.8	50/.2	(-) Clay, wet Auger refusal at 19	SM 19
					Top of rock at 19	
			_		-	
					4 <sup>,</sup>	
				<u> </u>	4	
	-				4	
					1	
		+			Complex collected: \ GN00D K! R: \GN00H 14'. 16'	1 1
					Samples collected: MW09D - 6'-8'; MW09H - 14'-16'	
					Samples collected: MW09D - 6'-8'; MW09H - 14'-16'	
,					Samples collected: MW09D - 6'-8'; MW09H - 14'-16'	
					Samples collected: MW09D - 6'-8'; MW09H - 14'-16'	
·		, , ,			Samples collected: MW09D - 6'-8'; MW09H - 14'-16'	
,		, , ,			Samples collected: MW09D - 6'-8'; MW09H - 14'-16'	
					Samples collected: MW09D - 6'-8'; MW09H - 14'-16'	
					Samples collected: MW09D - 6'-8'; MW09H - 14'-16'	
					Samples collected: MW09D - 6'-8'; MW09H - 14'-16'	
					Samples collected: MW09D - 6'-8'; MW09H - 14'-16'	
					Samples collected: MW09D - 6'-8'; MW09H - 14'-16'	
					Samples collected: MW09D - 6'-8'; MW09H - 14'-16'	
					Samples collected: MW09D - 6'-8'; MW09H - 14'-16'	
STAND	ARD PEN				SUMMARY: 2° ID Schedule 40 PVC Well Riser (7-+2.5')	
STAND	<b>\$</b> 5 -	SPLIT S	POON		SUNDARY: 2° ID Schedule 40 PVC Well Riser (7-+2.5') 2° ID Schedule 40 PVC, 0.010° storted Well Scree	a (19-7.0)
	<b>\$</b> 5 -	SPLIT S	POON TUBE		SUNMARY: 2° ID Schedule 40 PVC Well Riser (7-+2.5') 2° ID Schedule 40 PVC, 0.010° stored Well Scree Filter Sand (20.7-5.0')	ta (19-7.0) Bentonite Grout, Carb Box, and pad (1.9-0.0)

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# FINAL

# PART 2 – SOIL/FILL MANAGEMENT PLAN

# FORMER BUFFALO SERVICE CENTER SITE (C915194)

# **BUFFALO URBAN RENEWAL AGENCY WEST SITE (C915195)**

FOURTH AND WEST GENESSEE STREETS BUFFALO, NEW YORK

# Contents

1.0	Overview and Objectives							
2.0	Nature and Extent of Contamination							
3.0	Contemplated Use							
4.0	<b>Man</b> 4.1 4.2 4.3	<b>agement of Soils</b> Reporting Excavated Soil Disposal Fill Material	4 5 5 6					
5.0	Refe	rence	7					

# Appendices

Appendix A – Annual Certification Form

Page

#### 1.0 Overview and Objectives

This Soil/Fill Management Plan pertains to the former Buffalo Service Center and the BURA West properties, as described in detail in the Remedial Action Work Plan (ESC Engineering, 2005) pertaining to the Brownfield Cleanup Program, including the metes and bounds of the subject properties. The objective of this plan is to set guidelines for management of soil and fill material during any future activities after remediation and initial development which would involve excavation of soil/fill at the properties from depths of 12-inches below finished grade.

This plan also requires that a passive vapor barrier be incorporated into the foundation and/or grade slab design of future occupied buildings. A vapor barrier is not required under parking structures. The passive vapor barrier design shall satisfy the requirements of the New York State Department of Health.

There is no plan for occupied buildings at other areas of the Brownfield Site. ESC Engineering believes that a passive vapor barrier will eliminate the potential route of exposure based on the following information:

- the building footprint excavation will satisfy TAGM criteria or extend to the elevation of bedrock
- groundwater conditions are expected to improve as compared to pre-existing conditions due to significant mass removal realized via excavation
- the day care facility is not planned for this site
- groundwater conditions will be monitored following excavation
- the vapor barrier will prevent movement of any residual BTEX vapor through the foundation of the building
- the property will be used for commercial purpose, not residential

#### 2.0 <u>Nature and Extent of Contamination</u>

The constituents of interest (COIs) related to the former Manufactured Gas Plant, plumbing facility, and other historical users of these properties, consist primarily of benzene, toluene, ethylbenzene, and xylenes (BTEX) and polycyclic aromatic hydrocarbons (PAHs). Some metals are also present to lesser extents. Volatile organic compounds (VOCs), other than BTEX, are not typically present in the soil. Likewise, semi-volatile organic compounds (SVOCs) other than PAHs are not typically present in the soil. Section 2.0 of the Remedial Work Plan/Remedial Action Work Plan (RAWP) provides detailed information pertaining to the environmental conditions before remediation. After completion of the remedial action, conditions will satisfy site-specific action levels (SSALs) (Section 3.0 of the RAWP) developed for industrial/commercial use.

As a component to satisfying the SSALs, the surface soil (12 inches) will satisfy TAGM 4046. Surface soils in the green space will be replaced to a depth of 24 inches. Therefore, this plan does not apply to any future work within the top 12-inches of soil at the site.

## 3.0 <u>Contemplated Use</u>

The contemplated future use of the property is commercial/industrial. Proposed development includes construction of an office complex, retail shops, parking garage, and paved and vegetated surfaces. Any other use must be approved by the New York State Department of Health (NYSDOH).

The purpose of this section is to provide guidelines for management of excavated subsurface soil (greater than 12 inches) and fill during any future intrusive work which involves excavation of soils/fill at the properties.

The following conditions are included:

- Any excavation, including construction or utilities work, must be replaced or repaired using an acceptable borrow source. The disturbed area must be covered with at least one foot of clean soil and reseeded or covered with impervious product to match pre-existing conditions.
- Surface erosion and run-off must be controlled during construction activities.
- Soil that is excavated from the properties, and is intended to be removed from the property, must be managed, characterized, and properly disposed of in accordance with NYSDEC regulations and directives as described in Section 4.2.
- Excavated soil may be reused as backfill material provided it satisfies the SSALs developed for this plan as follows:

Surface Soil (12 inches)	TAGM 4046 concentrations for all parameters		
Subsurface Soil	10 mg/Kg total BTEX,		
	500 mg/Kg total PAHs,		
	1 mg/Kg (or TAGM value, whichever is greater) individual		
	BTEX compounds,		
	50 mg/Kg individual PAHs,		
	1,000 mg/Kg total lead		
	1,000 mg/Kg total cyanide		
	45 mg/Kg total arsenic		
	10 mg/Kg total mercury		
	No NAPL (Non-Aqueous Phase Liquid)		

- Any fill material imported for filling and grading purposes shall be from an acceptable borrow source free of industrial and/or other potential sources of chemical or petroleum contamination. Off-site borrow sources should be subject to collection of one representative composite sample per source. The sample should be analyzed for TCL VOCs, SVOCs, pesticides, PCBs, and TAL metals plus cyanide. The soil will be acceptable for use as cover material provided that all parameters meet the NYSDEC recommended soil cleanup objectives included in TAGM 4046.
- Prior to any construction activities, workers are to be notified of the site conditions with clear instructions regarding how the work is to proceed. Intrusive work will be performed in accordance with all applicable local, state, and federal regulations to protect worker health and safety.

### 4.1 Reporting

Environmental Easements (a type of institutional control, Part 3) shall be maintained for the properties as a result of the Brownfield Cleanup. As a result, the Owner shall complete and submit to the Department an annual report by January 15<sup>th</sup> of each year. Such annual report shall contain certification that the institutional controls put in place, are still in place, have not been altered and are still effective; that the remedy and protective cover (first 12 inches of soil) have been maintained; that the conditions at the site are fully protective of public health and the environment; and should indicate any changes in site use. The Annual Certification from (Appendix A) shall be completed and submitted with the annual report.

If the cover system (first 12 inches of soil) has been breached during the year covered by that Annual Report, the owner of the property shall include a certification that all work was performed in conformance with this plan.

#### 4.2.1 Excavated Soil Disposal

Soil that is excavated which cannot or will not be used as fill will be further characterized prior to transportation for disposal at a permitted facility. Sampling and analysis requirements

will be coordinated with the disposal facility proposed for use. For excavated soil (or other fill) with visual evidence of contamination (i.e., staining or elevated PID measurements), one composite sample and a duplicate sample will be collected for each 100 cubic yards of stockpiled soil. For excavated soil that does not exhibit visual evidence of contamination but must be sent for off-site disposal, one composite sample and a duplicate sample will be collected for 2000 cubic yards of stockpiled soil, and a minimum of 1 sample will be collected for volumes less than 2000 cubic yards.

The composite sample will be collected from five locations within each stockpile. A duplicate composite sample will also be collected. PID measurements will be recorded for each of the five individual locations. One grab sample will be collected from the individual location with the highest PID measurement. If none of the five individual sample locations exhibit PID readings, one location will be selected at random. The composite sample will be analyzed for site-related COIs and other COIs as identified by the disposal facility. Stockpiled soil cannot be transported on or off-site until the analytical results are received and approval granted by the disposal facility.

The stockpiled soils must be covered to prevent windblown dispersion. Dust management measures (e.g., suppression with water spray) may also be conducted as necessary.

## 4.3 Fill Material

Fill material used to backfill excavations or placed to increase grades or elevation shall meet the following criteria.

- Excavated on-site soil proposed for use shall be sampled and analyzed. If analytical results indicate that the contaminants, if any, are present at concentrations below the Site Specific Action Levels (SSALs), the soil can be used as backfill on the properties.
- Any off-site fill material imported for filling and grading purposes shall be from an acceptable borrow source free of industrial and/or other potential sources of chemical or petroleum contamination and must satisfy TAGM 4046 concentrations for all parameters.

ESC Engineering of New York, P.C., 2005, Remedial Work Plan/Remedial Action Work Plan, Former Buffalo Service Center, Buffalo, New York, May 25. Appendix A – Annual Certification Form



#### ENCLOSURE 1 NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION INSTITUTIONAL AND ENGINEERING CONTROLS CERTIFICATION FORM



еіте	SITE DETAILS		
-		~~~~~	
	ADDRESS: ZIP CODE: >	XXXX	
	//TOWN:		
COL	INTY:		
CUR	RENT USE:		
CUR	RENT CERTIFICATION FREQUENCY: EVERY YEAR(S)		
	VERIFICATION OF SITE DETAILS		
		YES	NO
1.	Are the SITE DETAILS above, correct?		
	If NO, are changes handwritten above or included on a separate sheet?		
2.	Has some or all of the site property been sold, subdivided, merged, or undergone a tax amendment since the initial/last certification?	map □	
	If YES, is documentation or evidence that documentation has been previously submitte included with this certification?	d □	
3.	Have any federal, state, and/or local permits (e.g., building, discharge) been issued for the property since the initial/last certification?	or at □	
	If YES, is documentation or evidence that documentation has been previously submitte included with this certification?	d □	
4.	Has a change-of-use occurred since the initial/last certification?		
	If YES, is documentation or evidence that documentation has been previously submitte included with this certification?	d□	
5.	Has any new information come to your attention to indicate that assumptions made in the qualitative exposure assessment for offsite contamination are no longer valid (applies to non-significant threat sites subject to ECL 27-1415.7(c))?		
	If YES, is the new information or evidence that new information has been previously submitted included with this certification?		
6.	Are the assumptions in the qualitative exposure assessment still valid (must be certified every five years for non-significant threat sites subject to ECL 27-1415.7(c))?		
	If NO, are changes in the assessment included with this certification?		

SITE NO. X-XX-XXX			
Description of Institutional/Engineering Control		Control Certification	
	YES	NO	
ENVIRONMENTAL EASEMENT			
Type of Restriction here			
CONTROL CERTIFICATION STATEMENT			
For each institutional or engineering control listed above, I certify by checking "Yes" the statements are true:	at all of the follo	owing	
(a) the institutional control and/or engineering control employed at this site is un control was put in-place, or last approved by the Department;	changed from	the date the	
(b) nothing has occurred that would impair the ability of such control to protect p environment;	oublic health an	nd the	
(c) nothing has occurred that would constitute a violation or failure to comply with any Site Management Plan for this control; and			
(d) access to the site will continue to be provided to the Department to evaluate access to evaluate the continued maintenance of this control.	the remedy, in	cluding	
(e) if a financial assurance mechanism is required under the remedial work plan remains valid and sufficient for their intended purpose under the work plan.	for the site, the	e mechanism	

#### **CONTROL CERTIFICATIONS** SITE NO. X-XX-XXX

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SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE I certify that all information and statements in this Institutional and Engineering Controls Certification form are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.			
I(print name),			
(print business address), am certifying as (	(Owner or		
Owner's Designated Site Representative (if the site consists of multiple properties, I have been authoriz	ed and		
designated by all site owners to sign this certification) for the Site named in the Site Details section of th	iis form.		
Signature of Site Owner or Representative Rendering Certification Date			
QUALIFIED ENVIRONMENTAL PROFESSIONAL (QEP) SIGNATURE I certify that all information and statements in this Institutional and Engineering Controls Certification form are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.			
I(print name),			
( print business address), am certifying as a Qualified Environmental Professional for the			
(Owner or Owner's Representative) for the Site named in the Site Details section of this form.			
Signature of Qualified Environmental Professional, for the Owner or the Owner's Representative, Rendering CertificationStamp (if Required)Date			



**ESC ENGINEERING OF NEW YORK, P.C.** 300 Corporate Center Drive • Moon Township, PA 15108• (412) 604-1040 • Fax (412) 604-1055

# FINAL

## PART 3 – ENVIRONMENTAL EASEMENT

## FORMER BUFFALO SERVICE CENTER SITE (C915194)

## **BUFFALO URBAN RENEWAL AGENCY WEST SITE (C915195)**

FOURTH AND WEST GENESSEE STREETS BUFFALO, NEW YORK



## ERIE COUNTY CLERKS OFFICE County Clerk's Recording Page Return To: BOX 29 ADM

Party 1: 257 W GENESEE LLC

#### Party 2: PEOPLE OF THE STATE OF NEW YORK

#### Recording Fees:

RECORDING	\$44.00
COE COUNTY	1.00
COE STATE GENERAL	\$14.25
COE STATE RM	\$4.75
TP584	\$10.00

Book:	11118	Page: 9141
Page Count:	9	
Doc Type:	EASEMEN	NT/RTWY <500
Rec Date:	09/07/200	6
Rec Time:	11:40:24	AM
Control #:	20061972	38
User ID:	francine	
Trans Num:	21 <b>2199</b>	
DEED SEQ:	TT200603	152
MTG SEQ:		
UCC:		
SCAR:		
INDEX:		

Consideration Amount:	\$1.00	
BASIC	\$0.00	
SONYMA	\$0.00	
ADDL	\$0.00	
NFTA MT	\$0.00	
TRANSFER	\$0.00	
NETA TT	\$0.00	

#### Total:

\$74.00

STATE OF NEW YORK ERIE COUNTY CLERK'S OFFICE

WARNING - THIS SHEET CONSTITUTES THE CLERK'S ENDORSEMENT, REQUIRED BY SECTIONS 319&316-a (5) OF THE REAL PROPERTY LAW OF THE STATE OF NEW YORK. DO NOT DETACH. THIS IS NOT A BILL.

> David J. Swarts County Clerk

BOX 29 (ADM)



#### ENVIRONMENTAL EASEMENT

WHEREAS, the Legislature of the State of New York has declared that it is in the public interest to encourage the remediation of abandoned and likely contaminated properties ("brownfield sites") that threaten the health and vitality of the communities they burden while at the same time ensuring the protection of public health and the environment; and

WHEREAS, the Legislature of the State of New York has declared that it is in the public interest to establish within the Department a statutory environmental remediation program that includes the use of environmental casements as an enforceable means of ensuring the performance of operation, maintenance, and/or monitoring requirements and of ensuring the potential restriction of future uses of the land, when an environmental remediation project leaves residual contamination at levels that have been determined to be safe for a specific use, but not all uses, or which includes engineered structures that must be maintained or protected against damage to perform properly and be effective, or which requires groundwater use or soil management restrictions; and

WHEREAS, the Legislature of the State of New York has declared that environmental casement shall mean an interest in real property, created under and subject to the provisions of Article 71, Title 36 of the New York State Environmental Conservation Law ("ECL.") which contains a use restriction and/or a prohibition on the use of land in a manner inconsistent with engineering controls which are intended to ensure the long term effectiveness of a brownfield site remedial program or eliminate potential exposure pathways to hazardous waste or petroleum; and;

WHEREAS, Grantor, is the owner of real property located in the City of Buffalo, Eric County, New York known and designated on the tax map of the City of Buffalo as tax parcel number 110-60-2-2, being the same as that property conveyed to Grantor by deeds on March 29, 2005 and recorded in the Land Records of the Eric County Clerk in Liber 11093 of Deeds at page 492, November 10, 2005, recorded in Liber 11108 of Deeds at page 9335, and November 18, 2005, recorded in Liber 11111 of Deeds at page 7773, comprised of approximately 8.21 acres, and hereinafter more fully described in <u>Schedule A</u> attached hereto and made a part hereof ( the " Controlled Property"); and;

WHEREAS, the Commissioner does hereby acknowledge that the Department accepts this Environmental Easement in order to ensure the protection of human health and the environment and to achieve the requirements for remediation established at this Controlled Property until such time as this Environmental Easement is extinguished pursuant to ECL Article 71, Title 36; and

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**NOW THEREFORE**, in consideration of the covenants and mutual promises contained herein and the terms and conditions of Brownfield Cleanup Agreement Numbers B9-0695-05-06(A), B9-0695-05-06(B), and B9-0712-06-01, Grantor grants, conveys and releases to Grantee a permanent Environmental Easement pursuant to Article 71, Title 36 of the ECL in, on, over, under, and upon the Controlled Property as more fully described herein ("Environmental Easement").

1. <u>Purposes</u>. Grantor and Grantee acknowledge that the Purposes of this Environmental Easement are: to convey to Grantee real property rights and interests that will run with the land in perpetuity in order to provide an effective and enforceable means of encouraging the reuse and redevelopment of this Controlled Property at a level that has been determined to be safe for a specific use while ensuring the performance of operation, maintenance, and/or monitoring requirements; and to ensure the potential restriction of future uses of the land that are inconsistent with the above-stated purpose.

2. <u>Institutional and Engineering Controls</u>. The following controls apply to the use of the Controlled Property, run with the land are binding on the Grantor and the Grantor's successors and assigns, and are enforceable in law or equity against any owner of the Controlled Property, any lessees, and any person using the Controlled Property:

A. The Controlled Property may be used for Commercial and /or Industrial use, as long as the following long-term engineering controls are employed:

i) Implementation of the Operation, Monitoring, and Maintenance Work Plan including the Soil/Fill Management Plan,

ii)Use of groundwater for potable and non-potable purposes is prohibited.

B. The Controlled Property may not be used for a higher level of use such as unrestricted or residential use and the above-stated engineering controls may not be discontinued without an amendment or extinguishment of this Environmental Fasement.

C. Grantor covenants and agrees that until such time as the Environmental Easement is extinguished in accordance with the requirements of Article 71, Title 36 of the ECL, the property deed and all subsequent instruments of conveyance relating to the Controlled Property shall state in at least fifteen-point bold-faced type:

This property is subject to an environmental easement held by the New York State Department of Environmental Conservation pursuant of Title 36 to Article 71 of the Environmental Conservation Law.

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D. Grantor covenants and agrees that this Environmental Easement shall be incorporated in full or by reference in any leases, licenses, or other instruments granting a right to use the Controlled Property.

E. Grantor covenants and agrees that it shall annually, or such time as NYSDEC may allow, submit, to NYSDEC a written statement by an expert the NYSDEC may find acceptable certifying under penalty of perjury that the controls employed at the Controlled Property arc unchanged from the previous certification or that any changes to the controls employed at the Controlled Property were approved by the NYSDEC, and that nothing has occurred that would impair the ability of such control to protect the public health and environment or constitute a violation or failure to comply with any Site Management Plan for such controls and giving access to such Controlled Property to evaluate continued maintenance of such controls.

3. <u>Right to Enter and Inspect.</u> Grantee, its agents, employees, or other representatives of the State may enter and inspect the Controlled Property in a reasonable manner and at reasonable times to assure compliance with the above-stated restrictions.

4. <u>Reserved Grantor's Rights</u>. Grantor reserves for itself, its assigns, representatives, and successors in interest with respect to the Property, all rights as fee owner of the Controlled Property, including:

A. Use of the Controlled Property for all purposes not inconsistent with, or limited by the terms of this Environmental Easement;

B. The right to give, sell, assign, or otherwise transfer the underlying fee interest to the Controlled Property by operation of law, by deed, or by indenture, subject and subordinate to this Environmental Easement;

#### 5. <u>Enforcement</u>

A. This Environmental Easement is enforceable in law or equity in perpetuity by Grantor, Grantee, or any affected local government, as defined in ECL Section 71-3603, against the owner of the Property, any lessees, and any person using the land. Enforcement shall not be defeated because of any subsequent adverse possession, laches, estoppel, or waiver. It is not a defense in any action to enforce this Environmental Easement that: it is not appurtenant to an interest in real property; it is not of a character that has been recognized traditionally at common law; it imposes a negative burden; it imposes affirmative obligations upon the owner of any interest in the burdened property; the benefit does not touch or concern real property; there is no privity of estate or of contract; or it imposes an unreasonable restraint on alienation.

B. If any person intentionally violates this Environmental Easement, the Grantee may revoke the Certificate of Completion provided under ECL Article 27, Title 14, or the Satisfactory Completion of Project provided under ECL Article 56, Title 5 with respect to the Controlled Property.

C. Grantee shall notify Grantor of a breach or suspected breach of any of the terms of this Environmental Easement. Such notice shall set forth how Grantor can cure such breach or suspected breach and give Grantor a reasonable amount of time from the date of receipt of notice in which to cure. At the expiration of such period of time to cure, or any extensions granted by Grantee, the Grantee shall notify Grantor of any failure to adequately cure the breach or suspected breach. Grantor shall then have a reasonable amount of time from receipt of such notice to cure. At the expiration of said second period, Grantee may commence any proceedings and take any other appropriate action reasonably necessary to remedy any breach of this Environmental Easement in accordance with applicable law to require compliance with the terms of this Environmental Easement.

D. The failure of Grantee to enforce any of the terms contained herein shall not be deemed a waiver of any such term nor bar its enforcement rights in the event of a subsequent breach of or noncompliance with any of the terms of this Environmental Easement.

6. <u>Notice</u>. Whenever notice to the State (other than the annual certification) or approval from the State is required, the Party providing such notice or seeking such approval shall identify the Controlled Property by referencing its County tax map number or the Liber and Page or computerized system tracking/ identification number and address correspondence to:

Division of Environmental Enforcement Office of General Counsel New York State Department of Environmental Conservation 625 Broadway Albany New York 12233-5500

Such correspondence shall be delivered by hand, or by registered mail or by Certified mail and return receipt requested. The Parties may provide for other means of receiving and communicating notices and responses to requests for approval.

7. <u>Recordation</u>. Grantor shall record this instrument, within thirty (30) days of execution of this instrument by the Commissioner or her/his authorized representative in the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

<u>Amendment</u>. This Environmental Easement may be amended only by an amendment executed by the Commissioner of the New York State Department of Environmental Conservation and filed with the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.
 <u>Extinguishment</u>. This Environmental Easement may be extinguished only by a release by the Commissioner of the New York State Department of Environmental Conservation and filed with the office of the recording officer for the county or counties where the Property is

situated in the manner prescribed by Article 9 of the Real Property Law.

10. <u>Joint Obligation</u>. If there are two or more parties identified as Grantor herein, the obligations imposed by this instrument upon them shall be joint and several.

IN WITNESS WHEREOF, Grantor has caused this instrument to be signed in its name.

257 W. GENESEE, LLC,
a New York limited liability company
By: Duke HN New York, LLC,
An Indiana limited liability company, its sole member
By: Duke Construction Limited Partnership,
its sole member
By: Duke Business Centers Corporation, its sole
general partner

Joshn Bv: hn R. Gaskin

Senior Vice President

THIS ENVIRONMENTAL EASEMENT IS HEREBY ACCEPTED BY THE PEOPLE OF THE STATE OF NEW YORK, Acting By and Through the Department of Environmental Conservation

By:

Denise M. Sheehan, Commissioner

Grantor's Acknowledgment

STATE OF NEW YORK ) ) ss: COUNTY OF ERIE )

On the <u>19th</u> day of <u>July</u>, in the year 2006, before me, the undersigned, personally appeared <u>John R. Gaskin</u>, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within instrument and acknowledged to me that be/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

Notary Public - State of New York

MICHAEL A. PIETTE NOTARY PUBLIC. State of New York Qualified in Niagara County Commission Expires January 31st, 2007

Grantee's Acknowledgment

STATE OF NEW YORK ( )

) ss:

COUNTY OF Albany

On the <u>17</u> day of <u>August</u>, in the year 2006 before me, the undersigned, personally appeared **beise** <u>hereing</u>, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within instrument and acknowledged to me that he/she/ executed the same in his/her/ capacity as Commissioner of the State of New York Department of Environmental Conservation, and that by his/her/ signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

C

Notary Public - State of New York

MARK D. SANZA Notary Public, State of New York No. 02SA6010701 Qualified in Albany County Commission Expires July 20, 20,20

#### Issued By: TICOR TITLE INSURANCE COMPANY

Schedule A (cont'd)

No: 5006-25086

The land referred to in this Commitment is described as follows:

Parcel A

ALL THAT TRACT OR PARCEL OF LAND situate in the City of Buffalo, County of Erie and State of New York, being part of Outer Lot Number 16 and Lot Number 2 of the South Village of Black Rock, bounded and described as follows:

BEGINNING at the point of intersection of the northwest line of Genesee Street and the northeast line of Fourth Street as originally located; thence northwesterly along said line of Fourth Street 614.85 feet more or less to a south line of lands conveyed to New York State Urban Development Corporation by deed recorded in the Erie County Clerk's Office in Liber 8442 of Deeds at page 247; thence northeasterly at an interior angle of 91° 10' 34" and along the south line of said lands of the New York State Urban Development Corporation a distance of 162.00 feet; thence southerly at an interior angle of 89° 13' 29" a distance of 27.50 feet; thence easterly at an interior angle of 270° 46' 31' with the last described line a distance of 208.00 feet to the former west line of Jackson Street; thence southeasterly along said line of Jackson Street 240 feet more or less to an angle in said line of Jackson Street; thence southeasterly continuing along the southwest line of Jackson Street (a portion of which is now the southwest line of Seventh Street) 415 feet more or less to its intersection with the northwest line of Genesee Street; thence southwesterly along said line of Genesee Street 282 feet to the point of beginning.

Parcel B (257 West Genesee)

ALL THAT TRACT OR PARCEL OF LAND, situate in the City of Buffalo, County of Erie and State of New York, being part of Outer Lot 16 and part of Lot 2, South Village of Black Rock, bounded and described as follows:

BEGINNING at a point on the north line of Fourth Street as dedicated on July 27, 1982 at its Intersection with the east line of former Fourth Street (now abandoned), said point being also on the west line of lands conveyed to Niagara Gas Corporation by deed recorded in the Erie County Clerks' Office in Liber 1586 of Deeds at Fage 365;

THENCE: Northwesterly, along the northeast line of Fourth Street as dedicated on July 27, 1982, a distance of 202.18 feet to an angle point in the east line of Fourth Street as dedicated on July 27, 1982;

THENCE: Northerly, along the east line of Fourth Street as dedicated on July 27, 1982, at in Interior angle of 139° -24'-58" with the last described line, a distance of 469.32 feet to a point on the southerly line of lands conveyed to New York State Urban Development. Corporation by deed recorded in Liber 8442 of Deeds at page 247;

THENCE: Easterly, along a southerly line of said New York State. Urban Development Corporation lands, a distance of 130.75 feet to a point;

THENCE: southerly, at an interior angle of 91 ° -33'-6" along the least line of former Fourth Street and west line of said Niagara Gas Corporation lands, a distance of 619.52 feet to the POINT OF BEGINNING.

Parcel C (4 New Seventh Street)

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#### ISSUED BY: TICOR TITLE INSURANCE COMPANY

## No: 5006-25086

The land referred to in this Commitment is described as follows:

ALL THAT TRACT OR PARCEL OF LAND situate in the City of Buffalo, County of Erie and State of New York, being part of Disposition Lot 2, Outer Lot 16 of the Village of New Amsterdam and part of the bed of Busti Terrace being more particularly bounded and described as follows:

BEGINNING at the intersection of the northwesterly right of way bounds of New Seventh Street, being 66 feet in width, with the southerly right of way bounds of former Court Street as a 6 rod road;

THENCE westerly along the southerly right of way bound of former Court Street a distance of 129.80 feet to a point;

THENCE southerly at a right angle a distance of 5.00 feet to a point;

THENCE westerly parallel with the southerly right of way bound of former Court Street, and distant 5.00 feet southerly therefrom a distance of 80.00 feet to a point on a northeasterly line of lands conveyed to the New York. State Urban Development Corporation by deed recorded in Liber 8442 of Deeds at page 247;

THENCE southeasterly along said northeasterly line of lands conveyed to the New York State Urban Development Corporation, at an interior angle to the right as measured from the last described course of 41 ° 55' 39" for a distance of 51.26 feet to a point;

THENCE southwesterly at an exterior angle to the left as measured from the last described course of 92° 43' 40° a distance of 171.96 feet to a point lying on a southwesterly boundary of said lands conveyed to the New York State Urban Development;

THENCE southeasterly along said southwesterly boundary of lands conveyed to the New York State Urban Development and the southeasterly extension thereof, at an interior angle to the right as measured from the last described course 90 • 46' 33' for a distance of 248.91 feet to a point;

THENCE continuing southeasterly at an exterior angle to the left as measured from the last described course of 166° 03' 00' for a distance of 152.16 feet to the aforementioned northwesterly right of way bounds of New Seventh Street;

THENCE northeasterly along said northwesterly right of way bounds of New Seventh Street at an interior angle to the right as measured from the last described course of 36° 04' 28" for a distance of 455.41 feet to the point of beginning.

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Honorable David J Swarts County Clerk Erie County 92 Franklin Street Buffalo, NY 14202 (716) 858-8865

DATE:09/07/2006 TIME:11:40:24 AM RECEIPT:212199

HARTER SECREST

ITEM -01 785U 1 FILE:20061972 DEED SEQ:TT200 257 W GENESEE LI PEOPLE OF THE SI RECORDING FEE	38 BK/ D603152	/PG:D11118,	/9141
TP584 MARKOFF FEE Sub. Total		74.00	64.00 10.00 0.00
AMOUNT DUE: PAID CHECK: Check #:3961	\$74.00 \$74.00	/4.00	,
TOTAL PAID:	\$74.00		\$74.00
REC BY:FRANCINE County Clerk		÷	

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С County Clerk Have a nice day!

