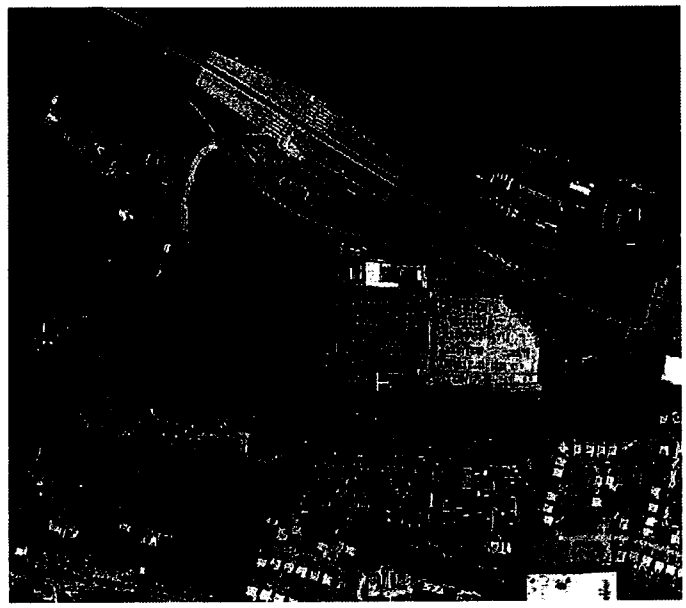

Remedial Work Plan
Austin Avenue Landfill
Brownfield Site
City of Yonkers
Westchester County, NY

BCP Site No. C3-60-066

November 2009
(Revised)

S&W
REDEVELOPMENT

REMEDIAL WORK PLAN
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REMEDIAL WORK PLAN
AUSTIN AVENUE LANDFILL
CITY OF YONKERS, NEW YORK
BCP Site No. C360066

SECTION 1 – INTRODUCTION

The Austin Avenue Brownfield Redevelopment, LLC (Austin Ave, LLC) is a Volunteer in the New York State Brownfield Cleanup Program (BCP). As part of a Brownfield Cleanup Agreement (BCA) with the New York State Department of Environmental Conservation (NYSDEC), the BCP Volunteer has completed a Remedial Investigation (RI) at the site known as the Austin Avenue Landfill (the "site"), and is prepared to proceed with the Remedial Action component of the BCA. See Figure 1-1 for the site location. The history and environmental conditions of the site are presented in the RI Report completed by S&W Redevelopment of North America, LLC (SWRNA, June 2007) and was approved by NYSDEC in May 2009.

This Remedial Work Plan (RWP) relies on the RI findings as presented in the RI Report, and the site's contemplated end use, as the basis for the site remedy.

1.1 - BACKGROUND

This RWP includes measures to address contamination derived from the on-site potential sources. The remedial approach and subsequent construction activities at the site will be conducted to meet specific remediation goals under the BCP (see Section 3).

The following sections provide the Remedial Work Plan (RWP) in accordance with 6 NYCRR Part 375-3, requirements of NYCRR Part 375 1.8(f)(1-9), as well as the NYSDEC Draft Brownfield Cleanup Program Guide (May 2004).

SECTION 2 – CONTEMPLATED END USE

The contemplated end use cleanup track of this site is designated as Track 4 restricted residential. Following the remedial actions specified under this RWP, the site will be redeveloped by a third party developer into a residential and recreational use. A typical redevelopment plan could include approximately 100,000 square feet of residential buildings with associated parking and access drives.

The proposed buildings would include slab on grade, with foundations completed on piles likely driven to bedrock. Remaining areas of the site would include asphalt pavement for roadways and parking, landscaped areas, and sidewalks. A typical plan view of a possible site development scenario is included as Figure 2-1.

SECTION 3 – SUMMARY OF REMEDIATION GOALS

The Remedial Investigation findings indicate the following:

- Groundwater flow at the site is towards the east (towards Sprain Brook).
- The depth to groundwater in monitoring wells at the site ranges from approximately 4 to 38 feet below ground surface (bgs).
- The depth to bedrock varies from zero feet bgs in the western portion of the site to more than 40 feet bgs in the center of the fill area, and is approximately 20 feet bgs east of the fill area near Sprain Brook.
- The general soil stratigraphy for most of the site includes manmade fill in the form of incinerator ash and other debris. The fill extends to a depth of up to 40 feet in some locations, based on RI soil borings. Native soil consisting of layered sand and silt is present near Sprain Brook, east of the fill area.
- TCLP analytical testing of fill samples indicates the fill is non-hazardous. Analysis indicates that fill samples contain copper and lead above commercial soil cleanup objectives (SCOs).
- Based on two (2) rounds of groundwater samples taken during the RI, there are no groundwater COPCs for this site. No volatile or semivolatile organic compounds (i.e. VOCs or SVOCs) were detected above Class GA groundwater quality standards in either of the groundwater sampling events. A single pesticide (dieldrin) and PCB aroclor 1260 were detected above Class GA standards in one of the upgradient groundwater samples (SWRMW-1) during the first RI sampling event, but the second sampling event verified that these detections were due to elevated sample turbidity – all pesticides and PCBs were below standards in the second groundwater sampling event. Metals were also affected by sample turbidity during the first sampling event based on a comparison with results of the second sampling event in which turbidity was much lower. Based on the results of the second event, only iron, magnesium, manganese, and sodium (all natural elements) were detected above groundwater quality standards, in both upgradient and downgradient monitoring wells.
- Based on RI and previous investigation findings, fill at the site is not generating potentially explosive levels of methane gas. A previous explosive gas survey indicated that explosive gas (methane) levels were below the lower explosive limit (LEL) (i.e., less than 100% of the LEL) at all twenty three (23)

monitoring points that were sampled, with only two of 23 monitoring points having levels greater than one half (50%) of the LEL. No detectable explosive gas readings were detected in gas monitoring wells installed during the RI along the property boundaries.

- Under current site conditions, the only potentially complete on-site exposure scenario includes workers involved in the site's investigation and remediation, or trespassers, who could potentially come into direct contact with fill material.
- The potential on-site exposure routes include dermal (skin) contact, and accidental ingestion of fill material.
- There is no identified potential off-site exposure route under current conditions.

The overall remediation objectives of the BCP are to meet standards, criteria, and guidance, and be protective of human health and the environment. The remedial goals for this site are to:

- Eliminate or mitigate to the extent practicable on-site environmental or public health exposures to on-site metals contamination that may remain in soil or groundwater.
- Eliminate or mitigate to the extent practicable the potential for concentrations of soil gases (i.e., explosive gases) to enter future site buildings.

The evaluation of remedial alternatives in this RWP includes an evaluation of feasible actions aimed at meeting the above stated objectives.

SECTION 4 - REMEDIAL ACTION

This section reviews the proposed Track 4 remedial action for the site. An alternatives analysis that compares this proposed remedial action to a Track 1 cleanup is included in Section 5.

The proposed Track 4 remedial approach for this site includes the following elements:

1. Engineering controls. Engineering controls will be built to accomodate the redevelopment approach for the site. Engineering controls for this site are:
    a. Soil barriers to protect against potential human contact with soil COPCs.
    b. Sub-slab passive venting systems in future buildings, or other NYSDEC/NYSDOH approved methods, as a precautionary measure to mitigate potential buildup of explosive gas such as methane. As an alternative to installation of a sub-slab passive venting system, additional soil vapor, indoor air and sub-slab evaluation may be conducted in accordance with NYSDOH soil vapor guidance. Based on the findings of the evaluation, further actions may be taken that could include continued monitoring or installation of a sub-slab depressurization system.

2. Institutional Controls. In addition to the engineering controls, institutional controls to restrict the use of the site, and use of groundwater at the site, will be put in place to further limit the potential for human or environmental exposure. The institutional controls for this site will be recorded in an Environmental Easement, filed with the Westchester County Clerk's office, and will run with the land for the property to inform all future owners of these controls.

No specific remedial actions are proposed relative to groundwater for this site, because RI data indicate there are no groundwater COPCs. Except for naturally occurring metals that were detected in both upgradient and downgradient monitoring wells, all analytical parameters were below Class GA groundwater quality standards. Groundwater from the site does not appear to negatively impact off site areas, and on-site contact with groundwater following redevelopment is preempted by the fact that the site will be supplied by a municipal water source. To assess the potential influence of construction activities on the site groundwater quality, all existing intact groundwater monitoring wells will be sampled following site construction activities. Additional down gradient

monitoring will be installed at a location acceptable to the NYSDEC/NYSDOH and sampled at the same time. The groundwater sample will be analyzed for target compound list (TCL), VOC, SVOC, pesticides, PCBs and target analyte list (TAL) metals including cynomite. Based on the analytical results, the need for future groundwater monitoring will be reviewed with NYSDEC/NYSDOH.

Engineering controls and institutional controls will meet the stated remedial action objectives for this site and support the intended end use. A detailed discussion of each element follows.

4.1 - ENGINEERING CONTROLS

The engineering controls under the Track 4 approach will include a soil barrier (6-inches of pavement, 6-inches of concrete slab, or 2-feet of soil/aggregate material) to preclude potential exposure to soils that exceed commercial SCOs. Any on-site soil that is used to create 2-feet of cover will meet the residential use SCOs identified in 6NYCRR Part 375-6.8(b) for protection of human health. If off-site soil is used for cover, the soil will meet the lower of the SCOs for restricted residential use or the protection of groundwater as identified in 6NYCRR Part 375-6.8(b). It is contemplated that the existing stockpile of rock spoil on the immediately adjacent property would be suitable for use as backfill and/or the soil barrier.

In addition, new buildings constructed at the site will either have 1.) passive ventilation built into the foundation/slab design to prevent buildup of potentially explosive gas and/or soil vapor or 2.) conduct sampling and evaluation of soil vapor, indoor air and sub-slab vapor in accordance with NYSDOH guidance to determine appropriate measures to be taken. Although the inorganic nature of the ash fill and the results of RI gas sampling have indicated that the chance of gas buildup and soil vapor is limited, passive ventilation may be integrated into the building design as a precautionary measure. As an alternative, soil vapor, indoor air and sub slab samples will be collected proximal to and within all on-Site structures following completion of construction during the heating season. Details regarding sampling procedures will be described in the Site Management Plan.

The requirements for maintaining engineering controls will be described in a Site Management Plan that will be incorporated into the site Environmental Easement as

required under the BCA. The Environmental Easement will require on-going annual certification, unless otherwise provided in writing by the NYSDEC, of the engineering controls effectiveness. The annual certification will be signed by a professional engineer or by a qualified environmental professional as approved by the NYSDEC.

4.2 - INSTITUTIONAL CONTROLS

As required under the BCA, institutional controls will be implemented through recording of the Environmental Easement, in a form acceptable to NYSDEC, with the Westchester County clerk's office and notify municipal officials in Westchester County and the City of Yonkers.

Institutional restrictions that would apply to the property include:

- Prohibition of the site from ever being used for purposes other than the contemplated use without the expressed written waiver of such prohibition by the Department, or if at such time the Department no longer exists, any New York State Department, Bureau, or other entity replacing the Department;
- Prohibition of the use of the groundwater underlying the site without treatment rendering it safe for drinking water or industrial purposes, as appropriate, unless user first obtains permission to do so from the Department, or if at such time the Department no longer exists, any New York State Department, Bureau, or other entity replacing the Department.
- Development and implementation of a Site Management Plan (SMP – see Appendix A) specifying the use of barriers and management of soils that may be excavated at the site during future development.
- The property owner will provide a periodic certification to the NYSDEC, prepared by a professional engineer or such other qualified environmental professional acceptable to the NYSDEC, until the NYSDEC notifies the property owner in writing this certification is no longer needed. This submittal will contain certification that the engineering and institutional controls are still in place, that the NYSDEC is allowed access to the site, and that nothing has occurred that will impair the ability of the control to protect the public health or the environment, or constitute a violation or failure to comply with the Site Management Plan (SMP).

These institutional controls will be included in an Environmental Easement between the property owner and NYSDEC.

The Environmental Easement will be recorded within 30 days of the NYSDEC's execution of the Environmental Easement. The Environmental Easement will be recorded with the Westchester County Clerk, and will run with the land. A copy of that instrument will be provided to NYSDEC certified as recorded by the County Clerk.

4.3- SITE DEVELOPMENT

The proposed build-out of the site may be initiated prior to issuance of a Certificate of Completion (COC) for the site. The proposed build out contemplates placement of fill across the site to re-grade the surface to accommodate buildings and parking areas. This fill material may include the stockpiled rock spoil located on the adjacent property. Pre-COC site development activities will result in the placement of the engineering controls (i.e. two feet of soil, 6-inch concrete slabs, and/or 6-inch pavement). During these and potential future (i.e. post-COC) activities, specific actions will need to be implemented to mitigate potential exposure to humans and the environment to potentially contaminated fill material or soil. These actions will be described in a Remedial Design Document, a Site Management Plan (SMP) and the Community Air Monitoring Plan (CAMP). Appendix A includes a draft SMP related to the placement and maintenance of the proposed engineering controls. The SMP will be revised and finalized once the details of the remedial design and development are complete.

SECTION 5 - ALTERNATIVES ANALYSIS

In accordance with the Draft Brownfield Cleanup Program Guide (May 2004): " *The goal of the remedy selection process in the BCP is to select a remedy for a site that is fully protective of public health and the environment, taking into account the current intended and reasonably anticipated future land use of the site.*"

The Alternatives Analysis identifies and compares potential site remedies. In addition to the proposed remedy, which is Track 4 restricted residential use (see Section 4), an alternative for Track 1 unrestricted use was evaluated (see Section 5.1).

The proposed remedy and the Track 1 alternative were each evaluated in terms of nine (9) specific criteria identified in 6 NYCRR Part 375-1.10:

- Compliance with standards, criteria, and guidance (SCGs)
- Protection of human health and the environment
- Short term effectiveness
- Long term effectiveness
- Reduction of toxicity, mobility, and volume of contamination
- Implementability
- Cost
- Land use
- Community Acceptance

The ninth criterion, community acceptance, will be further evaluated during public comment periods when feedback may be provided in relation to the proposed remedial alternative. The proposed remedial action is aimed at producing a tangible benefit to the local community by reducing site contamination consistent with the proposed end use for the site.

The following is a comparative review of the two (2) alternatives for the Austin Avenue Landfill site, with respect to the nine evaluation criteria.

5.1 UNRESTRICTED REUSE (TRACK 1)

A Track 1 remedy will maximize the range of potential land use scenarios for the site. This alternative would not permit any future restrictions to site use (i.e. the level of cleanup should permit all types of future reuse scenarios), or the use of institutional/engineering controls to address exposure and achieve the remedial action objectives (RAOs). However, it would allow that groundwater use restrictions be placed on the site.

Track 1 cleanup requires that site remediation be completed to meet unrestricted soil cleanup objectives (SCOs), thereby meeting SCGs for soils. This would potentially reduce the mass of contamination that exists at the site, and potentially require excavation of fill and subsurface soil across the site, to completely eliminate potential exposure and on-site sources of contamination to shallow groundwater. To accomplish this, it is likely that the majority of the site would require removal of fill and soil, to a minimum depth of 15 feet below ground surface, or to bedrock if a potential source of contamination exists below 15 feet bgs.

A Track 1 remedy would eliminate the potential on-site risk associated with direct human contact with fill material or soil with potential contamination, by source removal and remediation, which would allow for unrestricted use of the site. This approach would likely reduce the risk of on-site exposure to site contaminants.

A Track 1 remedy would provide a benefit in relation to fish and wildlife exposure risk by removing potential contamination sources and potentially contaminated soil or fill material from the site.

A Track 1 remedy would create a short-term risk associated with soil excavation and construction activity, and off site transport and disposal of contaminated soil.

5.2 - ENGINEERING EVALUATION

The engineering evaluation compares the proposed remedy to a Track 1 unrestricted use alternative. A Track 4 restricted residential use scenario is selected as the proposed

remedy. This remedy will include engineering controls to maintain soil barrier protection against exposure to potential contaminants, and institutional controls relative to site management and groundwater use. Potential future exposure to soil and soil gas will be managed through implementation of a Site Management Plan, requiring that engineering controls be properly maintained for that purpose.

In accordance with BCP guidance, the selected remedy will provide protection to public health and the environment, taking into account the current intended and reasonably anticipated future land use of the site.

An engineering evaluation has been prepared to establish the suitability of the proposed remedial action in accordance with 6NYCRR Part 375 1.10 (c) (1-6). In the specific context of the contemplated end use of the property, the selected remedy is:

- Consistent with applicable standards, criteria, and guidance (SCGs).
- Protective of the public health and the environment.
- Effective for both short-term and long-term.
- Able to reduce toxicity, mobility, and volume of the hazardous constituents.
- Feasible from implementability and cost effective perspective.
- Reasonably anticipated to be acceptable to the local community.

5.2.1 - COMPLIANCE WITH STANDARDS, CRITERIA, AND GUIDANCE (SCGS)

A review of the standards, criteria and guidance documents pertinent to site specific conditions have been completed. Groundwater SCGs are based on 6NYCRR Part 703 and ambient water quality standards and guidance values. The SCG for soil is the 6 NYCRR Part 375-6.8(b) restricted residential Soil Cleanup Objectives (SCOs).

A Track 1 remedy will meet SCGs for soil within the site boundary. A Track 4 remedy will comply with soil SCGs except for areas of subsurface soils that will remain below the engineering controls provided by landscaping, pavement, and building structures. However, at this depth the exposure pathway is eliminated for human health exposure risk.

Because analytical data indicate the fill at the site is not causing significant groundwater contamination, neither Track 1 nor Track 4 would provide a measurable improvement in groundwater quality. In addition, since both Track 1 and Track 4 alternatives would prohibit groundwater use at the site, and thereby eliminate any potential human exposure to groundwater impacts, they are equally protective.

5.2.2 – Protection of Human Health and the Environment

Both Track 1 and Track 4 alternatives are protective of human health and the environment. The Track 1 alternative would remove soil contamination to meet soil SCGs, whereas the Track 4 alternative may leave some subsurface soils or fill material in place below engineering controls, where it will not be accessible to humans or wildlife. The Site Management Plan under Track 4 will provide further protection if subsurface soils are excavated during future development.

5.2.3 – Short-Term Effectiveness

Track 1 would require widespread excavation of soil, and potentially groundwater dewatering near Sprain Brook, to meet SCGs. Track 4 would include limited excavation or movement of soil in specific areas to achieve grades required for site redevelopment. Future construction activities subsequent to the initial redevelopment of the site, if any, could potentially involve excavation and disturbance of subsurface soils or fill material that are left in place under Track 4. The Track 4 approach has less potential for exposure to workers and the community than Track 1, due to the reduced volume of soil excavation.

After remediation under the Track 1 alternative, the risk of exposure to site construction workers would likely be lower than for Track 4. However, this is offset by a relatively greater exposure risk during the implementation of a Track 1 compared to a Track 4, since more soil would be excavated and removed under Track 1. The proposed Track 4 approach would include a Health and Safety Plan to identify requirements for action levels, personal protective equipment and emergency procedures will address short-term impacts (see Appendix B). The Track 4 Site Management Plan will ensure that soils excavated from the site are properly characterized and managed, to address potential exposure issues to site soils.

The potential exists for airborne contamination to be released from the site under both Track 1 and Track 4 scenarios. The potential for airborne release is greater under a Track 1 remediation approach than the proposed Track 4 approach since the level of excavation would be more extensive and a longer duration for Track 1 than for Track 4.

Airborne release potentially includes dust and vapor-phase contaminants, although for this site dust is a greater potential concern since there are no identified volatile organic COPCs associated with site fill, soil, or groundwater. During excavation and construction under either Track 1 or Track 4, potential airborne releases will be mitigated by dust control measures during site work. Dust control measures may include wetting of travel areas that are exposed to soil surfaces that are prone to produce airborne dust. Under both Track 1 and Track 4 scenarios, the implementation of a Community Air Monitoring Plan (CAMP) during construction activities would monitor airborne dust that could potentially migrate off-site and provide a means to identify what controls need to be implemented (Appendix C).

5.2.4 – Long-Term Effectiveness and Performance

Both the Track 1 alternative and the proposed Track 4 alternative provide a long-term and effective solution. Both alternatives will reduce public and environmental exposure to site COPCs. Insofar as a Track 4 remedial action with engineering and institutional controls will run with the deed to the property in the context of the Environmental Easement, Track 4 is considered equally effective and permanent as Track 1 for this site. The Track 4 Site Management Plan will also be incorporated into the Environmental Easement and will require annual certifications of all controls and plan implementation.

5.2.5 – Reduction of Toxicity, Mobility, and Volume

Track 1 would result in a greater reduction in the volume of soil COPCs on site than Track 4, but it may not have a measurable effect on toxicity of soil COPCs compared to Track 4, since Track 1 and Track 4 will both effectively mitigate exposure. During implementation of Track 1, the mobility of soil COPCs may be temporarily higher than that for Track 4, since Track 1 will require more extensive excavation than Track 4.

Following implementation, there is not likely to be any difference in toxicity and mobility of site contaminants between Track 1 and the proposed Track 4 approach.

5.2.6 - IMPLEMENTABILITY

Technical and administrative feasibility of implementing the remedial actions are all achievable. However, the implementation of the Track 1 alternative would likely not be cost-effective for the planned end use of the property, due to costs and an extensive amount of time associated with handling, transporting, treatment, and disposal of large volumes of soil and/or groundwater. Track 1 is more difficult to implement than Track 4 owing to more extensive remedial activity that would likely be required to meet SCOs. More significant short term exposures are also created by the implementation of the Track 1 remedy. Under both alternatives, deed restrictions related to contemplated use will not prevent the productive end use of the property. Under Track 4, installation and maintenance of the engineering controls/institutional controls are all readily implemented, and are anticipated costs associated with the development of the site.

5.2.7 - COSTS

The cost for implementing Track 1 would significantly exceed the cost for Track 4. Because most of the engineering controls under Track 4 are associated with the planned construction design for the site (except for the passive soil gas ventilation), these costs would not be avoided under Track 1. The significant cost of the Track 1 alternative would likely make it cost prohibitive for the intended use of the site.

5.2.8 - LAND USE

The Track 1 alternative and the proposed Track 4 remedy and end use are not consistent with the current zoning. However, neighboring land uses are consistent with residential uses. Austin Avenue Redevelopment, LLC, Yonkers Industrial Development Agency (YIDA), the city of Yonkers and Westchester County are committed to pursuing necessary zoning changes to accommodate an appropriate residential development on the site.

5.2.9 - COMMUNITY ACCEPTANCE

The proposed Track 4 remedy coupled with future site development is aligned with community redevelopment and revitalization interests. It is therefore anticipated that site redevelopment, and the proposed Track 4 remedy that will make way for it, will receive a favorable response from the local community. In order to obtain the necessary community acceptance, the selected remedy will be made available for public review and comment.

SECTION 6 – SCHEDULE

The proposed schedule for implementing this selected remedial action is included as Table 6-1. The schedule is focused on moving the site through the BCP process while allowing redevelopment of the site in order to return the site back into a productive property that generates jobs and tax revenue for the local community. The schedule takes into consideration the citizen participation requirements including the required public comment periods. In addition, because the time frame for NYSDEC/NYSDOH reviews is not specified, the schedule only shows the sequence of activities without specified dates. Overall, the goal is to complete the necessary approvals and public comment periods by January 2010, to allow initiation of the selected remedy in conjunction with development of the site. The proposed engineering controls will be put into place as part of the site development and will be completed prior to issuance of a Certificate of Completion (COC). The Applicant, YIDA, intends to work closely with the NYSDEC and NYSDOH to achieve this schedule.

SECTION 7 – PROJECT ORGANIZATION

Figure 7-1 provides an outline of the project organization and contacts for each identified entity. Once the RWP is completed, remediation contractors will be selected and the project organization chart can be updated with the new contact information.

SECTION 8 - FINAL ENGINEERING REPORT

Within approximately 45-days of completing the required engineering controls, a Final Engineering Report (FER) will be prepared and submitted to the NYSDEC/NYSDOH for review and acceptance. In general, the FER will provide a review of the placement of engineering controls, field and laboratory analytical data (if any), and substantiate that the remedial action was completed in accordance with the RWP. The FER will be prepared in accordance with 6 NYCRR Part 375-1.6(c)(6), certified, signed and sealed by a professional engineer.

The FER will include the following elements:

- Description of the remedial activities completed
- Data Usability Summary Report certifying the data generated was useable and met the remedial requirements
- Boundary survey defining the site boundaries
- As-built drawings showing the pertinent location of elements of the remedial action
- Site Management Plan (SMP) describing engineering controls and pertinent actions relative to future site activities
- Description of institutional controls
- Copy of the recorded Environmental Easement, which incorporates the SMP and description of institutional controls
- Copy of the Fact Sheet for the FER and IC/EC controls, and issuance of the COC.

The selected remedy does not include the need for ongoing systems that will require an OM&M plan or financial assurances. However, the engineering controls will require annual certification as required by ECL 27-1415 and as will be outlined in the SMP in accordance with 6 NYCRR Part 375-1.8(h)(3).

Once the Environmental Easement has been approved it will be duly recorded with the County of Westchester and each municipality, County of Westchester and City of Yonkers, will be notified of the Environmental Easement. A copy of the recorded Environmental Easement will be provided.

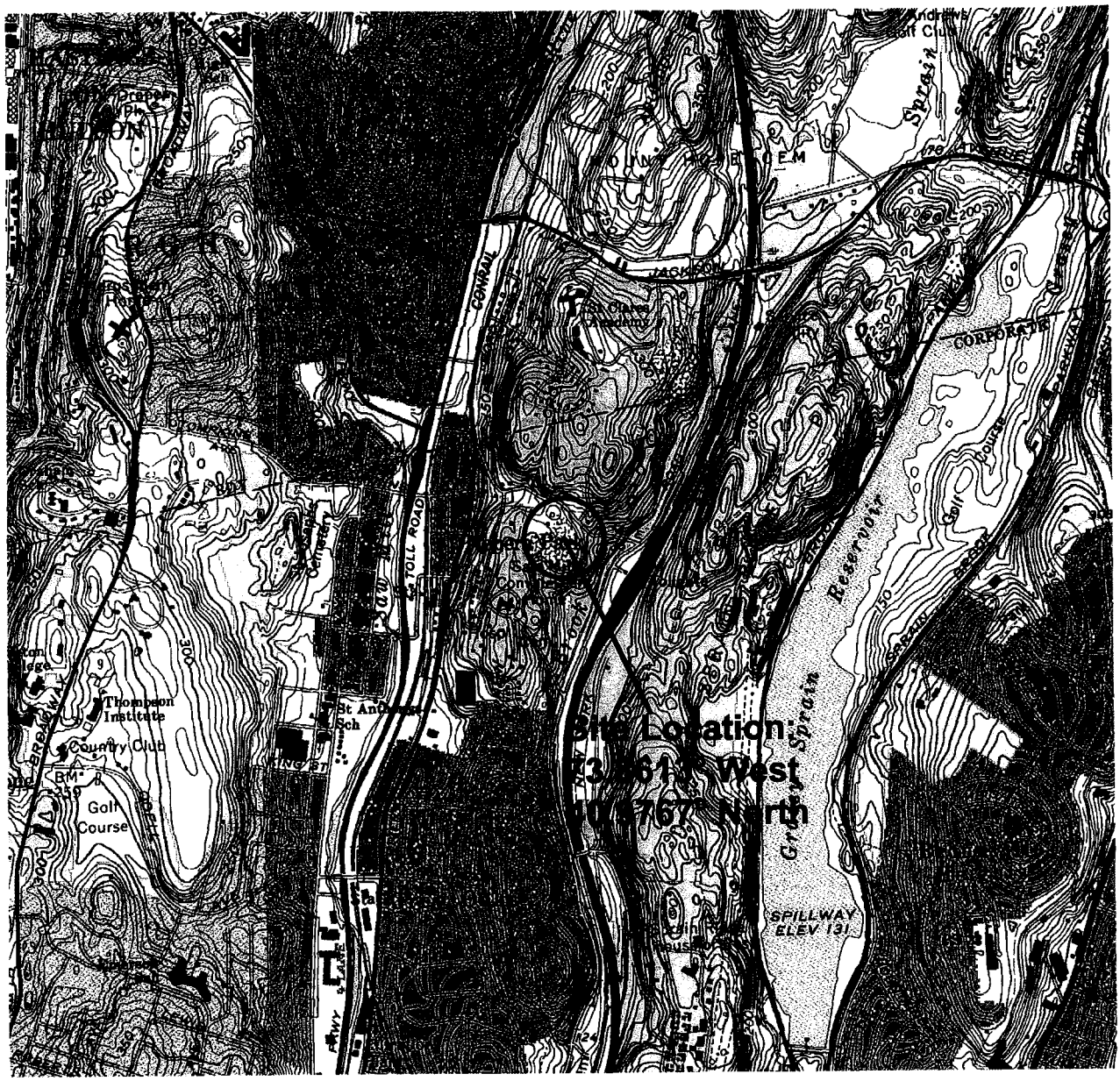
Upon approval of the FER and recordation/notification of the Environmental Easement, the Certificate of Completion can be issued by the NYSDEC.

SECTION 9 – CITIZEN PARTCIPATION

As part of the approved Citizen Participation Plan (CPP) a draft Fact Sheet associated with the submittal of the RWP has been prepared and is included as Appendix D. A final Fact Sheet will be produced based on NYSDEC's review and comments.

NYSDEC will initiate a public comment period for the RWP which will run for 45 days from the date established by NYSDEC. Once the dates are established by NYSDEC, the final approved Fact Sheet will be distributed to the Brownfield Site Contact List (BSCL). The documents will be placed in the designated local repositories for public review. Upon completion of the public comment period and once NYSDEC approves the RWP, a subsequent Fact Sheet will be prepared regarding the start of the remedial action.

FIGURES



QUADRANGLE LOCATION

SCALE in FEET

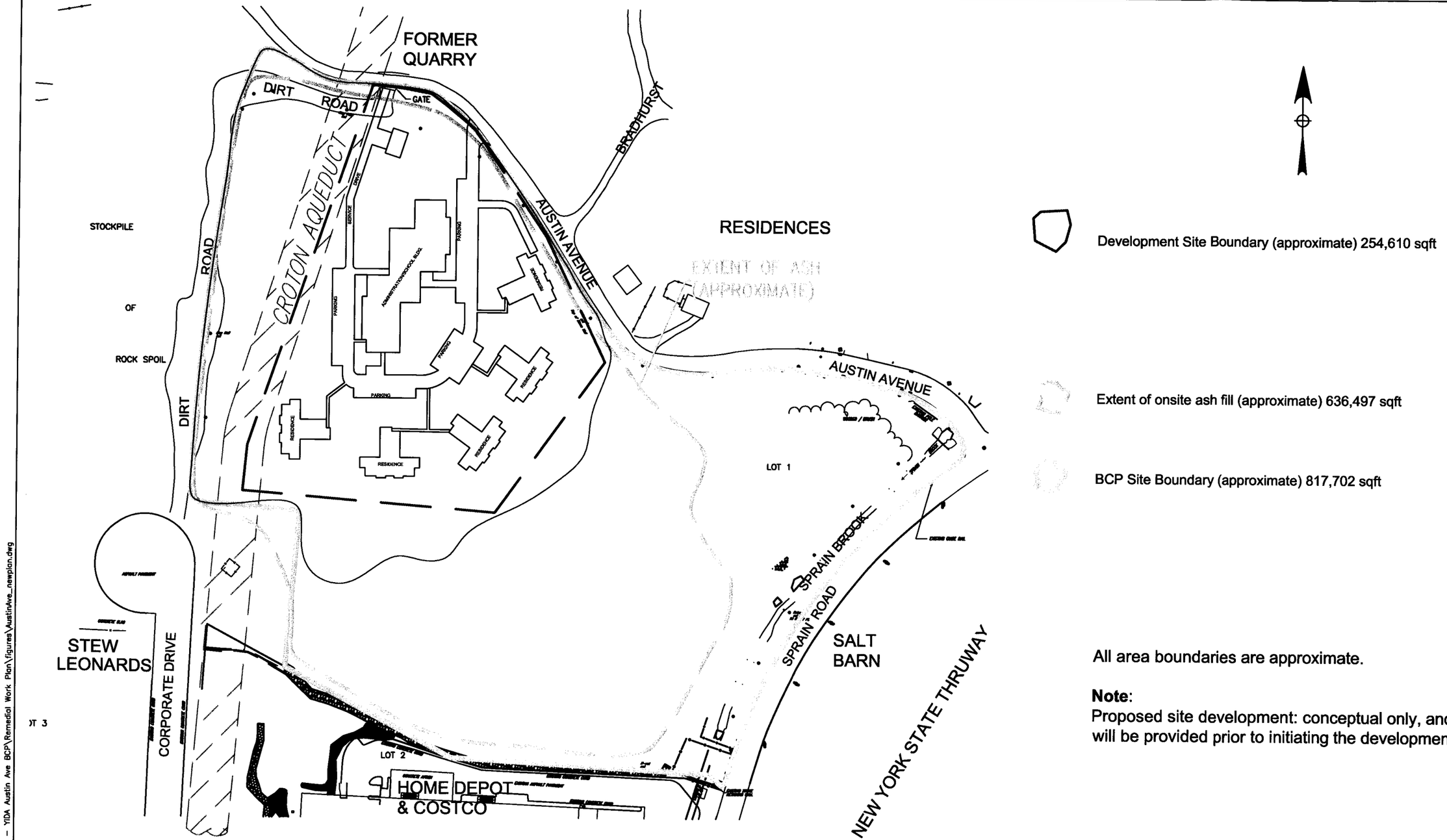
1,000 0 1,000 3,000 5,000

Contour Interval: 10 Feet

Map Taken From: USGS 7.5 Minute Series
Topographic Quadrangles: Mount Vernon and
Yonkers (1966 Photorevised 1979)
(www.nysgis.state.ny.us/quads/usgsdrg.htm)

S&W Redevelopment of NorthAmerica, LLC. Syracuse, New York DATE:11/2009 JOB No.:N5024	Brownfield Remedial Action Work Plan Austin Avenue, City of Yonkers Westchester County, New York
	Figure 1–1 Site Location

Yonkersno40073h8 and Mount Vernono40073h7
20005/December/ Syracuse/ AM/ Jan-06
J:\PROJECTS\N-xxxx\N5000\N5024 - YDA Austin Ave BCP\Remedial Work Plan\figures\Fig_1\Austin Ave Figure 1.dwg



All area boundaries are approximate.

Note:
Proposed site development: conceptual only, and final plans will be provided prior to initiating the development.

SCALE in FEET

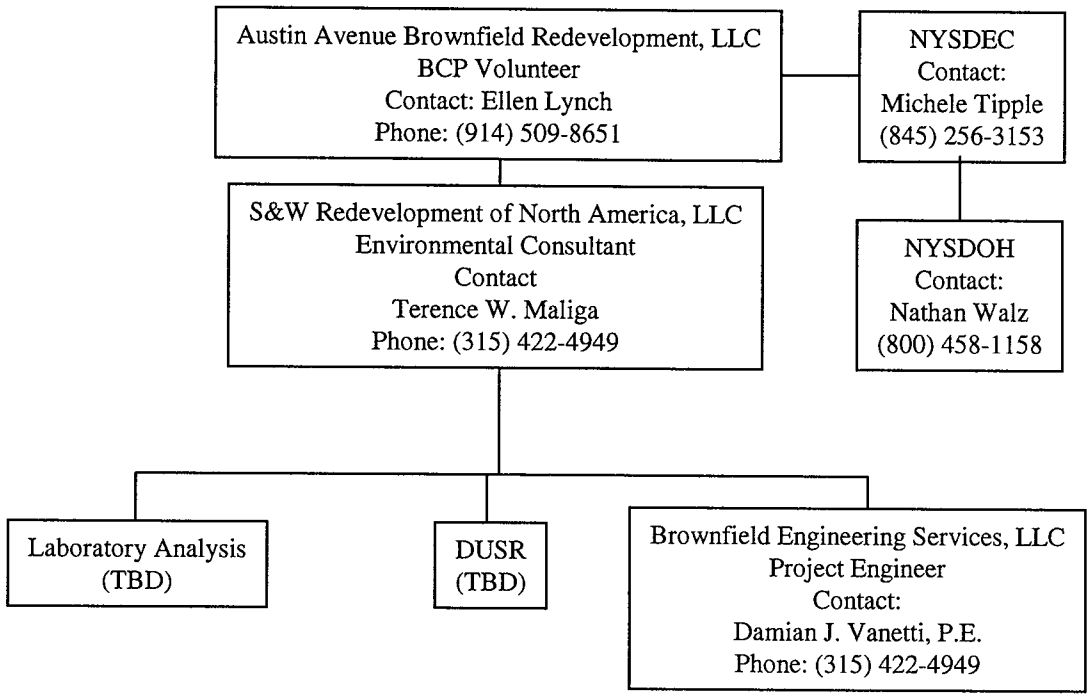
80 0 80 240 400

-Site topographic survey (John Meyer Consulting 11/17/1999) as provided by Morris Companies, Inc.
-Site boundary and sample locations from survey completed by Ward Carpenter Engineers, Inc., March 28, 2007
-Current topography may differ from survey

S&W Redevelopment of North America, LLC. Syracuse, New York DATE:11/2009 JOB No: N5024	Proposed Site Development Austin Avenue, City of Yonkers Westchester County, New York BCP Site No. : C3-60-066 Figure 2-1 Site Development Concept

X-REF: NAMES?
2007/June/Syr/jlk
J:\PROJECTS\N-xxxx\N5000\N5024 - YIDA Austin Ave BCP\Remedial Work Plan\figures\AustinAve_newplan.dwg

The following outline of project organization is provided. Following approval of the RWP, the project organization chart will be updated to include subcontractors that are selected for the remediation project.



S&W REDEVELOPMENT

November 2009 Project No N5024

Austin Avenue, City of Yonkers
Westchester County, New York
BCP Site No. C360066

Figure 7-1
Project Organization

TABLES

TABLE 6-1
PROPOSED SCHEDULE

REMEDIAL ACTION
AUSTIN AVENUE LANDFILL
BCP SITE NO. C360066
CITY OF YONKERS, NEW YORK

➢ Submit RWP to NYSDEC	November 25, 2009
➢ NYSDEC Review and Comment	3 Week Duration – December 18, 2009
➢ Forty-five Day Comment Period and Distribute Fact Sheet	Ends January 2010
➢ Responses to NYSDEC Comments	5 Days from Receipt of Comments
➢ NYSDEC Approval RWP	January 2010
➢ 10 Day Notification	10 days Prior to construction
➢ Initiate Site Development	
➢ Submit Final Engineering Report (FER)	45 Days from Completing Remedial Action
➢ NYSDEC Review / Comment on FER	
➢ Respond to NYSDEC FER Comments	15 Days from Receipt of Comments
➢ Record Environmental Easement with County	
➢ Distribute Fact Sheet that FER is Complete and COC will be issued	
➢ NYSDEC Issues COC	

APPENDICES

APPENDIX A –

SITE MANAGEMENT PLAN

DRAFT SITE MANAGEMENT PLAN
AUSTIN AVENUE LANDFILL
CITY OF YONKERS, NEW YORK
BCP Site No. C360066

1. OVERVIEW AND OBJECTIVES

Austin Avenue Brownfield Redevelopment, LLC has entered into the New York State Brownfield Cleanup Program (BCP), as a Volunteer, to investigate and remediate the former Austin Avenue Landfill site in the City of Yonkers, Westchester County, New York. This SMP is being provided relative to soil excavation and backfilling associated with site development, installation of engineering controls, and maintenance and reporting requirements for the proposed engineering controls.

A summary of investigation activities completed at the site and related findings has been reported in the Remedial Investigation Report (RIR – S&W Redevelopment of North America, LLC, June 2007). The reader is directed to the RIR for a detailed discussion of site conditions and the nature and extent of potential site contamination, which is the basis for the proposed site remedy.

The site remedy will allow the site to be put back to productive use. The site remediation consists of:

- Engineering controls to protect against potential human contact with site-related contaminants of potential concern (COPCs) and mitigation of potential explosive gases that could be generated in the fill material.
- Institutional controls to restrict the use of the site, and use of groundwater at the site, to further limit the potential for human or environmental exposure.

All remediation activities will be conducted in accordance with the NYSDEC-approved Remedial Work Plan.

The purpose of this Site Management Plan (SMP) is to provide guidelines for management of on-site activities that may encounter residual contamination and for the management of engineering controls to eliminate the potential exposure of potentially impacted site media

(i.e., soil, fill material and soil gas) to humans and other environmental receptors. This SMP addresses potential environmental concerns related to soil and soil gas management and has been submitted to the NYSDEC and the New York State Department of Health (NYSDOH).

2. NATURE AND EXTENT OF CONTAMINATION

Data obtained from previous investigations are discussed in the *Remedial Investigation Report and Remedial Work Plan* dated August 2007 (Revised December 2009), prepared by S&W Redevelopment of North America, LLC. Based on the findings of these reports, the contaminants of potential concern (COPCs) include lead and copper in fill material at the site. The potential contamination is associated with ash fill material that has been historically deposited at the site.

The impacts to groundwater are minimal and do not appear to migrate off-site. In addition, there is evidence that the potentially explosive soil gases such as methane exist in isolated central areas of the site. Concentrations of explosive gases measured in vapor monitoring points are well below the lower explosive limit (LEL).

3. CONTEMPLATED USE

Based on the 6 NYCRR Part 375-1 and 375-3, the contemplated use category of the site is designated as restricted residential under a Track 4 clean-up scenario. Restricted Residential uses are allowed, but require engineering and/or institutional controls to mitigate the potential exposure to contaminants that may remain in soil/fill. In addition, precautionary measures will be taken to prevent the buildup of potentially explosive gas below future site buildings.

The contemplated end use for this site may include 100,000 square feet of residential buildings with associated parking and access drives. The proposed buildings will include slab on grade, with foundations completed on piles likely driven to bedrock. Remaining areas of the site will include asphalt pavement for roadways and parking, landscaped areas, and sidewalks.

The institutional controls for this site are:

- End use limited to restricted residential uses.

- The use of groundwater underlying the site is prohibited without prior approval from NYSDEC to allow treatment to render it safe for drinking or industrial purposes.

- An environmental easement must be recorded for the property which will run with the land.

The engineering controls for this site will include a soil barrier (pavement, concrete slab, or 2-feet of clean soil) to prevent potential exposure to soils that potentially exceed restricted residential soil cleanup objectives (SCOs).

- The Grantor or its successors in title must maintain the barrier layer on the Property of either two feet of fill (that meets the criteria in accordance with 6 NYCRR Part 375-3.6(e)(4)(iii)) or an alternative barrier layer approved by the NYSDEC, such as concrete, asphalt, or buildings.

- Any on-site soil that is used to create 2- feet of cover will meet the restricted residential use SCOs identified in 6NYCRR Part 375-6.8(b) for protection of human health.

- If off-site soil is used for cover, the soil will meet the lower of the SCOs for restricted residential use or the protection of groundwater as identified in 6NYCRR Part 375-6.8(b).

- New buildings constructed at the site will have passive ventilation built into the foundation and sub-slab design to prevent buildup of potentially explosive gas.

The maintenance of these engineering controls includes the following requirements which apply to development of the site and future activities at the site that may disturb the engineering controls or underlying soils:

- Any proposed soil excavation on the site below the barrier layer requires prior notification and prior approval by NYSDEC in accordance with a Site Management Plan approved by NYSDEC for this site, and the excavated soil must be managed, characterized, and properly disposed of in accordance with NYSDEC regulations and

directives; and

- Any area of soil excavation below the barrier layer that is to be returned to vegetated soil (i.e., not concrete, asphalt or buildings) must be backfilled with a minimum two (2) feet layer of fill in accordance with 6 NYCRR Part 375-3.8(e)(4)(iii).

4. MANAGEMENT OF SOILS AND LONG TERM MAINTENANCE OF BARRIER LAYER

The purpose of this section is to provide environmental guidelines for management of subsurface soils, and the barrier layer during any site work which disturbs or removes the subsurface soils, or barrier layers.

The SMP includes the following conditions:

- The surfaces of the site will be maintained with two (2) feet of soil that meets NYSDEC soil cleanup objectives (SCOs) as identified in 6 NYCRR Part 375-6.8(b) or an alternative barrier consisting of asphalt, concrete, or other structure as approved by the NYSDEC.

- The NYSDEC will be notified and approval secured prior to disturbing or excavating soils below the barrier.

- Prior to any construction activities, workers are to be notified of historical site conditions, as well as former site investigations and remedial actions with clear instructions regarding how the work is to proceed. Invasive work performed at the property will be performed in accordance with all applicable local, state, and federal regulations to protect worker health and safety.

- During excavation or disturbance of soils, a community air-monitoring plan (CAMP), will be implemented to monitor particulates at the downwind boundary and take actions to control dust migration off the site.

- During work at the site, a site health and safety plan (HSP) will be implemented to protect worker health and safety.

- Surface erosion and run-off of the entire property will be controlled at all times, during construction activities. This includes implementation and maintenance of the appropriate sediment/erosion controls and controlling run-off from stockpiled soils.

- Soil excavated at the site may be reused as backfill material on-site provided it contains no visual or olfactory evidence of contamination. Following excavation, the top two feet of all exposed surface soils must meet the commercial SCOs of 6 NYCRR Part 6.8(b), or 6" of concrete, or 6" of asphalt pavement or other material acceptable to the NYSDEC must be placed over the excavation area.

- Site soil that is excavated and is intended to be removed from the property must be managed, characterized, and properly disposed of in accordance with NYSDEC regulations and directives (see Section 4.1 below). Impacted soil that is stockpiled on-site shall be staged on and covered with polyethylene sheeting to shed storm water and control dust.

- Off-site soil brought to the site for filling and grading purposes shall meet the lower of the SCOs for restricted residential use or the protection of groundwater as identified in 6NYCRR Part 375-6.8(b).

- Off-site material intended for use as site backfill cannot otherwise be defined as a solid waste in accordance with 6 NYCRR Part 360-1.2(a).

If the contractor designates a source of off-site soil as "virgin" soil, it shall be further documented in writing to be native soil material from areas not having supported any known prior industrial or commercial development or agricultural use. Virgin soils should be subject to collection of one representative composite sample per source. The sample should be analyzed for TCL VOCs, SVOCs, pesticides, PCBs, and TAL metals including cyanide. The soil will be acceptable for use as backfill provided that all parameters meet the requirements of 6 NYCRR Part 375-6.7(d).

For off-site non-virgin borrow material, one composite and one discrete sample shall be collected per 500 cubic yards of material from each source area. If more than 1,000 cubic yards of soil are borrowed from a given off-site non-virgin soil source area and both samples

of the first 1,000 cubic yards meet the requirements of 6 NYCRR Part 375-6.7(d), the sample frequency will be reduced to one composite for every 2,500 cubic yards of additional soils from the same source, up to 5,000 cubic yards. For borrow sources greater than 5,000 cubic yards, sampling frequency may be reduced to one sample per 5,000 cubic yards, provided all earlier samples met the requirements of 6 NYCRR Part 375-6.7(d). The samples should be analyzed for target compound list (TCL) volatile organic compounds (VOCs), TCL semi-volatile organic compounds (SVOCs), pesticides, PCBs, and target analyte list (TAL) metals, including cyanide. The soil will be acceptable for use as cover material provided that all parameters meet soil cleanup objectives (SCOs), per 6 NYCRR Part 375-6.7(d).

4.1 – MANAGEMENT OF EXCAVATED SOIL TO BE TAKEN OFF-SITE

Any excavated material taken off site that meets the definition of solid waste shall be disposed of as solid waste at a permitted disposal facility.

Soil that is excavated as part of development which will not be used as fill at the site will be further characterized prior to transportation off-site for proper disposal. Soil that is removed from any excavations will be field-screened for organic vapors using a photoionization detector (PID).

Following screening, if the excavated soil/fill exhibits evidence of contamination (i.e., visible staining, discoloration, or elevated PID measurements), one composite sample and a duplicate sample will be collected for each 100 cubic yards of stockpiled soil/fill. For excavated soil/fill that does not exhibit evidence of contamination, but must be sent for off-site disposal, one composite sample will be collected for every 2000 cubic yards of stockpiled soil, and a minimum of 1 sample will be collected for volumes less than 2000 cubic yards. The samples will be placed in clean sample jars provided by the laboratory. The laboratory will composite the sample in the laboratory or the samples can be composited by other acceptable methods. Sample jars will then be labeled and a chain-of-custody form will be prepared. The samples will be analyzed by a NYSDOH ELAP-certified laboratory for pH (EPA Method 9045C), reactivity, ignitability, TAL metals, and other parameters as may be specified by the selected disposal facility.

If the analytical results indicate that concentrations exceed the standards for RCRA

characteristics, the material will be considered a hazardous waste and must be properly disposed off-site at a permitted disposal facility within 90 days of excavation. If the analytical results indicate that the soil is not a hazardous waste but exceeds Part 375 restricted residential SCOs, the material will be properly disposed off-site at either a permitted non-hazardous waste facility, or it may be taken off site for use as fill material subject to NYSDEC approval. Stockpiled soil cannot be backfilled on-site or transported off-site until the analytical results are received and provided to NYSDEC for review, and subject to NYSDEC approval.

5. SOIL GAS

As a precautionary measure, any occupied structures on the site may be constructed with passive soil gas ventilation system or alternate means to control the potential buildup of potentially explosive gases below such structures. As an alternative, each building must be sampled, have the soil vapor, indoor air and sub slab vapor evaluated in accordance with NYSDOH soil vapor guidance. The results of the evaluation will be the basis to establish and implement any appropriate mitigative measures. If soil vapor evaluation is to be conducted, a work plan will need to be submitted to the NYSDEC/NYSDOH for review and approval prior to implementing the evaluation. Potentially explosive gases such as methane and hydrogen sulfide, which form as organic material degrades, are typically not associated with incinerator ash because the ash typically contains little or no degradable organic material. Data from the site indicate that explosive gas buildup is currently not an issue. Previous explosive gas investigations indicate that, except in an isolated central area of the site, there are only traces of methane gas present. Concentrations in all areas were well below the lower explosive limit for methane No methane or hydrogen sulfide was detected in any of the RI gas monitoring wells at the perimeter of the site.

To prevent potential future issues, passive ventilation will be integrated into new building foundations constructed at the site, as an engineering control. A ventilation design will be provided to NYSDEC and NYSDOH for review and approval prior to construction.

6. GROUNDWATER MONITORING

Groundwater samples will be collected from existing intact groundwater monitoring wells and one new downgradient monitoring well once remedial construction is completed. The

need for ongoing groundwater monitoring will be reviewed with the NYSDEC/NYSDOH based on the analytical results for the final round of monitoring.

7 ANNUAL CERTIFICATION

Annually, or such intervals as NYSDEC may allow, submit to NYSDEC a written statement by a qualified environmental professional acceptable to the NYSDEC certifying under penalty of perjury that the engineering and institutional controls employed at the site are in-place, are unchanged from the previous certification, and that nothing has occurred that would impair the ability of such control to protect the public health and environment or constitute a violation or failure to comply with any Site Management Plan for such controls and the site owner continues to allow access to the site to evaluate continued maintenance of such controls.

APPENDIX B –

HEALTH AND SAFETY PLAN

APPENDIX B
SITE HEALTH AND SAFETY PLAN

B.1. SITE DESCRIPTION

Date ..... Date: November 2009 Revised: _____
Location ..... Austin Avenue Landfill,
Austin Ave & Corporate Drive, Westchester County, NY
Potential Hazards ..... Metals in soil
Area Affected ..... Surface and subsurface soil and fill material
Surrounding Population ..... Mixed commercial/residential
Topography ..... Approximate 5% to 25% slope
Weather Conditions ..... Usually partly sunny to overcast, southeast winds

B.2 ENTRY OBJECTIVES: The objective of site entry is to excavate, stage, and transport soil/fill material in order to implement engineering controls as a site remedy under the Brownfield Cleanup Program (BCP).

B.3 ON-SITE ORGANIZATION AND COORDINATION. The following S&W Redevelopment personnel are designated to observe the stated job functions on site. (Note: One person may carry out more than one job function.)

Remediation Program Manager: ..... Terence W. Maliga or designee (315) 422-4949
Field Team Leader: ..... Jeffrey L. Kiggins or designee (315) 422-4949

B.4 ON-SITE CONTROL. The Yonkers Industrial Development Agency (YIDA) or its designated agent will coordinate access control and security for the work area for each day of on site work. No unauthorized personnel should be within the established work area.

B.5 HAZARD EVALUATION.

A. Chemical Hazards. Based on Remedial Investigation (RI) Results, the principal suspected chemical hazard for the site is believed to be associated with metals present in the disposed ash. The primary potential metals are identified.

SUBSTANCE	PRIMARY HAZARDS
Lead	Eye irrit., stomach pain, weakness, insomnia, kidney dis.
Copper	Irrit eyes, nose, metallic taste

B. Physical Hazards. Physical hazards for this project relate to mechanical exposure associated with working around heavy equipment and vehicles, noise exposure, and heat or cold stress. Basic safety guidelines for the above noted main physical hazards are included below.

1. **Excavation and Backfilling.** Site activities will involve excavation and trenching of impacted material. The estimated location of all underground utilities must be determined before digging begins. Necessary clearances must be observed. Appropriate controls will be implemented during excavation to maintain road stability and protect the public.

   The standard operating procedure (SOP) for excavation and construction work will follow New York State Department of Labor (NYSDOL), Division of Safety and Health, Industrial Code Rules (Part 23).

2. **Utility Clearances.** Prior to any intrusive activities (e.g. drilling, excavating, probing) New York State Dig Safe shall be contacted to mark underground lines before any work is started.

   Personnel directly involved in intrusive work shall determine the minimum distance from marked utilities which work can be conducted with the assistance of the locator line service.

3. **Heavy Lifting Method.** Personnel conducting work that may require lifting of heavy objects should use the following proper lifting techniques:
   - Feet must be parted, with one foot alongside the object being lifted and one foot behind. When the feet are comfortably spread a more stable lift can occur and the rear foot is in a better position for the upward thrust of the lift.
   - Use the squat position and keep the back straight. A straight back means the spine, back muscles, and organs of the body in correct alignment.
   - To grip the item being lifted, the fingers and the hand are extended around the object being lifted, using the full palm. Fingers have very little power – use the strength of the entire hand.
   - The load must be drawn close, and the arms and elbows must be tucked into the side of the body. Holding the arms away from the body increases the strain on the arms and elbows. Keeping the arms tucked in helps keep the body weight centered.

   The body must be positioned so that the weight of the body is centered over the feet. This provides a more powerful line of thrust and also ensures better balance. Start the lift with a thrust of the rear foot. Do not twist.

4. **Slip/Trip/Hit/Fall.** These injuries are the most frequent of all injuries to workers. They occur for a wide variety of reasons, but can be minimized by the following practices:
    - Spot-check the work area to identify hazards;
    - Establish and utilize pathways that are most free of slip and trip hazards. Avoid pathways that are more hazardous;
    - Beware of trip hazards such as wet floors, slippery floors, and uneven terrain;
    - Carry only loads you can see over;
    - Keep work areas clean and free of clutter, especially in storage areas and walkways;
    - Communicate observed hazards to site personnel.

5. **Heat Stress.** All field personnel engaged in site work shall have completed training to recognize and avoid heat related illness. Proper training and preventive measures will aid in averting loss of worker productivity and serious illness. Heat stress prevention is particularly important because once a person suffers from heat stroke or heat exhaustion, that person may be predisposed to additional heat-related illness. To avoid heat stress, the following steps may be taken:

    - Adjust work schedules.

    - Modify work/rest schedules according to monitoring requirements.

    - Mandate work slowdowns as needed.

    - Perform work during cooler hours of the day if possible or at night if adequate lighting can be provided.

    - Provide shelter (air conditioned, if possible) or shaded areas to protect personnel during rest periods.

    - Maintain worker's body fluids at normal levels. This is necessary to ensure that the cardiovascular system functions adequately. Daily fluid intake must approximately equal the amount of water lost in sweat, i.e., eight fluid ounces (0.23 liters) of water must be ingested for approximately every eight ounces (0.23 kg) of weight lost. The normal thirst mechanism is not sensitive enough to ensure that enough water will be drunk to replace lost sweat. When heavy sweating occurs, encourage the worker to drink more. The following strategies may be useful:

- Members of each Work Crew shall be properly trained by each Crew's respective employer to recognize the symptoms of heat-related illnesses.

6. **Adverse Weather Conditions.** The Field Leader for each Work Crew will be responsible for deciding on the continuation or discontinuation of work for his/her Crew based on current and pending weather conditions. Electrical storms, tornado warnings, and strong winds are examples of conditions that would call for the discontinuation of work and evacuation of the site. Site operations should not be permitted during an electrical storm.

7. **Vehicle Traffic.** As the scope of work includes the transport and disposal of material, there is a potential to encounter a temporarily high volume of vehicular traffic. Project Work Crews that have the potential to be exposed to vehicle traffic should wear a high visibility safety vest. The excavation Work Crew will provide proper signage, flagging, and barricades to maintain a safe flow of traffic.

POTENTIAL HAZARD	PREVENTATIVE MEASURES
Slip/Trip/Falls	Use three points of contact to mount and dismount equipment. Continuously inspect work areas for slip, trip, & fall hazards. Be aware of surroundings. Practice good housekeeping.
Noise	Wear appropriate hearing protection.
Pinch Points	Keep hands, feet, & clothing away from moving parts/devices.
Utilities	Maintain proper utility clearances. All utilities should be properly located and marked out prior to start of work.
Heavy Lifting	Follow safe lifting practices. Lift items within your capabilities and assigned project role. Ask for assistance if necessary.
Proximity to Heavy Equipment and Vehicles	Maintain adequate distance from trucks/equipment. Obey barriers and/or signage
Heat/Cold Stress	Dress appropriately and follow HASP guidelines
Dangerous Weather Conditions	Consult local weather reports daily, watch for signs of severe weather, etc. Suspend or reduce work during severe weather.
Chemical hazards	Use PID as indicated in HASP. Wear specified PPE. No smoking.
Biological Hazards –	Wear appropriate PPE and keep necessary first aid

POTENTIAL HAZARD	PREVENTATIVE MEASURES
Insects, Snakes, Poison Plants, etc.	supplies readily available. Use insect repellant and snake chaps as needed. Learn to identify poisonous plants.

B.6 PERSONAL PROTECTIVE EQUIPMENT. Based on evaluation of potential hazards, the following levels of personal protection have been designated for the applicable work areas or tasks:

LOCATION	JOB FUNCTION	LEVEL OF PROTECTION
Work zone	Site investigation	A B C (D) Other

Specific protective equipment for each level of protection is as follows:

Level A	Fully-encapsulating suit SCBA (disposable coveralls)
Level B	Splash gear (saranax-coated Tyvek suit) SCBA or airline respirators
Level C	Splash gear (Tyvek suit) Half-face canister respirator Safety glasses Boots Gloves Hard hat
Level D	**Work boots** **Gloves (latex)** **Hard hat**

Action Levels. Action levels shall be determined by monitoring of work zone breathing space with a portable photoionization detector (PID) or comparable instrument. Measurement of a sustained concentration above ambient (background) conditions shall initiate action. The following criteria shall be used to determine appropriate action:

VOLATILE ORGANICS IN BREATHING ZONE (SUSTAINED AND ABOVE BACKGROUND)	LEVEL OF RESPIRATORY PROTECTION
0-5 ppm	Level D
5-200 ppm	Level C
200-1000 ppm	Level B - air line
1000+ ppm	Level B - SCBA

% LOWER EXPLOSIVE LIMIT (LEL)	ACTION
Above 10	Discontinue work and take remedial action

NO CHANGE TO THE SPECIFIED LEVELS OF PROTECTION SHALL BE MADE WITHOUT THE APPROVAL OF THE SITE SAFETY OFFICER AND THE PROJECT TEAM LEADER.

If the above criteria indicate the need to increase from Level D to a higher level of personal protection, work will be immediately suspended in that particular site area until the required personal protective equipment is made available, or until Level D conditions return.

B.7 ON-SITE WORK PLANS. The following personnel or designated alternate(s) will perform the field investigation.

Field Team Leader: ..... Jeffrey Kiggins or designee
Work Party ..... Designated as needed to support field effort

The work party was briefed on the contents of this plan prior to commencement of work.

B.8 COMMUNICATION PROCEDURES. The Project Manager should remain in communication with the Field Team Leader. A cellular phone will be used in the field.

Continuous horn blast is the emergency signal to indicate that all personnel should leave the Work Zone.

In the event that radio communications are used, the following standard hand signals will be used in case of failure of radio communications:

Hand gripping throat	Out of air; can't breathe
Grip partner's wrist or both hands around waist	Leave area immediately
Hands on top of head	Need assistance
Thumbs up	OK; I am all right; I understand
Thumbs down	No; negative

B.9 SITE HEALTH AND SAFETY PLAN.

A. The designated Site Safety Officer will be directly responsible for safety recommendations on site. The Field Team Leader will be responsible for carrying out the Site Health and Safety Plan, and for enforcing it on all SWRNA employees engaged in site work.

B. **Emergency Medical Care.** St Joseph's Medical Center is located approximately 5 miles southwest of the site at 127 South Broadway. A map to this facility will be available at the field vehicle. Directions are provided below:

- Take NYS Thruway from site, and go SOUTH (I-87S)
- Get off at Exist 6W towards Yonkers (TUCKAHOE ROAD WEST)
- Turn slight RIGHT on TUCKAHOE ROAD
- TUCKAHOE ROAD becomes SAW MILL RIVER ROAD (NY 9A)
- Turn RIGHT on ASHBURTON AVE (NY 9A)
- Turn LEFT on NEPPERHAN AVE (NY 9A)
- Turn LEFT on US-9/S BROADWAY/ NY-9A
- Go to 127 S BROADWAY

First aid equipment is available on site at the following locations:

First aid kit Field vehicle

List of emergency phone numbers:

AGENCY/FACILITY	PHONE NUMBER
Police (Yonkers Police Department)	911 or (914) 377-7900
Fire	911
Ambulance	911
Saint Joseph's Medical Center	(914) 378-7000

C. **Environmental Monitoring.** The following environmental monitoring instruments shall be used on site at the specified intervals:

- MiniRAE photoionization detector (PID). Continuous during installation of soil borings and soil gas monitoring probes.
- Dust (particulate) monitor. Continuous during excavation and grading of soils and installation of soil borings per Community Air Monitoring Plan (CAMP)

D. **Emergency Procedures.** The following standard procedures will be used by on-site personnel. The Site Safety Officer shall be notified of any on-site emergencies and be responsible for ensuring that the appropriate procedures are followed:

1. **Personnel Injury in the Work Zone.** Upon notification of an injury in the Work Zone, the designated emergency signal, a continuous horn blast, shall be sounded. A rescue team will enter the Work Zone (if required) to remove the injured person to safety. Appropriate first aid shall be initiated and contact should be made for an ambulance and with the designated medical facility (if required). No persons shall re-enter the Work Zone until the cause of the injury or symptoms is determined.

2. **Fire/Explosion.** Upon notification of a fire or explosion on site, the designated emergency signal, a continuous horn blast, shall be sounded and all site personnel assembled at the decontamination line. The fire department shall be alerted and all personnel moved to a safe distance from the involved area.

3. **Personal Protective Equipment Failure.** If any site worker experiences a failure or alteration of protective equipment that affects the protection factor, that person and his/her buddy shall immediately leave the Work Zone. Re-entry shall not be permitted until the equipment has been repaired or replaced.

4. **Other Equipment Failure.** If any other equipment on site fails to operate properly, the Project Team Leader and Site Safety Officer shall be notified and then determine the effect of this failure on continuing operations on site. If the failure affects the safety of personnel or prevents completion of the Work Plan tasks, all personnel shall leave the Work Zone until the situation is evaluated and appropriate actions taken.

In all situations, when an on-site emergency results in evacuation of the Work Zone, personnel shall not re-enter until:

a. The conditions resulting in the emergency have been corrected.
b. The hazards have been reassessed.
c. The Site Health and Safety Plan has been reviewed.
d. Site personnel have been briefed on any changes in the Site Health and Safety Plan.

E. Personal Monitoring. The following personal monitoring will be in effect on site:

Personal exposure sampling: MiniRAE PID screening, sampling pumps/tubes , or organic vapor monitors.

Medical monitoring: The expected air temperature will be less than 70 degrees F. If it is determined that heat stress monitoring is required (mandatory if over 70 degrees F), the following procedures shall be followed: Monitoring body temperature, body weight, pulse weight.

APPENDIX C –

COMMUNITY AIR MONITORING PLAN

APPENDIX C

COMMUNITY AIR MONITORING PLAN

C.1 - INTRODUCTION

As part of a Brownfield Cleanup Agreement (BCA) with the New York State Department of Environmental Conservation (NYSDEC) (BCA No. C360066), Austin Avenue Brownfield Redevelopment, LLC, the Volunteer) has completed a Remedial Investigation (RI) at the former Austin Avenue Landfill site and is prepared to proceed with the Remedial Action component of the BCA. The site located at Corporate Drive and Austin Avenue is proposed to be redeveloped into 100,000 square feet of residential buildings with associated parking and access drives.

This Community Air Monitoring Plan (CAMP) describes the measures that will be undertaken during field work to monitor ambient air at the downwind site perimeter during site activities that disturb soil or fill material.

C.2 - OBJECTIVES

The objective of this CAMP is to provide a measure of protection for the downwind community from potential airborne contaminant releases that might arise as a result of the planned Remedial Action, which will include the excavation and subsequent backfilling of soil and fill material, to establish a soil cover as an engineering control to mitigate potential exposure. The CAMP provides a means to measure and properly control airborne dust.

C.3 - METHODS

The CAMP will include monitoring for particulate matter (e.g. airborne "dust"). Readings will be recorded and will be available for State (DEC and DOH) personnel to review, as requested.

A. PARTICULATE MONITORING

Particulate (e.g. "dust") emissions will be measured continuously at the upwind and downwind property boundaries. Real time monitoring equipment (e.g. MiniRAM or

equivalent), with audible alarms and capable of measuring particulate matter less than 10 micrometers in size, will be used.

- If the downwind particulate level is 100 micrograms per cubic meter (ug/m^3) greater than background (upwind) for a 15-minute period, then dust suppression techniques will be employed. Work will continue with dust suppression provided that downwind particulate levels do not exceed 150 ug/m^3 above upwind levels and provided that no visible dust is migrating from the work area.

- If, after dust suppression techniques, downwind particulate levels are greater than 150 ug/m^3 above upwind levels, work will be stopped and a re-evalaution of activities will be initiated. Work will resume provided that dust suppression measures and other controls are successful in reducing downwind particulate concentrations to within 150 ug/m^3 of the upwind level and in preventing visible dust migration.

APPENDIX D –

FACT SHEET

New York State Department of Environmental Conservation

FACT SHEET

Brownfield Cleanup Program

Former Austin Avenue Landfill
C360066
City of Yonkers
Westchester County, New York

November 2009

Remedial Investigation Report Approved; Remedial Work Plan Available for Public Comment Public Comment Period Announced

An investigation has been completed for a site located at Austin Avenue and Corporate Drive in the City of Yonkers, Westchester County, under New York's Brownfield Cleanup Program (BCP). See map for the location of the site. In July 2007 Austin Avenue Redevelopment, LLC (Austin Ave, LLC) submitted to the New York State Department of Environmental Conservation (NYSDEC) a Remedial Investigation (RI) Report and draft Remedial Work Plan (RWP). The RI Report describes the results of the environmental investigation of the site, and was approved by NYSDEC on May 20, 2009.

On September 7, 2004 NYSDEC accepted an application submitted by Austin Ave, LLC to participate in the Brownfield Cleanup Program (BCP). The application proposed that the site will be used for commercial purposes. In October, 2007, a Remedial Work Plan was submitted for public comment which presented a strategy to remediate the site for its intended commercial use. Thereafter, the Volunteer requested action be held in abeyance while consideration was given to using the property for residential, rather than commercial purposes. The RWP now being presented addresses the more restrictive residential, rather than commercial, future use of the property.

The public comment period is open from November 30, 2009 to January 14, 2010. Written comments should be directed to NYSDEC Project Manager listed at the end of this Fact Sheet.

Highlights of the Draft Remedial Work Plan
The Remedial Work Plan has several goals:

1) identify cleanup levels to be attained or the process to be used to determine these levels;
2) explain why the Remedial Work Plan concludes that the results of remediation will protect public health and the environment; and
3) provide a detailed description of the remedy selected to address site contamination. The work will be performed by Austin Ave, LLC with oversight by NYSDEC and the New York State Department of Health (NYSDOH).

Based upon data developed from monitoring wells during the course of the Remedial Investigation, the groundwater does not appear to be significantly

Brownfield Cleanup Program: New York's Brownfield Cleanup Program (BCP) encourages the voluntary cleanup of contaminated properties known as "brownfields" so that they can be reused and redeveloped. These uses include recreation, housing and business.

A **brownfield** is any real property that is difficult to reuse or redevelop because of the presence or potential presence of contamination.

For more information about the BCP, visit:
www.dec.state.ny.us/website/der/bcp

impacted on this site. However, an institutional control will be put in place to prohibit the use of on-site groundwater if the site is redeveloped. Although no specific remedial actions are contemplated for groundwater at this time, a monitoring well down-gradient of the site will also be installed and additional groundwater sampling will be conducted after all groundwork has been completed.

Engineering controls will be implemented to address fill material and soil found to exceed soil cleanup objectives. Such materials will be delineated with a plastic mesh barrier and then covered with clean soil to prevent any future exposures. In addition, any buildings constructed on the site will be required to have ventilation systems integrated into their foundation designs as a precautionary measure to prevent the buildup of landfill gases.

Significant Threat Determination
In its present state, NYSDEC has determined that this site does not pose a significant threat to the environment or the public. NYSDOH has concurred in this determination. Continual reassessment of the threat will have to be done during any construction activities that involve below grade work and the potential of soil vapor intrusion into any new building (s).

Next Steps
NYSDEC will consider public comments received during the 45-day public comment period it completes its review, has any necessary revisions made and, if appropriate, approves the Remedial Work Plan. NYSDOH must concur in the approval of the Remedial Work Plan. The approved Remedial Work Plan will be placed in the document repositories. When NYSDEC approves the Remedial Work Plan, Austin Ave. LLC may proceed with the design and construction of the site remedy. It is estimated that design and construction activities will take about 90 days.

NYSDEC will keep the public informed during the remediation of the Austin Avenue/Corporate Drive site.

Background
The former Austin Avenue/Corporate Drive site consists of approximately 20 acres located on the south side of Austin Avenue, just west of Sprain Brook and the NYS Thruway in Yonkers, New York. The site includes a former landfill that contains primarily incinerator ash as well as bulky waste, including trees, brush, and building debris. The site is currently vacant. Since the landfill closed, it has become covered with invasive vegetation consisting of various species of grasses and shrubs. The natural topography of the site is steep, with a vertical drop of more than 100 feet from a ridge at the western site boundary to Sprain Brook, which are separated by a distance of approximately 1,200 feet.

FOR MORE INFORMATION

Document Repositories
Document repositories have been established at the following locations to help the public to review important project documents. These documents include the RI Report, draft RWP and the BCP application.

Yonkers Public Library
Riverfront Branch
One Larkin Center
Yonkers, NY 10701
(914)375-7940
Mon.-Fri 9:00am – 4:30 pm
Saturday 9am – 5pm
Sunday 12pm – 5pm

NYSDEC
Region 3 Office
21 South Putt Corners Road
New Paltz, New York 12561
(845) 256-3154

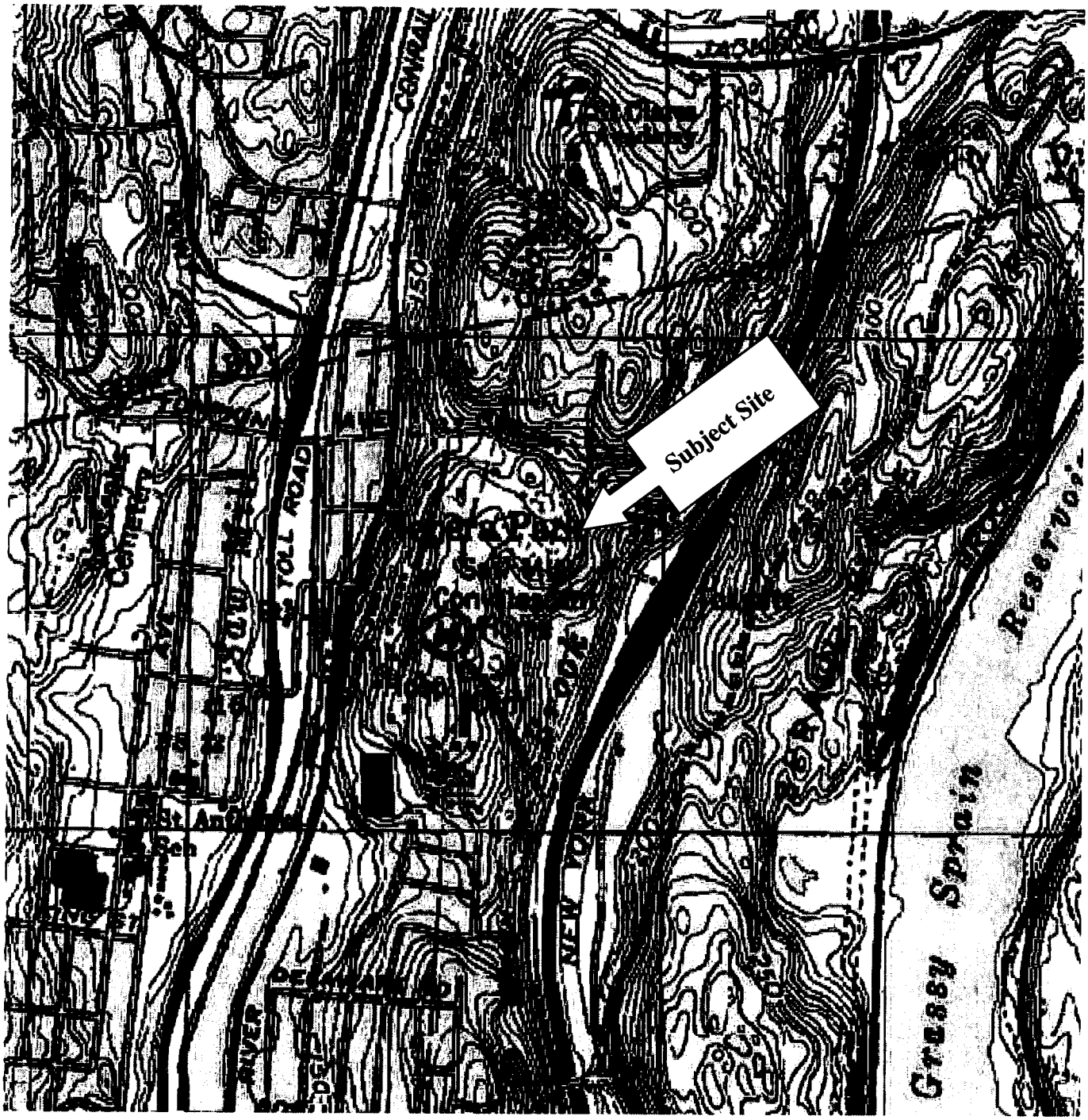
Mon.-Fri. 9am-4pm

Who to Contact
Comments and questions are always welcome and should be directed as follows:

Project Related Questions
Michelle Tipple
New York State Department of Environmental Conservation, Region 3
21 South Putt Corners Road
New Paltz, New York 12561
(845) 256-3153

Health Related Questions
Nathan Walz
NYS Dept. of Health
547 River Street
Troy, NY 12180
(800) 458-1158 ext 27850

If you know someone who would like to be added to the project mailing list, have them contact the NYSDEC project manager above. We encourage you to share this fact sheet with neighbors and tenants, and/or post this fact sheet in a prominent area of your building for others to see.



	Site Location Map		
N	November 2009	Former Austin Ave Landfill Yonkers, New York	**BCP Site #C360066** **Former Austin Avenue Landfill** **Yonkers, New York 10701**
	N5024		
	Not to Scale		