Soil and Groundwater Management Plan

Location:

Dupont Stauffer Landfill Site (NYSDEC Site No. 3-36-009)
700 South Street
City of Newburgh, Orange County, New York 12550

Prepared for:

IV5 Newburgh South Logistics Center LLC (IV5)
1 Meadowlands Plaza, Suite 802
East Rutherford, New Jersey 07073

LaBella Project No. 2222335

April 2024

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1.0 INTRODUCTION

1.1 Purpose

This Soil and Groundwater Management Plan (SGMP) was developed by LaBella Associate D.P.C. ("LaBella") on behalf of IV5 Newburgh South Logistics Center LLC (IV5), Owner, to address environmental considerations associated with planned redevelopment work at the Dupont Stauffer Landfill property, New York State Department of Environmental Conservation (NYSDEC) Site No. 3-36-009, located at 700 South Street and 121 Pierces Road, City of Newburgh, Orange County, New York, herein after referred to as the ("Site") (see **Figure 1**). The utilization of a SGMP is intended to allow IV5 to complete the project efficiently while maintaining compliance with applicable Rules and Regulations and is designed to allow both known and unknown areas of concern (AOC) to be addressed during construction without significant delays to the project. The purpose of this SGMP is to summarize procedures to implement for planned excavation activities, installation of a soil cover system in areas of potential impacted fill, and management of waste soil and/or groundwater. This SGMP also addresses protocol for monitoring and sampling and analysis during excavation and site work, and recommendations for installation of vapor barrier systems beneath proposed buildings. LaBella will assist in the implementation of the SGMP on behalf of IV5. LaBella will provide the appropriately trained and experienced staff to be present on-Site during earthwork and redevelopment activities that disturb or have the potential to disturb fill materials and remaining impacted media.

This SGMP was prepared for the Site in accordance with the NYSDEC-approved Site Management Plan (SMP) and its Excavation Work Plan (EWP), dated November 2016 and in concurrence with the New York State Department of Health (NYSDOH); a NYSDEC-approved Impacted Material Excavation and Removal Work Plan–Addendum, dated February 2024; requirements in NYSDEC Division of Environmental Remediation (DER)-10 "Technical Guidance for Site Investigation and Remediation, dated May 2010; and other guidelines and comments provided by the NYSDEC pertaining to redevelopment plans and a Soil Management Plan letter submitted to the NYSDEC in October 2022.

1.2 Site Description

The project Site is approximately +/- 50.26-acres and consists of two parcels at 700-768 South Street and 121 Pierces Road in Newburgh, New York. The parcels are identified on the Orange County Tax Map as identifier numbers 5-1-1 and 5-2-1. Parcel 5-1-1 (728 South Street, hereafter referred to as the "North and South landfills") is bounded by Interstate 84 to the north, a storage warehouse facility to the east, South Street to the south, and Gidneytown Creek to the west. Parcel 5-2-1 (121 Pierces Road, hereafter referred to as the "triangular-shaped parcel") is bounded by Pierces Road to the north and west, a residential driveway to the east, and single-family residential dwellings to the south. Old Pierces Road is an unused gravel road that separates the northern and southern portion of the Site. Prior to a 2016 Remedial Action (RA), the area south of Old Pierces Road was referred to as the "South Landfill", and the area north of Old Pierces Road was referred to as the "North Landfill". The Site is currently vacant, and access is restricted by a perimeter fence along each parcel. A demolition plan with current Site features is attached as **Figure 2**.

Information provided to LaBella by IV5, indicates that planned redevelopment work for the Site includes ground-intrusive earthwork (e.g. land clearing, excavation, and backfill operations) associated with construction of a proposed warehouse building and associated utilities, loading docks, and parking areas as depicted on the Overall Site Plan (**Figure 3**). Earthwork is expected to occur in the majority of the footprint of the existing open areas shown on **Figure 2** (excludes the existing landfill area in northern portion of Site and wooded land and Wetland "A" area in the western property area).

1.2.1 Site Geology and Hydrogeology

The Site is underlain by two main geologic units: glacial till and carbonate bedrock of the Cambrian-

Ordovician Age Wappinger Group. Boring logs indicate that the glacial till is up to 20 feet thick and consists of sand, silt, gravel, cobbles, and boulders. Bedrock is encountered at depths ranging from exposed at the surface to 20 feet below grade surface (bgs). The bedrock is highly fractured gray dolomitic limestone with some calcite deposits and shaly bands that generally dip towards the south. The middle and eastern portions of the site contain a thin overburden layer that has limited groundwater. Recharge of the overburden aquifer is mostly attributed to seasonal precipitation.

Groundwater is predominately found in the bedrock aquifer as evidenced by the installation of bedrock wells installed during the Supplemental Remedial Investigation (Section 2.3). The overburden groundwater fluctuates across the Site and is influenced by seasonal precipitation events. The overburden and bedrock groundwater flows are predominantly toward the west and to the south of the site. Some hydraulic evaluations were conducted that indicated Gidneytown Creek may function as a groundwater divide for the DuPont-Stauffer Landfill site, thereby limiting recharge to the overburden.

In general, during precipitation events, resulting stormwater runoff from the Site drains towards Gidneytown Creek. Gidneytown Creek has been classified as a Class D water body by the NYSDEC. Designated uses of a Class D water body may include fishing and secondary contact recreation use. This urban stream receives stormwater from local runoff, drainage from Interstate 1-84 and from other upstream sources, such as the Newburgh City landfill. The creek, which forms the northern and western boundaries of the Site, flows to the south to Quassaic Creek. The stretch of the stream that flows adjacent to the site is located in the upper reaches of the Gidneytown Creek drainage basin and as such, the creek has been observed to have considerable fluctuations in flow due to seasonal variations in precipitation and runoff from nearby highways.

1.3 SGMP Contents and Organization

This SGMP includes an introductory section (Section 1), a summary of Site and environmental history, including prior remedial investigation (RI), remedial action (RA), and redevelopment preparation investigations and activities (Section 2), a description of the SGMP objective, roles and responsibilities (Section 3). overview of regulatory limits, regulations, and guidance procedures that may be warranted for various Site work activities (Section 4), pertinent coordination items when ground-intrusive work is scheduled for Site (Section 4), a description of procedures to be implemented during specific Site work activities (Sections 5 through 11), and a description of reports and records that should be maintained for work completed at the subject Site (Section 12). Appendices are included to provide supplemental information that is considered pertinent to the items described in the SGMP and are referenced where applicable.

This SGMP is organized in a manner to allow for Site representatives to review and identify applicable measures to be implemented for different areas of work and types of work activities being performed. Section 1.4 describes different areas of work and the associated work activities that may be applicable.

1.4 Applicability of the Plan

This SGMP (and the NYSDEC-approved SMP) applies to any activity that disturbs the subsurface at the Site. The Site owner at the time of subsurface disturbance, as well as parties conducting the subsurface work, will be responsible for the implementation of this SGMP. A copy of this SGMP is to be provided to the Site owner and to contractors or future owners whose activities may disturb the subsurface at the Site.

1.4.1 Areas to be Developed with Buildings/Structures (South Landfill)

Areas to be developed with buildings or other structures will require appropriate soil management procedures, in association with the excavation, backfill, and grading for the installation of foundation systems, and with the construction of slabs-on-grade for buildings.

1.4.2 Areas to be Developed with Asphalt/Concrete Surfaces (South Landfill)

Areas to be developed with asphalt or concrete surfaces (e.g., loading docks driveways, parking lots, walking paths) will require appropriate soil management procedures, in association with the excavation, backfill, and grading prior to installation of the asphalt or concrete surface cover.

1.4.3 Areas to be Developed with Lawn/Landscaping (South Landfill)

Areas to be redeveloped with lawn or landscaping will require appropriate soil management procedures, in association with the excavation, backfill, grading, and soil cover system installation.

1.4.4 Areas to Remain Wooded

Areas of the subject Site that are currently wooded and are planned to remain wooded will not require implementation of specific soil management procedures at this time. In the event that these areas are scheduled for redevelopment in the future, or if there are any ground intrusive activities performed, appropriate soil management procedures should then be provided.

1.4.5 North Landfill Area (present day)

The planned redevelopment is not expected to disturb or damage the North Landfill area including the twelve (12) existing groundwater monitoring wells that are present around the North Landfill. To protect the wells, a fence will be installed around the North Landfill and the associated existing 12 monitoring wells that are present around the North Landfill.

2.0 BACKGOUND INFORMATION AND AREAS OF CONCERN

2.1 Operational and Disposal History

The Site is in an area primarily characterized by commercial, industrial, and residential properties. As early as 1940, the triangular parcel along Pierces Road was an undeveloped, densely wooded lot. E.I. DuPont de Nemours and Company, Bayer CropScience, Inc (Dupont) acquired the Site and southern adjoining property in 1911. Until the 1967, Dupont conducted manufacturing activities, including coating fabrics with nitrocellulose, on the southern adjoining property. The Site was used for landfilling wastes associates with the off-Site manufacturing activities.

- Waste disposal areas on the Site included the North and South Landfills and waste fill areas between these two landfills. The South Landfill was reportedly used for the storage, burning, and burial of various facility wastes and residual waste ash. The North Landfill was previously developed with an incinerator that was used to burn wastes, and an open field that was used to evaporate waste. Some of the non-burnable materials were also disposed of on this part of the Site.

- Wastes reportedly disposed of at the DuPont-Stauffer Landfill site include methyl ethyl ketone (MEK), methyl isobutyl ketone (MIBK), pigments, polyvinyl chloride (PVC) resins, oils, toluene and other volatile organic compounds (VOCs), metal wastes and various solids such as fabric, metal cans, cotton synthetics, and PVC film.

Following Stauffer Chemical Company and Stauffer Management Company, LLC (Stauffer) purchase of the Site and southern adjoining property in 1968, they continued production of coated fabrics and also produced polyvinyl chloride (PVC) sheeting until operations ceased in 1979. Related on-Site disposal activities reportedly ceased in 1974. The southern adjoining manufacturing facility was purchased by Creek Industrial Center in 1979 with Dupont-Stauffer retaining ownership of the project Site.

2.2 Remedial History Prior to Remedial Investigation/Actions

In 1986, the NYSDEC first listed the site as a Class 2a site in the Registry of Inactive Hazardous Waste Disposal Sites in New York (the Registry). A Class 2a listing is a temporary classification assigned to a site that has inadequate and/ or insufficient data for inclusion in any of the other classifications. In 1994, after a preliminary site investigation, the NYSDEC listed the site as a Class 2 site. A Class 2 site is a site where hazardous waste presents a significant threat to the public health, or the environment and action is required. The NYSDEC completed a Phase I Environmental Site Assessment (ESA) of the landfill in 1986, resulting in the Class 2a listing. The United States Environmental Protection Agency (USEPA) also performed a Site inspection of the landfill in 1987. Sampling conducted by the USEPA indicated the presence of polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs), and metals in the surface and subsurface soils. Additional work was performed by the USEPA in 1992 which included soil, creek sediment, and creek surface water sampling. The results confirmed the presence of PAHs and metals in soil and sediment.

A Preliminary Site Assessment (PSA) was then conducted by the NYSDEC in 1994 with the results being similar to the previous investigations. Groundwater sampling results indicated the presence of trichloroethene (TCE) and bis(2-ethylhexy1)phthalate (BEHP) and the potential for impacts to Gidneytown Creek was noted. Based on this data, the site was reclassified from a Class 2a to a Class 2 status in September 1994. DuPont-Stauffer then completed a Supplemental PS A in 1999. Groundwater sampling results confirmed the presence of BEHP, likely due to the plastic nature and burning of the waste stream.

The NYSDEC, DuPont and Stauffer entered into an Order on Consent in March 1999. The Order obligated the responsible parties to perform a Supplemental PSA. An amendment to the Order on Consent dated March 2002 required the responsible parties to complete a Supplemental Remedial Investigation (SRI) program. The SRI report was approved by the NYSDEC in July 2003.

2.3 Summary of Remedial Investigation

The purpose of the SRI was to define the nature and extent of any contamination resulting from previous activities at the Site; determine if environmental media, i.e., soil, groundwater, etc., are a significant threat to human health and the environment; and identify an appropriate remedial strategy for the Site that allows productive Site reuse. The SRI was conducted between September 2001 and February 2004, and the results presented in the Supplemental Remedial Investigation Report (DuPont Corporate Remediation Group, June 2004). Field activities conducted during the investigation are detailed in the SRI report and summarized below:

- Research of plant records and aerial photographs to determine historical waste disposal areas; Geophysical survey to determine the existence of an 8-foot diameter steel tank in the former landfill and other potential structures.
- Excavation of test pits to determine the nature and extent of the soil contamination in the various waste fill types.
- Installation of soil borings, eight (8) temporary monitoring wells, four (4) permanent monitoring wells, and two (2) bedrock wells for analysis of soils and groundwater as well as physical properties of soil and hydrogeologic conditions.
- Installation of six (6) piezometers adjacent to Gidneytown Creek to perform a hydraulic assessment and determine if the creek does not provide recharge to the overburden aquifer at the site.
- Collection of five (5) surface water samples and seven (7) aquatic sediment samples from Gidneytown Creek to assess potential impacts to the creek from the Site.
- A water use survey in conjunction with the local public water providers in order to determine what public water supply was available or if there were private groundwater uses in the vicinity of the site.
- A survey of any private or public wells west of the Site along Taft and Dix Avenues.

To determine if the waste materials, groundwater, surface water, soil and soil vapor contain contamination at levels of concern, data from the SRI were compared to the following NYSDEC Standards, Criteria, Guidance (SCGs).

- Soil SCGs are based on the NYSDEC "Technical and Administrative Guidance Memorandum (TAGM) 4046.
- Groundwater, drinking water, and surface water SCGs are based on NYSDEC "Ambient Water Quality Standards and Guidance Values" and Part 5 of the New York State Sanitary Code.; Determination of Soil Cleanup Objectives and Cleanup Levels".
- Sediment SCGs are based on the NYSDEC "Technical Guidance for Screening Contaminated Sediments".

2.3.1 Nature and Extent of Contamination

Many soil, groundwater and sediment samples were collected to characterize the nature and extent of contamination at the Site. The main categories of contaminants that exceed their SCGs are VOCs, semi-volatile organic compounds (SVOCs), and inorganics (metals). The VOCs that most commonly exceed their SCGs in the landfill waste are acetone, benzene, methyl ethyl ketone, methyl isobutyl ketone, and toluene. The SVOCs of concern are bis(2- ethylhexy1)phthalate, buytl benzene phthalate, N-dioctyl phthalate, and phenol. The inorganic metals that most commonly exceed their SCGs are cadmium, lead, and mercury.

Landfill Waste Disposal Areas

Data collected during the test pit excavations and soil boring installation activities in the North and South Landfill areas were used to determine the nature and extent of the landfill waste. The SRI determined that there were waste disposal areas where waste material or fill had been disposed (fill areas), and areas where waste material or fill had not been disposed (non-fill areas). Six (6) distinct waste fill types were identified in the North Landfill (*Waste fill Types A through F*). One common waste fill type was discovered in the South Landfill (*South Landfill Waste fill)*. The following list includes the identified waste fill types. **Figure 4** depicts the locations of these materials on the Site prior to the remedial action (see section 2.4).

- *Type A waste fill* (grey color in area of present-day North Landfill), in the northern area of the Site, consisted largely of gray-colored fine ash/cinder/soil material mixed with other inert debris (glass, wood, brick, etc.).

- *Type B waste fill* (dark green color), in the eastern area of the Site, consisted of hardened polyvinyl chloride (PVC) sheeting, fabrics, construction and demolition (C&D) debris, fabrics, and small amounts of scrap metal scattered on the ground surface.

- *Type C waste fill* (blue color), located in the central area of the Site, consisted of C&D debris, PVC, and fabric exposed at the ground surface.

- *Type D waste fill* (pink color), located in the central and eastern areas of the Site as relatively small, isolated pockets of buried fill, consisted of colored paste/putty-like material intermittently mixed with fabrics and other debris. These areas reportedly correspond with the location of former trenched disposal areas and contained non-burnable wastes "relatively small in volume and mostly isolated.

- *Type E waste fill* (purple color), located in the western area of the Site, consisted of shallow impacted soils.

- *Type F waste fill* (light green color), located in the southern area of the Site, consisted of mounded waste material and impacted soils.

- *South Landfill waste fill* (yellow color), located in the southern area of the Site, consisted primarily of black ash/cinder material with some C&D debris. The South Landfill ash exhibited elevated levels of metals as well as polycyclic aromatic hydrocarbons (PAHs). Lead and cadmium in particular were present in a portion of the South Landfill at levels in excess of the Toxic Characteristic Leaching Procedure (TCLP) regulatory levels of 5 mg/l and 1 mg/l respectively, indicating this waste material was a characteristic hazardous waste that required appropriate handling and disposal.

Analytical results indicated concentrations of inorganic metals and SVOCs mainly in the shallow soils, that were above NYSDEC Technical and Administrative Guidance Memorandum (TAGM) 4046 for all waste fill Types. Several VOCs, SVOCs, inorganic metals, and PCBs were detected above TAGM 4046 remedial objectives for Waste Type D fill in both surface and subsurface soils. These findings are consistent with waste streams commonly found in closed industrial waste landfills. The majority of the waste encountered at the Site was found at or just below the surface and contains concentrations of contaminants such as inorganic metal compounds and SVOCs.

<u>Groundwater</u>

Four (4) rounds of groundwater monitoring were conducted during the SRI with fourteen wells selected for sampling. In 2001, both sampling of groundwater in the overburden and bedrock zones was conducted. Inorganic metals and one SVOC (BEHP) were detected at or above State groundwater standards in the overburden groundwater. The bedrock data indicated that five (5) VOCs including chlorobenzene, 1,2-dichloroethane, tetrachloroethylene, toluene, and trichloroethene were identified above SCGs.

Subsequent overburden groundwater sampling during 2003 resulted in BEHP concentrations that did not exceed groundwater standards. Four inorganic constituents (iron, magnesium, manganese, and sodium) were identified above their SCGs in many of the wells. These four metals are predominantly naturally occurring, and their presence is not believed to be due to landfill waste disposal activities. Several other metals (antimony, arsenic, beryllium, chromium, copper, lead, mercury, nickel, thallium, and zinc) were also identified above SCGs in two temporary overburden wells.

<u>Surface Water</u>

A total of five surface water samples were collected in Gidneytown Creek during the SRI. The results of this sampling were compared to SCGs. Low levels of VOCs and SVOCs were detected in surface water. Mercury was also elevated in all the surface water samples collected. Mercury was also noted above SCGs in surface and subsurface soil at the DuPont-Stauffer Landfill. No PCBs or pesticides were detected. Other sources of contamination to this stream are not ruled out (e.g. urban runoff, I-84 and the adjacent Newburgh City landfill).

Sediment

Sediment samples were collected at six locations in Gidneytown Creek during the SRI with one location located slightly upstream of the Site. Surface samples were collected from an interval of 0 to 6 inches bgs at each of the 7 locations. Subsurface samples were collected at three locations which were obtained from the interval of 6 to 12 inches bgs. No VOCs were detected above SCGs. No PCBs or pesticides were detected. Several SVOCs were identified in downgradient sampling locations along the southern portion of the Site. These SVOCs were predominantly identified as PAHs. Several inorganic compounds, including several identified above SCGs in surface and subsurface soil at the Site, were detected in the sediments above SCGs. Other urban sources of contamination to the stream are not ruled out (e.g. urban runoff, I-84 and the adjacent Newburgh City Landfill).

2.4 Summary of Remedial Action

Following the SRI, a second Order on Consent (Index Number W3-0988-02-04) was executed on August 9, 2005, which required the DuPont and Stauffer Companies to complete a Focused Feasibility Study (FFS), remedial design, remedial construction, and implement a Site Management Plan that included operation, monitoring, and maintenance (OM&M) and environmental easements. The NYSDEC issued a Record of Decision (ROD) presenting the NYSDCE-selected remedy for the Site in August 2006, and later NYSDEC issued an Explanation of Significant Difference (ESD) in June 2007. As presented in the ROD, the following Remedial Action Objectives (RAOs) were established for the Site:

- Eliminate, or reduce to the extent practicable, exposure to the surface and subsurface waste and contaminated soil and other identified waste fill types in the north and south landfill areas.
- Eliminate, or reduce to the extent practicable, the potential for exposure to on-site soil vapor and groundwater.
- Eliminate, or reduce to the extent practicable, the potential for water quality degradation to Gidneytown Creek due to runoff from the Site.

To achieve the RAOs above, the ROD selected excavation, characterization, and off-Site disposal of identified hazardous fill types, construction of an engineered geomembrane cap for consolidation of all remaining non-hazardous waste fill types; and soil cover with a demarcation layer for all excavated areas and non-fill areas where surface soils would remain above 6 NYCRR Part 375 Commercial Use Soil Cleanup Objectives (CUSCOs). The June 2007 ESD modified the selected remedy to allow the excavated South Landfill waste that is characterized as hazardous waste to be treated within the South Landfill area to meet the requirements of Land Disposal Restrictions (LDRs) pursuant to 40 CFR Part 268 and 6NYCRR Part 376, with subsequent off-Site disposal at a solid waste facility if testing following pre-treatment demonstrates that it meets all the criteria pursuant to these LDR regulations.

Remedial Actions (RA) at the Site were performed by O'Brien & Gere Engineers, Inc. (OBG) of Syracuse, New York, between August 2013 and May 2016. RA was performed in accordance with the requirements of the August 2005 Order on Consent, August 2006 ROD, June 2007 Explanation of ESD issued by NYSDEC, and the NYSDEC-approved Final Remedial Design Report for Waste Removal and Cap, prepared by OBG in February 2013. Generally, remedial actions included:

- Excavation and off-site disposal of Type D waste fill, which consists of paste-like and putty-like material intermittently mixed with fabrics and other debris in the north landfill area.
- Excavation, characterization, and off-site treatment and disposal of ash, which contained hazardous concentrations of metals, in the south landfill area.
- Excavation of nonhazardous waste in areas in the north and south landfills and relocation of the nonhazardous waste to a designated area in the north landfill, where an engineered cap was installed. The engineered cap consists of a 40-mil linear low-density polyethylene (LLDPE) geomembrane, an 18-inch-thick barrier protection layer, and a 6-inch layer of topsoil.
- Collection and analysis of confirmation soil samples from the base of the excavation and the perimeter sidewalls.
- Backfilling excavations to development grade with recycled concrete aggregate (RCA) and 3/4-inch virgin crushed stone.

The Record Drawings, provided in **Appendix A,** show the extent of the excavations made during the RA to remove the waste and impacted soil. The native soil at the excavation limits, depicted on **Figure 5,** was sampled and excavation ceased once the CUSCOs were achieved, or bedrock encountered, whichever occurred first as required by the NYSDEC

Hazardous waste was removed from the Site and non-hazardous waste and impacted soil not satisfying CUSCOs was consolidated and capped on Site. Since non-hazardous waste and impacted soil is consolidated on Site and contained below a geomembrane cap in accordance with the RA design, which is hereafter referred to as "remaining contamination", an Institutional Control (IC) in the form of an Environmental Easement was required for the remedy as a means to ensure the maintenance and preservation of the engineering controls (EC). The Environmental Easement is provided in **Appendix B**.

Remaining contamination at the Site included 45,898-cubic yards of non-hazardous waste and impacted soil not meeting the commercial site use cleanup standards (6 NYCRR Part 375 CUSCOs) were excavated during the RA. The non-hazardous waste and impacted soil were consolidated and capped with a 40-mil geomembrane liner, 18-inch-thick barrier protection layer, and 6-inch thick layer of topsoil as shown by the Record Drawings (**Appendix A**). This cap or EC needs to be maintained in perpetuity to preserve the protectiveness and effectiveness of the remedy. Also, the four non-fill areas (NFA-5, 11, 22 and 33) and a former building foundation area are identified on the Record Drawings (**Figure 6** and **Figure 7**) where there is the possibility of native soil below a depth of 1 ft that may not meet the restricted commercial standards for surface soil. In these four non-fill areas and the former foundation area, a demarcation fabric and a soil cover of a minimum of 1 ft thick was placed above the area to prevent exposure to the native soil below.

Remedial actions were completed in May 2016. A draft version of the FER was submitted on October 31, 2016, and the NYSDEC issued a certificate of completion on October 6, 2017. Additional details regarding the implementation of remedial actions are found in the November 2016 Final Engineering Report (FER), prepared by OBG.

2.5 IC/EC Plan Compliance

Because residual contaminated soil, groundwater, and soil-vapor remain beneath the site, IC/ECs are required to protect human health and the environment. The Engineering and Institutional Control Plan included in the SMP describes the procedures for the implementation and management of the IC/ECs.

2.5.1 IC/EC Components

The following summarizes the IC/ECs that were a component of the NYSDEC-approved remedy:
ICs:

- The property may be used for restricted commercial use as described in 6 NYCRR Part 375-1.8(g)(2)(iii) and industrial use as described in 6 NYCRR Part 375-1.8(g)(2)(iv). The property may not be used for a higher level of use, such as unrestricted or restricted residential use without additional remediation and amendment of the Environmental Easement, as approved by the NYSDEC.
- ECs must be inspected at a frequency and in a manner defined in the SMP.
- The use of groundwater underlying the property is prohibited without necessary water- quality treatment as determined by the NYSDOH or the Orange County DOH to render it safe for use as drinking water or for industrial purposes, and the user must first notify and obtain written approval to do so from the respective department.
- Groundwater and other environmental or public-health monitoring must be performed as defined in the SMP.
- Data and information pertinent to site management of the controlled property must be reported at the frequency and in a manner defined in the SMP.
- All future activities on the property that will disturb remaining contaminated material must be conducted in accordance with the SMP.
- Monitoring to assess the performance and effectiveness of the remedy must be performed as defined in the SMP.
- Operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical components of the remedy shall be performed as defined in the SMP.
- Access to the site must be provided to agents, employees or other representatives of the state of New York with reasonable prior notice to the property owner to ensure compliance with the restrictions identified by the Environmental Easement.

ECs:

- Maintenance of a cover system to prevent human exposure to residual contaminated soil. The cover system consists of:
- In the north landfill area, an engineered cap consists of a 40-mil linear low-density polyethylene (LLDPE) geomembrane, an 18-inch-barrier protection layer, and a 6- inch layer of topsoil.
- In areas of remedial excavations, a cover consisting of a demarcation barrier separating native soil that exceeds NYSDEC Title 6 of the Official Compilation of New York Codes, Rules and Regulations (6 NYCRR) Part 375 Restricted Use – Commercial Soil Cleanup Objectives (Part 375 CU SCOs) and a 1-foot layer of imported soil meeting Part 375 CUSCOs.

2.5.2 IC/EC Plan Status

Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C. (Langan) was providing SMP compliance services to Stauffer Management Company, LLC until July 3, 2023. Langan conducted the 2023 annual groundwater sampling and site-wide inspection prior to the property transfer. LaBella began providing environmental consulting services following the July 3, 2023, acquisition of the property by IV5 Newburgh South Logistics Center LLC. No deviations of the IC/ECs were noted during the 2023 certification period.

2.6 Summary of Redevelopment Preparation Environmental Investigations and Activities

IV5 acquired the Site in July 2023 with the plan to redevelop the property with a commercial warehouse facility. To support redevelopment, several submittals have been made to NYSDEC, and additional investigations have been conducted. Separate from engineering Site design work and municipal Site plan review documents, the following key environmental related documents have been submitted to, or received from, NYSDEC. These documents are available upon request from IV5 and/ or LaBella.

1. Site Redevelopment Documents

a. October 6, 2022 – Soil Management Plan NYSDEC Site Number 3-36-009 – prepared by LaBella Associates, D.P.C. (LaBella).

b. December 9, 2022 – NYSDEC response to Soil Management Plan.

c. April 13, 2023 - Revised Development Plans – Proposed Warehouse – prepared by LaBella.

d. May 9, 2023 - NYSDEC response to Revised Development Plans – Proposed Warehouse.

2. Phase I Environmental Site Assessment (ESA)

   a. April 5, 2023 – Phase I ESA in conformance with the scope and limitations of American Society for Testing Materials (ASTM) E 1527-21– prepared by LaBella.

      1. This assessment revealed the following controlled recognized environmental condition (CREC) in connection with the Site:

         - The Site is a Class 4 inactive hazardous waste disposal site (3-36-009) that was remediated under the NYSDEC State Superfund program (reclassified from a Class 2 in November 2017). Prior to remediation, the primary contaminants of concern were VOCs, SVOCs, and metals. An SMP and Environmental Easement are in effect for the Site. As the Site has remaining contamination, the Site owner must comply with continuing monitoring, maintenance, and reporting. These obligations stay with the Site and transfer to new ownership. Site activities, including redevelopment, must comply with the SMP, Environmental Easement, and ICs/ECs. Prior to the construction of any enclosed structures at the Site, the potential for soil vapor intrusion (SVI) must be evaluated, or an SVI mitigation system (e.g., subslab depressurization system (SSDS)) may be installed. Based on the presence of IC/ECs for the Site, the Subject Property impacts are considered a **CREC**.

      2. This assessment identified the following significant data gaps (SDGs) in connection with the Site, and determined additional data would be necessary to determine whether or not a a recognized environmental condition (REC) exists:

         - At least eight structures were previously located on the southern portion of Site, including two structures in the general location of the present-day foundation and concrete pad (see **Figure 2**). Provided information indicates an incinerator was previously on the Site; however, no other information was provided regarding prior building use or heating systems, which is an **SDG**.

         - The lack of information regarding potential Site impacts, including per- and polyfluoroalkyl substances (PFAS), from the northeastern adjoining Newburgh Landfill and Scobie Road landfill is considered an **SDG**.

         In addition, PFAS has been identified on the Site. The presence of PFAS on the Site is not considered a REC, but PFAS are considered a Business Environmental Risk (BER). However, once PFAS are added to the hazardous chemical list, the presence of these groundwater impacts would be considered a REC and may not fall under the CREC summarized above.

3. Groundwater Elevation Study

   a. June 8, 2023 – Work Plan for Groundwater Elevation Study – prepared by LaBella. Submittal included a Change of Use Form for this study and subsequent redevelopment.

   b. July 5, 2023 – NYSDEC comment on Change of Use Notification – Groundwater Elevation Study.

   c. July 13, 2023 – (revised) Work Plan for Groundwater Elevation Study – prepared by LaBella. Submittal included a Change of Use Form for this study and subsequent redevelopment.

d. July 13, 2023 – NYSDEC email approval of the revised Work Plan for Groundwater Elevation Study.

e. December 20, 2023 – Groundwater Elevations Study including CAMP Results – prepared by LaBella.

f. March 7, 2024. – Groundwater Figure.

4. Geotechnical Investigation

a. August 9, 2023 – Work Plan for Geotechnical Investigation – prepared by LaBella.

b. August 17, 2023 – NYSDEC approves Work Plan for Geotechnical Investigation.

c. October 27, 2023 – Community Air Monitoring Plan Implementation Report and Spill – Geotechnical Investigation – prepared by LaBella.

- One geotechnical test pit (TP-1) encountered evidence of buried debris and impacts. This finding was reported to NYSDEC.
- Approximately 1 gallon of hydraulic fluid leaked from the drill rig (reported to NYSDEC and assigned Spill 2304586. The impacted soil was removed and disposed of off-site, and a request was made to close the spill. A March 2024 search of the NYSDEC online Spill Database shows this spill remains open.

5. Test Pit TP-1 Delineation and Remediation

a. November 16, 2023 - NYSDEC response to Work Plan - Focused Impacted Soil and Debris Delineation and Removal Work Plan.

b. November 16, 2023 - Focused Impacted Soil and Debris Delineation and Removal Work Plan – prepared by LaBella (submitted November 21, 2024).

c. February 8, 2024 - Impacted Material Excavation and Removal Work Plan – Addendum – prepared by LaBella. This Work Plan Addendum included the results of the delineation investigation.

d. February 20, 2024 - NYSDEC approval of LaBella's February 8, 2024, Impacted Material Excavation and Removal Work Plan – Addendum. Disposal facility information and schedule to be provided to NYSDEC.

e. February 20, 2024 - Change of Use for mid-March 2024 removal of impacted material to NYSDEC.

3.0 OBJECTIVE

Based on planned Site grading and redevelopment of the property with a 416,320-square foot slab on grade warehouse facility plus associated utilities, driveway/loading dock/parking areas, and stormwater management basins, the potential exists for Site earthwork contractors to encounter remaining subsurface contamination during the upcoming redevelopment of the Site.

The objective of this SGMP is to provide guidance regarding the characterization and management of subsurface impacted soil, groundwater, infrastructure and man-made industrial derived fill materials (urban fill) which may be encountered and generated during earthwork activities at the Site. The Site has been remediated for restricted commercial use as described in 6 NYCRR Part 375-1.8(g)(2)(iii) and industrial use as described in 6 NYCRR Part 375-1.8(g)(2)(iv) and is classified as a Class 4 inactive hazardous waste disposal site. As such, Site activities, including redevelopment, must comply with the SMP, Environmental Easement, and IC/ECs.

3.1 Applicability of Soil and Groundwater Management Plan

This SGMP applies to any Developer, Contractor, Utility Contractor, and Municipal Agency that disturbs the subsurface at the Site.

3.2 Roles and Responsibilities

The soil management procedures described herein should be coordinated and conducted by firms and individuals who are familiar with the conditions of the SGMP, have an understanding of the known or suspected conditions in different areas of the project Site, and have related experience and capabilities to implement the applicable work activities. The roles and responsibilities for environmental oversight and management that will be responsible when contamination is disturbed during redevelopment are outlined in the following table:

Company	Personnel/Title	Responsibilities
Owner/Developer IV5 Newburgh South Logistics Center LLC	Frank Van Der Veken Associate, Development (908) 337-4861	Provide interface with LaBella and NYSDEC regarding the implementation of the SGMP.
LaBella	Arlette St. Romain Project Manager (518) 260-1811	Provide regulatory agency interface and guidance to field personnel throughout project. Provide a final report verifying compliance with this SGMP and documenting all excavation, reuse, and waste disposal activities.
LaBella	To Be Determined Environmental Analyst (518) 885-5383	Provide full time oversite to observe and document the implementation of the SGMP. Daily discussion with Contractor and/or Construction Manager. Provide guidance on the segregation, staging, and sampling of excavated materials and conduct community air monitoring.
Contractor	To Be Determined	Excavate, segregate, and stage materials following the direction of LaBella, and alert LaBella in the event that unknown evidence of impairment is encountered.

3.3 Notification

Notifications will be submitted by the Site Owner, or their representative, to the following NYSDEC representative:

Brittany O'Brien-Drake
Assistant Geologist, Project Manager
Division of Environmental Remediation, Remedial Bureau D
625 Broadway, 12th Floor, Albany, NY, 12233

Notifications are required for the following reasons:

- A minimum of a 14-day advance notice prior to the start of any proposed ground-intrusive activities pursuant to the Excavation Work Plan.
- Notice within 48-hours of any damage or defect to the EC that reduces or has the potential to reduce the effectiveness of an EC and likewise any action to be taken to mitigate the damage or defect.
- Verbal and e-mail notice by noon of the following day of any emergency, (e.g. fire, flood) that reduces or has the potential to reduce the effectiveness of ECs in place at the Site, with written confirmation within 7 days that includes a summary of actions taken, or to be taken, and the potential impact to the environment and the public.
- Follow-up status reports on actions taken to respond to any emergency event requiring ongoing responsive action shall be submitted to the NYSDEC within 45 days and shall describe and document actions taken to restore the effectiveness of the ECs.

3.4 Spill Reporting/Administration

The Site is known to have areas impacted with ash and related debris. Other types of contamination (i.e., petroleum, chemical) have also been encountered at locations of past investigations. The NYSDEC must be notified in the event that petroleum- or chemical-related contaminated soil is discovered on the project Site. This notification will need to be provided directly to the NYSDEC Spill Hotline (telephone number (1-800-457-7362) as soon as possible.

3.5 Site Security

The Site is partially enclosed by existing fencing. All on-site personnel and visitors will be required to sign in and sign out before entering or leaving the site. LaBella will maintain records of all site access and security incidents. Visitors will be required to read and conform to the Health and Safety Plan (Section 9.0) prior to accessing controlled work zones. Vehicular traffic will be permitted in designated parking areas within the Support Zone. Use of parking areas will be restricted to vehicles of LaBella and subcontractors, the Owner, service vehicles related to the work, and authorized visitors

Access to the Exclusion and Contamination Reduction Zones will be restricted to authorized vehicles only. Visual barriers comprised of caution tape and temporary construction fence will be installed at the work zones prior to the task implementation. The zone locations will be determined in the field by LaBella. The locations of the zones will always be one of the topics discussed during the daily safety meeting. Active remediation in the work area will only commence after the zones are established.

4.0 REGULATORY LIMITS, REGULATIONS, AND GUIDANCE

Relevant standards and guidelines are summarized below. These include Federal hazardous waste regulations, various soil reference values promulgated by New York State agencies, New York State groundwater standards, and relevant regulations, standards, and guidelines for the removal of fuel storage tanks. These documents and standards will be utilized to effectively implement the SGMP.

4.1 Solid Waste Regulations

All soil/fill/solid waste excavated, re-used, and/ or removed from the Site will be considered and treated as contaminated and regulated material and will be handled, transported, and/ or disposed in accordance with all local, State (including 6 NYCRR Part 360), and Federal Regulations.

Chemical criteria for on-Site re-use of material have been approved by NYSDEC and are established by Commercial Use Soil Cleanup Objectives (CUSCOs) for commercial use Sites (as presented in 6 NYCRR Part 375 Table 375.6.8(b). The NYSDEC allows for contaminated on-Site material with below CUSCOs, including historic fill and contaminated soil, to be relocated to other areas within the same Site in accordance with 6 NYCRR Part 360.13(c) assuming they are appropriately placed below a demarcation layer or impervious surface. Soil/fill/solid waste with contaminate concentrations greater than Unrestricted Use Soil Cleanup Objectives (UUSCOs) will not be reused within a soil cover layer, within landscaping berms, or as backfill for subsurface utility line. Organic matter (woods, roots, stumps, etc.) or other solid waste derived from clearing and grubbing of the Site will not be reused on-site. However, per the SMP, all on-site re-use must be approved by the NYSDEC prior to reuse.

Unregulated off-Site management of materials from the Site will not occur without formal NYSDEC approval. Off-Site disposal locations for excavated material must be identified in a pre-excavation notification. This will include estimated quantities and a breakdown by class of disposal facility if appropriate, (e.g. hazardous waste disposal facility, solid waste landfill, petroleum treatment facility, C/D recycling facility, etc). This documentation will include waste profiles, test results, facility acceptance letters, manifests, bills of lading and facility receipts. Non-hazardous historic fill and contaminated soils taken off-Site will be handled, at minimum, as a Municipal Solid Waste per 6NYCRR Part 360-1.2.

4.2 Hazardous Waste Regulations

As defined by the Resource Conservation and Recovery Act (RCRA), waste (e.g., excavated soil, fill materials, or building materials removed during deconstruction/renovation activities) can be classified as “hazardous waste” if it is one of the Federal “listed wastes” or if it possesses one of the four hazardous characteristics (“D” listed wastes): (1) ignitibility, (2) reactivity, (3) corrosivity, or (4) toxicity. The EPA has developed standard tests to measure these four characteristics. The three physical characteristics (ignitibility, reactivity and corrosivity) are tested using numerical standards of measurement.

The fourth characteristic, toxicity, the one most frequently exceeded by contaminated soils and fills, is tested using the Toxicity Characteristics Leaching Procedures (TCLP), which provides an estimate of the concentrations of contaminants that would leach into groundwater if the material were disposed of in an environmentally unsecured landfill. To assess whether materials are hazardous wastes, representative composite samples of the material are collected and submitted to a laboratory for analysis.

Composite samples are representative samples of the material that are collected from multiple locations throughout the waste. The samples are analyzed by the laboratory in accordance with the United States Environmental Protection Agency (USEPA) test methods. If the results of the laboratory testing indicate that the physical or toxicity characteristics of the sample exceed the RCRA regulatory limits detailed in 40 CFR Part 261, the material is considered hazardous waste.

4.3 Reference Values

Reference values to assess environmental impacts will include the following documents and regulations:

Evaluation of Soil and Fills

- NYSDEC Commissioner Policy 51 (CP-51) Guidance Document: NYSDEC's Division of Environmental Remediation (DER) issued CP-51, "Soil Cleanup Guidance," in October 2010. CP-51 provides the framework and procedures for the selection of soil cleanup levels appropriate for each of the remedial programs in the NYSDEC's DER. CP-51 replaces TAGM #4046, the Petroleum Site Inactivation and Closure Memorandum, and Sections III and IV of Spill Technology and Remediation Series (STARS) #1.
- NYSDEC DER-10: NYSDEC Division of Environmental Remediation: Technical Guidance for Site Investigation and Remediation dated May 2010 (DER-10) addresses guidance procedures applicable to site investigation and remediation activities. This document will be utilized to determine the appropriate sample frequency for any excavation closure sampling and all Quality Control/Quality Assurance protocols set forth by the Department.
- 6NYCRR Part 375-6.8: Regulations set for this section is typically used for NYSDEC remedial program sites such as inactive hazardous waste disposal sites, brownfield, or environmental restoration sites. The regulatory values in this section can be used to assess unrestricted and restricted use soil cleanup objectives. The standards contained within Part 375 are the most current regulatory guidance available for use. However, the NYSDEC typically only utilizes this set of guidance for projects administered by the NYSDEC Hazardous Waste Group.

Groundwater Reference Values

Reference values to assess groundwater impacts are included in NYSDEC's Technical and Operational Guidance Series (TOGS) 1.1.1 Groundwater Standards, dated June 1998. Other reference values exist for drinking water and effluent standards for wastewater discharges to state water bodies; however, this SGMP is not intended to manage these subjects or discharges.

New York State Guidance on Petroleum Storage Tanks

Removal of certain types of petroleum storage tanks is regulated by NYSDEC under 6 NYCRR Part 613, which requires that tanks out of use for 12 months or longer be closed in place or removed. Tank decommissioning procedures are included in 6YNCRR Part 613.3. Contaminated soils surrounding the tanks (if present), separate phase product on the water table, or contaminants dissolved in the groundwater must be removed.

Guidance for Evaluating Soil Vapor Intrusion

The NYSDOH provides guidance in the Guidance for Evaluating Soil Vapor Intrusion in the State of New York, dated October 2006 (and associated amendments), that presents the approach to identifying and addressing current and potential human exposures to contaminated subsurface vapors associated with known or suspected volatile chemical contamination. This guidance provides an overview of vapor intrusion issues, guidance on collecting data that can be used to identify current or potential human exposures, discusses data evaluation, and provides an overview of soil vapor intrusion mitigation methods and recommendations pertaining to their selection for use, installation and design, post-mitigation testing, operation, maintenance and monitoring, termination of operation, and annual certification. The NYSDEC provides additional guidance in *DER-13*, *Strategy for Evaluating Soil Vapor Intrusion at Remedial Sites in New York*, and the Environmental Protection Agency (EPA) provides additional guidance in the *Indoor Air Vapor Intrusion Mitigation Approaches.*

Excavation of Asbestos-Containing Materials

The New York State Department of Labor (NYSDOL) provides the Industrial Code Rule 56 for guidance relating to hazards to the public safety and health during the removal, encapsulation, enclosure, repair, or disturbance of friable and non-friable asbestos, or any handling of asbestos material that may result in the release of asbestos fiber. The USEPA also provides guidance in Part 763-Asbestos.

5.0 SOIL AND GROUNDWATER MANAGMENT PLAN (SGMP)

This SGMP has been designed for intrusive subsurface excavation activities at the Site. This SGMP pertains to earthwork activities that will disturb the subsurface at the Site. It is anticipated through previous investigations and observations at the Site, that materials of environmental concern may be encountered during redevelopment activities. This SGMP has included specific procedures and tasks to manage environmental concerns that include but are not limited to:

- identification of materials of environmental concern
- waste disposal
- health and safety plan
- relocation of soil on-site
- execution of SGMP
- soil vapor intrusion
- waste management (e.g., handling, storage, etc.)
- regulated solid waste
- community air monitoring plan
- regulatory reporting requirements
- decontamination of equipment
- waste characterization

LaBella will work with the Client and the Contractor to implement this SGMP. As noted previously, LaBella will be on-Site full-time during Site construction activities regarding soil disturbance and/or soil removal activities.

5.1 Context and Overview

Contaminated materials that exist in different media such as structures, utilities, soil, soil gas, and/or groundwater can present health risks to workers, the public, and the environment during construction and/or operation, if not properly managed. The Contractor will need to manage these materials in accordance with the applicable Rules and Regulations and clearly understand the waste characterization and disposal process so as not to compromise construction/operation schedules, budgets and long-term liability for IV5. Even if no contaminated materials are discovered, appropriate due diligence must be exercised so that the proper documentation can be secured to reduce long-term liability for the project and/or the Site.

The Site is planned to be regraded and redeveloped with a 416,320-square-foot slab on grade warehouse facility plus associated driveway/parking areas for trucks, and stormwater management basins. Attached **Figure 3** shows the Overall Site Plan. **Figure 8** shows the areas where excavation is planned with associated depths, and **Figure 9** shows areas of planned fill above existing grade.

Generally, to achieve design elevations, the excavated soil volume could be reused on the Site and supplemented by importing more documented clean fill. **Figure 10** shows areas where clean fill material was brought onto the Site as part of the Site remedy and represents soil that does not require testing if intended for reuse under a cover system. **Figure 11** shows areas and depths where the excavation is anticipated to be deeper than previous Site remedial excavation limits. **Figures 12 and 13** show the proposed excavation limits relative to 2002 groundwater elevations and bedrock elevations, respectively.

5.2 Potential Contaminants of Concern

The contaminants described in this section may be encountered at the Site. Refer to Section 2.3 for a summary of contaminants which have been or are suspected to be present at the Site.

Certain background concentrations can be expected from both natural and human sources. When concentrations exceed regulatory thresholds, an analysis of potential environmental health effects and the need for mitigation measures may be necessary.

Metals

Certain metals can be toxic to humans at elevated concentrations and are often found in historical urban fill material (e.g., cinders and ash).

Volatile Organic Compounds (VOCs)

These include aromatic compounds such as benzene, toluene, ethylbenzene and xylenes, which are found in petroleum products, as well as chlorinated VOCs such as trichloroethene and tetrachloroethene, which are common ingredients in solvents and commercial cleaners. Naturally produced VOCs may also be present including methane and hydrogen sulfide, which are breakdown products of organic materials. Inhaling toxic VOC vapors can be a health hazard, and some VOCs can be flammable if the circumstances are suitable for combustion. In contrast to contaminants such as metals, PAHs, and PCBs, VOCs generate soil gas vapors that may be a source of exposure even if the source (e.g., VOC-impacted soil or groundwater) is not directly exposed. During construction, soil disturbance, or disturbance of VOC containing materials, VOCs could be released to the air and produce toxic or oxygen-deficient atmospheres.

Semi-Volatile Organic Compounds (SVOCs)

These include PAHs, which are common constituents of partially combusted coal or petroleum-derived products, such as waste oils, creosote, coal and coal ash, wood ash, and asphalt. The compounds are often found in historical urban fill. SVOCs and PAHs can pose a risk to human health.

Asbestos-Containing Material

Asbestos-containing materials (ACM) are any material containing greater than one percent (1%) of asbestos, which is a naturally occurring fibrous mineral that is used in many applications for its fire resistance, noise insulation, and electrical insulation properties. Soil and solid waste contaminated with ACM can pose an inhalation health threat to humans.

5.3 Field Screening Methods

Visual, olfactory and instrument-based (i.e., photoionization detector (PID), X-Ray Fluorescence detector (XRF)) soil screening will be performed by LaBella during redevelopment activities that disturb the subsurface at the Site. Soil screening will be performed during all soil disturbance and/or removal work performed during redevelopment at the Site. The contractor will be responsible to alert LaBella if evidence of impairment is encountered. In the event that evidence of impairment is noted by the Contractor, a LaBella environmental professional will aid in the classification and management of the impacted material.

Excavated soils generated during intrusive construction activities are anticipated to either be re-used on-Site or require off-Site landfill disposal. Excavated soils will be segregated based on previous remedy excavation limits and environmental data, and real-time field screening results into one of the following three Types: 1) previously imported clean fill material, including topsoil used as soil cover, that was placed above a demarcation layer, 2) material with field evidence of impacts, 3) material with no field evidence of impacts but excavated from beneath a demarcation layer or from a location where no prior removal is documented to have occurred.

Type 1 soil is acceptable for on-Site reuse without laboratory testing only if reused under buildings, hardscaping, parking lots, or under demarcation layer and one foot of documented clean fill that meets the lower of the protection of groundwater or the protection of public health SCOs. Type 1 soil may also be reused on-Site as soil cover material but must be sampled and analyzed for PFAS and comply with Commercial Use SCGs. Applicable guidance values for perfluorooctanoic acid (PFOA) and perfluorooctane sulfonic acid (PFOS) are listed in NYSDEC's Sampling, Analysis, and Assessment of PFAS (April 2023).

The Type 2 soil will be sampled to characterize its acceptability for disposal at on off-Site landfill facility.

The Type 3 soil is acceptable for re-use on-Site without laboratory testing but must be placed below a demarcation layer or impervious surface and cannot be reused within a one-foot cover soil layer, within

landscaping berms, or as backfill for subsurface utility lines. Type 3 soil that requires removal from the Site will be treated as contaminated and regulated material, require waste characterization sampling per DER-10 Table 5.4(e)10 and landfill facility protocol, and must be transported and disposed in accordance with all local, State and Federal regulations.

5.4 Stockpile Methods

Material staging at the Site will be limited and in proximity to the excavation area at a location considered to be least disruptive to Site activities and access. Type 1, 2, and 3 soils will be staged separately on-Site prior to Site re-use or off-Site transport and disposal to appropriate facilities. Each stockpile will be separately generated according to waste stream and clearly labeled on-Site with signage. Stockpiles piles will be constructed using a 40-mil thick liner to prevent infiltration, leakage, or spillage of contaminated material. The liner will be placed under and a minimum of four (4) feet beyond limits of stockpiled material. Overlapped sections of liner will be maintained at a minimum of two (2) feet. A minimum 20-mil thickness impermeable stockpile cover will be installed all times the pile is not actively in use to prevent contact with precipitation and/ or erosion of stockpiled material. Soil stockpiles will be continuously surrounded with a berm and/or silt fence and appropriately anchored to prevent uplift during high winds.

Stockpiles will be inspected at a minimum once each week and after every storm event. Results of inspections will be recorded in a logbook and maintained at the Site and available for inspection by NYSDEC.

5.5 Material Excavation and Load-Out

LaBella will oversee all invasive work and the excavation and load-out of all excavated material.

The Site owner of the property and its contractors are solely responsible for safe execution of all invasive and other work performed under this Plan.

Loaded vehicles leaving the Site will be appropriately lined, tarped, securely covered, manifested, and placarded in accordance with appropriate Federal, State, local, and NYSDOT requirements (and all other applicable transportation requirements). All trucks loaded with Site material will exit the site using only Owner-approved truck routes. The contractor preparing work plans for the construction proposed shall identify the most appropriate route for the scope of work to be conducted on site, taking into account: (a) limiting transport through residential areas and past sensitive sites; (b) use of city mapped truck routes; (c) prohibiting off-site queuing of trucks entering the site; (d) limiting total distance to major highways; (e) promoting safety in access to highways; and (f) overall safety in transport.

All trucks will be washed prior to leaving the Site. A truck wash will be operated on-Site. LaBella will be responsible for monitoring that all outbound trucks will be washed at the truck wash before leaving the Site until the activities performed under this section are complete. Truck wash waters will be collected and disposed of off-Site in an appropriate manner.

Locations where vehicles enter or exit the Site shall be inspected daily for evidence of off-Site soil tracking. The qualified environmental professional will be responsible for monitoring that all egress points for truck and equipment transport from the Site are clean of dirt and other materials derived from the Site during intrusive excavation activities. Cleaning of the adjacent streets will be performed as needed to maintain a clean condition with respect to Site-derived materials.

All transport of materials will be performed by licensed haulers in accordance with appropriate local, State, and Federal regulations, including 6 NYCRR Part 364. Haulers will be appropriately licensed and trucks properly placarded.

Trucks will be prohibited from stopping and idling in the neighborhood outside the Site. Queuing of trucks will be performed on-Site in order to minimize off-Site disturbance. Off-Site queuing will be prohibited.

5.6 Identification of Solid Waste Impacted Media

Based on the history and observations made as described in Section 2.0, areas of contaminated materials are anticipated to be encountered at the Site during earthwork.

Solid waste or fill materials potentially present at the Site include but are not limited to ash and cinders. These fill materials are considered by the NYSDEC as solid waste that cannot be treated as Construction and Demolition (C&D) solid waste, due to the nature of its origin as a solid waste derived from an industrial source. In accordance with 6 NYCRR Part 360.13(c), fill materials containing ash and cinders may be managed and placed into similar filled areas within the same Site under appropriate cover. Alternatively, these materials can be disposed off-site in a New York State (NYS) Part 360 permitted landfill.

The presence of cinders, ash and other urban fill material can be visually identified during excavation. If questions arise during identification of the solid waste LaBella shall make the final determination, for the classification on how the spoils generated during the construction activities at the Site will be managed.

5.7 Identification of VOC Impacted Media

Based upon prior investigations and Site remedial actions, VOC Impacted Media may be encountered. VOC Impacted Media can be identified by the media exhibiting a chemical or petroleum-like odor, gray to black staining, and/or elevated readings of total VOCs on a PID. Groundwater impacted by VOCs may exhibit a petroleum or chemical odor or sheen. If questions arise during identification of VOC Impacted Media, LaBella will make the final determination for the classification on how the spoils generated during the construction activities at the Site will be managed.

The volatilization of contaminants present in VOC Impacted Media may represent a worker health and safety concern for construction workers at the Site.

5.8 On-Site Management of Solid Waste Impacted Media and VOC Impacted Media

Solid Waste Impacted Media may be relocated on-site if approved by the Engineer and NYSDEC and in accordance with 6NYCRR Part 360.13 and NYSDEC-approved SMP, or legally disposed of off-site at a NYS Part 360 Landfill. The re-location of Solid Waste Impacted Media on-site will require approval by LaBella and NYSDEC prior to final placement.

The staging of Solid Waste and Impacted Media shall be performed in a manner where it is segregated from non-Solid Waste Impacted Media (i.e., clean soils). Staging locations of Solid Waste Impacted Media will be approved by LaBella.

Prior to excavating in areas where solid waste is anticipated, the Contractor shall remove the top layer of non–Solid Waste Impacted Media (i.e., topsoil, asphalt, etc.) as practicable and keep the material segregated from any Solid Waste Impacted Media. If the material is to be relocated for re-use on-site, the Solid Waste Impacted Media shall be directly placed in the fill area or placed on and covered with polyethylene sheeting pending final on-site placement.

Subsurface Solid Waste Impacted Media is not allowed to leave the Site without expressed written consent from LaBella.

Chemical criteria for on-Site reuse of material have been approved by NYSDEC and are established by 6NYCRR Part 375 Table 375-6.8(b) for commercial use Sites. Labella will ensure that procedures defined for materials reuse in this SGMP are followed and that unacceptable material does not remain on-Site. Contaminated on-Site material, including historic fill and contaminated soil, that is acceptable for re-use on-Site will be placed below the demarcation layer or impervious surface, and will not be reused within a cover soil layer, within landscaping berms, or as backfill for subsurface utility lines. Organic matter (woods, roots, stumps, etc.) or other solid waste derived from clearing and grubbing of the site will not be reused on-site.

If encountered, solid (non-aqueous) VOC Impacted Media will be segregated from non-VOC Impacted Media into separate stockpiles and staged on and covered with one layer of 6-mil thick polyethylene sheeting at the end of each workday. The Contractor shall implement reasonable care to secure sheeting and maintain such stockpiles' integrity. VOC Impacted Media will then be tested for USEPA Target Compound List (TCL) and NYSDEC CP-51 list VOCs as well as CP-51 list SVOCs. If concentrations of VOCs and SVOCs are below the CP-51 Soil Cleanup Objectives (SCOs), then the VOC Impacted Media may be re-used on-site. Conversely, if concentrations of VOCs and SVOCs are above the NYSDEC CP-51 SCOs, then the VOC Impacted Media shall be disposed of at a NYCRR Part 360 Landfill (pending landfill approval). The 6 NYCRR Part 375-6.8(b) Commercial Use Soil Cleanup Objective (CUSCO) may be used as guidance for petroleum and chemical compounds not included in CP-51 guidance document.

5.9 Management of Demolition and Solid Waste Material

Non-impacted demolition and solid waste material including any wood, metal scrap, drainage piping, masonry (e.g., concrete, block, bricks) or other miscellaneous solid waste, which are determined to be physically unacceptable for re-use shall be separately stockpiled for off-site disposal or recycling.

Impacted demolition and solid waste material that cannot be cleaned to the satisfaction of LaBella shall be staged on and covered with a minimum of one layer of 6-mil polyethylene sheeting pending waste characterization by LaBella. The Contractor shall secure the sheeting and maintain such stockpiles' integrity to the satisfaction of LaBella. Stockpiling locations shall be approved by LaBella. Impacted demolition and solid waste material will be disposed off-site disposal at a permitted NYCRR Part 360 Permitted landfill.

Cleaning of impacted demolition and solid waste material shall be by physical methods such as scraping, shaking, brushing, etc. Should the Contractor utilize methods which generate liquid waste streams or if liquid waste streams (e.g., oily water, pipes or sumps filled with sludge) are present that require removal, the Contractor is responsible for proper containerization and disposal of each waste stream. The contractor shall segregate each waste stream to the satisfaction of LaBella. Once impacted demolition and solid waste material is determined to be clean to the satisfaction of LaBella and if approved by NYSDEC, the material can be managed in accordance with the SGMP.

5.10 Management of Buried Asbestos-Containing C&D Debris

Some Site areas where excavation is planned previously contained buildings and/or structures, and it is possible that buried demolition debris containing ACM may be present in these areas. If buried asbestos-containing debris is encountered, the Contractor will be required to remove and dispose of the ACM in accordance with all applicable federal, state, and local laws and regulations. The removal of any ACM shall be completed by a licensed Asbestos Contractor with certified workers. In addition:

- All project work must comply with the procedures outlined in NYS Department of Labor regulations at 12 NYCRR Part 56, including amendments.
- While the excavation areas are currently vacant, but previously contained buildings and it is possible that buried demolition debris containing ACM may be present in the former building areas.
- As indicated in SGMP Section 9.0, fugitive dust control measures will be implemented during project demolition and excavation.
- As indicated above any discovered ACM debris will be properly disposed of in accordance with NYSDEC rules.
- As indicated above, proper transportation and disposal of ACM will be conducted by certified entities.

5.11 Management of Excavation Derived Water

All liquids to be removed from the Site, including excavation dewatering, will be handled, transported and disposed in accordance with applicable local, State, and Federal regulations. Dewatering, purge and development fluids will not be recharged back to the land surface or subsurface of the Site but will be managed off-Site.

If excavation derived water (i.e., wastewater) at the project Site is required to be pumped to advance earthwork activities, the Contractor shall pump the water into 55-gallon drums and/ or a holding tank (e.g. poly or frac tank or similar), and stage on-site pending off-site disposal. LaBella shall perform all required characterization testing for analysis at a laboratory approved by the NYSDOH ELAP for the intended analysis. LaBella shall provide a copy of the analysis report to the Contractor. No disposal shall occur prior to LaBella's receipt and acceptance of any laboratory reports. The Contractor must provide all disposal documentation for an approved treatment storage and disposal facility to LaBella prior to disposal and approval from NYSDEC. In the event that off-site transportation of wastewater is necessary, a valid 6 NYCRR Part 364 Waste Transporter Permit shall be required.

5.12 Management of Orphan Underground Storage Tanks and Sub-Grade Structures

If orphan UST(s) or sub-grade structures are encountered by the Contractor, work shall stop immediately in the vicinity of the tank or structure and LaBella must be immediately notified. LaBella will assess the condition of the tank or structure, where practicable. LaBella will notify the NYSDEC if orphan UST encountered, impacted soils requiring delineation and follow-up confirmation sampling are observed, or other potential issues encountered that would require a letter workplan to be submitted. LaBella shall determine when it is practicable to resume work in the vicinity of the tank or structure.

The Contractor shall immediately notify LaBella upon any known environmental release from and/or encountered but not limited to any tank or sub-grade structure. LaBella shall notify IV5 of any known release and make the determination of any spill reporting requirements.

Tanks and sub-grade structures may contain sludges, non-aqueous liquids, or contaminated water. To the extent feasible the Contractor shall avoid damaging such structures upon discovery. Based on the special nature of the work associated with the decommissioning and removal of tanks or sub-grade structures that contain regulated or hazardous wastes, the removal of such structures will be completed by others (e.g., Specialty Environmental Contractor) as determined by LaBella. Coordination between the Contractor and Specialty Environmental Contractor will be completed by LaBella. The removal of any tank or sub-grade structures will be completed as soon as possible based on each discrete situation. The UST will be removed in accordance with the applicable procedures described under the NYSDEC Memorandum for the Permanent Abandonment of Petroleum Storage Tanks (2003) and Section 5.5 of DER-10 (May 2010).

Demolition of non-suspect sub-grade structures (i.e., storm distribution boxes, etc.) will be the responsibility of the Contractor. During removal/decommissioning of the sub-grade structures LaBella shall evaluate the soils adjacent to each structure. All sub-grade structures shall be inspected by LaBella to determine suitability for reuse, recycling, or disposal in accordance with the Specifications.

LaBella shall be responsible for all testing and characterization of Impacted Media and demolition materials described in this Section.

5.13 Material Classifications

The table below details management and re-use requirements for material classes that may be encountered during intrusive Site construction activities. The handling and disposal requirements for ACM are found in NYSDOL Code Rule 56.

Table A – Material Classifications

Class of Material	Description	Screening Parameter	Management/ Re-use of Material Requirements
Class 1	Soil/Solid Waste Impacted Media including but not limited to slag, ash, and cinders, etc.	PID readings up to 10 ppm without significant evidence of impairment or nuisance characteristics (i.e., no significant odors or staining, etc.). Signs of regulated solid waste such as slag, ash, and cinders, etc.	On-Site Reuse: Material may be re-used on-site following laboratory analysis and NYSDEC approval. Material must meet NYCRR Part 375-6.8(b) CUSCOs for Commercial Use. Material must be placed under a demarcation layer and at least 1 ft of imported 'clean' fill, or placed under exterior impervious surfaces (e.g., asphalt, concrete, etc.). Off-Site Reuse: Not Applicable Off-Site Disposal: The material must be disposed at a NYCRR Part 360 landfill facility, following waste characterization sampling and analysis. Requires NYSDEC notification and approval
Class 2	Soil or Solid Waste Impacted Media containing impacts that are above NYCRR Part 375-6.8(b) CUSCOs for Commercial Use	PID readings greater than 10 ppm and/or significant evidence of impairment (significant odors, staining, etc.). May include signs of regulated solid waste such as slag, ash, and cinders, etc.	On-Site Reuse: Not applicable. Off-Site Reuse Not Applicable. Off-Site Disposal: Shall be legally disposed of at a permitted NYCRR Part 360 landfill following waste characterization sampling. Requires NYSDEC notification and approval.
Class 3	Solid waste physically unacceptable for re-use or recycling (e.g., lumber, refuse, metal scrap, large foundations, large pieces of concrete or brick unacceptable for reuse on-site, drainage piping, municipal waste)	No discernable odor or staining and PID readings less than 10 ppm. Visibly free of regulated solid waste such as slag, ash, and cinders, etc.	On-Site Reuse: Not applicable Off-Site Reuse Not Applicable Off-Site Disposal: Off-site disposal at NYCRR Part 360 permitted landfill following waste characterization sampling and analysis. Requires NYSDEC notification and approval. Visibly non contaminated solid waste such as steel, concrete and brick may be transported to a recycling facility. Requires NYSDEC notification and approval.
Class 4	Layers of non-impacted soil and earth that do not contain evidence of impairment and do not appear to be associated with filling.	No discernable odor or staining and PID readings less than 10 ppm. Visibly free of regulated solid waste such as construction and demolition debris, slag, ash, and cinders, etc.	On-Site Reuse: Material may be re-used on-site without laboratory analysis under a demarcation layer and at least 1 ft of 'clean' fill, or placed under exterior impervious surfaces (e.g., asphalt, concrete, etc.). On-site reuse within the top 1-feet soil cover layer is acceptable but requires additional sampling and analysis prior to placement, NYSDEC notification and approval. Off-Site Reuse Not applicable Off-Site Disposal: The material must be disposed at a NYCRR Part 360 landfill facility, following waste characterization sampling and analysis. Requires NYSDEC notification and approval

Class of Material	Description	Screening Parameter	Management/ Re-use of Material Requirements
Class 5	All waters generated from the site during construction activities (i.e., dewatering, purging, development, etc)	Screening not applicable. All construction derived water must be disposed off-Site as indicated in section 5.11 of the SGMP and the SMP Excavation Work Plan Section C-8.	On-Site Reuse: Not applicable. Off-Site Reuse Not applicable Off-Site Disposal: Off-site disposal at NYCRR Part 360 permitted facility following waste characterization sampling and analysis. Requires NYSDEC notification and approval.
Asbestos-Containing Material	Any material containing at least 1% of asbestos	Visual observation of suspect ACM confirmed by sampling and laboratory testing.	Shall be legally disposed of at a permitted NYS landfill in accordance with all applicable regulations.

A flow chart is attached to this SGMP as Figure 14 to provide further guidance for reuse and disposal requirements in accordance with this SGMP. However, LaBella shall make the final determination for the classification on how the spoils generated during the construction activities at the project location will be managed.

Upon disturbance of Impacted Media, the Contractor shall follow the procedures outlined in the following sections, as well as the Contractor's Site-Specific Health and Safety Plan.

5.14 Off-Site Disposal of Solid Waste and VOC Impacted Media

All Treatment, Storage and Disposal (TSD) facilities and waste transporters must provide evidence of applicable NYSDEC permits prior to handling, transporting, and/or receiving solid waste and VOC impacted media. Removal of any site materials shall be approved in writing by LaBella, including submission of completed Waste Profiles and Waste Manifests for signature by an authorized representative of the Site owner.

Copies of all waste disposal manifests, and landfill receipts shall be submitted to LaBella by the Contractor within five (5) business days from which time the Solid Waste and VOC Impacted Media was removed from the site.

Solid Waste Impacted Media and solid (non-aqueous) VOC Impacted Media that cannot be re-used on-site in accordance with the conditions in the waste summary table shall be transported off-site by a NYS Part 364 permitted vehicles to a NYS Part 360 Permitted Landfill approved by LaBella. LaBella shall perform all characterization testing.

Liquid or non-aqueous VOC Impacted Media shall be legally disposed of at a location approved of by LaBella. LaBella shall perform all characterization testing.

The Contractor shall not dispose of Solid Waste or VOC Impacted Media, or any on-site derived subsurface material without expressed written permission from the Site owner, LaBella, and NYSDEC.

5.15 Waste Disposal Tracking

LaBella shall track the off-site disposal of each waste stream on an appropriate spread sheet tracking log to allow for accurate material quantification. Contractors are required to submit waste disposal receipts to LaBella within five (5) business days upon disposal from the Site.

All operators necessary for the removal and disposal of contaminated and hazardous impacted media shall comply with the applicable Federal, State, and local laws and regulations and policies. Waste disposal material shall not leave the Site without permission of LaBella. The Contractor shall provide LaBella and the

Site owner with documentation that the receiving facility is permitted to receive the accepted waste and the waste transporter is permitted to haul such wastes. The Contractor shall be responsible for the safe and proper management of all wastes addressed herein in accordance with all State and Federal regulatory requirements, including, but not limited to:

- 6NYCRR 360 – Solid Waste Management Facilities
- 6NYCRR 364 – Waste Transporter Permits
- 6NYCRR 370 – Hazardous Waste Management System: General
- 6NYCRR 371 – Identification and Listing of Hazardous Wastes
- 29 CFR 1910.120 – Hazardous Operations and Emergency Response
- 40 CFR 260 – Hazardous Waste Management System: General
- 40 CFR 261 – Identification and Listing of Hazardous Wastes
- 40 CFR 100 to 179 – DOT Hazardous Materials Transport and Manifest System
- NYSDEC CP-51 – Soil Cleanup Guidance
- 6NYCRR Part 375-6 – NYSDEC Remedial Program Soil Cleanup Objectives

Waste Disposal procedures are categorized below.

Non-Hazardous Impacted Media (Class 1 and 2 Material)

Non-hazardous waste may be disposed of at a NYCRR Part 360 landfill and transported by a NYCRR Part 364 permitted waste hauler. Waste characterization sampling and analysis will be conducted by LaBella in accordance with the accepting NYCRR Part 360 landfill. This material must be removed from the Site within 60-days of being generated.

Non-Impacted Demolition and Solid Waste Material (Class 3 Material)

This material may be disposed off-site at a recycling facility in accordance with 6NYCRR 360 provided waste characterization sample results, if applicable, indicate the material is free of contaminants of concern or is below the 6NYCRR Part 375-6(a) Unrestricted Use Soil Cleanup Objectives for suspect contaminants of concern. Alternatively, this material can be disposed of at a NYCRR Part 360 Landfill.

Non-Impacted Soil and Fill Material (Class 4 Material)

This material may be used on-Site as fill material provided sample results are below the appropriate reuse guidelines per 6 NYCRR Part 360.13(f) Table 2. Non-impacted soil and fill material below Site remedy demarcation layer will be sampled in accordance with 6 NYCRR Part 360.13(e) Table 1. If disposal of soil/fill from this Site is proposed for unregulated off-Site disposal (i.e. clean soil removed for development purposes), a formal request with an associated plan will be made to the NYSDEC. Unregulated off-Site management of materials from this Site will not occur without formal NYSDEC approval

Contaminated Water (Class 5 Material)

Contaminated water pumped from excavations shall not be discharged on-Site. All water pumped from excavations shall be containerized on-Site and characterized by LaBella. Impacted groundwater shall be disposed off-site at a permitted TSDF consistent with NYSDEC 6NYCRR Part 360, 364, and 370. The onsite discharge of groundwater with contaminants of concern at concentrations above the NYSDEC TOGS 1.1.1 Groundwater Standards is a direct violation of the General Stormwater Permit.

Hazardous Waste Impacted Media

Any hazardous waste shall be disposed of in accordance with applicable Federal, State, and local regulations and requirements. This material must be removed from the Site within 90-days of being generated.

ACM Demolition Debris

ACM demolition debris excavated during redevelopment will be disposed of in accordance with NYSDOL Code

Rule 56.

5.16 Waste Disposal Documentation

Removal or disposal of any Site materials or items shall be approved in advance by LaBella, including submission of completed Waste Profiles and Waste Manifests for signature by the Site Owner or their designative representative. Copies of all waste disposal manifests, and receipts shall be submitted to LaBella by the Contractor within five (5) business days upon removal from the project location.

5.17 Follow-up Sampling

In the event that petroleum impacts or other impacts (other than typical urban fill material) are excavated, subsequent to removal of such impacts, post-excavation confirmatory soil samples will be collected in accordance with the requirements of NYSDEC DER-10 Section 5.4(b)(5).

5.18 Unknown Environmental Issues

If unknown subsurface environmental impacts are encountered, LaBella will determine procedures and protocols to manage any additional environmental impacts. It is the responsibility of the Contractor to alert LaBella if unknown subsurface environmental impacts are encountered, including the following:

- soils and/or groundwater with a VOC odor or sheen;
- soils containing solid wastes including demolition debris, ash, or cinders in areas not previously identified; and,
- soils containing evidence of VOC staining.

5.19 Cover System Restoration

After the completion of soil removal and any other invasive activities the cover system will be restored in a manner that complies with the Final (100%) Remedial Design Report, Waste Removal and Cap (O'Brien & Gere, February 2013) and the Record of Decision. The demarcation layer, consisting of a geotextile fabric will be replaced to provide a visual reference to the top of the 'Remaining Contamination Zone', the zone that requires adherence to special conditions for disturbance of remaining contaminated soils defined in the Site Management Plan. If the type of cover system changes from that which exists prior to the excavation (i.e., a soil cover is replaced by asphalt), this will constitute a modification of the cover element of the remedy and the upper surface of the "Remaining Contamination."

A soil cover should be installed in areas of the Site that will be utilized as lawn or landscaped areas. The following criteria should be applicable to the soil cover system.

- The upper 6 inches of the soil cover should be suitable to sustain growth of appropriate vegetation at the ground surface.

- A minimum of 1 foot of soil cover should be placed above remaining contamination and the demarcation layer.

- The upper 1 foot of the soil cover should not have concentrations of contaminants that exceed the soil quality standards established in 6NYCRR Part 375-6.7(d) for commercial sites.

- Fill that is placed at a depth below the upper 1 foot of soil cover should not have concentrations of contaminants that exceed the Commercial SCO set forth in 6 NYCRR Part 375-6.

- A demarcation layer should be provided between the soil cover layer and underlying impacted soil, unless approval is obtained from the NYSDEC to forego installation of a demarcation layer.

- In the event that the soil cover system is breached, penetrated, or temporarily removed, restoration to original conditions (or equivalent) should be performed.

- Areas with a soil cover should be inspected, to assess existing conditions and determine if any restoration or repairs are necessary. Inspections should also be performed after severe weather events or significant site operations that may have adversely affected the soil cover system.

5.20 Backfill from Off-Site Sources

Backfill must be clean fill material obtained from an off-Site source. Clean fill is defined as material free of pesticides, deleterious substances, organic matter, wood, plastic, cardboard, paper, metal objects, gypsum board, rubble, and debris of any kind, including construction and demolition (C&D) debris and any non-naturally occurring material. Backfilling will be done with fill material approved by the NYSDEC and no fill material shall be brought on-Site prior to approval.

Documentation for structural fill material proposed for use as fill will be submitted to the NYSDEC for approval prior to delivery to the Site. The following information for the material will be submitted as follows:

- Laboratory data and complete chain of custody forms for samples of proposed material. LaBella will collect and analyze representative samples of fill material in accordance with NYSDEC DER-10, 2.01 5.4(e) for the complete list of 6 NYCRR 375 SCO parameters. Samples will also be analyzed for emerging contaminants (PFAS and 1,4-dioxane).

- A NYSDEC Request to Import/Reuse Fill or Soil Form will be completed and submitted to the NYSDEC.

Material from industrial Sites, spill Sites, or other environmental remediation Sites or potentially contaminated Sites will not be imported to the Site.

All imported soils will meet the backfill and cover soil quality standards established in 6NYCRR 375-6.7(d) for commercial Sites. Soils that meet 'exempt' fill requirements under 6 NYCRR Part 360, but do not meet backfill or cover soil objectives for this Site, will not be imported onto the Site without prior approval by NYSDEC. Solid waste will not be imported onto the Site.

Backfilling of the excavation area will not occur prior to NYSDEC approval following review of all applicable post excavation sampling data and LaBella has confirmed that, based on the soil sampling results, no additional material excavation and/or post-excavation soil sampling will be required.

6.0 IMPLEMENTATION OF THE SGMP

The SGMP applies to all earthwork associated with the Project. However, implementation of the SGMP will vary based on the specific activity being conducted. The SGMP implementation guidelines associated with specific phases of the project are provided below.

6.1 Subsurface Excavations, Material Reuse, and Off-Site Disposal

LaBella will provide full time oversight of any subsurface disturbance, subsurface material reuse, and off-site disposal of subsurface materials. Oversight may not be required in the event the material being disturbed was previously imported to the Site under LaBella oversight or was previously screened by LaBella.

6.2 SGMP Roles and Responsibilities

LaBella Associates:

The responsibilities of LaBella with regard to the SGMP are as follows:

- Working with the Contractor Site owner to pre-determine off-site disposal locations.
- Working with Contractor and Site owner as necessary to characterize excavated material and to determine reuse and/or disposal of excavated material.
- Work with the Contractor to monitor excavations for evidence of environmental impairment.
- Assist the Contractor as to proper staging, covering, and containment of excavated materials as needed.
- Sampling, analysis, and any additional waste stream profiling as required by a receiving NYS Part 360 landfill.
- Assist the Contractor with water disposal profiling, if needed, as required by a NYS disposal facility. This will include preparing paperwork, coordination with the disposal facility, and collection and analysis of samples.
- Implementation of the Health and Safety Plan (HASP) for LaBella personnel at the Site. Contractors and other personnel working at the Site are responsible for their own HASP (see Section 9.0).
- Implementation of the Community Air Monitoring Plan (CAMP) for the Site during the disturbance or handling of subsurface impacted media or impacted solid waste (see Section 8.0).

Contractor:

The Contractor shall provide all labor, equipment, and materials necessary to perform the following work items as specified in this Section, including but not limited to:

- Coordination of utilities clearance.
- Segregation of impacted media from non-impacted media.
- Dewatering of excavation, containerization of all removed wastewaters and disposal of said waters.
- Implementation of dust suppression measures as determined by LaBella.
- Loading, containerizing, and transportation of impacted media from the excavation area to an on-site staging area.
- The Contractor shall not remove any material from the project Site without approval from LaBella.
- Contractor shall not reuse or import any material for use without approval from LaBella and NYSDEC.
- Decontamination of equipment in accordance with Section 7.0, if necessary.
- The Contractor shall be responsible for providing all necessary and legally required training for its workers, and if necessary OSHA 40-hour HAZWOPER training and respirator fit testing.

- The Contractor shall attend a meeting with LaBella and Site owner to discuss Impacted Media management concerns. The Contractor shall coordinate the meeting.
- The Contractor shall coordinate the planned staging of Impacted Media with LaBella. Specific areas shall be designated for the staging of each type of impacted media so as to allow for a smooth workflow and minimize exposure routes to the public and the environment.
- The Contractor shall rely on the judgment of LaBella regarding the implementation of the SGMP.
- The Contractor is solely responsible for the means, methods, techniques, sequences and procedures for all activities under the direct control of Contractor.
- The Contractor shall perform all work under this contract in accordance with all local, state and federal laws, regulations, and requirements including but not limited to New York State Department of Environmental Conservation, United States Environmental Protection Agency, United States Department of Transportation, and Occupational Safety and Health Administration.

6.3 Contingency Plan

If previously unidentified contaminant sources are found during post-remedial subsurface excavations or development related construction, excavation activities will be suspended until sufficient equipment is mobilized to address the condition.

Sampling will be performed on product, sediment and surrounding soils, etc. as necessary to determine the nature of the material and proper disposal method. Chemical analysis will be performed unless the Site history and previous sampling results provide a sufficient justification to limit the list of analytes. In this case, a reduced list of analytes will be proposed to the NYSDEC for approval prior to sampling.

Identification of unknown or unexpected contaminated media identified by screening during invasive Site work will be promptly communicated by phone to NYSDEC's Project Manager. Reportable quantities of petroleum product will also be reported to the NYSDEC spills hotline.

7.0 DECONTAMINATION OF EQUIPMENT

All equipment used at the Site that comes in contact with any VOC Impacted Media, solid waste containing ash, cinders, etc. or other hazardous or regulated materials will require decontamination using clean water to wash off soil and water residue from construction activities. The Contractor shall construct a temporary decontamination pad that will be used to decontaminate the earthwork related equipment.

The decontamination pad shall be constructed of two layers of 6-mil reinforced polyethylene sheeting (or equivalent), with a sump, for the purposes of collecting wash water. Wash water shall be stored in 55-gallon drums, storage tanks or incorporated into tanks for treatment and proper disposal as determined by LaBella. Accumulated sediments shall be legally disposed of in accordance with all applicable regulations at a location approved by the Site owner and LaBella.

The Contractor shall be responsible for all costs relating to legally disposing of the decontamination pad materials at a facility approved by the Site owner and LaBella. All permits and waste disposal manifests shall be submitted to LaBella for review and signature prior to shipment. All permits, waste disposal manifest, and receipts associated with decontamination pad materials disposal shall be submitted LaBella.

The Contractor shall provide potable water and high-pressure sprayers for decontamination activities.

Personal decontamination procedures shall follow the procedures set forth in the HASP and the Contractor shall supply a suitable container for disposal of personal protective equipment, such as a steel drum. Disposal of Personal protective equipment (PPE) is the responsibility of the Contractor.

8.0 EROSION AND SEDIMENT CONTROL

During construction, the Contractor will be required to implement the Stormwater Pollution Prevention Plan (SWPPP) and accompanying plans prepared by LaBella and to work in substantive compliance with the State Pollutant Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Construction Activities (Permit No. GP-0-20-001), effective January 29, 2020, through January 28, 2025. This SWPPP must be implemented, and permit coverage must be obtained prior to commencement of construction activities. The SWPPP is included as **Appendix C.**

The SWPPP considers the impacts associated with the intended development with the purpose of:

- Maintaining existing drainage patterns as much as possible while continuing the conveyance of upland watershed runoff;

- Controlling increases in the rate of stormwater runoff resulting from the proposed development so as not to adversely alter downstream conditions; and

- Mitigating potential stormwater quality impacts and preventing soil erosion and sedimentation resulting from stormwater runoff generated both during and after construction.

9.0 COMMUNITY AIR MONITORING PLAN (CAMP)

The NYSDOH Generic Community Air Monitoring Plan (CAMP) and Fugitive Dust and Particulate Monitoring will be utilized during SGMP implementation. The CAMP describes on-Site VOC vapor and particulate monitoring that is required during all intrusive construction activities and during material loadout. The CAMP will be conducted in accordance with Appendix 1A of DER-10, Generic Community Air Monitoring Plan (attached as **Appendix D**).

Exceedances of action levels listed in the CAMP will be reported to NYSDEC and NYSDOH Project Managers.

The intent of this CAMP is to provide for a measure of protection of the downwind communities and on-Site personnel from potential airborne releases of constituents of concern during activities that disturb the subsurface at the Site. As such, this CAMP specifies the potential air emissions, air monitoring procedures, and monitoring schedule.

The Contractor will be required to implement dust and VOC suppression measures as directed by LaBella that may include the following methods:

- Apply water on haul roads.
- Wetting equipment and excavation faces.
- Restricting vehicle speeds to 10 mph.
- Hauling material in properly taped containers.
- Spraying water in buckets during excavation and dumping.
- Reducing excavation size and/or number of excavations.

The Contractor shall have an onsite designated water truck or other dust suppression system. The Contractor shall obtain any necessary permits for hydrant usage, etc.

10.0 HEALTH AND SAFETY PLAN (HASP)

This SGMP contains a Site-Specific HASP for the Site developed by LaBella. This HASP is designated for LaBella personnel only. A copy of this HASP is included in **Appendix E**. LaBella will follow applicable sections of HASP in Appendix D. This will include holding daily health and safety meetings that will be documented on tailgate job hazard analysis (JHA) forms. PPE which will generally consist of *Modified Level D PPE, which is* Level D PPE plus protective clothing to prevent skin contact or contamination of support zone areas.

- *Full Modified Level D PPE* consists of Level D PPE plus coveralls, nitrile gloves (or equivalent), and boots or shoe covers. Full Modified Level D PPE is necessary when extensive contact with contaminated materials is anticipated, such as the excavation of contaminated soils. Full Modified Level D PPE is also required when handling corrosive chemicals.
- *Lightweight Modified Level D PPE* consists of nitrile gloves (or equivalent) and boots or boot covers. Lightweight Modified level D is necessary when minimal contact with contaminated materials in anticipated and contamination control must be maintained. Appropriate tasks for Lightweight Modified Level D PPE include equipment operators with minimal direct contact, surveyors, drilling and soil sampling technicians, inspectors, etc. The Site Safety and Health Coordinator (SSHC) shall determine which is appropriate based on-Site conditions.

The LaBella Associates, D.P.C. HASP is included as an example. The Contactor(s) will need to develop and rely on their own HASP to manage health and safety issues associated with potential exposure to site chemicals of concern and any other potential issues.

11.0 LABORATORY TESTING

All samples collected during the SGMP will be submitted under chain of custody procedures to a New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP) certified laboratory for testing. All samples will be placed in laboratory supplied sample jars and placed in coolers with ice.

12.0 REPORTING

Reports and records of Site work should be maintained, as needed to document site conditions and soil management procedures that are completed. Reports and records to be maintained in association with this Plan include, but may not be limited to, the following:

- As-built plans
- Waste manifests and/or disposal receipts for all materials
- CAMP monitoring data
- Excavation monitoring data
- Soil sampling and laboratory analysis data
- Site observation reports

Following completion of the earthwork portions of the project, LaBella will develop a final Summary Report documenting all the excavation activities and waste disposal work completed. The Summary Report will document excavation materials generated, regulated solid waste, petroleum impacted soil and/or groundwater, asbestos-containing C&D debris, and any other impacted materials generated. The report will include mapping depicting the areas excavated to date, the extent of any regulated materials encountered and any sampling completed. The report will also include waste disposal documentation (weigh tickets), any laboratory data received and updated waste stream tracking information/forms.

FIGURES

APPENDIX A

Record Drawings

APPENDIX B

Environmental Easement

APPENDIX C

Stormwater Pollution Prevention Plan

APPENDIX D

Community Action Monitoring Plan

APPENDIX E

Site-Specific Health and Safety Plan