New York State Department of Environmental Conservation
Division of Environmental Remediation
Remedial Bureau E, 12th Floor
625 Broadway, Albany, New York 12233-7017
Phone: (518) 402-9814 • **Fax:** (518) 402-9819
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Joe Martens
Commissioner

December 19, 2014

Mr. John Ciminelli
Highland Park Village, LLC
2421 Main Street
Buffalo, New York 14214

RE: 129 Holden Street Redevelopment
Site ID No. C915261, Buffalo, Erie County
Final Remedial Investigation – Alternatives Analysis Report and Decision Document

Dear Mr. Ciminelli:

The New York State Department of Environmental Conservation (Department) and the New York State Department of Health (NYSDOH) have reviewed the Final Remedial Investigation – Alternatives Analysis Report (RI/AAR) for the 129 Holden Street Redevelopment site dated August 2014 and prepared by GZA GeoEnvironmental of New York on behalf of the *Highland Park Village, LLC.*

The RI/AAR is hereby approved. Please ensure that a copy of the approved RI/AAR is placed in the document repository(ies). The draft report should be removed.

Enclosed is a copy of the Department's Decision Document for the site. The remedy is to be implemented in accordance with this Decision Document. Please ensure that a copy of the Decision Document is placed in the document repository(ies).

Please contact the Department's Project Manager, Jaspal S. Walia, at (716) 851-7220 or jaspal.walia@dec.ny.gov at your earliest convenience to discuss next steps. Please recall the Department requires seven (7) days notice prior to the start of field work.

Sincerely,

Michael J. Cruden, P.E.
Director
Remedial Bureau E
Division of Environmental Remediation

ec: R. Schick, NYSDEC
M. Ryan, NYSDEC
K. Lewandowski, NYSDEC
M. Doster, Region 9, Buffalo
J. Walia, Region 9, Buffalo
K. Draves, Esq., Region 9, Buffalo
M. Forcucci, NYSDOH
J. Richert, GZA
C. Slater, Esq., Slater Law Firm

DECISION DOCUMENT

129 Holden Street Redevelopment
Brownfield Cleanup Program
Buffalo, Erie County
Site No. C915261
December 2014

Prepared by
Division of Environmental Remediation
New York State Department of Environmental Conservation

DECLARATION STATEMENT - DECISION DOCUMENT

129 Holden Street Redevelopment
Brownfield Cleanup Program
Buffalo, Erie County
Site No. C915261
December 2014

Statement of Purpose and Basis

This document presents the remedy for the 129 Holden Street Redevelopment site, a brownfield cleanup site. The remedial program was chosen in accordance with the New York State Environmental Conservation Law and Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York (6 NYCRR) Part 375.

This decision is based on the Administrative Record of the New York State Department of Environmental Conservation (the Department) for the 129 Holden Street Redevelopment site and the public's input to the proposed remedy presented by the Department.

Description of Selected Remedy

The elements of the selected remedy are as follows:

1. Remedial Design:

A remedial design program will be implemented to provide the details necessary for the construction, operation, optimization, maintenance, and monitoring of the remedial program. Green remediation principles and techniques will be implemented to the extent feasible in the design, implementation, and site management of the remedy as per DER-31. The major green remediation components are as follows:

- Considering the environmental impacts of treatment technologies and remedy stewardship over the long term;
- Reducing direct and indirect greenhouse gases and other emissions;
- Increasing energy efficiency and minimizing use of non-renewable energy;
- Conserving and efficiently managing resources and materials;
- Reducing waste, increasing recycling and increasing reuse of materials which would otherwise be considered a waste;
- Maximizing habitat value and creating habitat when possible;
- Fostering green and healthy communities and working landscapes which balance ecological, economic and social goals; and
- Integrating the remedy with the end use where possible and encouraging green and sustainable re-development.

2. Excavation:

Excavation and off-site disposal of contaminant source areas of concern (Figure 2) including:

- Approximately 2,500 cubic yards of fill from five test pit areas (Test pits 10, 70, 74, 75, and 77) will be excavated and disposed off-site at permitted facilities.
- After excavation of hot spots from these test pit areas, asphalt and sub-base will be removed and a two foot soil cut will be completed in the southern portion of the site. Approximately 30,000 cubic yards of excavated soils and fill will be moved from this two feet cut to the northern portion of the site to grade the site.

3. Cover System:

- A site cover will be required to allow for a restricted residential use of the site. The cover will consist either of the structures, such as buildings, pavement, and sidewalks comprising the site development, or a soil cover in areas where the upper two feet of exposed surface soil will exceed the applicable soil cleanup objectives (SCOs). Where the soil cover is required, it will be a minimum of two feet of soil meeting the SCOs for cover material as set forth in 6 NYCRR Part 375-6.7(d) for restricted residential use. The soil cover will be placed over a demarcation layer. Any fill material brought to the site will meet the requirements for the identified site use as set forth in 6 NYCRR Part 375-6.7(d).

4. Institutional Control:

Imposition of an institutional control in the form of an environmental easement for the controlled property that: requires the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8 (h)(3);

- allows the use and development of the controlled property for restricted residential, commercial and industrial uses as defined by Part 375-1.8(g), although land use is subject to local zoning laws;
- restricts the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the NYSDOH or County DOH;
- requires compliance with the Department approved Site Management Plan.
- restricts the buildings to be built on slabs only.

5. Site Management Plan:

A Site Management Plan is required, which includes the following:

- an Institutional and Engineering Control Plan that identifies all use restrictions and engineering controls for the site and details the steps and media-specific requirements necessary to ensure the following institutional and/or engineering controls remain in place and effective;

Engineering Controls: The soil cover discussed in Paragraph 3 above.
Institutional Controls: The Environmental Easement discussed in Paragraph 4 above.

This plan includes, but may not be limited to:

- an Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination;
- descriptions of the provisions of the environmental easement including any land use and groundwater use restrictions;
- provisions for the management and inspection of the identified engineering controls;
- maintaining site access controls and Department notification; and
- the steps necessary for the periodic reviews and certification of the institutional and/or engineering controls.

Declaration

The remedy conforms with promulgated standards and criteria that are directly applicable, or that are relevant and appropriate and takes into consideration Department guidance, as appropriate. The remedy is protective of public health and the environment.

Michael J Cruden

Digitally signed by Michael J Cruden
DN: cn=Michael J Cruden, o=DER, ou=RBE, email=mjcruden@gw.dec.state.ny.us, c=US
Date: 2014.12.18 14:19:50 -05'00'

Date

Michael Cruden, Director
Remedial Bureau E

DECISION DOCUMENT

129 Holden Street Redevelopment
Buffalo, Erie County
Site No. C915261
December 2014

SECTION 1: SUMMARY AND PURPOSE

The New York State Department of Environmental Conservation (the Department), in consultation with the New York State Department of Health (NYSDOH), has selected a remedy for the above referenced site. The disposal of contaminants at the site has resulted in threats to public health and the environment that would be addressed by the remedy. The disposal or release of contaminants at this site, as more fully described in this document, has contaminated various environmental media. Contaminants include metals and polycyclic aromatic hydrocarbons.

The New York State Brownfield Cleanup Program (BCP) is a voluntary program. The goal of the BCP is to enhance private-sector cleanups of brownfields and to reduce development pressure on "greenfields." A brownfield site is real property, the redevelopment or reuse of which may be complicated by the presence or potential presence of a contaminant.

The Department has issued this document in accordance with the requirements of New York State Environmental Conservation Law and 6 NYCRR Part 375. This document is a summary of the information that can be found in the site-related reports and documents.

SECTION 2: CITIZEN PARTICIPATION

The Department seeks input from the community on all remedies. A public comment period was held, during which the public was encouraged to submit comment on the proposed remedy. All comments on the remedy received during the comment period were considered by the Department in selecting a remedy for the site. Site-related reports and documents were made available for review by the public at the following document repository:

East Delavan Branch Library
1187 East Delavan Avenue
Buffalo, NY 14215
Phone: 716-896-4433

Receive Site Citizen Participation Information By Email

Please note that the Department's Division of Environmental Remediation (DER) is "going paperless" relative to citizen participation information. The ultimate goal is to distribute citizen

participation information about contaminated sites electronically by way of county email listservs. Information will be distributed for all sites that are being investigated and cleaned up in a particular county under the State Superfund Program, Environmental Restoration Program, Brownfield Cleanup Program, Voluntary Cleanup Program, and Resource Conservation and Recovery Act Program. We encourage the public to sign up for one or more county listservs at http://www.dec.ny.gov/chemical/61092.html

SECTION 3: SITE DESCRIPTION AND HISTORY

Site Location: This site is the former Central Park Plaza and is located at 129 Holden Street in the City of Buffalo. The site borders Bennett Village Terrace residences on the north, Manhattan Avenue and United States Post Office on the east, Holden Avenue on the west and Central Park Avenue on the south. The site is located in a mixed residential and commercial area.

Site Features: The site perimeter is completely fenced. The vacant area of the site contains foundations of the demolished Central Park Plaza buildings, parking lots, and grassy areas. There are piles of crushed concrete from the demolished buildings and clean soil fill brought to the site.

Current Zoning and Land Use: This approximate 27 acre site contains one small building and the remainder of the site is vacant. The site is located within the commercial zoning district. Surrounding adjacent areas are zoned for residential and commercial use.

Past Use of the Site:
From 1877 to 1948, the Buffalo Cement Company operated this site as a rock quarry. The quarry was filled in with materials such as silty clay, sands, gravels, bricks, fractured limestone, slag, and industrial fill. In 1958 the site was developed by Central Park Shopping Center, Inc. In addition to shopping stores, other businesses such as auto repair, photographic processing, and dry cleaning also occupied the Central Park Plaza. The site has been vacant since July 2011. Four of the five vacant plaza buildings were demolished in 2012.

Site Geology and Hydrogeology:
The overburden soils encountered at the site consist of various fill materials and native soils. The fill materials consist of fractured limestone, slag, sands, ash, non-native silty clay, and gravels. The depth of fill is approximately 5 to 19 feet below ground surface. The bedrock consists of Onondaga Limestone or Berttie Limestone depending on location relative to historic quarry operations. The depth of groundwater is approximately 13 feet below ground surface. The groundwater flows in a northerly direction.

A site location map is attached as Figure 1.

SECTION 4: LAND USE AND PHYSICAL SETTING

The Department may consider the current, intended, and reasonably anticipated future land use of the site and its surroundings when evaluating a remedy for soil remediation. For this site, alternatives (or an alternative) that restrict(s) the use of the site to restricted-residential use (which allows for commercial use and industrial use) as described in Part 375-1.8(g) were/was

evaluated in addition to an alternative which would allow for unrestricted use of the site.

A comparison of the results of the Remedial Investigation (RI) to the appropriate standards, criteria and guidance values (SCGs) for the identified land use and the unrestricted use SCGs for the site contaminants is available in the RI Report.

SECTION 5: ENFORCEMENT STATUS

The Applicant(s) under the Brownfield Cleanup Agreement is a/are Volunteer(s). The Applicant(s) does/do not have an obligation to address off-site contamination. However, the Department has determined that this site does not pose a significant threat to public health or the environment; accordingly, no enforcement actions are necessary.

SECTION 6: SITE CONTAMINATION

6.1: Summary of the Remedial Investigation

A remedial investigation (RI) serves as the mechanism for collecting data to:

- characterize site conditions;
- determine the nature of the contamination; and
- assess risk to human health and the environment.

The RI is intended to identify the nature (or type) of contamination which may be present at a site and the extent of that contamination in the environment on the site, or leaving the site. The RI reports on data gathered to determine if the soil, groundwater, soil vapor, indoor air, surface water or sediments may have been contaminated. Monitoring wells are installed to assess groundwater and soil borings or test pits are installed to sample soil and/or waste(s) identified. If other natural resources are present, such as surface water bodies or wetlands, the water and sediment may be sampled as well. Based on the presence of contaminants in soil and groundwater, soil vapor will also be sampled for the presence of contamination. Data collected in the RI influence the development of remedial alternatives. The RI report is available for review in the site document repository and the results are summarized in section 6.3.

The analytical data collected on this site includes data for:

- groundwater
- soil

6.1.1: Standards, Criteria, and Guidance (SCGs)

The remedy must conform to promulgated standards and criteria that are directly applicable or that are relevant and appropriate. The selection of a remedy must also take into consideration guidance, as appropriate. Standards, Criteria and Guidance are hereafter called SCGs.

To determine whether the contaminants identified in various media are present at levels of

concern, the data from the RI were compared to media-specific SCGs. The Department has developed SCGs for groundwater, surface water, sediments, and soil. The NYSDOH has developed SCGs for drinking water and soil vapor intrusion. For a full listing of all SCGs see: http://www.dec.ny.gov/regulations/61794.html

6.1.2: RI Results

The data have identified contaminants of concern. A "contaminant of concern" is a contaminant that is sufficiently present in frequency and concentration in the environment to require evaluation for remedial action. Not all contaminants identified on the property are contaminants of concern. The nature and extent of contamination and environmental media requiring action are summarized below. Additionally, the RI Report contains a full discussion of the data. The contaminant(s) of concern identified at this site is/are:

Polycyclic Aromatic Hydrocarbons (PAHs), Total	Copper
Zinc	Manganese
Cadmium	Mercury
Arsenic	Lead
Chromium	Barium
	Nickel

The contaminant(s) of concern exceed the applicable SCGs for:

- groundwater
- soil

6.2: Interim Remedial Measures

An interim remedial measure (IRM) is conducted at a site when a source of contamination or exposure pathway can be effectively addressed before issuance of the Decision Document.

There were no IRMs performed at this site during the RI.

6.3: Summary of Environmental Assessment

This section summarizes the assessment of existing and potential future environmental impacts presented by the site. Environmental impacts may include existing and potential future exposure pathways to fish and wildlife receptors, wetlands, groundwater resources, and surface water. The RI report presents a detailed discussion of any existing and potential impacts from the site to fish and wildlife receptors.

Investigations: The Remedial Investigation (RI) was performed in 2012 during which 81 test pits were excavated to depths varying from 6 and 19 ft below the ground surface (bgs). Six bedrock monitoring wells were installed to assess potential groundwater contamination. One hundred seven (107) subsurface soil samples from the test pits and six soil borings were collected and analyzed. The fill materials found in sub-surface during the RI showed wide spread contamination of metals and polycyclic aromatic hydrocarbons (PAHs). Thirteen areas were

identified that contained these contaminants above the restricted residential soil cleanup objectives (RRSCOs) in the upper 4 to 6 feet of the overburden.

Due to wide spread exceedances of RRSCOs for metals and PAHs in the fill at the site at various depths, a statistical analysis was undertaken to determine levels representing significantly impacted material for off-site disposal. The statistical analysis was completed using the entire data set from the subsurface investigation at the site.The statistical derived levels were called "Proposed Excavation Limit Thresholds (PELTs)". Soils exceeding PELTs will be excavated and disposed off-site at permitted facilities.

Nature and Extent of Contamination:
Soil/ Fill: The contamination at the site is primarily due to fill which varies from six inches to about 14 feet bgs. Five test pits (TP-10, TP-70, TP-74, TP-75, TP-77) areas exceeded PELTs for metals or PAHs. The concentrations of the metals were up to 72.2 ppm arsenic (RRSCO-16 ppm, PELT-29.6 ppm), 43,700 ppm chromium (RRSCO-1,500 ppm, PELT-9,145 ppm), 20,000 ppm nickel (RRSCO-310 ppm, PELT – 10,000 ppm), 15,800 ppm zinc (RRSCO-10,000 ppm, PELT-10,000 ppm) and concentrations of PAHs were upto 50.3 ppm benzo(a)anthracene (RRSCO-1 ppm, PELT-21.17 ppm), 26.5 ppm benzo(a)pyrene (RRSCO-1 ppm, PELT-17.62 ppm), 25.9 ppm benzo(b)fluoranthene (RRSCO-1 ppm, PELT-18.02 ppm), 11.4 ppm dibenz(a,h)anthracene (RRSCO-0.33 ppm, PELT – 3.24 ppm), and 19.3 ppm indeno (1,2,3-cd)pyrene (RRSCO-0.5 ppm, PELT- 13.15 ppm). The slag samples exceeded RRSCOs for metals but were below PELTs. The concentrations of volatile organic compounds (VOCs), polychlorinated bi-phenyls (PCBs), pesticides and cyanides were below their respective restricted residential SCOs in soil/fill samples. There is no evidence of offsite migration of contaminants of concern.

Groundwater: Volatile organic compounds and semi-volatile organic compounds were below the NYDEC Class GA Criteria. Dissolved metals detected above Class GA criteria were iron, manganese, magnesium, and sodium. These metals also tend to be naturally occurring in groundwater. There is no evidence of significant off-site migration of impacted groundwater.

6.4: Summary of Human Exposure Pathways

This human exposure assessment identifies ways in which people may be exposed to site-related contaminants. Chemicals can enter the body through three major pathways (breathing, touching or swallowing). This is referred to as *exposure.*

Since some contaminated soils remain at the site below concrete or clean backfill, people will not come in contact with contaminated soils unless they dig below the surface materials. People are not drinking the groundwater because the area is served by a public water supply that is not impacted by the site.

6.5: Summary of the Remediation Objectives

The objectives for the remedial program have been established through the remedy selection process stated in 6 NYCRR Part 375. The goal for the remedial program is to restore the site to pre-disposal conditions to the extent feasible. At a minimum, the remedy shall eliminate or

mitigate all significant threats to public health and the environment presented by the contamination identified at the site through the proper application of scientific and engineering principles.

The remedial action objectives for this site are:

Soil

RAOs for Public Health Protection

- Prevent ingestion/direct contact with contaminated soil.

SECTION 7: ELEMENTS OF THE SELECTED REMEDY

The alternatives developed for the site and the evaluation of the remedial criteria are presented in the Alternative Analysis. The remedy is selected pursuant to the remedy selection criteria set forth in DER-10, Technical Guidance for Site Investigation and Remediation and 6 NYCRR Part 375.

The selected remedy is a Track 4: Restricted use with site-specific soil cleanup objectives remedy.

The selected remedy is referred to as the removal of significantly contaminated soils and installation of a cover system.

The elements of the selected remedy, as shown in Figure 2, are as follows:

1. Remedial Design:

A remedial design program will be implemented to provide the details necessary for the construction, operation, optimization, maintenance, and monitoring of the remedial program. Green remediation principles and techniques will be implemented to the extent feasible in the design, implementation, and site management of the remedy as per DER-31. The major green remediation components are as follows:

- Considering the environmental impacts of treatment technologies and remedy stewardship over the long term;
- Reducing direct and indirect greenhouse gases and other emissions;
- Increasing energy efficiency and minimizing use of non-renewable energy;
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- Reducing waste, increasing recycling and increasing reuse of materials which would otherwise be considered a waste;
- Maximizing habitat value and creating habitat when possible;
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- Integrating the remedy with the end use where possible and encouraging green and sustainable re-development.

2. Excavation:

Excavation and off-site disposal of contaminant source areas of concern (Figure 2) including:

- Approximately 2,500 cubic yards of fill from five test pit areas (Test pits 10, 70, 74, 75, and 77) will be excavated and disposed off-site at permitted facilities.
- After excavation of hot spots from these test pit areas, asphalt and sub-base will be removed and a two foot soil cut will be completed in the southern portion of the site. Approximately 30,000 cubic yards of excavated soils and fill will be moved from this two feet cut to the northern portion of the site to grade the site.

3. Cover System:

- A site cover will be required to allow for a restricted residential use of the site. The cover will consist either of the structures, such as buildings, pavement, and sidewalks comprising the site development, or a soil cover in areas where the upper two feet of exposed surface soil will exceed the applicable soil cleanup objectives (SCOs). Where the soil cover is required, it will be a minimum of two feet of soil meeting the SCOs for cover material as set forth in 6 NYCRR Part 375-6.7(d) for restricted residential use. The soil cover will be placed over a demarcation layer. Any fill material brought to the site will meet the requirements for the identified site use as set forth in 6 NYCRR Part 375-6.7(d).

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- allows the use and development of the controlled property for restricted residential, commercial and industrial uses as defined by Part 375-1.8(g), although land use is subject to local zoning laws;
- restricts the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the NYSDOH or County DOH;
- requires compliance with the Department approved Site Management Plan.
- restricts the buildings to be built on slabs only.

5. Site Management Plan:

A Site Management Plan is required, which includes the following:

- an Institutional and Engineering Control Plan that identifies all use restrictions and engineering controls for the site and details the steps and media-specific requirements necessary to ensure the following institutional and/or engineering controls remain in place and effective;

  Engineering Controls: The soil cover discussed in Paragraph 3 above.

  Institutional Controls: The Environmental Easement discussed in Paragraph 4 above.

This plan includes, but may not be limited to:

- an Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination;

- descriptions of the provisions of the environmental easement including any land use and groundwater use restrictions;
- provisions for the management and inspection of the identified engineering controls;
- maintaining site access controls and Department notification; and
- the steps necessary for the periodic reviews and certification of the institutional and/or engineering controls.

NOTES:

1. BASE MAP ADAPTED FROM A 2008 AERIAL PHOTO AND PROPERTY LINE DOWNLOADED FROM http://www.nysgis.state.ny.us/gateway/mg/index.html AND FIELD OBSERVATIONS.

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

0 100 200 400

SCALE IN FEET

NO.	ISSUE/DESCRIPTION	BY	DATE

129 HOLDEN STREET
BUFFALO, NEW YORK
BROWNFIELD CLEANUP PROGRAM SITE NO. C915261

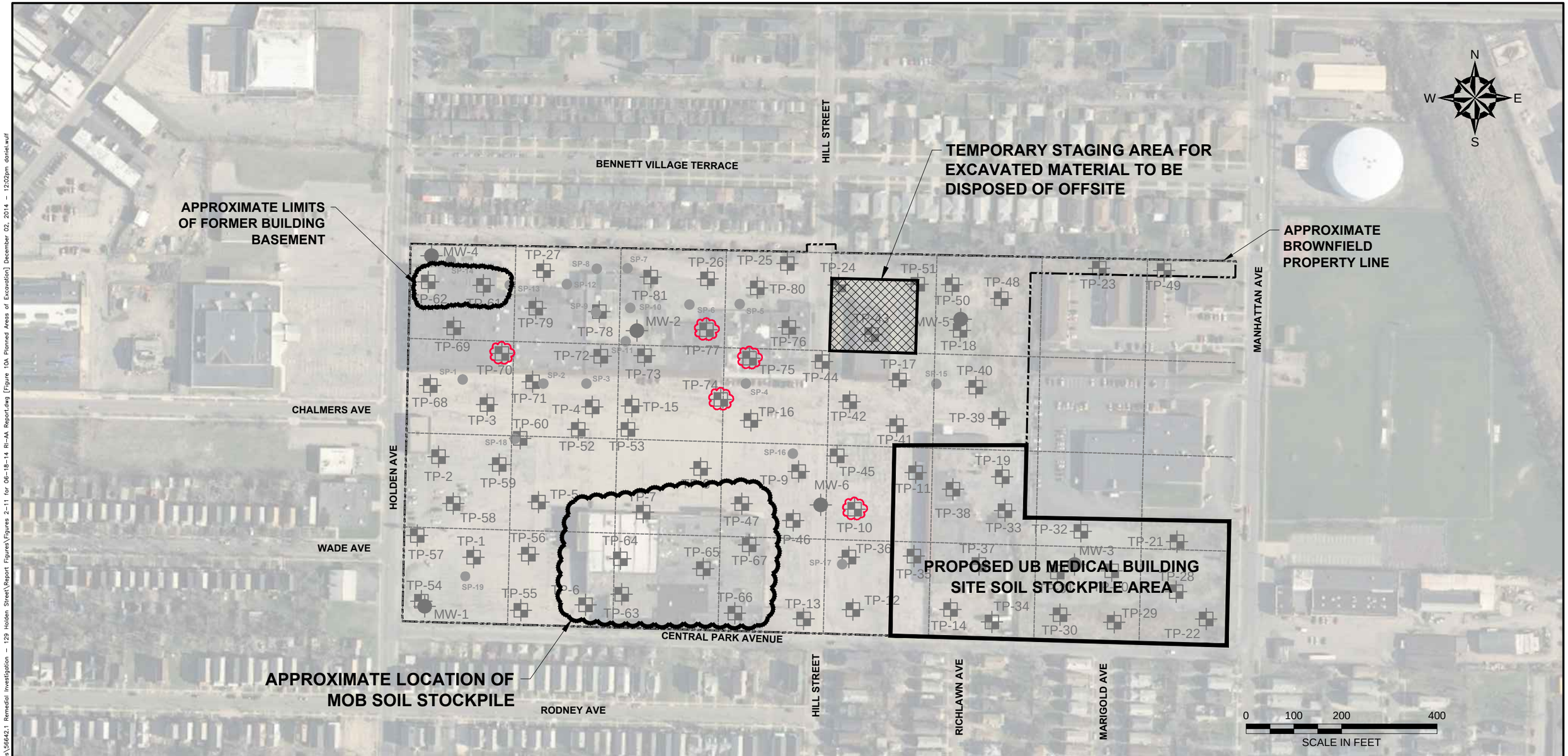
REMEDIAL ACTION WORK PLAN

SITE PLAN

PREPARED BY:
GZA GeoEnvironmental of N.Y.
Engineers and Scientists
535 WASHINGTON STREET 11th FLOOR
BUFFALO, NEW YORK 14203
(716) 685-2300

PREPARED FOR:
HIGHLAND PARK VILLAGE, LLC

PROJ MGR: CZB	REVIEWED BY:	CHECKED BY:	FIGURE
DESIGNED BY:	DRAWN BY: DEW	SCALE: AS SHOWN	1
DATE AUGUST 2014	PROJECT NO. 21.0056642.10	REVISION NO.	



LEGEND:

- TP-1 — APPROXIMATE LOCATION AND DESIGNATION OF TEST PITS COMPLETED BY NATURE'S WAY ENVIRONMENTAL
- MW-1 — APPROXIMATE LOCATION AND DESIGNATION OF MONITORING WELLS COMPLETED BY NATURE'S WAY ENVIRONMENTAL
- SP-3 — APPROXIMATE LOCATION AND DESIGNATION OF SOIL PROBES COMPLETED BY TREC ENVIRONMENTAL, INC. ON OCTOBER 11, 2011
- APPROXIMATE LOCATION OF AREAS TO BE EXCAVATED FOR OFF-SITE DISPOSAL

NOTES:

1. BASE MAP ADAPTED FROM A 2008 AERIAL PHOTO AND PROPERTY LINE DOWNLOADED FROM http://www.nysgis.state.ny.us/gateway/mg/index.html AND FIELD OBSERVATIONS.
2. THE SIZE AND LOCATION OF EXISTING SITE FEATURES SHOULD BE CONSIDERED APPROXIMATE.
3. GRID SHOWN IS 1 ACRE INTERVALS.
4. SEE TABLE 4 FOR DESCRIPTION OF REMEDIAL AREAS.

NO.	ISSUE/DESCRIPTION	BY	DATE

129 HOLDEN STREET
BUFFALO, NEW YORK

REMEDIAL INVESTIGATION ALTERNATIVE ANALYSIS REPORT
PLANNED AREAS OF EXCAVATION

PREPARED BY:
GZA GeoEnvironmental of N.Y.
Engineers and Scientists
535 WASHINGTON STREET 11th FLOOR
BUFFALO, NEW YORK 14203
(716) 685-2300

PREPARED FOR:
HIGHLAND PARK VILLAGE, LLC

PROJ MGR: CZB	REVIEWED BY:	CHECKED BY:	FIGURE
DESIGNED BY:	DRAWN BY: TAK	SCALE: AS SHOWN	2
DATE DECEMBER 2014	PROJECT NO. 21.0056642.10	REVISION NO.	