GSP Holdings, Inc.

Emergency Remedial Work Plan

Celi Drive BCP Site

BCP Site #C734108

Town of Dewitt

Onondaga County, NY

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1. Purpose

This Emergency Remedial Work Plan (Work Plan) is being prepared to address certain work associated with the excavation and removal of soils from the existing Bridge Street swale associated with the development by others of a parcel of land adjacent to Bridge Street, DeWitt, NY. The development of the parcel of land will entail the excavation and removal of soils from the Bridge Street swale, which is the subject of investigations and evaluation of remedial approaches associated with the NYS Brownfield Cleanup Program (BCP) site known as Celi Drive Site, Site #C734108 (5762 Celi Drive located in the Town of Dewitt, Onondaga County, New York). Figure 1 depicts the general location of the BCP site and the area of the proposed site development. This Work Plan is being prepared on behalf of the BCP participant, GSP Holdings, Inc. (formerly known as GSP, Inc.) herein referred to as GSP. The Work Plan outlines those activities that will need to be implemented to satisfy the Brownfield Cleanup Agreement (BCA) during the site development work that will be completed by others. The Work Plan is associated with the excavation and removal of soils from the Bridge Street swale only and does not affect the work associated with the other site development activities.

2. Background

In May 2005, GSP reported that a release had occurred at the Site. The Site was accepted into the BCP and a BCA was executed by GSP and NYSDEC in January 2008 (Index Number B7-0713-06-03).

Based on the initial investigation (Site Investigation Report ERM, 2005), four Areas of Concern (AOCs) were identified:

1. AOC-I: Sub-slab soil beneath the southeast corner of the manufacturing building.
2. AOC-2: Soil located in the drainage swale immediately east of the manufacturing building (GSP Swale).
3. AOC-3: Water and settled solids in the buried culvert and catch basins beginning at the north end of the GSP Swale and discharging on the north side of Bridge Street.
4. AOC-4: Soil located in constructed drainage swales on the north side of Bridge Street (the Bridge Street Swale Area).

Additional investigations were completed to further evaluate the lateral and vertical extent of affected media in the identified AOCs. The investigation activities and findings are summarized in the “Data Gap Investigation (DGI) Report” (ERM, June 2012), which was submitted to NYSDEC on June, 4 2012. The RI concluded that the release which occurred in the sub-slab area of the Celi Drive facility (AOC-I) moved down-gradient through man-made stormwater conveyance structures including the GSP Swale (AOC-2), the buried culvert pipe (AOC-3), and portions of the drainage swale north of Bridge Street (AOC-4). Based on the investigation findings, the constituents of concern related to the Celi Drive BCP site are:

Elements/Compound	Part 375 Commercial SCO (mg/kg)	Part 375 Industrial SCO (mg/kg)
Chromium (total)	1,500	6,800
Chromium (hexavalent)	400	800
Copper	270	10,000
Cyanide (total)	27	10,000
Nickel	310	10,000

During the site development construction activities, the soil in the existing Bridge Street swale will be excavated. The anticipated remedial activity associated with the Celi Drive Site will include removal of soil from the Bridge Street swale (AOC-4) to depths ranging from 1 to 2 feet below the current surface. In addition, upstream of the Bridge Street swale, the culvert pipe (AOC-3) is proposed to be water jet cleaned and the catch basins cleaned of accumulated solids. Because the development is taking place in advance of the remedial process for the Celi Drive BCP site, the construction activities that will be associated with the existing Bridge Street swale excavation will need to be conducted in conformance with the BCP requirements. This Work Plan outlines those requirements and the documentation that will need to be completed to satisfy the BCA. The necessary approvals and permits associated with the overall site development activities and the completion of the work in accordance with local, state and federal laws, rules and regulations are the responsibility of the developer and contractor undertaking the site development.

3. Site development

The scope of the site development, as approved by the appropriate municipal and regulatory authorities, includes the excavation and removal of soils from the Bridge Street swale from the area immediately adjacent to Bridge Street and extending north approximately 500 feet. The excavated soils from the Bridge Street swale will be staged in a containment area. The final disposition of the soils will be determined based on sampling and laboratory analytical results. The soils may be disposed of off-site at a permitted facility or reused on-site if acceptable to NYSDEC. The work also entails the filling of the existing Bridge Street swale, after excavation of soils to approximately 2 feet below ground surface (bgs), from a point just north of Bridge Street and extending approximately 320 feet north. The swale will be relocated to a new drainage easement to the east that will transmit stormwater flows through buried culverts and discharge to the existing swale approximately 320 feet north of Bridge Street. The existing swale area that will be excavated and then filled will be backfilled with select structural fill (stone aggregate materials). Attachment 1 is a plan view of the proposed development as provided by the site developer. Due to the concern for the potential to reintroduce impacted solids from the existing buried culvert (AOC-3), the development work will also include the water jetting and clean-out of the existing buried culvert. In addition, it will be necessary to install erosion control measures at the inlet catch basin to the existing buried culvert at the GSP facility in order to control impacted soils from entering the culvert.

Based on information provided by the development contractor, it is anticipated that the sequence of work will be as follows:

1. Acquire all necessary permits and approvals not yet obtained.
2. Survey top of soil elevation in existing Bridge Street swale.
3. Site clearing and grubbing.

4. Create construction access road from Bridge Street.
5. Isolate the eastern portion (east of the culvert discharge) of the existing swale adjacent to Bridge Street using a constructed cofferdam. Flows from the culvert will continue to discharge along the existing swale to the north.
6. Excavate soils from existing swale to the east and manage for off-site disposal. Survey the soil elevation after excavation is complete.
7. Begin installation of new culvert (twin 48-inch HDPE pipe) to establish new drainage and access to site.
8. Water-jet and clean existing culvert originating at GSP facility. Collect and manage wash water and solids for off-site disposal.
9. Excavate new culvert discharge area, including portion of existing swale and manage existing swale soils for off-site disposal.
10. Once new culvert is in place, reconfigure the existing culvert to flow to the new culvert inlets. Isolate existing swale to the north of Bridge Street with a cofferdam.
11. Excavate soils from existing swale north of Bridge Street and manage for final disposition, which may include off-site disposal. Survey the soil elevation after excavation is complete.
12. Backfill existing swale north of Bridge Street with select structural fill (approximate depth of 4 to 5 feet).
13. Complete site grading and building construction.

4. BCP scope of work

The BCP elements of work will be coordinated with the site development contractor's construction activities. In general, the requirements of DER-10/Technical Guidance for Site Investigation and Remediation (May 3, 2010) will be implemented relative to the BCP elements of work. The following sections describe the BCP elements to be completed during the site development construction activities. The BCP elements specifically apply to the excavation of soil from the existing Bridge Street swale and the cleaning of the existing buried culvert and the management and disposal of the resulting materials.

4.1 Health and safety plan

During Site remedial actions associated with the BCP Site, a Health and Safety Plan (HASP) will be followed by Site personnel relative to the contaminants of concern. A site Health and Safety Plan is included as Appendix A. If the construction activities encounter other potential contamination, then the appropriate health and safety measures will be the responsibility of the construction contractor. All construction contractors will be requested to prepare and implement a HASP that conforms to applicable OSHA requirements. Only authorized personnel will be allowed within the work area.

4.2 Community air monitoring plan

During actions associated with the BCP at the Site, a Community Air Monitoring Plan (CAMP) will be implemented (Appendix B). The purpose of the CAMP is to monitor the potential for contamination in air associated with particulates to migrate off-Site, and identify mitigation

measures if action levels are reached. The CAMP will be implemented during the excavation of soils from the existing swale and associated with active swale soil stockpiling/staging activities. During the swale excavation, if the soils are wet or moist enough to preclude the generation of suspended particulates, the CAMP particulate monitoring may be suspended. If the CAMP is to be suspended, NYSDEC will be contacted and the basis for the suspension documented in the daily field logs.

4.3 Project organization

An outline of the anticipated project organization and contacts for each identified entity is provided below. Project oversight associated with the BCP-related requirements will be completed by GHD Consulting Services Inc. on behalf of GSP during swale soil excavation and management.

1. GSP Holdings Inc – BCP Participant
2. Community Bank – Site Owner and end use
3. Edgewater Development – Site Developer Thomas Kennedy: 315-471-4420 x123
4. Savannah Civil Works, LLC – Construction Contractor – Peter Iwanicki: 315-243-3478
5. GHD Consulting Services Inc. – Damian Vanetti: 315-439-3268 or Don Sorbello: 315-679-5837
6. NYS Department of Environmental Conservation (NYSDEC) – Christopher Mannes: 315-426-7515
7. NYS Department of Health – Richard Jones: rej05@health.state.ny.us

4.4 Permitting

The developer and/or the construction contractors will be responsible for preparing and obtaining the necessary permits associated with the Site development construction work. Identification of underground utilities and site access will be the responsibility of the construction contractor. Access associated with the existing culvert pipe that runs between GSP facility and Bridge Street will be arranged by GSP.

4.5 Soil excavation and management

The development construction activities will entail the excavation of soil materials from the Bridge Street Swale (see Figure 2). The excavation will be completed in conformance with DER-10. Soil material will be excavated to 1 to 2 feet below existing grade and managed for final disposition, which may include off-site disposal. A Soil Excavation Plan is included in Appendix C and provides an overview of how the soils excavation and management will be completed relative to the soils in the existing Bridge Street Swale.

Documentation for the soil excavation will include the following:

1. Survey of the existing swale elevations.
2. Survey of the final excavation elevations.
3. Survey of the final backfill elevations.
4. Documentation samples from the bottom of the soil excavation and their surveyed location.
5. Documentation of disposal characterization as required.

6. Manifests and Bills of Lading for all off-Site disposal of liquids and soils at permitted facilities, if any.

Documentation samples of soil will include collecting composite samples after excavation is complete every 50 linear feet along the length of the excavation. Three composite samples will be taken at each 50-foot interval, one each from the bottom and each side bank of the swale. One set of soil samples will be taken in proximity to the existing buried culvert discharge into the Bridge Street Swale. A total of approximately 40 composite samples will be collected for analysis. The documentation samples will be located by survey in the field. Laboratory analysis will be for TAL metals Chromium (total), Chromium (hexavalent), Copper, Nickel, and Cyanide A NYS ELAP Certified Laboratory will perform the analysis.

A Data Usability Summary Report (DUSR) will be prepared, which will present the results of data validation, including a summary assessment of laboratory data packages, sample preservation and chain of custody procedures, and a summary assessment of precision, accuracy, representativeness, comparability, and completeness for each analytical method.

Following receipt of the laboratory analysis and completion of the DUSR, the analytical data will be submitted to NYSDEC in their electronic data deliverables (EDD) format for inclusion in NYSDEC's EQuIS database.

The disposal characterization will be dictated by the selected disposal facility that is permitted to receive the soils and/or liquids. The disposal characterization analytical data will be collected and provided to NYSDEC.

4.6 Imported soil for backfill

Materials (soil or stone) backfilled that is used within the limits of the existing Bridge Street Swale will require documentation of the sources and characterization to show that it meets the requirements of DER-10 for imported soil material. In general, the soil backfill will meet the requirements as summarized in the following sections.

(e) Compliance for soil which exists at or is imported to a site. Soil which exists at, or is imported to, a site which is used to construct a soil cover, site cap system or as excavation backfill must meet the requirements of 6 NYCRR 375-6.7(d) and;

1. Soil imported to a site for use in a soil cap, soil cover or as backfill will:

i. comply with any RAOs which may be identified for a soil cover or the soil comprising a cap, by a remedy selected pursuant to Chapter 4.

4. Reuse of soil from the site. Soil originating on the site may be reused on the site or exported for reuse provided sampling demonstrates compliance with SCGs as detailed in Table 5.4(e)4. Soil which is not going off-site for reuse will be disposed in a permitted treatment, storage or disposal facility, unless paragraph 10 below provides for such export.

ii. be free of extraneous debris or solid waste;

iii. be recognizable soil or other unregulated material as set forth in 6 NYCRR Part 360 and materials for which DEC has issued a beneficial use determination, which comply with the requirements of paragraph 2 below;

iv. not exceed the allowable constituent levels for imported fill or soil as described in paragraph 2 below, unless a site-specific exemption is provided by DER in accordance with paragraph 8 below; and

v. be tested as described in paragraph 3 below.

Sampling is required for all imported soil for use as backfill in the existing Bridge Street Swale. Sampling frequency of the material will be determined by DER-10, Table 5.4(e)10 below with a minimum one sample analyzed from every new source, at the following sampling frequency for:

(1) soil or sand imported from a virgin mine/pit, at least one round of characterization samples for the initial 100 cubic yards of material, in accordance with Table 5.4(e)10 below;

(2) material sources other than a virgin mine/pit (e.g., a former manufacturing site), in accordance with Table 5.4(e)10; or

(3) sites where large amounts of cover material/backfill are required, the sampling frequency can be reduced from that specified in Table 5.4(e)10 once a trend of compliance is established; and

Material other than soil imported to a site. The following material may be imported, without chemical testing, to be used as backfill beneath pavement, buildings or as part of the final site cover, provided that it contains less than 10% by weight material which would pass through a size 80 sieve and consists of:

i. gravel, rock or stone, consisting of virgin material from a permitted mine or quarry; or

ii. recycled concrete or brick from a DEC registered construction and demolition debris processing facility if the material conforms to the requirements of Section 304 of the New York State Department of Transportation Standard Specifications Construction and Materials Volume 1 (2002).

Documentation of the source of fill will be provided to NYSDEC for approval of the source of the material before it is used on the site, which should include:

i. the name of the person providing the documentation and relationship to the source of the fill;

ii. the location where the fill was obtained;

iii. identification of any state or local approvals as a fill source; and

iv. if no prior approval is available for the source, a brief history of the use of the property which is the source of the fill.

Bills of Lading will be provided to document that the fill delivered was from an approved source(s).

Table 5.4(e)10 Recommended soil sampling

Contaminant	VOCs	SVOCs, Inorganics, and PCBs/Pesticides	
Soil Quantity (Cubic Yards)	**Discrete Samples**	**Composite**	**Discrete Samples/Composite**
0-50	1	1	3 to 5 discrete samples from different locations in the fill being provided will comprise a composite sample for analysis
50-100	2	1	
100-200	3	1	
200-300	4	1	
300-400	4	2	

Contaminant	VOCs	SVOCs, Inorganics, and PCBs/Pesticides	
Soil Quantity (Cubic Yards)	**Discrete Samples**	**Composite**	**Discrete Samples/Composite**
400-500	5	2	3 to 5 discrete samples from different locations in the fill being provided will comprise a composite sample for analysis
500-800	6	2	
800-1000	7	2	
>1000	Add an additional 2 VOC and 1 composite for each additional 1000 cubic yards or consult with DER		

4.7 Exisitng culvert pipe cleaning

The development construction activities will entail excavation of the Bridge Street Swale and relocation to a newly created drainage easement (to the east). In order to mitigate the potential to reintroduce solids from upstream of the Bridge Street Swale, the buried culvert pipe that originates on the GSP property and discharges to the Bridge Street Swale will be cleaned of solids. In addition, the GSP on-Site swale will be isolated from the buried culvert catch basin located in the GSP swale using sediment control measures, such as hay bales and/or silt fence, to preclude future sediment transport from the GSP swale to the buried culvert pipe.

The cleaning of the buried culvert is proposed to be completed by Hydro-Jetting (i.e., Pressure-washing) the culvert pipe and catch basins to remove accumulated solids within the culvert. Hydro-Jetting is proposed to reduce the volume of water that is generated during the cleaning process. The goal of this approach is to remove gross accumulation of solids within the pipe and catch basins. Hydro-Jetting will be performed in sections starting with the opening into the culvert pipe at the north end of the on-site GSP swale catch basin (designated CB-l) to the next catch basin location (CB-2). The process will be repeated for the next down-gradient section of the culvert piping between catch basins until all sections of the culvert pipe to the southeast side of Bridge Street have been cleaned of solids. A total of five catch basins have been identified along the length of the buried culvert pipe. If entry into the catch basins is required, a confined space entry program will be evaluated and implemented as appropriate.

Hydro-Jetting will be performed during periods of no precipitation and associated run-off to control the quantity of water that will be managed. It is proposed to isolate the discharge of the culvert pipe using coffer dam such that water from the Bridge Street Swale does not back flow into the culvert. Any existing water that is standing in the culvert pipe will drain to the coffer dam and then be pumped out to the existing Bridge Street Swale. Once the existing water has been allowed to drain completely from the culvert pipe, the Hydro-Jetting will be initiated. If a storm event occurs during Hydro-Jetting activities, it may be necessary to temporarily divert stormwater using temporary storm water piping and pumps.

Catch basins will be blocked/plugged at the downgradient outlet using a "packer" type device, sand bags, or other appropriate means prior to flushing material from upgradient portions of the culvert piping to the plugged catch basin. Fluids and solids will be vacuumed from each catch basin and collected in tanks for temporary storage prior to transportation and disposal off-site at an approved and permitted facility, as may be required. The fluids and solids will be characterized based on the requirements of the disposal facility. Any vacuumed solids and fluids may be transported to the soils containment area (soils excavated from the Bridge Street Swale) to dewater prior to off-site

disposal. This option will be further evaluated based on containment capacity and characteristics of the materials collected from the culvert pipe.

5. BCP documentation

Within approximately 45 days of completing the excavation of soil and off-site disposal, a construction completion report (CCR) will be prepared and submitted to NYSDEC and NYSDOH for review and acceptance. In general, the CCR will follow the requirements of the Final Engineering Report (FER) as outlined in DER-10. The CCR will be incorporated into the Celi Drive BCP site FER once all remedial activities associated with the site have been completed. The CCR will provide documentation of the following:

1. Description of the remedial activities completed.
2. Photo documentation of the BCP related activities.
3. CAMP data results and summary.
4. Surveyed soil elevations before and after excavation of soil in the Bridge Street swale.
5. Surveyed elevation of the final fill elevation within the existing Bridge Street Swale.
6. Documentation soil samples analytical data summary and Laboratory Analytical Reports.
7. Documentation of backfill material placed in the area of the existing Bridge Street Swale including quantities and characterization.
8. Documentation of any materials disposed of off-Site including quantities, disposal characterization, copies of transportation and disposal manifests, and the facility where such materials were disposed.
9. Data Usability Summary Report certifying the analytical data generated was useable and met the remedial requirements.
10. EQuIS data upload confirmation.

Any deviations from this Work Plan will be identified and described in the CCR.

6. Project schedule

It is estimated that the site development construction activities associated with the Bridge Street Swale will require three to four weeks to complete based on the duration of each element of work.

The proposed project schedule is presented below:

1. Submit Work Plan to NYSDEC ..... June 6, 2013
2. Site Development Construction Start..... June 10, 2013
3. NYSDEC Approval of Work Plan ..... June 14, 2012
4. Construction Activities Associated with Soil Excavation from Bridge Street Swale..... June 17, 2013
5. Construction Activities Associated with Bridge Street Swale Complete .....July 17, 2013
6. BCP Documentation Report Drafted .....August 30, 2013
7. BCP Documentation Report Submitted to NYSDEC ..... September 15, 2013

Appendices

Appendix A – Health and Safety Plan

Site Health and Safety Plan

1 Site Description

Date	June 2013
Location	Proposed Community Bank location, Bridge Street, Dewitt, New York (associated with GSP Holdings, Inc. (GSP), 5762 Celi Drive, Dewitt, New York)
Hazards	Inorganic elements: chromium (total and hexavalent), copper, zinc, cyanide (total), and nickel
Area Affected	Soils in the swale to the north of Bridge Street, and water and soils in the buried culvert pipe under Bridge Street
Surrounding Population	Commercial, retail
Topography	Generally flat
Weather Conditions	Warm, summer conditions expected

2 Entry Objectives

The objective of site entry is to provide oversight for soil removal in the Bridge Street Swale area of concern under the Brownfield Cleanup Program, and hydro-lancing of the buried culvert on the GSP property and Bridge Street Swale Area (BSSA).

3 On-Site Organization and Coordination

The following GHD personnel are designated to carry out the stated job functions on site. (Note: One person may carry out more than one job function.)

- Project Manager ..... Don Sorbello (315) 679-5837
- Field Team Leader ..... Ian McNamara (315) 679-5732
- *Field Sampling Team Member ..... Designee (315) Contact No.*
- Project Safety Officer ..... Kathy Hahn (315) 679-5788 or (315) 447-5824

4 On-Site Control

GSP 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.

5 Hazard Evaluation

5.1 Chemical Hazards

It is anticipated that a number of different inorganic contaminants may be encountered during site activities. Previous investigations conducted at the site have determined the Contaminants of Concern (COCs) relative to Celi Drive BCP site to be total chromium, nickel, copper, zinc, and total cyanide. Other contaminants could be present that have not previously been identified. If field observations identify other potential contaminants of concern, this HSP will be reviewed and revised as appropriate.

The maximum concentration found in the soil and surface water at the site for each contaminant is as follows:

- total chromium – 966 mg/kg in soil; 065 mg/L in water
- nickel – 2,330 mg/kg in soil; 0.962 mg/L in water copper – 7,170 mg/kg in soil; 1.76 mg/L in water
- zinc – 473 mg/kg in soil; 0.12 mg/L in water
- cyanide – 15.7 mg/kg in soil, 0.012 mg/L in water

The primary hazards of each known or suspected chemical contaminant are identified below. The main potential exposure route is associated primarily with direct skin contact and inhalation.

Substance	Primary Hazards
Metals	
Chromium	Eye and skin irritation, lungs
Nickel	Dermatitis, allergic asthma
Copper	Cough, headache, shortness of breath, skin or eye redness
Zinc	Eye and skin irritation, nausea, muscle aches, chills, throat irritation
Cyanide	Weakness, headache, confusion, eye and skin irritation

5.2 Physical Hazards

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

5.2.1 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 engineering 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).

5.2.2 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.

5.2.3 Heavy Lifting Method

Personnel conducting work that may require lifting of heavy objects should use the following proper lifting techniques:

1. 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.

2. 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.

3. 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.

4. 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.

5.2.4 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:

1. Spot-check the work area to identify hazards.

2. Establish and utilize pathways that are most free of slip and trip hazards. Avoid pathways that are more hazardous.

3. Beware of trip hazards, such as wet floors, slippery floors, and uneven terrain.

4. Carry only loads you can see over.

5. Keep work areas clean and free of clutter, especially in storage areas and walkways.

6. Communicate observed hazards to site personnel.

5.2.5 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:

1. Adjust work schedules.

    a. Modify work/rest schedules according to monitoring requirements.

    b. Mandate work slowdowns as needed.

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

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

3. 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., 8 fluid ounces (0.23 liters) of water must be ingested for approximately every 8 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:

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

5.2.6 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.

5.2.7 Vehicle Traffic

As the scope of work includes working along active roadways, and the transport and disposal of material, there is a potential to encounter a high volume of vehicular traffic. Project Work Crews that will 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, and fall hazards. Be aware of surroundings. Practice good housekeeping.
Noise	Wear appropriate hearing protection.
Pinch Points	Keep hands, feet, and 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.

Potential Hazard	Preventative Measures
Chemical Hazards	Use PID as indicated in HASP. Wear specified PPE. No smoking.
Biological Hazards – Insects, Snakes, Poison Plants, etc.	Wear appropriate PPE and keep necessary first aid supplies readily available. Use insect repellant and snake chaps as needed. Learn to identify poisonous plants.

5.3 Biological Hazards

Biological hazards may include contact with biting insects, reptiles, and poisonous plants.

5.3.1 Tick-Borne Diseases

Lyme disease is caused by a bacterial parasite called spirochete, and is spread by infected ticks that live in and near wooded areas, tall grass, and brush. Once the tick deposits the spirochete, it must feed on the host blood for 12 to 24 hours before it can transmit the disease. The ticks that cause the disease in the Northeast and Midwest are often no bigger than a poppy seed or a comma in a newsprint. The peak months for human infection are June through October. There are many other tick borne diseases, such as Rocky Mountain Spotted Fever, which can be carried by a variety of ticks. The prevention and treatment of these diseases are similar to those of Lyme Disease.

Ticks hang on blades of grass or shrub waiting for a host to come by. When a host brushes against the vegetation, the tick grabs on. They usually first climb onto a person's leg and then crawl up looking for a place to attach. Preventative measures include wearing light-colored clothing, keeping clothing buttoned, tucking pant legs in socks, and keeping shirt tails tucked in. Periodic checks for ticks should be made during the day, and especially at night. Hair should also be checked by parting it and combing through it to make sure that no ticks have attached to the scalp. Also, check clothing when it is first removed, before ticks have a chance to crawl off.

The most common repellent recommended for ticks is n,n-dimethyl-m-toluamide, or DEET. It is important to follow the manufacturer's instructions found on the container for use with all insecticides, especially those containing DEET.

In general, DEET insect repellent should only be applied to clothing, not directly on the skin. Do not apply to sunburns, cuts or abrasions. Use soap and water to remove DEET once indoors.

The best way to remove a tick is removal by tweezers. If tweezers are not available, cover your fingers (tissue paper) while grasping the tick. It is important to grasp the tick as close as possible to the site of attachment and use a firm steady pull to remove it. When removing the tick, be certain to remove all the mouth parts from your skin so as not to cause irritation or infection. Wash hands immediately after with soap and water, and apply antiseptic to the area where tick was removed.

A variety of tests exist for determining Lyme Disease infection. However, most of these tests are not exact. The first symptoms of Lyme Disease usually appear from two days to a few weeks after a person is bitten by an infected tick. Symptoms usually consist of a ring-like red rash on the skin where the tick attached. The rash is often bull's eye-like with red on the outside and clear in the center. The rash may be warm, itchy, tender, and/or "doughy." Unfortunately, this rash appears in only 60 to 80 percent of infected persons. An infected person also has flu-like symptoms of fever, fatigue, chills, headaches, a stiff neck, and muscle aches and pains (especially knees). Rashes may be found some distance away from original rash. These symptoms often disappear after a few weeks.

5.3.2 Mosquitos

Mosquitoes are known to carry diseases including encephalitis and West Nile virus, which can be passed on to humans through the bite of the mosquito. Mosquito bites can also cause itching and swelling. Prevention of mosquito bites is recommended to avoid these diseases. When possible, avoid activity near stagnant water bodies or in deep woods. Mosquitoes are most active later in the day. The most common repellent recommended for mosquitoes is n,n-dimethyl-m-toluamide, or DEET. It is important to follow the manufacturer's instructions found on the container for use with all insecticides, especially those containing DEET.

In general, DEET insect repellent should only be applied to clothing, not directly on the skin. Do not apply to sunburns, cuts or abrasions. Use soap and water to remove DEET once indoors.

5.3.3 Bees and Wasps

The insects most likely to cause strong allergic reactions are wasps, honeybees, hornets, and yellow jackets. Although they differ in appearance and reside in different habitats, all stinging insects have one thing in common – when upset, they will attack.

Yellow jackets and honeybees make their nests in the ground, in old tree stumps, or in walls. Wasps nest in trees, in bushes, under the house, or on buildings. Hornets construct a gray or brown paper football shaped nest in trees and shrubs, 5 to 10 feet above the ground. All of the above may also be found in aboveground protective well casings.

Insect sting reactions can be classified into three types: a normal reaction, a toxic reaction, and an allergic reaction. A normal reaction usually lasts only a few hours.

If you have had an allergic reaction to an insect sting before, an allergist should be consulted. There is a treatment, venom immunotherapy, which is 97 percent effective in preventing future allergic reactions to insect stings.

If stung by a honeybee, the only bee to leave its stinger, instant removal of the stinger and sac usually reduces harmful effects. To remove the stinger, never try to use the thumb and forefinger or tweezers to pinch it out, instead with a fingernail or flat object, scrape it away with one quick scrape in a sideways movement. This method prevents more venom from being injected into the wound.

Other helpful tips would be to take a rapid acting antihistamine to reduce itching; apply ice or cold compresses to the area to reduce swelling; and rest, because physical activity hastens the absorption of the venom.

People with severe allergic reactions should be given a dose of epinephrine immediately following the insect sting. They should also be taken to the hospital for further evaluation. Severe or even life threatening reactions to insect stings, if treated properly, usually clear up in one or two hours after treatment.

5.3.4 Poisonous Plants

Common Poison Ivy (*Rhus radicans*) grows as a small plant, a vine, and a shrub. Poison Ivy occurs in every state. The leaves always consist of three glossy leaflets. Poison Sumac (*Rhus vernix*) grows as a woody shrub or small tree 5 to 25 feet tall. It usually contains nine leaves, with eight paired leaves and one on top, and is common in swampy areas. The plants are potent sensitizes and can cause a mild to severe allergic reaction. This reaction is called contact dermatitis.

Dermatitis, in Rhus-sensitive persons, can result from contact with the milky sap found in the roots, stems, leaves, and fruit. The sap may retain its potency for months or years in a dry atmosphere, and can occur during any time of the year. The sap may also be carried by animals, equipment, or apparel.

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	Protective Equipment
A	Fully-Encapsulating Suit SCBA (Disposable Coveralls)
B	Splash Gear (Saranax-Coated Tyvek Suit) SCBA or Airline Respirators
C	Splash Gear (Tyvek Suit) Boots Half-Face Canister Respirator Gloves Safety Glasses Hard Hat
D	**Work Boots** **Gloves (Nitrile)** **Hard Hat** **High visibility vest** **Safety glasses**

6.1 Action Levels

Action levels shall be determined by monitoring of the work zone. The primary potential route of exposure is inhalation of dust. If conditions in the work zone result in an increase in visible dust within the breathing space, the site shall be re-evaluated to determine if a higher level of protection is required. **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.

7 On-Site Work Plans

The following personnel or designated alternate(s) will perform the field investigation:

- Field Team Leader: ..... Don Sorbello
- Work Party ..... Ian McNamara

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

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

9 Site Health and Safety Plan

9.1 Responsibilities

The designated Site Safety Officer will have responsibility 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 GHD employees engaged in site work.

9.2 Emergency Medical Care

Crouse Hospital is located at 736 Irving Avenue in Syracuse, NY, approximately 5 miles from the site. A map of the route to this facility is available at the field vehicle (attached).

Head northeast on Bridge Street and take Route 690 West toward Syracuse. Take Exit 13, South Townsend Street and turn left at the bottom of the exit ramp. Continue on South Townsend Street to East Adams Street. Take a left onto East Adams Street. Follow East Adams Street approximately 0.5 mile and make a right turn onto Irving Avenue. Crouse Hospital is on the right (west) side of Irving Avenue.

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
Emergency services	911
GHD HSE Manager	315.447.5824

9.3 Environmental Monitoring

The following environmental monitoring instruments shall be used on site at the specified intervals:

1. **Dust (Particulate) Monitor.** Continuous during installation of soil borings per Community Air Monitoring Plan (CAMP)

9.4 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.

9.4.1 Personnel Injury in the Work Zone

Upon notification of an injury in the Work Zone, 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.

9.4.2 Fire/Explosion

Upon notification of a fire or explosion on site all site personnel shall assemble at the designated meeting point. The fire department shall be alerted and all personnel moved to a safe distance from the involved area.

9.4.3 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.

9.4.4 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:

1. The conditions resulting in the emergency have been corrected.

2. The hazards have been reassessed.

3. The Site Health and Safety Plan has been reviewed.

4. Site personnel have been briefed on any changes in the Site Health and Safety Plan.

9.5 Personal Monitoring

The following personal monitoring will be in effect on site:

1. **Personal Exposure Sampling.** Dust (particulate) monitoring will be implemented for community air monitoring.

2. **Medical Monitoring.** The expected air temperature will be less than 80EF. If it is determined that heat stress monitoring is required, the following procedures shall be followed: Monitoring body temperature, body weight, pulse weight.

Appendix B – Community Air Monitoring Plan

Appendix B
Community Air Monitoring Plan

1. Overview

The Community Air Monitoring Plan (CAMP) requires real-time monitoring at the downwind perimeter of the designated work area when certain activities are in progress at contaminated sites. The CAMP is not intended for use in establishing action levels for worker respiratory protection. Rather, its intent is to provide a measure of protection for the downwind community (i.e., off-site receptors including residences and businesses and on-site workers not directly involved with the subject work activities) from potential airborne contaminant releases as a direct result of investigative and remedial work activities. The action levels specified herein require increased monitoring, corrective actions to abate emissions, and/or work shutdown. Additionally, the CAMP helps to confirm that work activities did not spread contamination off-site through the air.

Reliance on the CAMP should not preclude simple, common-sense measures to keep VOCs, dust, and odors at a minimum around the work areas.

2. Community Air Monitoring Plan

This CAMP is specific to the work related to the Celi Drive BCP site and the soils excavation during the construction activities associated with the existing Bridge Street swale. The contaminants of concern related to the Celi Drive BCP site are inorganic heavy metals. Real-time air monitoring for particulate levels at the perimeter of the work area will be necessary. Monitoring of Volatile Organic Compounds will not be an element of the CAMP related to the Celi Drive BCP Site.

Continuous monitoring will be required for all ground intrusive activities. Ground intrusive activities include, but are not limited to, soil/waste excavation and handling, test pitting or trenching, and the installation of soil borings or monitoring wells. Specific to this project the BCP CAMP activities will be associated with excavation and removal of the soils from the existing Bridge Street swale within the work area.

3. Particulate Monitoring, Response Levels, and Actions

Particulate concentrations should be monitored continuously at the upwind and downwind perimeters of the work zone at temporary particulate monitoring stations. The particulate monitoring should be performed using real-time monitoring equipment capable of measuring particulate matter less than 10 micrometers in size (PM-10) and capable of integrating over a period of 15 minutes (or less) for comparison to the airborne particulate action level. The equipment must be equipped with an audible alarm to indicate exceedance of the action level. In addition, fugitive dust migration should be visually assessed during all work activities.

1. If the downwind PM-10 particulate level is 100 micrograms per cubic meter (mcg/m3) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques must be employed. Work may continue with dust suppression techniques provided that downwind PM-10 particulate levels do not exceed 150 mcg/m3 above the upwind level and provided that no visible dust is migrating from the work area.

2. If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than 150 mcg/m3 above the upwind level, work must be stopped and a re-evaluation of activities initiated. Work can resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within 150 mcg/m3 of the upwind level and in preventing visible dust migration.

3. All readings must be recorded and be available for State (NYSDEC and NYSDOH) and County Health personnel to review.

4. Fugitive Dust and Particulate Monitoring

The following fugitive dust suppression and particulate monitoring program should be employed at the site during construction and other intrusive activities which warrant its use:

1. Reasonable fugitive dust suppression techniques must be employed during all site activities which may generate fugitive dust.

2. Particulate monitoring must be employed during the handling of waste or contaminated soil or when activities on site may generate fugitive dust from exposed waste or contaminated soil. Remedial activities may also include the excavation, grading, or placement of clean fill. These control measures should not be considered necessary for these activities.

3. Particulate monitoring must be performed using real-time particulate monitors and shall monitor particulate matter less than ten microns (PM10) with the following minimum performance standards:

    a. Objects to be measured: Dust, mists or aerosols.

    b. Measurement Ranges: 0.001 to 400 mg/m3 (1 to 400,000 :ug/m3).

    c. Precision (2-sigma) at constant temperature: +/- 10 :g/m3 for one second averaging; and ±1.5 g/m3 for sixty second averaging.

    d. Accuracy: ±5% of reading ± precision (Referred to gravimetric calibration with SAE fine test dust (mmd= 2 to 3 :m, g= 2.5, as aerosolized).

    e. Resolution: 0.1% of reading or 1g/m3, whichever is larger.

    f. Particle Size Range of Maximum Response: 0.1-10.

    g. Total Number of Data Points in Memory: 10,000.

    h. Logged Data: Each data point with average concentration, time/date and data point number.

    i. Run Summary: overall average, maximum concentrations, time/date of maximum, total number of logged points, start time/date, total elapsed time (run duration), STEL concentration and time/date occurrence, averaging (logging) period, calibration factor, and tag number.

    j. Alarm Averaging Time (user selectable): real-time (1-60 seconds) or STEL (15 minutes), alarms required.

    k. Operating Time: 48 hours (fully charged NiCd battery); continuously with charger.

    l. Operating Temperature: -10 to 50°C (14 to 122°F).

m. Particulate levels will be monitored upwind and immediately downwind at the working site and integrated over a period not to exceed 15 minutes.

4. In order to ensure the validity of the fugitive dust measurements performed, there must be appropriate Quality Assurance/Quality Control (QA/QC). QA/QC Plans should include the following critical features associated with particulate monitoring: periodic instrument calibration, operator training, daily instrument performance (span) checks, and a record keeping plan.

5. The action level will be established at 150 ug/m3 (15 minutes average). While conservative, this short-term interval will provide a real-time assessment of on-site air quality to assure both health and safety. If particulate levels are detected in excess of 150 ug/m3, the upwind background level must be confirmed immediately. If the working site particulate measurement is greater than 100 ug/m3 above the background level, additional dust suppression techniques must be implemented to reduce the generation of fugitive dust and corrective action taken to protect site personnel and reduce the potential for contaminant migration. Corrective measures may include increasing the level of personal protection for on-site personnel and implementing additional dust suppression techniques (see paragraph 7). Should the action level of 150 ug/m3 continue to be exceeded work must stop and DER must be notified. The notification shall include a description of the control measures implemented to prevent further exceedances.

6. It must be recognized that the generation of dust from waste or contaminated soil that migrates off-site, has the potential for transporting contaminants off-site. There may be situations when dust is being generated and leaving the site and the monitoring equipment does not measure PM10 at or above the action level. While it is not practical to quantify total suspended particulates on a real-time basis, it is appropriate to rely on visual observation. If dust is observed leaving the working site, additional dust suppression techniques must be employed. Activities that have a high dusting potential--such as solidification and treatment involving materials like kiln dust and lime--will require the need for special measures to be considered.

7. The following techniques have been shown to be effective for the controlling of the generation and migration of dust during construction activities:

   a. Applying water on haul roads.

   b. Wetting equipment and excavation faces.

   c. Spraying water on buckets during excavation and dumping.

   d. Hauling materials in properly tarped or watertight containers.

   e. Restricting vehicle speeds to 10 mph.

   f. Covering excavated areas and material after excavation activity ceases.

   g. Reducing the excavation size and/or number of excavations.

   Experience has shown that the chance of exceeding the 150ug/m3 action level is remote when the above-mentioned techniques are used. When techniques involving water application are used, care must be taken not to use excess water, which can result in unacceptably wet conditions. Using atomizing sprays can prevent overly wet conditions, conserve water, and provide an effective means of suppressing the fugitive dust.

8. The evaluation of weather conditions is necessary for proper fugitive dust control. When extreme wind conditions make dust control ineffective, as a last resort ground intrusive actions may need to be suspended.

Appendix C – Excavation Work Plan

Appendix C
Excavation Work Plan

C-1 Notification

At least 5 days prior to the start of construction associated with the Celi Drive BCP Site, the site owner or their representative will notify the Department. This notification will be made to:

Christopher Mannes, III
Project Manager
NYSDEC Region 7
Erie Boulevard West
Syracuse, New York 13204-2400

or

Harry Warner, P.E.
Regional Hazardous Waste Remediation Engineer
NYSDEC Region 7
Erie Boulevard West
Syracuse, New York 13204-2400

C-2 Soil screening methods

Site soil that is excavated must be managed, characterized, and properly disposed of in accordance with NYSDEC regulations and directives. Visual, olfactory and instrument-based soil screening will be performed by a qualified environmental professional during all remedial and development excavations into known or potentially contaminated material (remaining contamination). Soil screening will be performed regardless of when the invasive work is done and will include all excavation and invasive work performed during development.

Soils will be segregated based on previous environmental data and on-site screening results into material that requires off-site disposal, material that requires testing, material that can be returned to the subsurface, and material that can be used as cover soil. Specifically soils excavated from the existing Bridge Street Swale as part of the site development will be segregated and managed for off-site disposal.

For excavated soil with evidence of contamination (i.e. visual, olfactory, and/or PID indications), soil samples will be collected in accordance with table 5.4 of NYSDEC's Division of Environmental Remediation DER-10 Technical Guidance for Site Investigation and Remediation (May 2010 or latest version), as indicated below:

Recommended Number of Soil Samples for Soil Imported To or Exported From a Site as set forth in DER-10 Paragraphs 5.4(e) & 5.4(f)								
Contaminant	**Semivolatiles**		**Volatiles**		**Inorganics**		**Pesticides/PCBs**	
Soil Quantity (yd3)	**Grab**	**Composite**	**Grab**	**Composite**	**Grab**	**Composite**	**Grab**	**Composite**
0-50	1	1	1	NA	1	1	1	1
50-100	1	2	2	NA	1	2	1	2
100-200	1	3	3	NA	1	3	1	3
200-300	1	4	4	NA	1	4	1	4
300-400	2	4	4	NA	2	4	2	4
400-500	2	5	5	NA	2	5	2	5
500-800	2	6	6	NA	2	6	2	6
800-1,000	2	7	7	NA	2	7	2	7
> 1,000	Submit Proposed Sampling Plan							

NA = Not Applicable

For soil with no evidence of contamination (i.e. visual, olfactory, and/or PID indications), the number of required samples may be modified with NYSDEC concurrence, per DER-10 Section 5.4(f)2.

C-3 Stockpile methods

Soil stockpiles will be continuously encircled with a berm and/or silt fence. Hay bales will be used as needed near catch basins, surface waters and other discharge points.

Stockpiles will be kept covered at all times with appropriately anchored tarps. Stockpiles will be routinely inspected and damaged tarp covers will be promptly replaced.

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.

Stockpiled soil will not be transported offsite until analytical results are received and evaluated.

C-4 Materials excavation and load out

A qualified environmental professional or person under their supervision will oversee all invasive work and the excavation and load-out of all excavated material associated with the existing Bridge Street Swale.

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

The presence of utilities and easements on the site will be investigated by the contractor. It will be determined whether a risk or impediment to the planned work under this Plan is posed by utilities or easements on the site.

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).

A truck wash will be operated on-site if truck tires will come in contact with potentially contaminated soils. The contractor will be responsible for ensuring that all outbound trucks will be washed at the truck wash before leaving the site until the activities performed under this section are complete.

Locations where vehicles enter or exit the site shall be inspected daily for evidence of off-site soil tracking.

The contractor will be responsible for ensuring 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.

C-5 Materials transport off-site

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.

If analytical results indicate that concentrations exceed the standards for RCRA characteristics, or the soils are determined to be a listed hazardous waste per 6NYCRR Part 371, the material will be considered a hazardous waste and must be properly disposed offsite at a permitted facility within 90 days of excavation. If the analytical results indicate the soil is not a hazardous waste, the material will be properly disposed of offsite at an approved Part 360 permitted solid waste disposal facility, or at an offsite location as approved in writing by the Department.

Material transported by trucks exiting the site will be secured with tight-fitting covers. Loose-fitting canvas-type truck covers will be prohibited. If loads contain wet material capable of producing free liquid, truck liners will be used.

All trucks tires will be washed prior to leaving the site if they come in contact with contaminated soils. Truck wash waters will be collected and disposed of off-site in an appropriate manner.

All trucks loaded with site materials will exit the vicinity of the site using only the most appropriate route and take 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 facility; (d) limiting total distance to major highways; (e) promoting safety in access to highways; and (f) overall safety in transport.

Trucks will be prohibited from stopping and idling in residential neighborhoods outside the project site.

Egress points for truck and equipment transport from the site will be kept clean of dirt and other materials during site remediation and development.

Queuing of trucks will be performed on-site in order to minimize off-site disturbance. Off-site queuing will be prohibited.

C-6 Materials disposal off-site

All soil/fill/solid waste excavated and removed from the site will be treated as contaminated and regulated material and will be transported and disposed in accordance with all local, State

(including 6NYCRR Part 360) and Federal regulations. 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.

Off-site disposal locations for excavated soils will be identified and information provided to the NYSDEC. This will include estimated quantities and a breakdown by class of disposal facility if appropriate, i.e. hazardous waste disposal facility, solid waste landfill, petroleum treatment facility, C/D recycling facility, etc. Actual disposal quantities and associated documentation will be reported to the NYSDEC. 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. Material that does not meet Track 1 unrestricted SCOs is prohibited from being taken to a New York State recycling facility (6NYCRR Part 360-16 Registration Facility).

C-7 Materials reuse on-site

Soil excavated at the site may be reused as backfill material onsite provided it contains no readily observable (i.e., visual, olfactory, or having PID readings of 10 ppm above background or greater) evidence of contamination.

Soil with readily observable evidence of contamination will be analyzed as specified in Section C-2. If analytical results verify that no contaminants are present above NYS Commercial Use Soil Cleanup Objective (SCOs) per 6NYCRR Part 375-6.8(b), the soil may be used as backfill onsite if approved by the NYSDEC.

Chemical criteria for on-site reuse of material have been approved by NYSDEC and are listed in Table C-1. The qualified environmental professional will ensure that procedures defined for materials reuse in this Plan are followed and that unacceptable material does not remain on-site.

Any demolition material proposed for reuse on-site will be sampled for asbestos and the results will be reported to the NYSDEC for acceptance. Concrete crushing or processing on-site will not be performed without prior NYSDEC approval. Organic matter (wood, roots, stumps, etc.) or other solid waste derived from clearing and grubbing of the site will not be reused on-site.

C-8 Fluids management

All liquids to be removed from the site, including excavated soil dewatering, will be handled, transported and disposed in accordance with applicable local, State, and Federal regulations.

Discharge of water generated during large-scale construction activities to surface waters (i.e., a local pond, stream or river) will be performed under a SPDES permit.

C-9 Backfill from off-site sources

Backfill from offsite sources imported to the site must meet the requirements of 6NYCRR Part 375-6.7(d) and as specified by DER-10 Section 5.4(e).

Soil imported to a site for use in a soil cap, soil cover, or as backfill will be free of extraneous debris or solid waste; consist of soil or other unregulated material as set forth in 6NYCRR Part 360; and not exceed the allowable constituent levels for imported fill or soil for the use of the site.

Soil samples from offsite sources will be collected as indicated on the table presented in Section C-2 of this Excavation Work Plan [Table 5.4 of DER-10 Section 5.4(e)] to verify they are suitable for use onsite.

All materials proposed for import onto the site will be approved by the qualified environmental professional and will be in compliance with provisions in this SMP prior to receipt at the site.

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). Based on an evaluation of the land use, protection of groundwater and protection of ecological resources criteria, the resulting soil quality standards are listed in Table C-2. Soils that meet 'exempt' fill requirements under 6NYCRR 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.

Trucks entering the site with imported soils will be securely covered with tight fitting covers. Imported soils will be stockpiled separately from excavated materials and covered to prevent dust releases.

C-10 Stormwater pollution prevention

For construction projects that exceed 1 acre, a stormwater pollution prevention plan (SPPP) will be required for the site. The SPPP will conform to the requirements of the NYSDEC Division of Water guidelines and New York State regulations and be submitted to the regional NYSDEC office prior to start of work.

In general the SPPP should include the following elements:

Barriers and hay bale checks will be installed and inspected once a 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. All necessary repairs shall be made immediately.

Accumulated sediments will be removed as required to keep the barrier and hay bale check functional.

All undercutting or erosion of the silt fence toe anchor shall be repaired immediately with appropriate backfill materials.

Manufacturer's recommendations will be followed for replacing silt fencing damaged due to weathering.

Erosion and sediment control measures identified in the SPPP shall be observed to ensure that they are operating correctly. Where discharge locations or points are accessible, they shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving waters.

Silt fencing or hay bales will be installed around the entire perimeter of the construction area.

C-11 Contingency plan

If underground tanks or other previously unidentified contaminant sources are found during 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 and surrounding soils, etc. as necessary to determine the nature of the material and proper disposal method. Chemical analysis will be performed for a full list of analytes (TAL metals; TCL volatiles and semi-volatiles, TCL pesticides and PCBs), 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. Based on the field observations and final results a remedial action plan will be prepared and submitted to NYSDEC for review and comment.

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. These findings will be also included in the documentation report submitted to the NYSDEC.

C-12 Community air monitoring plan

Air monitoring will be conducted during site work, in accordance with a Community Air Monitoring Plan (CAMP), as required by Appendix A-1 of NYSDEC's DER-10. The CAMP is included in Appendix B. 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 work conducted onsite. The CAMP will include monitoring for particulate matter (e.g. airborne "dust").

The CAMP specifies methods that must be used to conduct air monitoring, and the specific instruments to be used. Action levels for VOCs and dust are also provided.

The locations of air monitoring points will be adjusted on a daily or more frequent basis based on actual wind directions to provide an upwind and at least one downwind monitoring stations

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

C-13 Contingency odor control plan

This odor control plan is capable of controlling emissions of nuisance odors off-site. If nuisance odors are identified at the site boundary, or if odor complaints are received, work will be halted and the source of odors will be identified and corrected. Work will not resume until all nuisance odors have been abated. NYSDEC and NYSDOH will be notified of all odor events and of any other complaints about the project. Implementation of all odor controls, including the halt of work, is the responsibility of the property owner and/or the designated qualified environmental professional, and any measures that are implemented will be discussed in the documentation report.

All necessary means will be employed to prevent on- and off-site nuisances. At a minimum, these measures will include: (a) limiting the area of open excavations and size of soil stockpiles; (b) shrouding open excavations with tarps and other covers; and (c) using foams to cover exposed odorous soils; or other measures. If odors develop and cannot be otherwise controlled, additional means to eliminate odor nuisances will include: (d) direct load-out of soils to trucks for off-site disposal; (e) use of chemical odorants in spray or misting systems; and, (f) use of staff to monitor odors in surrounding neighborhoods, or other measures as necessary.

If nuisance odors develop during intrusive work that cannot be corrected, or where the control of nuisance odors cannot otherwise be achieved due to on-site conditions or close proximity to sensitive receptors, odor control will be achieved by sheltering the excavation and handling areas in a temporary containment structure equipped with appropriate air venting/filtering systems.

C-14 Dust control plan

A dust suppression plan that addresses dust management during invasive on-site work will include, at a minimum, the items listed below:

Dust suppression will be achieved through the use of a dedicated on-site water truck for road wetting. The truck will be equipped with a water cannon capable of spraying water directly onto off-road areas including excavations and stockpiles.

Clearing and grubbing of larger sites will be done in stages to limit the area of exposed, unvegetated soils vulnerable to dust production.

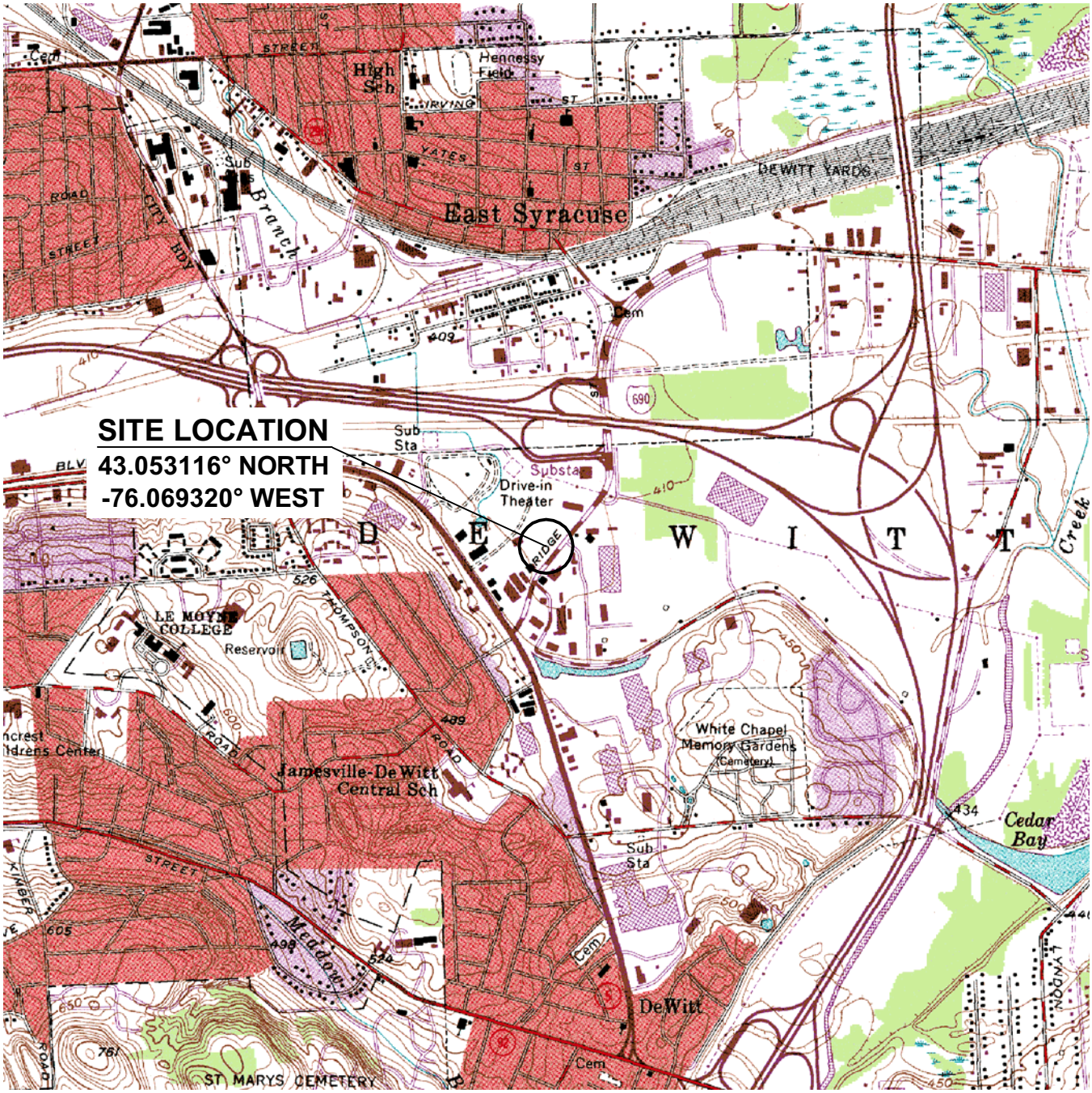
Gravel will be used on roadways to provide a clean and dust-free road surface.

On-site roads will be limited in total area to minimize the area required for water truck sprinkling.

C-15 Other nuisances

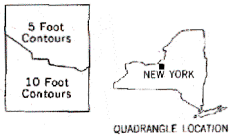
A plan will be developed and utilized by the contractor for all work to ensure compliance with local noise control ordinances.

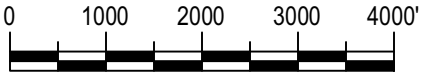
Figures



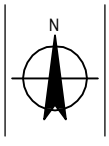
CONTOUR INTERVAL: 5 AND 10 FEET

MAP TAKEN FROM: USGS 7.5 MINUTE SERIES
TOPOGRAPHIC QUADRANGLES:
SYRACUSE EAST, NY (1957, PHOTOREVISED 1978)
(U.S. GEOLOGICAL SURVEY WEBSITE)





SCALE 1"=2000' AT ORIGINAL SIZE



GSP Holdings, Inc.
Celi Drive BCP Site (Site #C734108)
Emergency Remedial Work Plan
Site Vicinity Map

Job Number	37-11082
Revision	A
Date	June 2013

Figure 01

One Remington Park Drive, Cazenovia NY 13035 USA **T** 1 315 679 5800 **F** 1 315 679 5853 **E** cazmail@ghd.com **W** www.ghd.com

Plot Date: 5 June 2013 - 4:30 PM Cad File No: G:\37\11082\EM Figures\37-11082-L1.cadd.dwg

LEGEND:

- CATCH BASIN AND BURIED CULVERT (APPROXIMATE)
- AREA OF EXISTING BRIDGE STREET SWALE AFFECTED BY DEVELOPMENT (APPROXIMATE)
- AREA OF NEW DEVELOPMENT (APPROXIMATE)

NOT TO SCALE

N

GSP Holdings, Inc.
Celi Drive BCP Site (Site #C734108)
Emergency Remedial Work Plan
Site Plan View

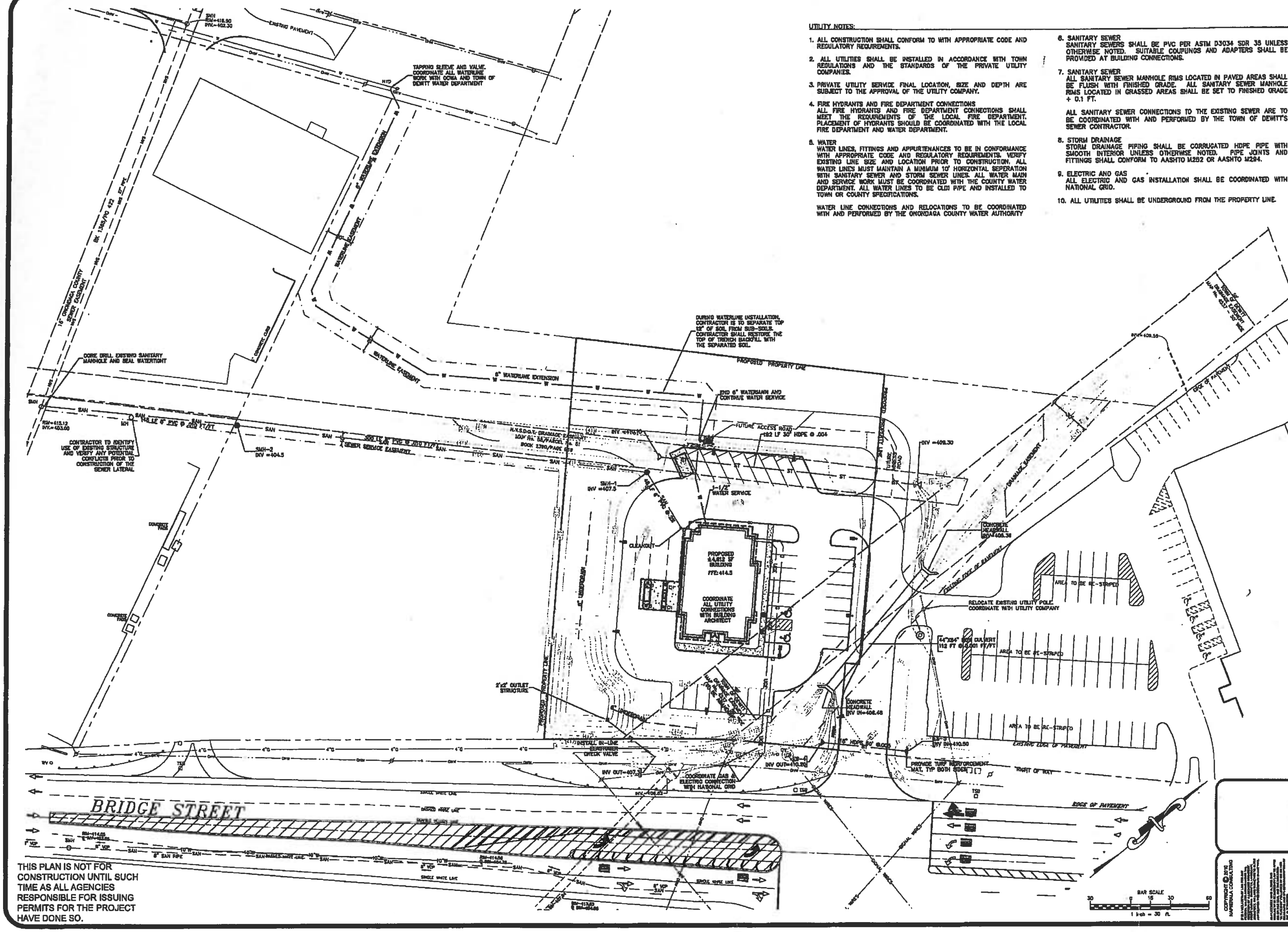
Job Number 37-11082
Revision A
Date June 2013

Figure 02

One Remington Park Drive, Cazenovia NY 13035 USA **T** 1 315 679 5800 **F** 1 315 679 5801 **E** cazmail@ghd.com **W** www.ghd.com

Plot Date: 5 June 2013 - 4:32 PM Cad File No: G:\37\11082\EM Figures\37-11082-L2.cadd.dwg

Attachment 1
Development Plan View



UTILITY NOTES:

1. ALL CONSTRUCTION SHALL CONFORM TO WITH APPROPRIATE CODE AND REGULATORY REQUIREMENTS.
2. ALL UTILITIES SHALL BE INSTALLED IN ACCORDANCE WITH TOWN REGULATIONS AND THE STANDARDS OF THE PRIVATE UTILITY COMPANIES.
3. PRIVATE UTILITY SERVICE FINAL LOCATION, SIZE AND DEPTH ARE SUBJECT TO THE APPROVAL OF THE UTILITY COMPANY.
4. FIRE HYDRANTS AND FIRE DEPARTMENT CONNECTIONS
   ALL FIRE HYDRANTS AND FIRE DEPARTMENT CONNECTIONS SHALL MEET THE REQUIREMENTS OF THE LOCAL FIRE DEPARTMENT. PLACEMENT OF HYDRANTS SHOULD BE COORDINATED WITH THE LOCAL FIRE DEPARTMENT AND WATER DEPARTMENT.
5. WATER
   WATER LINES, FITTINGS AND APPURTENANCES TO BE IN CONFORMANCE WITH APPROPRIATE CODE AND REGULATORY REQUIREMENTS. VERIFY EXISTING LINE SIZE AND LOCATION PRIOR TO CONSTRUCTION. ALL WATER LINES MUST MAINTAIN A MINIMUM 10' HORIZONTAL SEPERATION WITH SANITARY SEWER AND STORM SEWER LINES. ALL WATER MAIN AND SERVICE WORK MUST BE COORDINATED WITH THE COUNTY WATER DEPARTMENT. ALL WATER LINES TO BE CLDI PIPE AND INSTALLED TO TOWN OR COUNTY SPECIFICATIONS.

   WATER LINE CONNECTIONS AND RELOCATIONS TO BE COORDINATED WITH AND PERFORMED BY THE ONONDAGA COUNTY WATER AUTHORITY
6. SANITARY SEWER
   SANITARY SEWERS SHALL BE PVC PER ASTM D3034 SDR 35 UNLESS OTHERWISE NOTED. SUITABLE COUPLINGS AND ADAPTERS SHALL BE PROVIDED AT BUILDING CONNECTIONS.
7. SANITARY SEWER
   ALL SANITARY SEWER MANHOLE RIMS LOCATED IN PAVED AREAS SHALL BE FLUSH WITH FINISHED GRADE. ALL SANITARY SEWER MANHOLE RIMS LOCATED IN GRASSED AREAS SHALL BE SET TO FINISHED GRADE + 0.1 FT.

   ALL SANITARY SEWER CONNECTIONS TO THE EXISTING SEWER ARE TO BE COORDINATED WITH AND PERFORMED BY THE TOWN OF DEWITT'S SEWER CONTRACTOR.
8. STORM DRAINAGE
   STORM DRAINAGE PIPING SHALL BE CORRUGATED HDPE PIPE WITH SMOOTH INTERIOR UNLESS OTHERWISE NOTED. PIPE JOINTS AND FITTINGS SHALL CONFORM TO AASHTO M252 OR AASHTO M294.
9. ELECTRIC AND GAS
   ALL ELECTRIC AND GAS INSTALLATION SHALL BE COORDINATED WITH NATIONAL GRID.
10. ALL UTILITIES SHALL BE UNDERGROUND FROM THE PROPERTY LINE.

THIS PLAN IS NOT FOR CONSTRUCTION UNTIL SUCH TIME AS ALL AGENCIES RESPONSIBLE FOR ISSUING PERMITS FOR THE PROJECT HAVE DONE SO.

PROJECT TITLE: **BRIDGE STREET COMMONS**
TOWN OF DEWITT — ONONDAGA COUNTY, NEW YORK
PREPARED FOR: BRIDGE STREET COMMONS, LLC, 225 GREENFIELD PARKWAY, LIVERPOOL, NY 13088

SHEET TITLE: **UTILITY PLAN**

NO.	REVISION/ISSUE	DATE
1	GENERAL REVISIONS	07/25/2012

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PROJECT NO. 10.0982
DATE 27 FEB 2012
SCALE 1"=30'
SHEET C-4

GHD Inc

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Cazenovia, NY 13035

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Document Status

Rev No.	Author	Reviewer		Approved for Issue		
		Name	Signature	Name	Signature	Date

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