

DEMOLITION WORK PLAN

BCP Site #C411017

Location:

Greenport Crossings 181 Union Turnpike (Route 66) Town of Greenport, New York

Prepared for:

Greenport Crossings, LLC 40 Corbett Road Montgomery, New York 12549

LaBella Project No. 210408

Draft: April 2011 Revised: June 15, 2011

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1.0 Introduction

LaBella Associates, P.C. ("LaBella") has prepared this Demolition Work Plan associated with the decommissioning and demolition of portions of the building located at 181 Union Turnpike (Route 66), in the Town of Greenport, Columbia County, New York, hereinafter referred to as the "site." A Site location map is included as Figure 1. The portions of the Site building to be demolished are presented on Figure "Demolition Plan" listed as Figure "DM-1".

2.0 Objective

This project is broken down into discrete Tasks. The cumulative objective of each of these tasks is to complete the full building decontamination and cleaning to allow for the razing of portions of the existing on-site structure, the demolition of some above and below grade structures and the recycling (i.e. crushing) of all non-contaminated masonry materials generated as part of the building demolition activities. The completion of these activities will occur in concert with the Interim Remedial Measure (IRM) planned to remediate soil contamination as outlined in the IRM Work Plan previously submitted by LaBella.

3.0 Notification Process

The primary personnel involved in the Demolition work at the Site include the following:

Position	Personnel	Company	Phone
Site Contact/Owner	Harbalwant Singh	Greenport Crossings, LLC	(845) 430-1688 [cell]
Site Contact/Owner	Harbarwant Singir	Greenport Crossings, ELC	(845) 167-7190 [office]
Construction Manager	Roman Woronewych	HR Construction & Demolition LLC	845-705-9805(cell) 518-671-6510 (office)
		Demontion EEC	310 071 0310 (office)
BCP Project Manager	Dennis Porter, CHMM	LaBella Associates, P.C.	(585) 451-4854 [cell]
Der Project Manager	Delinis Forter, Crivilyi	Labella Associates, 1.C.	(585) 295-6245 [office]
C C · D	Rick Rote, CIH	LaBella Associates, P.C.	(585) 414-8891
Safety Director			[cell]
	Seth Davis	LaBella Associates, P.C.	(585) 205, 6241, [office] (585) 245-4140 [cell]
Environmental Analyst *			(585) 295-6659 [office]
			(303) 233 0033 [011166]
Environmental Analyst *	Alex Reed	LaBella Associates, P.C.	(585) 454-6110 [office]
Project Civil Engineer	Stan Novak, P.E.	BL Company	(203) 630-1406 [office]
Troject Civii Engineer	Sun Novak, 1.12.	BL Company	(203) 030 1 100 [011166]
NYSDEC Project	01 '11. D. '	Mappe	(518) 376-5541 [cell]
Manager	Sheilla Paige	NYSDEC	(518) 357-2374 [office]

NYSDOH Project Manager	Maureen Schuck	NYSDOH	(518) 402-7860 [office]
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Note:

Project Shutdown (chain of command):

The table below outlines the roles and responsibilities regarding the stoppage of the contractor's on-site activities.

Position	Personnel	Company	Authority
Site Owner (SO)	Harbalwant Singh	Greenport Crossings	Can shutdown work at any time
Construction Manager (CM)	Roman Woronewych	HR Construction & Demolition	Can shutdown work at any time with approval from SO
BCP Project Manager	Dennis Porter	LaBella	
Safety Director	Rick Rote	LaBella	
Environmental Analyst	Seth Davis	LaBella	Can shutdown work for perceived life safety issues? Requires SO/CM approval to shutdown work for compliance issues.
Environmental Analyst	Alex Reed	LaBella	
Project Civil Engineer	Stan Novak	BL Company	

If the NYSDEC or NYSDOH would like the on-site contractor's activities halted to address either a life-safety or compliance issue any of the personnel listed above can be notified. Once notified, the owner's third party representative will be required to contact the SO or CM to stop the work immediately. No contractor activity can resume until the condition has been adequately addressed to the satisfaction of the Department (i.e. the DEC or DOH). Any work stoppage will be thoroughly documented by the CM.

Progress Meetings:

During the construction phase on-site progress meetings will be conducted weekly. The day and time of the meeting will remain consistent. The objective of these progress meetings will be to review the status

^{*} denotes Environmental Analyst. For clarity, in regards to the Contractor Specifications Environmental Analyst is synonymous with the 'Environmental Consultant' as used throughout the Specifications.

of the project to include contractor progress, anticipated work and review deviations (if any) from the Work Plan.

CAMP Monitoring:

The Environmental Analyst will be responsible for all CAMP monitoring, asbestos related air monitoring, soil and demolition derived waste screening and characterization, waste stream management, and confirmatory sampling. The Site Contact and the Contractor are responsible for Site Control and Security. Site security measures will include fences with lockable gates and a sign-in/sign-out sheet. Each company will be responsible to follow their own company-specific HASP. The Contractor and Site Contact will notify LaBella's BCP Project Manager and Environmental Analyst of activities that require the presence of an Environmental Analyst five (5) business days prior to the initiation of that work. Equal notification will be provided to the NYSDEC Project Manager. Site activities that require this notification are outlined in the Demolition Package included as Appendix 5.

LaBella will be responsible to notify the NYSDEC and NYSDOH (via phone or e-mail) within two (2) hours of any CAMP and/or air monitoring related exceedances if a NYSDEC representative is not already present on-site at the time of the exceedance. In addition, LaBella will submit weekly progress reports regarding Demolition activities, including weekly CAMP Summaries consisting of a graphical representation of CAMP related data, field notes, and explanation of exceedances, if any, to the CAMP. These progress reports will outline tasks completed in the previous week, as well as present the activities anticipated for the following week that Demolition work is occurring.

4.0 Scope of Work

The following scope of work will be completed as part of or in support of this work;

Task 1: Project Design Documents

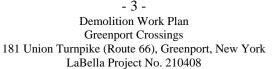
As part of the Work Plan, LaBella and BL Companies (BL) compiled several documents to support the completion of the proposed work. These documents included the following;

Pre-Demolition/Renovation Regulated Building Materials Inspection:

As part of the design documents for the decommissioning and demolition of portions of the Site building LaBella performed a Pre-Demolition/Renovation Regulated Building Materials Inspection. A copy of the Pre-Demolition/Renovation Regulated Building Materials Inspection Report is included as Appendix 1.

Site Specific Variance:

To facilitate the completion of the asbestos and regulated building materials abatement, LaBella petitioned the New York State Department of Labor (NYSDOL) for relief from several sections of Industrial Code Rule (ICR) 56 due to hardships related to the condition of the Site structure. Primarily the hardships presented to the NYSDOL were related to the facility being abandoned and more specifically logistical issues related to the completion of the work in accordance with ICR-56 in light of the failed roofing, broken windows, broken doors, damaged walls, etc. These conditions result in extensive water infiltration with every rain fall. These conditions and requirements make it infeasible to pre-clean prior to containment and infeasible to plasticize ceiling, walls and floor.



Based on these conditions, the NYSDOL will issue a site-specific Variance for the Site. Currently the final Site Specific Variance has not been received. As such a copy of the Site-Specific Variance Application is included as Appendix 2. Once the Final Approved Site-Specific Variance is received by LaBella it will be distributed through a letter of addendum.

Pre-Demolition Environmental Survey:

As part of the design documents for the decommissioning and demolition of the remaining structures LaBella performed an environmental survey of the structures for potential chemical related issues. This survey included the collection of additional characterization samples in an attempt to pre-characterize discrete waste streams anticipated to be generated as part of the demolition process at the site. This survey also identified on-site structures that will require special handling and/or decontamination as part of the decommissioning of the facility.

A copy of all preliminary waste characterization sampling is included as Appendix 1 in the Demolition Package that is included as Appendix 5.

Site-Specific Health & Safety Plan and Site-Specific Community Air Monitoring Plan

A Site-Specific Health and Safety Plan (HASP) and a Site-Specific Community Air Monitoring Plan (CAMP) were developed for this work. These documents will be critical for a safe and efficient project based on the numerous unknowns, structural issues, and unknown residual chemical contamination associated with the building. CAMP monitoring will be conducted during all demolition activities. A copy of the HASP is included as Appendix 3. A copy of the CAMP is included as Appendix 4.

Stormwater Pollution Prevention Plan

A Stormwater Pollution Prevention Plan (SWPPP) is a plan for controlling runoff and pollutants from a site during and after construction activities. The principle objective of a SWPPP is to comply with the DEC SPDES Stormwater Permit for construction activities. A copy of the SWPPP is included in Appendix 6.

Task 2 – ACM Removal and Environmental Cleaning

Task 2 is designed to complete the following scope of work;

- The removal of all asbestos-containing materials and debris associated with the existing building and/or on-site debris. Note: Some non-friable materials (i.e. roofing) may remain in-place for removal during the Demolition Contract. All ACM abatement activities at the site will be completed in strict accordance with NYSDOL Industrial Code Rule 56 and/or the requirements of the Site-Specific Variance;
- The environmental characterization, decommissioning and off-site disposal of all on-site building components. This includes, but is not limited to, the decommissioning of all process related infrastructure, liquids located in the basement and sumps, debris and equipment, etc.
- All soft demolition. This includes, but is not limited to, the removal of non-contaminated building components such as; drywall; ceiling systems; Heating, Ventilation and Cooling (HVAC) components; piping systems (i.e., fire suppression, domestic water, etc), miscellaneous non-masonry materials (i.e. foam insulation, non-structural metal, wood, etc). The inclusion of

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LaBella Project No. 210408

all soft demolition in the ACM Abatement and Environmental Cleaning Contract will allow for the appropriately trained work force to be available to address unforeseen conditions associated with asbestos-containing materials, chemical contamination or suspect contaminated infrastructure.

Detailed Specifications and Plans associated with this scope of work are included in the Demolition Package, included as Appendix 5.

Task 3 – Building Demolition and Foundation Removals

Task 3 is designed to complete the following scope of work;

- The demolition of a portion of the Site building.
- Puncturing the floor in the basement following water removal in order to avoid future water accumulation.
- Processing, crushing and staging of all non-contaminated masonry products for future reuse during site redevelopment.
- Salvaging and off-site disposal of all recyclable building materials.
- Segregation and off-site disposal of all non-recyclable or non-masonry materials.

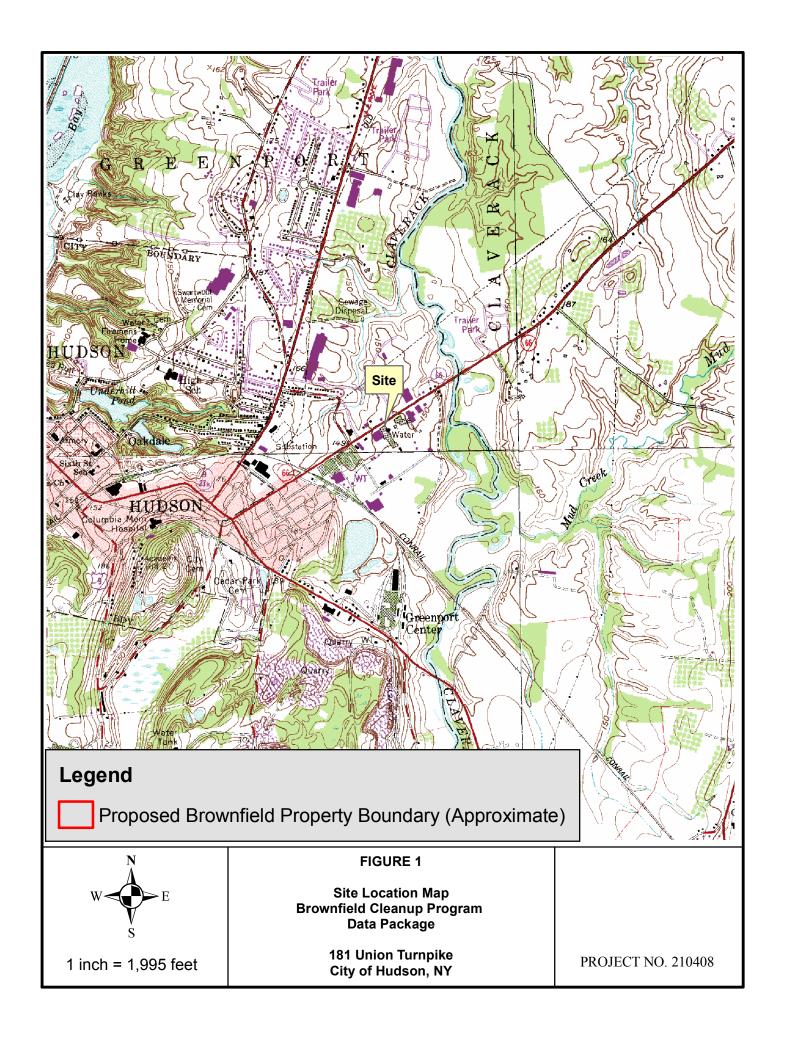
Detailed Specifications and Plans associated with this scope of work are included in the Demolition Package, included as Appendix 5.

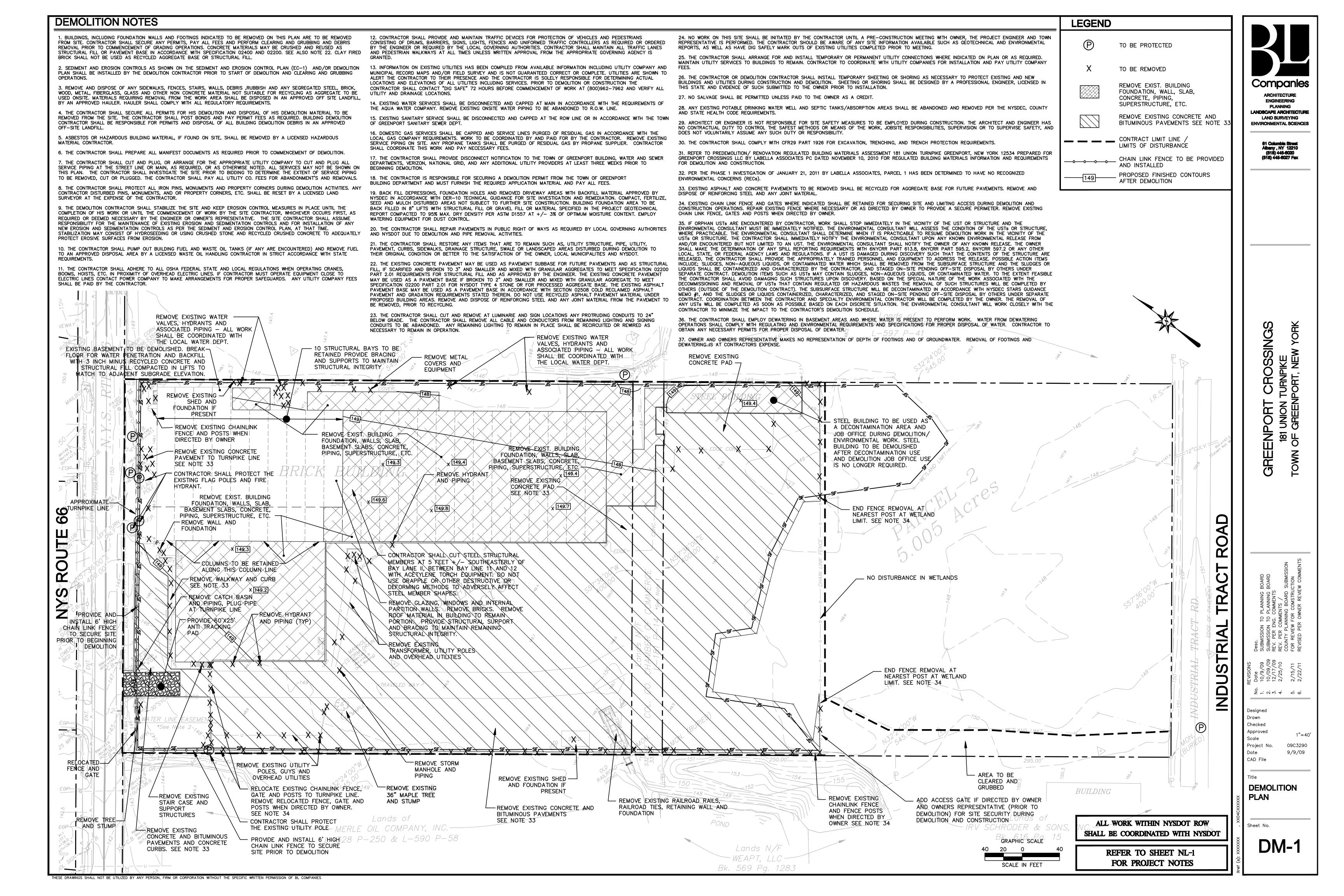
<u>Task 4 – Project Closeout Package</u>

LaBella Associates will require proper documentation of waste stream disposal from the Contractor. This documentation may include correspondence from the facility accepting the waste stream, manifests, bills of lading, weight tickets and daily flow meter measurements. At the completion of the work a Project Closeout Package will be assembled and disseminated to the NYSDEC and NYSDEC within two (2) months of project completion. The Package will include a brief discussion of the actions completed under this work plan, documentation of all waste streams disposed of off-site, copies of all CAMP and asbestos monitoring results and documentation of any significant findings.

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Appendix 1

Pre-Demolition/Renovation Regulated Building Materials Inspection Report



Pre-Demolition/Renovation Regulated Building Materials Inspection BCP Site #C411017

Location: 181 Union Turnpike Greenport, New York 12534

Prepared for:

Greenport Crossings, LLC 40 Corbett Road Montgomery, New York 12549

LaBella Project No. 210666

REVISION 1 March 2011

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I. Project Summary

In accordance with current regulations, LaBella Associates, P.C. conducted a Pre-Demolition Regulated Building Material Inspection of the buildings situated on the property at 181 Union Turnpike in Greenport, New York. Based on information obtained using the procedures described in the Inspection Procedures portion of this report (below), the following summarizes the results of this investigation. Based on visual observations and/or material testing, the following regulated building materials were identified at the site:

- Asbestos-containing materials
- PCB-containing fluorescent light fixture ballasts
- Mercury-containing fluorescent and high intensity discharge (HID) light bulbs
- Miscellaneous items such as refrigerant gas and lubricants

See the Survey Results Section of this report for further details concerning the above referenced regulated building materials. Refer to Appendix D for a Building Identification Plan.

II. Site Description

The Subject Property is located at 181 Union Turnpike in the Town of Greenport, New York. For the purpose of this report, the Subject Property consists of the accessible interior and exterior portions of the existing masonry block and steel buildings, including the associated rear loading dock areas. Two small storage sheds; one on the east side and one on the west side of the main structure, were also included in this survey. Per observations made during the site inspection, the existing buildings have various eras of construction and construction materials. A majority of the buildings are constructed on concrete slab-ongrade foundations, except for a sub-grade basement area that is located in the northeast quadrant of Building #1.

III. Survey Procedures

The following procedures were used to obtain the data for this Report:

- A. A visual inspection of the site was conducted to identify potential visible/accessible sources of the following regulated building materials.
 - Asbestos-containing materials
 - PCB-containing materials
 - Mercury containing materials
 - Lead-containing materials
 - Miscellaneous materials
- B. Bulk samples of the following materials were collected and submitted for laboratory analysis:
 - Suspect asbestos-containing materials
 - Suspect PCB-containing caulking compounds
- C. Suspect lead-based paint was spot checked in the field using "Lead Check" color-metric swab testing procedures.
- D. Fluorescent light fixture ballasts as well as other suspect PCB-containing items were visually spot checked for the presence of PCBs. The building was visually surveyed for the presence of items that may contain mercury and lead. Items that may contain refrigerant gas and/or oil were also noted.

E. Results of the laboratory analyses, field testing and the visual on-site survey were compiled and summarized.

Limitations: This survey was conducted in a manner consistent with generally recognized professional practices for a pre-demolition building survey. Collection of bulk samples of suspect ACMs was limited to those materials readily accessible using hand tools or hand-held power tools.

- No sub-surface investigations conducted by LaBella Associates to determine the possible presence of regulated materials on or in the immediate vicinity of the Site were conducted.
- No record drawings of the building were available for review as part of this investigation.
- Due to safety concerns, several roof areas were not accessible for inspection.

IV. Survey Results

Asbestos-Containing Materials (ACMs)

Based on laboratory analyses of bulk samples collected during this survey, the following materials were determined to contain greater than 1% asbestos:

Interior:

Type of Material	Typical Location ¹	Estimated Quantity ²	Friability	Condition
9" x 9" Floor Tile	Northeast Bathroom Floor and Front Staircase	290 Square Feet	Non-Friable	Poor
Black Electrical Wire Wrap	Northern Section of Main Building East of Staircase	Assumed to be "Large Project" Quantity ³	Non-Friable	Good
Joint Compound	North Office and Stairwell Walls	1,350 Square Feet	Non-Friable	Good
HVAC Duct Caulk	On Ductwork of HVAC Unit in Center North Room	280 Square Feet	Non-Friable	Good
Mudded Pipe Fitting	On Suspended Pipes Along East and West Walls of Main Building	35 Linear Feet	Friable	Poor
"Aircell" Pipe Insulation	On Suspended Pipes Along East and West Walls of Main Building	330 Linear Feet	Friable	Fair

Due to visibility restrictions, the asbestos-containing wire wrap could not be accurately quantified.

¹ Typical Location is not inclusive of all material locations present at the subject building. Refer to Section IV for specific material locations.

² For general reference only. Estimated Quantity of confirmed ACMs listed above was obtained through field measurements taken during site visits, and are approximations only.

Exterior:

Type of Material	Typical Location ⁴	Estimated Quantity ⁵	Friability	Condition
Window Caulk	Around Window Frames on Buildings 1, 2 & 3	4,550 Linear Feet	Non-Friable	Good
Tan Joint Filler	Interior Corner Seams of Brick Walls	35 Linear Feet	Non-Friable	Fair
Gray Sticky Wall Cement	Around Wall Penetration in Center of North Wall	3 Square Feet	Non-Friable	Good
Roof Flashing Tar	Perimeter of Main and Lower Roof Deck and North Storage Space Roof	2,650 Linear Feet	Non-Friable	Good
Built-Up Roofing	Main and Lower Roof Deck, North Storage Space Roof	76,750 Square Feet	Non-Friable	Fair
Roofing Cement Patch	On Various Built-up Roofing Sections	N/A ⁶	Non-Friable	Good
Black Tar Paper	Beneath Built-up Roofing	N/A ⁷	Non-Friable	Good
Gray Duct Caulk	Around Duct on Lower Roof on West Side	12 Linear Feet	Non-Friable	Good

Based on laboratory analyses of bulk samples collected, the following materials were determined to contain asbestos. See the Tables above for the estimated amount, friability and condition of each type of material. Refer to Appendix D for a Building Identification Plan and Appendix E for Sample Locations and Asbestos Material Location Plans.

9" x 9" Floor Tile (Various Colors)

Asbestos-containing 9" x 9" floor tile is located in the following areas of the facility:

- Building 2 North Stairwell Entrance and landing to 2nd floor
- Building 1 Northeast Bathroom Area

⁴ Typical Location is not inclusive of all material locations present at the subject building. Refer to Section IV for specific material locations.

For general reference only. Estimated Quantity of confirmed ACMs listed above was obtained through field measurements taken during site visits, and are approximations only.

⁶ The Estimated Quantity is included in the Built-up Roofing quantity

⁷ The Estimated Quantity is included in the Built-up Roofing quantity

Black Wire Wrap

Asbestos-containing black wire wrap is located on multiple light fixtures and in conduits in the northern end of Building 1. At the time of the assessment, it was not feasible to quantify the entire asbestos-containing wire wrap. Therefore, all wiring being disturbed by demolition/renovation activities in any building shall be assumed to be asbestos-containing.

Joint Compound

Asbestos-containing joint compound is located in the following areas:

- Building 1 Central north room on drywall wall by stairs
- Building 2 Northwest office drywall walls and ceiling

HVAC Duct Caulk

Asbestos-containing black HVAC duct caulk is located in Building 1 beneath the duct insulation of the HVAC unit. The HVAC Unit is located in the north room of Building 1 by the stairwell to the 2nd floor of Building 2.

Mud Pipe Fittings

Asbestos-containing mud pipe fittings are located in the following areas of the facility:

- Building 1 Northeast bathroom hall, suspended from the ceiling
- Building 1 West boiler/mechanical room on pipes located on the floor
- Building 1 Suspended from ceiling in open areas along the east and west walls
- Building 1 Debris is located immediately under some of the areas of damaged fitting insulation

Aircell Pipe Insulation

Asbestos-containing "Aircell" pipe insulation wrap is located in the following areas of the facility:

- Building 1 Northeast bathroom hall, suspended from the ceiling
- Building 1 West boiler/mechanical room on pipes located on the floor
- Building 1 Suspended from ceiling in open areas along the east and west walls
- Building 1 Debris is located immediately under some of the areas of damaged pipe insulation

Exterior Window Caulk (Various Colors)

Asbestos-containing exterior window caulk is present around the window frames on all exterior windows on Buildings 1, 2 and 3. The caulk was observed in the following colors:

- Tan Window Caulk (PCB contaminated see PCB-Containing Materials section of this report)
- White/Tan Window Caulk
- Gray Window Caulk

Tan Joint Filler

Asbestos-containing joint filler is located in the exterior seams of the brick building in the following locations:

- Building 1 Center of north wall by main entrance
- Building 1 East corner of south wall by the roof access ladder

Gray Wall Cement (Sticky)

Asbestos-containing gray wall cement is located on Building 1 around the interior and exterior wall penetration in the center of the north wall.

Roof Flashing Tar

Asbestos-containing flashing tar is located around the perimeter of the following roof locations:

- Building 1 Main roof field on the east and west side the elevated roof section
- Building 1 Lower roof field on west side
- Building 4 North roof section

Built-up Roofing

Asbestos-containing built-up roofing is located in the following locations:

- Building 1 Main roof field on the east and west side the elevated roof section
- Building 1 Lower roof field on west side
- Building 4 North roof section

Roofing Cement

Asbestos-containing roofing cement is located in the following locations:

- Building 1 Main roof field on the east and west side the elevated roof section
- Building 1 Lower roof field on west side
- Building 4 North roof section

Black Tar Paper

Asbestos-containing tar paper is located beneath built-up roofing in the following locations:

- Building 1 Main roof field on the east and west side the elevated roof section
- Building 1 Lower roof field on west side
- Building 4 North roof section

Gray Duct Caulk

Asbestos-containing duct caulk is located around a duct on the lower roof on the west side of Building 1.

PCB-Containing Materials

Capacitors in Fluorescent Light Fixture Ballasts

Ceiling mounted fluorescent light fixtures were observed throughout the building. Older vintage fluorescent light fixtures manufactured prior to 1980 typically contained a capacitor filled with PCB fluid. A representative number of light fixtures were dismantled and the ballasts were examined for labels stating "No PCBs". All of the fluorescent light fixtures examined had no identifying label of "No PCBs". Therefore, all light fluorescent light fixture ballasts are assumed to contain PCBs.

Based on observations made at the time of the site visit, it is estimated that there are approximately 160 PCB-containing light fixture ballasts located throughout the subject building.

Liquid-Filled Transformers

Older vintage liquid-filled transformers manufactured prior to 1980 typically contained PCB oil. No liquid-filled transformers were identified in the subject building.

Caulking Compound

It has recently been discovered that certain applications of caulking compounds have the potential to contain PCBs. Therefore, the various caulking compounds present at the site were tested for the presence of PCBs. The following caulking compound was found to be PCB contaminated (50-500 ppm):

• Building 2 - Tan window frame caulk on the north side of the building

Mercury-Containing Materials

Ceiling mounted fluorescent light fixtures were observed throughout the subject building. These fixtures have light bulbs that contain varying amounts of mercury vapor. Approximately 375 fluorescent light bulbs were identified in the subject building at the time of the site visit.

No mercury-containing switches and/or thermostats were identified at the time of the site visit.

Lead-Containing Materials

Several representative interior and exterior painted surfaces such as door/window frames, walls, etc. were tested for the presence of lead-based paint using color-metric lead swab testing procedures. The following interior and exterior surfaces/items were tested and contained lead:

- Interior and exterior wood window trim
- Building 1 Tan paint on the ceiling supports (underside of roof)
- Building 1 Tan paint on structural steel and wooden beams throughout the building
- Building 1 Orange paint on cranes and miscellaneous industrial equipment

Miscellaneous Materials

The following other miscellaneous regulated building materials were identified at the site. The number of each individual type of item listed is approximate.

• One roof-mounted HVAC unit may contain refrigerant gas and lubricants

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Asbestos Bulk Sample Summary Tables

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Sample #	Sample Location	Type of Material	Results % Asbestos
UT-1A	HVAC Unit in Southeast Room	HVAC Seam	None Detected
UT-1B	HVAC Unit Outside North Office Area	HVAC Seam	None Detected
UT-2A	Interior Windows on East Wall South of Southeast Bathroom	Gray Window Grout	None Detected
UT-2B	Interior Windows on East Wall by Northeast Bathrooms	Gray Window Grout	None Detected
UT-3A	Floor of Room North of Southeast Bathroom	Gray Tile Grout	None Detected
UT-3B	Wall of Room North of Southeast Bathroom	Gray Tile Grout	None Detected
UT-4A	Eastern Wall of Southeast Bathroom	White Tile Grout	None Detected
UT-4B	Northwest Corner of Southeast Bathroom	White Tile Grout	None Detected
UT-5A	North Wall of Room North of Southeast Bathroom	White Wallboard	None Detected
UT-5B	North Wall of Room North of Southeast Bathroom	White Wallboard	None Detected
UT-6A	Wall of Room in Northeast Corner	Gray Wallboard	None Detected
UT-6B	Wall of Room in Northeast Corner	Gray Wallboard	None Detected

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Sample #	Sample Location	Type of Material	Results % Asbestos
UT-7A	Interior Windows on East Wall	Gray Window Caulk	None Detected
UT-7B	Interior Windows on East Wall by Basement Access	Gray Window Caulk	None Detected
UT-8A	Floor of Northeast Bathroom	9"x 9" Floor Tile	22% Chrysotile
UT-8B	Northern Staircase by Main Entrance	9"x 9" Floor Tile	21% Chrysotile
UT-9A	On Dangling Wires in Northeast Corner of Main Building	Brown Wire Wrap	None Detected
UT-9B	On Dangling Wires in Northwest Corner of Main Building	Black Wire Wrap	80% Chrysotile
UT-10A	Ceiling of Northeast Bathroom	Drywall	None Detected
UT-10B	South Wall of Northern Office by Stairs	Drywall	None Detected
UT-10C	South Wall in 2 nd Floor Area	Drywall	None Detected
UT-11A	West Wall of Northwestern Office Area	Tan Joint Compound	10% Chrysotile
UT-11B	South Wall of Northern Office by Stairs	Tan Joint Compound	10% Chrysotile
UT-12A	On Ductwork for HVAC unit in Northern Office by Stairs	Black HVAC Duct Caulk	18% Chrysotile

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Sample #	Sample Location	Type of Material	Results % Asbestos
UT-12B	On Ductwork in Northwest Corner Room	Tan HVAC Duct Caulk	None Detected
UT-13A	Northeast Bathroom on Back of Ceiling Tiles	Brown Ceiling Tile Adhesive	None Detected
UT-13B	Ceiling of Northwest Corner Room on Back of Ceiling Tiles	Brown Ceiling Tile Adhesive	None Detected
UT-14A	On Fallen Pipe in Northwest Mechanical Room	Mud Pipe Fitting	45% Chrysotile
UT-14B	On Fallen Pipe by Northeast Basement Access	Mud Pipe Fitting	45% Chrysotile
UT-14C	On Pipe Outside Northeast Bathroom	Mud Pipe Fitting	45% Chrysotile
UT-15A	Ceiling of Northeast Bathroom	Acoustical Ceiling Tile	None Detected
UT-15B	Ceiling of Northwest Corner Space	Acoustical Ceiling Tile	None Detected
UT-16A	Panels Beneath Windows in Northwest Corner Room	Plaster	None Detected
UT-16B	Panels Above Window on Northern Stairwell	Plaster	None Detected
UT-17A	Northern Wall of 2 nd Floor Northwest Corner Area	Ceramic Wall Tile Adhesive	None Detected
UT-17B	Eastern Wall of Southeast Bathroom	Ceramic Wall Tile Adhesive	None Detected
EXT-1A	Around Window Frame on North Wall	Tan Window Caulk	10% Chrysotile

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Sample #	Sample Location	Type of Material	Results % Asbestos
EXT-1B	Around Windows on South Wall of Northwest Section	Tan Window Caulk	None Detected
EXT-2A	Around Windows on North Wall	White/Tan Window Caulk	2% Chrysotile
EXT-2B	Around Windows on South Wall of Northwest Section	White/Tan Window Caulk	<1% Chrysotile
EXT-3A	Around Windows at West End of North Wall	Gray Window Caulk	18% Chrysotile
EXT-3B	Around Windows at West End of North Wall	Gray Window Caulk	16% Chrysotile
EXT-4A	In Between Corners of Brick Walls on North Wall	Tan Joint Filler	20% Chrysotile
EXT-4B	In Between Corners of Brick Walls on South Wall of Northwest Section	Tan Joint Filler	20% Chrysotile
EXT-5A	North Wall Around Exterior Wire Penetration	Gray Sticky Wall Cement	None Detected
EXT-5B	North Wall Around Interior Wire Penetration	Gray Sticky Wall Cement	30% Chrysotile
EXT-6A	Under Flashing in Southern Storage Sheds	Black Flashing Tar	25% Chrysotile
EXT-6B	Under Flashing on Lower Central Roof on West Side	Black Flashing Tar	25% Chrysotile
EXT-7A	Roof of Southern Storage Shed	Built-Up Roofing	10% Chrysotile
EXT-7B	Roof of Lower Central Roof on West Side	Built-Up Roofing	10% Chrysotile

181 Union Turnpike Greenport, NY

Sample #	Sample Location	Type of Material	Results % Asbestos
EXT-7C	Roof of Southeastern Storage Shed	Built-Up Roofing	10% Chrysotile
EXT-8A	Northeast Roof	Black Roofing Cement	None Detected
EXT-8B	Lower Central Roof on West Side	Black Roofing Cement	14% Chrysotile
EXT-9A	Northwest Corner Roof	Black Tar Paper	None Detected
EXT-9B	Northeast Raised Roof	Black Tar Paper	21% Chrysotile
EXT-10A	Around Duct on Lower Central Roof on West Side	Gray Duct Caulk	17% Chrysotile
EXT-10B	Around Duct on Lower Central Roof on West Side	Gray Duct Caulk	19% Chrysotile
RC-1	Lower Central Roof on West Side	Roof Core	None Detected
RC-2	Raised Northwest Corner Roof	Roof Core	11% Chrysotile
RC-3	Main Field of North Roof	Roof Core	16% Chrysotile
RC-4	Raised Northeast Roof	Roof Core	None Detected

Appendix A Asbestos Survey Fact Sheet

Asbestos Survey Fact Sheet

Name and Address of Building/Structure
181 Union Turnpike
Greenport, New York
Name and Address of Building/Structure Owner
Value Plus Commercial Brokers/Greenport Crossings, LLC
40 Corbett Road
Montgomery, NY 12549
Name and Address of Owner's Agent
LaBella Associates, P.C.
300 State Street, Suite 201
Rochester, NY 14614
Name of the Firm & Person Conducting the Survey
LaBella Associates, P.C.
Alexander L. Reed (DOL Cert# 09-11508)
Date(s) the Survey Was Conducted
October 13 & 14, 2010

Asbestos Survey Fact Sheet (continued)

List of Homogeneous Areas (Items in Bold Confirmed ACM) HVAC Seam Grav Window Grout Ceramic Floor Tile Grout Ceramic Wall Tile Grout White Wallboard Gray Wallboard Gray Window Caulk (Interior) 9" x 9" Vinyl Floor Tile Black Wire Wrap Drywall Tan Joint Compound Black HVAC Duct Caulk Acoustical Ceiling Tile Adhesive Mud Pipe Fitting Acoustical Ceiling Tile Plaster Aircell Pipe Insulation Ceramic Wall Tile Adhesive Tan Window Caulk White/Tan Window Caulk Gray Window Caulk Tan Joint Filler Gray Sticky Wall Cement Black Flashing Tar Built-Up Roofing Black Roofing Cement Black Tar Paper

Gray Duct Caulk

Layered Roofing Material (Roof Core)

Appendix B Licenses and Certifications

RK STATE DEPARTMENT OF LABOR
DIVISION OF SAFETY AND HEALTH
LIGENSE AND CERTIFICATE UNIT
STATE CAMPUS BUILDING 12 ALBANY NY 12240

ASBESTOS HANDLING LICENSE

La Bella Associates PC Suite 200 300 State Street

Rochester, NY 1

ICENSE NUMBER: 29278 LICENSE CLASS: RESTRICTED DATE OF ISSUE: 02/28/2011 EXPIRATION DATE: 02/28/2012

Duly Authorized Representative Sergio Este

This license has been issued in accordance with applicable provisions of Arthele 10 of the Labor Law of New York State and of the New York State and of the New York State and Regulations (12 NYCRR Part 56): It is sufficed to suspension or revocation for a (1) serious violation of state, federal of focal laws with regard to the conductor an aspestos project, or (2) demonstrated lack of responsibility in the conduct of any job involving aspestos or aspestos material.

This license is valid only for the contractor named above and this license or a photocopy must be prominently displayed at the asbestos project worksite. This license verifies that all persons employed by the licensee on an asbestos project in New York. State have been issued an Asbestos Certificate, appropriate for the type of work they perform, by the New York State Department of Labor.

SH 432 (4-07)

Maureen A. Cox, Director FOR THE COMMISSIONER OF LABOR



EYES BLU
HAIR BRO
HGT 5' 09"

IF FOUND RETURN TO:
NYSDOL - L&C UNIT
ROOM 161A BUILDING 12
STATE OFFICE CAMPUS
ALBANY NY 12240

STATE OF NEW YORK - DEPARTMENT OF LABOR ASBESTOS CERTIFICATE



ALEXANDER | REED CLASS(EXPIRES) CATEC(08/10) DINSP(08/11) H PM (08/10)

DMV# 272871634
MUST BE CARRIED ON ASBESTOS PROJECTS

NEW YORK STATE DEPARTMENT OF HEALTH WADSWORTH CENTER

RICHARD F. DAINES, M.D.



Expires 12.01 AM April 01, 2011 Issued April 01, 2010

CERTIFICATE OF APPROVAL FOR LABORATORY SERVICE

Issued in accordance with and pursuant to section 502 Public Health Law of New York State

MR. RICHARD K. ROTE A LABELLA ASSOCIATES 300 STATE STREET ROCHESTER, NY 14614 NY Lab Id No: 11184 EPA Lab Code:

is hereby APPROVED as an Environmental Laboratory for the category ENVIRONMENTAL ANALYSES SOLID AND HAZARDOUS WASTE All approved subcategories and/or analytes are listed below:

Miscellaneous

Asbestos in Friable Material

EPA 600/M4/82/020

Asbestos in Non-Friable Material-PLM

Item 198.6 of Manual (NOB by PLM)

Serial No.: 41687

Property of the New York State Department of Health. Certificates are valid only at the address shown, must be conspicuously posted, and are printed on secure paper. Continued accreditation depends on successful ongoing participation in the Program. Consumers are urged to call (518) 485-5570 to verify the laboratory's accreditation status.

Page 1 of 1

NEW YORK STATE DEPARTMENT OF HEALTH WADSWORTH CENTER

RICHARD F. DAINES, M.D.



Expires 12:01 AM April 01, 2011 Issued April 01, 2010

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Issued in accordance with and pursuant to section 502 Public Health Law of New York State

MR RICHARD K. ROTE LABELLA ASSOCIATES 300 STATE STREET ROCHESTER, NY 14614 NY Lab Id No. 11184 EPA Lab Code:

is hereby APPROVED as an Environmental Laboratory for the category ENVIRONMENTAL ANALYSES AIR AND EMISSIONS All approved subcategories and/or analytes are listed below.

Miscellaneous Air

Fibers

NIOSH 7400 A RULES

Serial No.: 41688

Property of the New York State Department of Health. Certificates are valid only at the address shown, must be conspicuously posted, and are printed on secure paper. Continued accreditation depends on successful ongoing participation in the Program. Consumers are urged to call (518) 485-5570 to verify the laboratory's accreditation status.

Page 1 of 1

NEW YORK STATE DEPARTMENT OF HEALTH WADSWORTH CENTER

RICHARD F. DAINES, M.D.



Expires 12:01 AM April 01, 2011 Issued April 01, 2010

CERTIFICATE OF APPROVAL FOR LABORATORY SERVICE

Issued in accordance with and pursuant to section 502 Public Health Law of New York State

MR. BRUCE HOOGESTEGER PARADIGM ENVIRONMENTAL SERVICES INC 179 LAKE AVENUE ROCHESTER, NY 14608 NY Lab Id No: 10958 EPA Lab Code: NY01287

is hereby APPROVED as an Environmental Laboratory for the category ENVIRONMENTAL ANALYSES SOLID AND HAZARDOUS WASTE All approved subcategories and/or analytes are listed below:

Miscellaneous

Asbestos in Friable Material

EPA 600/M4/82/020

Item 198.1 of Manual

Asbestos in Non-Friable Material-PLM

Item 198.6 of Manual (NOB by PLM)

Asbestos in Non-Friable Material-TEM

ITEM 198.4 OF MANUAL

Lead in Dust Wipes

EPA 6010B

Lead in Paint

EPA 6010B

Sample Preparation Methods

EPA 3050B

Serial No.: 41600

Property of the New York State Department of Health. Certificates are valid only at the address shown, must be conspicuously posted, and are printed on secure paper. Continued accreditation depends on successful ongoing participation in the Program. Consumers are urged to call (518) 485-5570 to verify the laboratory's accreditation status.



Appendix C Laboratory Analytical Reports

BULK SAMPLE ASBESTOS ANALYTICAL REPORT

LABELLA ASSOCIATES, P. C. ANALYTICAL LABORATORY 300 STATE STREET ROCHESTER, NY 14614 (585) 454-6110 FAX(585) 454-3066

LBL JOB #

120510

ELAP # 11184

TEM ELAP # 10920

LABELLA PROJECT # 210666/1

CLIENT: Labella Associates, PC

Rochester, NY 14614

SAMPLE TYPE: PLM Bulk

ADDRESS: 300 State Street

SAMPLE DATE: 10/13/2010

PROJECT LOCATION: 181 Union Turnpile, Hudson, NY

FIELD ID	LBL ID	method	ASBESTOS TYPE	%	OTHER FIBERS	%	MATRIX	%	COLOR / DESCRIPTION
UT-1A	120510-1	P	ND		CELLULOSE	100	ND		GRAY HVAC SEAM
UT-1B	120510-2	P	ND		FIBERGLASS	10	RUBBER	90	BLACK HVAC SEAM
UT-2A	120510-3	P	ND		ND		MINERAL	100	GRAY GROUT
UT-2B	120510-4	P	ND		ND		MINERAL	100	GRAY GROUT
UT-3A	120510-5	P	ND		ND		MINERAL	100	GRAY GROUT
UT-3B	120510-6	Р	ND		ND		MINERAL	100	GRAY GROUT
UT-4A	120510-7	P	ND		ND		MINERAL	100	WHITE GROUT
UT-4B	120510-8	P	ND		ND		MINERAL	100	WHITE GROUT
UT-5A	120510-9	P	ND		CELL/GLASS	100	ND		WHITE WALLBOARD
UT-5B	120510-10	P	ND		CELL/GLASS	100	ND		WHITE WALLBOARD
UT-6A	120510-11	P	ND		CELLULOSE	100	ND		GRAY WALLBOARD
UT-6B	120510-12	P	ND		CELLULOSE	100	ND		GRAY WALLBOARD
UT-7A	120510-13	Т	ND		ND		MIN/BINDER	100	GRAY CAULK
UT-7B	120510-14	T	ND		ND		MIN/BINDER	100	GRAY CAULK
UT-8A	120510-15	N	CHRYSOTILE	22	ND		MIN/VINYL	78	GREEN FLOOR TILE
UT-8B	120510-16	N	CHRYSOTILE	21	ND		MIN/VINYL	79	BROWN FLOOR TILE
UT-9A	120510-17	P	ND		CELLULOSE	100	ND		BROWN WIRE WRAP
UT-9B	120510-18	N	CHRYSOTILE	80	ND		TAR	20	BLACK WIRE WRAP
UT-10A	120510-19	P	ND		ND		MINERAL	100	WHITE DRYWALL
UT-10B	120510-20	P	ND		ND		MINERAL	100	WHITE DRYWALL
UT-10C	120510-21	P	ND		ND		MINERAL	100	WHITE DRYWALL
UT-11A	120510-22	P	CHRYSOTILE	10	ND		MINERAL	90	TAN JOINT COMPOUND

PLM Method EPA 600/M4/82/020

Lab Supervisor: Watt Smith

ND - None Detected CELL-Cellulose

JC - Joint Compound

MIN - Mineral GLASS - Fiberglass

<1 = Trace

PLAS - Plaster

P - Friable PLM analytical result N - NOB PLM analytical result T - TEM analytical result

G-Gravimetric Matrix Reduction. Sample residue weight <1% of original sample weight, TEM not required.

^{*&}quot;Polarized-light microscopy (PLM) is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. Quantitative transmission electron microscopy (TEM) is currently the only method that can be used to determine if this material can be considered to be non-asbestos containing. Page 1 of 3

BULK SAMPLE ASBESTOS ANALYTICAL REPORT

120510 LBL JOB #

FIELD ID	LBL ID	method	ASBESTOS TYPE	%	OTHER FIBERS	%	MATRIX	%	COLOR / DESCRIPTION
UT-11B	120510-23	P	CHRYSOTILE	10	ND		MINERAL	90	TAN JOINT COMPOUND
UT-12A	120510-24	N	CHRYSOTILE	18	ND		TAR	82	BLACK DUCT CAULK
UT-12B	120510-25	Т	ND		ND		MIN/BINDER	100	TAN DUCT CAULK
UT-13A	120510-26	Т	ND		ND		MIN/BINDER	100	BROWN ADHESIVE
UT-13B	120510-27	T	ND		ND		MIN/BINDER	100	BROWN ADHESIVE
UT-14A	120510-28	P	CHRYSOTILE	45	ND		MINERAL	55	WHITE MUD PIPE FITTING
UT-14B	120510-29	P	CHRYSOTILE	45	ND		MINERAL	55	WHITE MUD PIPE FITTING
UT-14C	120510-30	Р	CHRYSOTILE	45	ND		MINERAL	55	WHITE MUD PIPE FITTING
UT-15A	120510-31	P	ND		CELLULOSE	100	ND		WHITE CEILING TILE
UT-15B	120510-32	P	ND		FIBERGLASS	87	BINDER	13	WHITE CEILING TILE
UT-16A	120510-33	P	ND		ND		MINERAL	100	WHITE PLASTER
UT-16B	120510-34	P	ND		ND		MINERAL	100	GRAY PLASTER
UT-17A	120510-35	P	ND		ND		MINERAL	100	WHITE GROUT
UT-17B	120510-36	P	ND		ND		MINERAL	100	GRAY GROUT
EXT-1A	120510-37	N	CHRYSOTILE	10	ND		MIN/BINDER	90	TAN WINDOW CAULK
EXT-1B	120510-38	Т	ND		ND		MIN/BINDER	100	TAN WINDOW CAULK
EXT-2A	120510-39	Т	CHRYSOTILE	2	ND		MIN/BINDER	98	WHITE WINDOW CAULK
EXT-2B	120510-40	Т	CHRYSOTILE	<1	ND		MIN/BINDER	100	WHITE WINDOW CAULK
EXT-3A	120510-41	N	CHRYSOTILE	18	ND		MIN/BINDER	82	GRAY WINDOW CAULK
EXT-3B	120510-42	N	CHRYSOTILE	16	ND		MIN/BINDER	84	GRAY WINDOW CAULK
EXT-4A	120510-43	N	CHRYSOTILE	20	ND		MIN/BINDER	80	TAN JOINT FILLER
EXT-4B	120510-44	N	CHRYSOTILE	20	ND		MIN/BINDER	80	TAN JOINT FILLER
EXT-5A	120510-45	Т	ND		CELLULOSE	5	MIN/BINDER	95	GRAY ROOFING CEMENT
EXT-5B	120510-46	N	CHRYSOTILE	30	ND		MIN/BINDER	70	GRAY ROOFING CEMENT
EXT-6A	120510-47	N	CHRYSOTILE	25	ND		TAR	75	BLACK FLASHING TAR
EXT-6B	120510-48	N	CHRYSOTILE	25	ND		TAR	75	BLACK FLASHING TAR
EXT-7A	120510-49	N	CHRYSOTILE	10	CELLULOSE	18	TAR	72	BLACK BUILT-UP ROOFING
EXT-7B	120510-50	N	CHRYSOTILE	10	CELLULOSE	18	TAR	72	BLACK BUILT-UP ROOFING

PLM Method EPA 600/M4/82/020

Lab Supervisor: Matt Smith

MIN - Mineral GLASS - Fiberglass

PLAS - Plaster <1 = Trace

ND - None Detected CELL-Cellulose

JC - Joint Compound

P - Friable PLM analytical result N - NOB PLM analytical result T - TEM analytical result

G-Gravametric Matrix Reduction. Sample residue weight <1% of original sample weight, TEM not required.

^{*&}quot;Polarized-light microscopy (PLM) is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. Quantitative transmission electron microscopy (TEM) is currently the only method that can be used to determine if this material can be considered and treated as non-asbestos containing." Page 2 of 3

BULK SAMPLE ASBESTOS ANALYTICAL REPORT

120510 LBL JOB #

		method	ASBESTOS		OTHER	iponin		1002071	
FIELD ID	LBL ID	met	TYPE	%	FIBERS	%	MATRIX	%	COLOR / DESCRIPTION
EXT-7C	120510-51	N	CHRYSOTILE	10	CELLULOSE	18	TAR	72	BLACK BUILT-UP ROOFING
EXT-8A	120510-52	т	ND		CELLULOSE	15	TAR	85	BLACK ROOFING CEMENT
EXT-8B	120510-53	N	CHRYSOTILE	14	CELLULOSE	1	TAR	85	BLACK ROOFING CEMENT
EXT-9A	120510-54	G	ND		CELLULOSE	70	TAR	30	BLACK TAR PAPER
EXT-9B	120510-55	N	CHRYSOTILE	21	CELLULOSE	13	TAR	66	BLACK TAR PAPER & ROOFING
EXT-10A	120510-56	N	CHRYSOTILE	17	ND		TAR	83	GRAY DUCT CAULK
EXT-10B	120510-57	N	CHRYSOTILE	19	ND		TAR	81	GRAY DUCT CAULK
RC-1	120510-58	Т	ND		CELLULOSE	30	TAR	70	BLACK ROOF CORE
RC-2	120510-59	N	CHRYSOTILE	11	CELLULOSE	19	TAR	70	BLACK ROOF CORE
RC-3	120510-60	N	CHRYSOTILE	16	CELLULOSE	22	TAR	62	BLACK ROOF CORE
RC-4	120510-61	Т	ND		CELLULOSE	38	TAR	62	BLACK ROOF CORE
		T							
		T	- V						
	-								
				T					
		T		T					
		+		1					
		+							
	-	+		-					
		+	-			-			
						_		_	

PLM Method EPA 600/M4/82/020

Lab Supervisor: Matt Smith

ND - None Detected CELL-Cellulose JC - Joint Compound

MIN - Mineral GLASS - Fiberglass

<1 = Trace

P - Friable PLM analytical result N - NOB PLM analytical result T - TEM analytical result

PLAS - Plaster

G-Gravametric Matrix Reduction. Sample residue weight <1% of original sample weight, TEM not required.

^{*&}quot;Polarized-light microscopy (PLM) is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. Quantitative transmission electron microscopy (TEM) is currently the only method that can be used to determine if this material can be considered and treated as non-asbestos containing." Page 3 of 3



PCB Analysis Report for Soils/Solids/Sludges

Client: LaBella Associates

Client Job Site:

N/A

Lab Project Number:

10-4256

Client Job Number: 210666/1

Lab Sample Number:

13621

Field Location:

PCB-1

Date Sampled:

10/14/2010

Field ID Number: Sample Type:

N/A Solid **Date Received:**

10/18/2010

Date Analyzed:

10/20/2010

PCB Identification	Results in mg / Kg
Aroclor 1016	< 13.9
Aroclor 1221	< 13.9
Aroclor 1232	< 13.9
Aroclor 1242	< 13.9
Aroclor 1248	< 13.9
Aroclor 1254	92.9
Aroclor 1260	< 13.9

ELAP Number 10958

Method: EPA 8082

Comments: mg / Kg = milligram per Kilogram

Bruce Hoogesteger: Nechnical Director
This report is part of a multipage document and should only be evaluated in its entirety. Chain of Custody provides additional information, including compliance with sample condition 104256P1.XLS requirements upon receipt.



PCB Analysis Report for Soils/Solids/Sludges

Client: LaBella Associates

Client Job Site:

N/A

Lab Project Number:

10-4256

Client Job Number:

210666/1

Lab Sample Number:

13622

Field Location:

Date Sampled:

10/14/2010

Field ID Number:

PCB-2 N/A

Date Received:

10/18/2010

Sample Type:

Solid

Date Analyzed:

10/20/2010

PCB Identification	Results in mg / Kg
Aroclor 1016	< 14.0
Aroclor 1221	< 14.0
Aroclor 1232	< 14.0
Aroclor 1242	< 14.0
Aroclor 1248	< 14.0
Aroclor 1254	< 14.0
Aroclor 1260	< 14.0

ELAP Number 10958

Method: EPA 8082

Comments: mg / Kg = milligram per Kilogram

Signature:

Bruce Hoogesteger: Technical Director
This report is part of a multipage document and should only be evaluated in its entirety. Chain of Custody provides additional information, including compliance with sample condition 104256P2.XLS requirements upon receipt.

10-4256



PCB Analysis Report for Soils/Solids/Sludges

Client: LaBella Associates

Lab Project Number: N/A Client Job Site:

Lab Sample Number: 13623 Client Job Number: 210666/1

10/14/2010 Date Sampled: PCB-3 Field Location: 10/18/2010 **Date Received:** N/A Field ID Number: 10/20/2010 Date Analyzed: Solid Sample Type:

PCB Identification	Results in mg / Kg
Aroclor 1016	< 11.9
Aroclor 1221	< 11.9
Aroclor 1232	< 11.9
Aroclor 1242	< 11.9
Aroclor 1248	< 11.9
Aroclor 1254	< 11.9
Aroclor 1260	< 11.9

Method: EPA 8082 ELAP Number 10958

Comments: mg / Kg = milligram per Kilogram

Signature:

requirements upon receipt.

Bruce Hoogesteger: Technical Director
This report is part of a multipage document and should only be evaluated in its entirety. Chain of Custody provides additional information, including compliance with sample condition



PCB Analysis Report for Soils/Solids/Sludges

Client: LaBella Associates

Client Job Site:

N/A

Lab Project Number:

10-4256

Client Job Number:

210666/1

Lab Sample Number:

13624

Field Location:

PCB-4

Date Sampled:

10/14/2010 10/18/2010

Field ID Number: Sample Type:

N/A Solid Date Received: Date Analyzed:

10/20/2010

PCB Identification	Results in mg / Kg
Aroclor 1016	< 14.4
Aroclor 1221	< 14.4
Aroclor 1232	< 14.4
Aroclor 1242	< 14.4
Aroclor 1248	< 14.4
Aroclor 1254	< 14.4
Aroclor 1260	< 14.4

ELAP Number 10958

Method: EPA 8082

Comments: mg / Kg = milligram per Kilogram

Signature:

Bruce Hoogesteger: Technical Director
This report is part of a multipage document and should only be evaluated in its entirety. Chain of Custody provides additional information, including compliance with sample condition 104256P4,XLS requirements upon receipt.



PCB Analysis Report for Soils/Solids/Sludges

Client: LaBella Associates

Client Job Site:

N/A

Lab Project Number:

10-4256

Client Job Number: 210666/1

Lab Sample Number: 13625

Field Location:

PCB-5

Date Sampled:

10/14/2010

Field ID Number: Sample Type:

N/A Solid **Date Received:**

10/18/2010

Date Analyzed:

10/20/2010

PCB Identification	Results in mg / Kg
Aroclor 1016	< 12.9
Aroclor 1221	< 12.9
Aroclor 1232	< 12.9
Aroclor 1242	< 12.9
Aroclor 1248	< 12.9
Aroclor 1254	< 12.9
Aroclor 1260	< 12.9

ELAP Number 10958

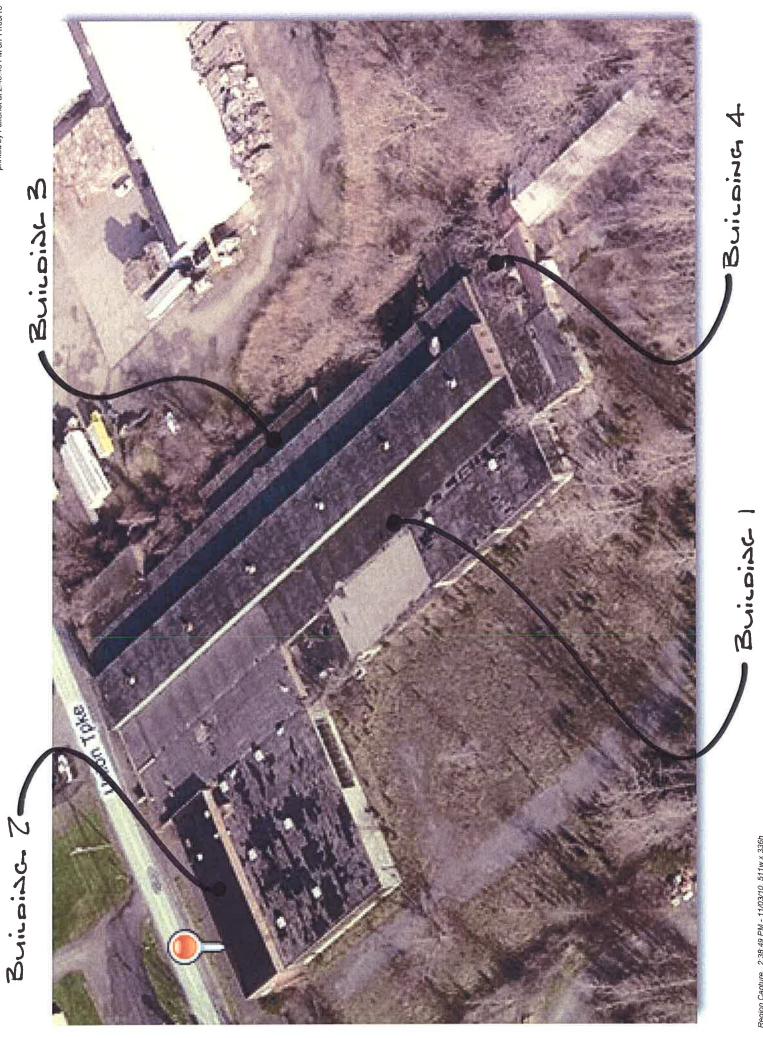
Method: EPA 8082

Comments: mg / Kg = milligram per Kilogram

Signature:

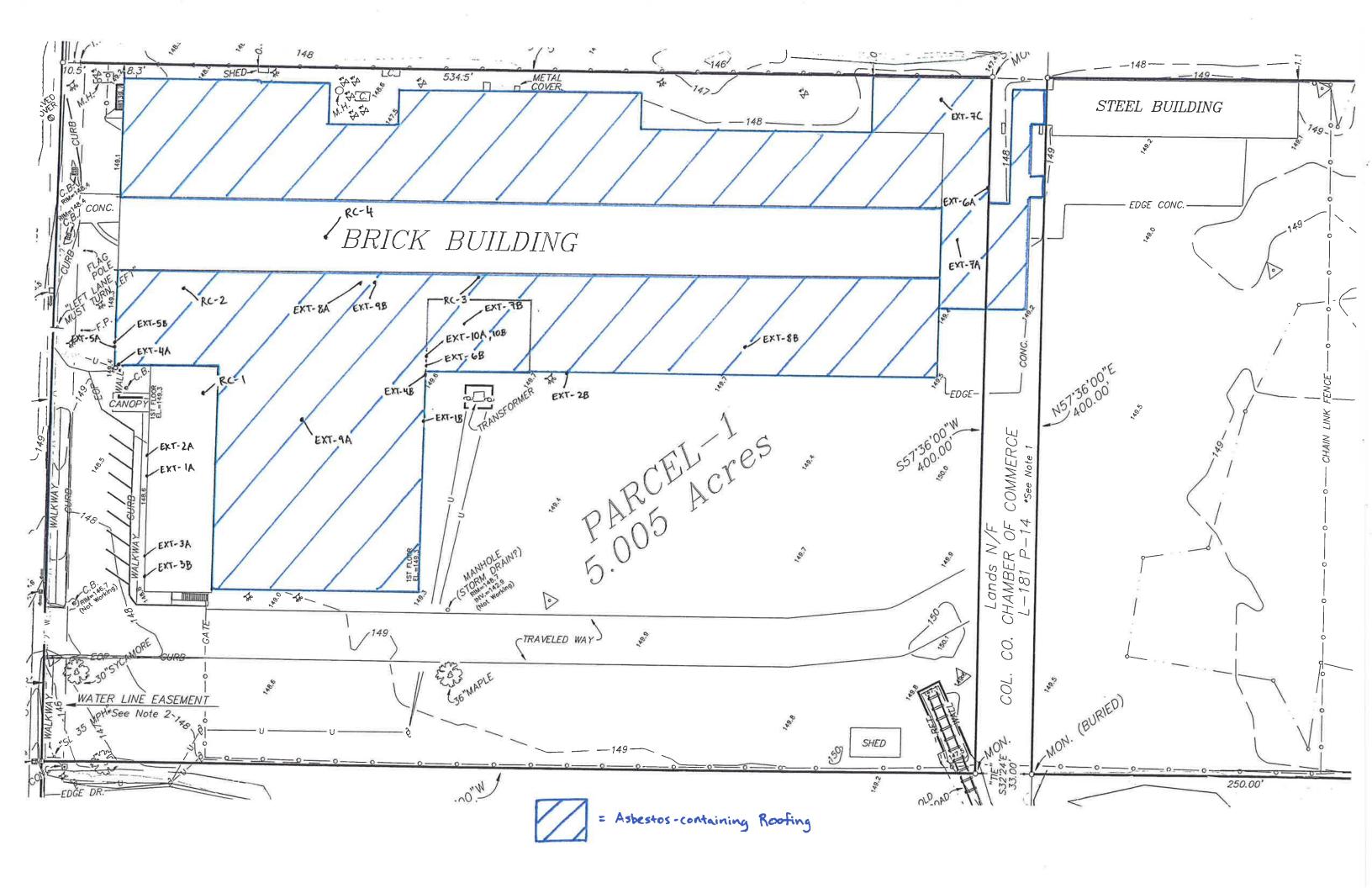
Bruce Hoogesteger: Technical Director
This report is part of a multipage document and show only be evaluated in its entirety. Chain of Custody provides additional information, including compliance with sample condition 104256P5,XLS requirements upon receipt.

Appendix D Building Identification Plan



Region Capture, 2:38:49 PM - 11/03/10, 511w x 336h

Appendix E Sample & Asbestos Material Location Plans





Appendix 2

Application for Site-Specific Variance



New York State Department of Labor Division of Safety and Health - Engineering Services Unit Building 12, Room 159 State Office Campus Albany, N.Y. 12240

Petition for an Asbestos Variance

To apply for an asbestos variance the Project Designer must:

- Complete all of the information on pages one and two of this asbestos variance request. Please type or print.
- Sign and date page two of the certification and all of the attachments.
- Send two copies of the petition and all attachments, with your \$350 fee, to the address at the top of this page.

 Make your check or money order payable to the Commissioner of Labor.

 Make your check or money order payable to the Commissioner of Labor. Optional: To speed up the process you may include a self-addressed, stamped, express-mail envelope.
1a. Is this petition related to a safety or health emergency? YesNo b. If yes, explain:
2a. Name of Petitioner. (Property Owner): (-REEA) PART ("PASSIANS ILC.
b. Street Address: 40 CORBETT RD c. City: MONTGOMERY, f. Telephone Number: (845) 430 - 1688 g. Fax Number: () -
t Tolophono Number: (SHE) (120 1/65)
h. Petitioner's Federal Employee Identification Number (FEIN) 40KNOWN
b. Street Address: 300 STATE ST
c. City: ROCHESTER d. State: NY e. Zip: 14614
c. City: <u>ROCHESTER</u> d. State: <u>NY</u> e. Zip: <u>/46 /4</u> f. Telephone Number: (585) 454 - 6/10 g. Fax Number: (585) 454 - 3066
a. Asbestos Contractor License No. 29278 b. Name of Firm: LABELLA ASSOCIATES
b. Building Description: a. Affecting premises known as: FORMER GREENPORT CROSSINGS FACILITY b. These premises are situated on theNorth, _X_South,East,West side ofStreet,Ave,Roac. County ofCOLUMBIA
d. Street Address: 18/ UNION TURNPIKE
e. City GREBOPORT f. State: 109 g. Zip 12334
d. Street Address: 181 UNION TURNPIKE e. City GREENPORT f. State: NY g. Zip 12534 h. Is building occupied? Yes X No i. Current function of building: VACANT, IN DISREPAIRT SCHEDULED FOR DE
Approximate area (square feet) of building: k. Number of stories or height in feet: VACIES
. What is within 25 feet of all four sides (North, South, East, West) of building? i.e. sidewalk, alley, land, another
EAST - PARKING LOT & WOODS / WEST - VACANT LAND
EAST - PARKING LOT & WOODS / WEST - VACANT LAND
Order To Comply or Notice of Violation. Attach copy. a. Issued to:OwnerAsbestos ContractorOperatorOther
a. Issued to:OwnerAsbestos Contractor Operator Other
c. Date issued: / /
d. List the Industrial Code Rule (ICR) citations given on the Order to Comply or Notice of Violation:
. If a variance has been granted previously for work closely resembling this project list: a. Variance number: b. Date variance granted: / /

Note: Add a separate typed or printed page for each work area and work procedure. Sign and date each page. 8. Work Area Description Table: Attach additional tables and scale drawings of work area and pictures, as needed. Friability of Work/Room Work Exterior Type of Quantity of Condition of Type of Containment Area Area Asbestos ACM ACM (level of ACM (full, 2-layer tent, single (non-friable Designation Interior Dimensions Containing damage) layer tent, open-air, etc.) Material (ACM) or friable) SEE ATTACHMENT A Vacant industrial site with numerous work areas. All ACMs to be Removed in accordance with the provisions of this site-specific variance request. 9. ICR 56 Relief Sought: List the individual sections of ICR 56 for which relief is sought, for each work area or method used. Provide sufficient detail in an attachment. SEE ATTACHMENT B 10. Hardship Description: What is the hardship, (e.g. Limited room for decons, exhaust ducts must be longer than 25 feet, all surfaces are contaminated and cannot be plasticized) for each work area or method used? Provide sufficient detail in an attachment. Include condemnation letter or EPA Approval letter if applicable. SEE ATTACHMENT C 11. Proposed Abatement Method Description for each work area or method used. Include scale drawings and pictures as necessary. Lack of sufficient detail will delay issuance of variance decision. a. Will proposed abatement methods render non-friable ACM material friable? b. What proposed abatement method, increased engineering controls and detailed procedures will be used to compensate for the relief being sought? (i.e. Increased negative air rate, negative pressure glovebag, negative pressure glovebox, high temperature glovebag, intact component removal, etc.) Include sufficiently detailed procedures to complete the proposed work. SEE ATTACHMENT **Project Designer Certification** I request that the Commissioner of Labor issue a variance from the requirements of Industrial Code Rule (ICR) 56. This request is based on the information in this application and the attached documents. I certify that the information contained in this petition is true and accurate. I understand that if a variance is granted it may be withdrawn by the Commissioner: if any of the information provided in this petition is found to be inaccurate or if there are violations of Article 30 of the New York State Labor Law or New York State regulations. I give the Commissioner of Labor permission to provide all of my companies records for Unemployment Insurance (U.I.) reports and contributions to employees of the New York State Department of Labor. This includes information about withholding, wage reporting, U.I. returns, U.I. registration, New Hires, and all records of U.I. delinquencies. This information may only be used for government purposes regarding the licensing and certification of this company as required by Article 30 of the New York State Labor Law and the regulations of the New York State Department of Labor, and for monitoring the company's compliance with Article 30 and ICR 56. 12 a. Project designer name (print): THOMAS J. KIHN b. Project Design Asbestos Contractor firm name: LABELLA ASSOCIATES P.C. c. Street: 300 STATE ST

j. Design Firm Asbestos Contractor License Number 29278

d. City: <u>ROCHE STER</u> e. State: <u>NY</u>f. Zip: <u>/46/4</u> g. Phone: (585)295 - 6244 h. Designer certificate number: 88-02892 i. Expiration Date: <u>4/30/20//</u>

13 a. Project designer signature: Library Xihr b. Date: 3 / 7 / 1/

_____ k. Expiration Date: 2 /28 /20/2

Petitioner's Agent: LaBella Associates, P.C.

Description of Premises: Former Greenport Crossings Facility 181 Union Turnpike, Greenport, NY

ATTACHMENT A Building/Work Area Description

The Greenport Crossings Site is a vacant industrial facility that has been abandoned for 25 years and is scheduled to be demolished in the near future. Roofing and drainage has failed in many areas, with water infiltration following every significant rainfall and snow melt; resulting in areas of significant water damage and basement flooding. This facility is located within an area zoned as industrial. Based on observations made during recent site visits, there is little if any pedestrian traffic in the area. Prior to commencement of the abatement project, the property borders will be secured with a six foot high chain link fence with a lockable gate.

A pre-demolition asbestos sampling survey was recently conducted for the site and is attached. See LaBella Associates Pre-Demolition Regulated Building Materials Assessment Report, *Revision 1*, dated, March, 2011. This report identifies the asbestos-containing materials present at the site, as well as describes the approximate locations, amounts and condition of ACMs to be removed, prior to demolition.

It is the intent of Greenport Crossings, LLC to provide an equivalent level of protection for removal workers and the public while permitting the proper removal of the asbestos materials in a cost effective manner. The proposed procedures will not expose removal workers or the general public to asbestos fibers and represents a reasonable approach for the careful controlled removal of the asbestos-containing materials.

	Illoma	of Kihn	
Signed	d:		
Date:	3/7/11		

Petitioner's Agent: LaBella Associates, P.C.

Description of Premises: Former Greenport Crossings Facility 181 Union Turnpike, Greenport, NY

ATTACHMENT B ICR 56 Relief Sought

Relief from the following Section of ICR 56 Regulations are requested for the removal of the asbestos-containing floor tile, drywall joint compound and pipe/pipe fitting insulation/insulation debris.

56-11.2 (b) (1) - Disturbance of ACM that poses an imminent danger to the health and safety of the public

Relief from the following Sections of ICR 56 Regulations are requested for the removal of the **non-friable** asbestos-containing roofing materials, caulking compounds, wall joint filler/wall cement and electrical wire wrap.

56-11.5 (a)	Air Sampling and Analysis
56-11.5(b)(1)	Building/Structure is Condemned
56-11.5(c)(7)	Controlled Demolition Procedures - Debris
56-11.5 (c)(10)	Wastewater

It is requested that this variance, if granted, shall remain in effect until March 31, 2012.

Thomas J Kihn	
Signed:	
Date: 3/7/11	

Petitioner's Agent: LaBella Associates, P.C.

Description of Premises: Former Greenport Crossings Facility 181 Union Turnpike, Greenport, NY

ATTACHMENT C Hardship Description

Greenport Crossings, LLC requests a variance from certain provisions of Industrial Code Rule 56, on the grounds that they would encounter practical difficulties and unnecessary hardship if removal of the asbestos-containing materials was to be completed in accordance with all provisions of the Code Rule.

Relief from the above referenced sections of ICR 56 is requested due to the following hardships.

The asbestos-containing floor tile, drywall joint compound and the pipe/pipe fitting insulation/insulation debris all exhibit varying degrees of condition, from good to damaged. As such, not all areas of these materials lend themselves to being removed in accordance with "typical" abatement procedures. Even though the current condition of a long vacant and unoccupied building may not technically meet the definition of an "Emergency Project" as defined by the Code Rule, the removal of some of these materials is best accomplished using Emergency Project Procedures set forth in ICR 56-11.2.

The facility has not been condemned by a licensed Professional Engineer as per 56-11.5(b)(1). However, since the building has been abandoned and neglected for 25 years there are many areas of the roof that are obviously structurally compromised. It is therefore not only impractical but also unsafe to attempt to have asbestos removal workers manually separate the asbestos-containing roofing from the roof decking.

Worker safety is also a primary concern for the manual removal of the various other **non-friable** asbestos-containing materials, especially window/duct caulk which require roof access and work with rusted hangers.

The intent of this variance request is to provide a safe and cost effective method for the cleanup and removal of asbestos-containing materials from the facility prior to and in conjunction with building demolition. The proposed removal procedures meet the spirit and intent of the Code Rule and are consistent with federal regulations for asbestos removal.

Thomas J Kikn						
Signed	:					
Date:	3/7/11					

Petitioner's Agent: LaBella Associates, P.C.

Description of Premises: Former Greenport Crossings Facility 181 Union Turnpike, Greenport, NY

ATTACHMENT D Proposed Abatement Methods

The petitioner is proposing to utilize the work practices and procedures provided below for the abatement of the asbestos-containing <u>floor tile</u>, <u>drywall joint compound and pipe/pipe fitting insulation/insulation</u> debris:

- 1. All abatement activities shall be conducted under the daily supervision of a currently NYSDOL certified Asbestos Project Monitor.
- 2. The Site will be surrounded and secured by six foot chain link fence with required asbestos signs posted, thereby deterring access by unauthorized persons. During the course of this project the fencing will be monitored and maintained to prevent unauthorized access. Only certified workers will be allowed within regulated work areas.
- 3. All abatement work on these materials shall be completed in accordance with existing code rule requirements, and where appropriate, ie damaged materials, with all of the applicable provisions of ICR 56-11.2 Emergency Projects.

Once all Regulated (friable) Asbestos-Containing Materials have been abated, the following removal procedures shall be used for the **non-friable** asbestos-containing roofing materials, caulking compounds, wall joint filler/wall cement and electrical wire wrap:

- 1. The regulated abatement work area will be established in accordance with Subpart 56-11.5 (c)(2) for an "outdoor regulated abatement work area".
- 2. Entrance and exits will be established in accordance with Subpart 56-11.5 (c)(3).
- 3. Decontamination areas will be established in accordance with Subpart 56-11.5 (c)(4).
- 4. Abatement and demolition equipment will be decontaminated in accordance with Subpart 56-11.5 (c)(5).
- 5. No dry disturbance or removal of the non-friable asbestos-containing materials will be conducted. Wet methods will be used in accordance with Subpart 56-11.5 (c)(6). Building demolition will take place in a methodical manner utilizing appropriate heavy equipment. Non-ACM roofing structure will be demolished while causing minimal disturbance to the exterior walls so that all materials may be segregated (steel, roofing and brick).
- 6. The sub-grade levels of the existing structures will be used to collect wastewater from the wetting of on-going demolition activity. Additionally, wastewater generated by activities not performed

directly over structures with sub-grade levels, such as slab-on grade structure, shall be directed to adjacent sub-grade levels for holding and proper treatment, or otherwise confined to within the regulated work area.

- 7. The non-friable asbestos-containing materials will be removed intact as much as possible. Non-friable asbestos waste shall be contained in accordance with Subpart 56-11.5 (c)(11) and disposed of according to appropriate legal methods. Brick and masonry material will be segregated during demolition activity and will be inspected by the on-site project monitor to confirm the absence of any asbestos containing material. Upon successful inspection by the on-site project monitor, brick and masonry material may be staged on-site for re-use by the Owner.
- 8. Once removal with heavy equipment is complete, any remaining debris will be "hand-picked" by the abatement contractor to ensure visual cleanliness in accordance with Subpart 56-11.5 (c)(12).
- 9. Final cleaning and clearance procedures will be in accordance with Subpart 56-11.5 (c)(13).
- 10. Waste removal from the site will be in accordance with Subpart 56-11.5 (c)(14).

	monary.	Jen .
Signed:		
Date:_3	3/7/11	

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Appendix 3

Health & Safety Plan



Site Health and Safety Plan BCP Site #C411017

Location:

Greenport Crossings 181 Union Turnpike (Route 66) Town of Greenport, New York

Prepared For:

Greenport Crossings, LLC 40 Corbett Road Montgomery, New York 12549

LaBella Project No. 210408

July 22, 2011

Site Health and Safety Plan BCP Site #C411017

Location:

Greenport Crossings 181 Union Turnpike (Route 66) Town of Greenport, New York

Prepared For:

Greenport Crossings, LLC 40 Corbett Road Montgomery, New York 12549

LaBella Project No. 210408

July 22, 2011

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SITE HEALTH AND SAFETY PLAN

Project Title:	Greenport Crossings – Demolition Work Plan				
Project Number:	210408				
Project Location (Site):	181 Union Turnpike (Route 66), Greenport, New York				
Environmental Director:	Gregory Senecal, CHMM				
Project Manager:	Dennis Porter, CHMM				
Plan Review Date:					
Plan Approval Date:					
Plan Approved By:	Mr. Richard Rote, CIH				
Site Safety Supervisor:	Seth Davis				
Site Contact:	Mr. Harbalwant Singh				
Safety Director:	Rick Rote, CIH				
Proposed Date(s) of Field Activities:	To Be Determined				
Site Conditions:	Slightly sloping, encompassing approximately 10 acres				
Site Environmental Information Provided By:	Prior Modified Phase I ESA by Evergreen Testing & Environmental Services; Data Package by LaBella Associates				
Air Monitoring Provided By:	LaBella Associates, P.C.				
Site Control Provided By:	Contractor(s)				

EMERGENCY CONTACTS

	Name	Phone Number
Ambulance:	As Per Emergency Service	911
Hospital Emergency:	Columbia Memorial Hospital	518-828-7601
Poison Control Center:	Finger Lakes Poison Control	585-273-4621
Police (local, state):	Columbia County Sheriff	911
Fire Department:	Hudson Fire Department	911
Site Contact:	Mr. Harbalwant Singh	845-430-1688
Agency Contact:	Sheilla Paige (NYSDEC)	518-357-2374
	Maureen Schuck (NYSDOH)	518-402-7860
Environmental Director:	Greg Senecal, CHMM	Direct: 585-295-6243 Cell: 585-752-6480 Home: 585-323-2142
Project Manager:	Dennis Porter, CHMM	Direct: 585-295-6253 Cell: 585-451-4854
Site Safety Supervisor:	Seth Davis	Direct: 585-295-6659
Safety Director	Rick Rote, CIH	Direct: 585-295-6241

MAP AND DIRECTIONS TO THE MEDICAL FACILITY - COLOMBIA MEMORIAL HOSPITAL



(I

Columbia Memorial Hospital - (518) 828-7601 71 Prospect Ave, Hudson, NY 12534

Total Travel Estimate: 0.95 miles - about 2 minutes



1.0 Introduction

The purpose of this Health and Safety Plan (HASP) it to provide guidelines for responding to potential health and safety issues that may be encountered during the field activities relating to the implementation of the Demolition activities at the Site located at 181 Union Turnpike (Route 66) in the Town of Greenport, Colombia County, New York. This HASP only reflects the policies of LaBella Associates P.C. The requirements of this HASP are applicable to all approved LaBella personnel at the work site. This document's project specifications and the Community Air Monitoring Plan (CAMP) are to be consulted for guidance in preventing and quickly abating any threat to human safety or the environment. The provisions of the HASP were developed in general accordance with 29 CFR 1910 and 29 CFR 1926 and do not replace or supersede any regulatory requirements of the USEPA, NYSDEC, OSHA or and other regulatory body.

2.0 Responsibilities

This HASP presents guidelines to minimize the risk of injury to project personnel, and to provide rapid response in the event of injury. The HASP is applicable only to activities of approved LaBella personnel and their authorized visitors. The Project Manager shall implement the provisions of this HASP for the duration of the project. It is the responsibility of LaBella employees to follow the requirements of this HASP, and all applicable company safety procedures.

3.0 Activities Covered

The activities covered under this HASP are limited to the following:

- ☐ Management of environmental investigation and remediation activities
- □ Environmental Monitoring
- Collection of samples
- ☐ Management of excavated soil and fill.
- □ Waste stream management.

4.0 Work Area Access and Site Control

The contractor(s) will have primary responsibility for work area access and site control.

5.0 Potential Health and Safety Hazards

This section lists some potential health and safety hazards that project personnel may encounter at the project site and some actions to be implemented by approved personnel to control and reduce the associated risk to health and safety. This is not intended to be a complete listing of any and all potential health and safety hazards. New or different hazards may be encountered as site environmental and site work conditions change. The suggested actions to be taken under this plan are not to be substituted for good judgment on the part of project personnel. At all times, the Site Safety Officer has responsibility for site safety and his or her instructions must be followed.

5.1 Hazards Due to Heavy Machinery

Potential Hazard:

Heavy machinery including trucks, excavators, backhoes, etc will be in operation at the site. The presence of such equipment presents the danger of being struck or crushed. Use caution when working near heavy machinery.

Protective Action:

Make sure that operators are aware of your activities, and heed operator's instructions and warnings. Wear bright colored clothing and walk safe distances from heavy equipment. A hard hat, safety glasses and steel toe shoes are required.

5.2 Excavation Hazards

Potential Hazard:

Excavations and trenches can collapse, causing injury or death. Edges of excavations can be unstable and collapse. Toxic and asphyxiant gases can accumulate in confined spaces and trenches. Excavations that require working within the excavation will require air monitoring in the breathing zone (refer to Section 9.0).

Excavations left open create a fall hazard which can cause injury or death.

Protective Action:

Personnel must receive approval from the Project Manager to enter an excavation for any reason. Subsequently, approved personnel are to receive authorization for entry from the Site Safety Officer. Approved personnel are not to enter excavations over 4 feet in depth unless excavations are adequately sloped. Additional personal protective equipment may be required based on the air monitoring.

Personnel should exercise caution near all excavations at the site as it is expected that excavation sidewalls will be unstable. All excavations will be backfilled by the end of each day. Additionally, no test pit will be left unattended during the day.

Fencing and/or barriers accompanied by "no trespassing" signs should be placed around all excavations when left open for any period of time when work is not being conducted.

5.3 Cuts, Punctures and Other Injuries

Potential Hazard:

In any excavation or construction, work site there is the potential for the presence of sharp or jagged edges on rock, metal materials, and other sharp objects. Serious cuts and punctures can result in loss of blood and infection.

Protective Action:

The Project Manager is responsible for making First Aid supplies available at the work site to treat minor injuries. The Site Safety Officer is responsible for arranging the transportation of authorized on-site personnel to medical facilities when First Aid treatment in not sufficient. Do not move seriously injured workers. All injuries requiring treatment are to be reported to the Project Manager. Serious injuries are to be reported immediately to the Site Safety Officer

5.4 Injury Due to Exposure of Chemical Hazards

Potential Hazards:

Volatile organic vapors from petroleum products, chlorinated solvents or other chemicals may be encountered during excavation activities at the project work site. Inhalation of high concentrations of organic vapors can cause headache, stupor, drowsiness, confusion and other health effects. Skin contact can cause irritation, chemical burn, or dermatitis.

Protective Action:

The presence of organic vapors may be detected by their odor and by monitoring instrumentation. Approved employees will not work in environments where hazardous concentrations of organic vapors are present. Air monitoring (refer to Section 9.0 and to the NYSDOH Generic CAMP in Appendix 4) of the work area will be performed at least every 60 minutes or more often using a Photoionization Detector (PID). Personnel are to leave the work area whenever PID measurements of ambient air exceed 25 ppm consistently for a 5 minute period. In the event that sustained total volatile organic compound (VOC) readings of 25 ppm is encountered personnel should upgrade personal protective equipment to Level C (refer to Section 8.0) and an Exclusion Zone should be established around the work area to limit and monitor access to this area (refer to Section 6.0).

5.5 Injuries Due to Extreme Hot or Cold Weather Conditions

Potential Hazards:

Extreme hot weather conditions can cause heat exhaustion, heat stress and heat stroke or extreme cold weather conditions can cause hypothermia.

Protective Action:

Precaution measures should be taken such as dress appropriately for the weather conditions and drink plenty of fluid. If personnel should suffer from any of the above conditions, proper techniques should be taken to cool down or heat up the body and taken to the nearest hospital if needed.

5.6 Potential Exposure to Asbestos

Potential Hazards:

During ground intrusive activities (e.g., test pitting or drilling) soil containing asbestos may be encountered. Asbestos is friable when dry and can be inhaled when exposed to air.

Protective Action:

The presence of asbestos can be identified through visual observation of a white magnesium silicate material. If encountered, work should be halted and a sample of the suspected asbestos should be collected and placed in a plastic sealable bag. This sample should be sent to the asbestos laboratory at LaBella Associates for analysis.

6.0 Work Zones

Any work zone in which demolition work will take place will be fenced and access will be limited by the use of locked gates. In the event that conditions warrant establishing various work zones (i.e., based on hazards - Section 5.4), the following work zones should be established:

Exclusion Zone (EZ):

The EZ will be established in the immediate vicinity and adjacent downwind direction of site activities that elevate breathing zone VOC concentrations to unacceptable levels based on field screening. These site activities include contaminated soil excavation and soil sampling activities. If access to the site is required to accommodate non-project related personnel then an EZ will be established by constructing a barrier around the work area (yellow caution tape and/or construction fencing). The EZ barrier shall encompass the work area and any equipment staging/soil staging areas necessary to perform the associated work. The contractor(s) will be responsible for establishing the EZ and limiting access to approved personnel. Depending on the condition for establishing the EZ, access to the EZ may require adequate PPE (e.g., Level C).

Contaminant Reduction Zone (CRZ):

The CRZ will be the area where personnel entering the EZ will don proper PPE prior to entering the EZ and the area where PPE may be removed. The CRZ will also be the area where decontamination of equipment and personnel will be conducted as necessary.

7.0 Decontamination Procedures

Upon leaving the work area, approved personnel shall decontaminate footwear as needed. Under normal work conditions, detailed personal decontamination procedures will not be necessary. Work clothing may become contaminated in the event of an unexpected splash or spill or contact with a contaminated substance. Minor splashes on clothing and footwear can be rinsed with clean water. Heavily contaminated clothing should be removed if it cannot be rinsed with water. Personnel assigned to this project should be prepared with a change of clothing whenever on site.

Personnel will use the contractor's disposal container for disposal of PPE.

8.0 Personal Protective Equipment

Generally, site conditions at this work site require level of protection of Level D or modified Level D. However, air monitoring will be conducted to determine if up-grading to Level C PPE is required (refer to Section 9.0). Descriptions of the typical safety equipment associated with Level D and Level C are provided below:

Level D:

Hard hat, safety glasses, rubber nitrile sampling gloves, steel toe construction grade boots, etc.

Level C:

Level D PPE and full or ½-face respirator and tyvek suit (if necessary). [Note: Organic vapor cartridges are to be changed after each 8-hours of use or more frequently.]

9.0 Air Monitoring

According to 29 CFR 1910.120(h), air monitoring shall be used to identify and quantify airborne levels of hazardous substances and health hazards in order to determine the appropriate level of employee protection required for personnel working onsite. Air monitoring will consist at a minimum of the procedures described in the Site specific CAMP.

The Air Monitor will utilize a photoionization Detector (PID) to screen the ambient air in the work areas for total Volatile Organic Compounds (VOCs) and a DustTrak tm Model 8520 aerosol monitor or equivalent for measuring particulates. Work area ambient air will generally be monitored in the work area and downwind of the work area. Air monitoring of the work areas and downwind of the work areas will be performed at least every 60 minutes or more often using a PID, and the DustTrak meter.

If sustained PID readings of greater than 25 ppm are recorded in the breathing zone, then either personnel are to leave the work area until satisfactory readings are obtained or approved personnel may re-enter the work areas wearing at a minimum a ½ face respirator with organic vapor cartridges for an 8-hour duration (i.e., upgrade to Level C PPE). Organic vapor cartridges are to be changed after each 8-hours of use or more frequently, if necessary. If PID readings are sustained, in the work area, at levels above 25 ppm for a 5 minute average, work will be stopped immediately until safe levels of VOCs are encountered or additional PPE will be required (i.e., Level B).

If dust concentrations exceed the upwind concentration by $150~\mu g/m^3$ (0.15 mg/m³) consistently for a 10 minute period within the work area or at the downwind location, then LaBella personnel may not re-enter the work area until dust concentrations in the work area decrease below $150~\mu g/m^3$ (0.15 mg/m³), which may be accomplished by the construction manager implementing dust control or suppression measures.

If ground intrusive activities are conducted at more than one location simultaneously, additional upwind and downwind perimeter sampling will be completed to comply with the intent of the NYSDOH Generic Community Air Monitoring Plan.

10.0 Emergency Action Plan

In the event of an emergency, employees are to turn off and shut down all powered equipment and leave the work areas immediately. Employees are to walk or drive out of the Site as quickly as possible and wait at the assigned 'safe area'. Follow the instructions of the Site Safety Officer.

Employees are not authorized or trained to provide rescue and medical efforts. Rescue and medical efforts will be provided by local authorities.

11.0 Medical Surveillance

Medical surveillance will be provided to all employees who are injured due to overexposure from an emergency incident involving hazardous substances at this site.

12.0 Employee Training

Personnel who are not familiar with this site plan will receive training on its entire content and organization before working at the Site.

Individuals involved with the remedial investigation must be 40-hour OSHA HAZWOPER trained with current 8-hour refresher certification.

Table 1 **Exposure Limits and Recognition Qualities**

	PEL-TWA	TLV-TWA						Odor Threshold	
Compound	(ppm)(b)(d)	(ppm)(c)(d)	STEL	LEL (%)(e)	UEL (%)(f)	IDLH (ppm)(g)(d)	Odor	(ppm)	Ionization Potential
Acetone	750	500	NA	2.15	13.2	20,000	Sweet	4.58	9.69
Anthracene	0.2	0.2	NA	NA	NA	NA	Faint aromatic	NA	NA
Benzene	1	0.5	5	1.3	7.9	3000	Pleasant	8.65	9.24
Benzo (a) pyrene (coal tar pitch volatiles)	0.2	0.1	NA	NA	NA	700	NA	NA	NA
Benzo (a)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo (b) Fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo (g,h,i)perylene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo (k) Fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	NA	NA	NA	NA	NA	NA	NA	NA	10.88
Carbon Disulfide	20	1	NA	1.3	50	500	Odorless or strong garlic type	0.096	10.07
Chlorobenzene	75	10	NA	1.3	9.6	2,400	Faint almond	0.741	9.07
Chloroform	50	2	NA	NA	NA	1,000	ethereal odor	11.7	11.42
Chrysene	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethylene	200	200	NA	9.7	12.8	400	Acrid	NA	9.65
1,2-Dichlorobenzene	50	25	NA	2.2	9.2		Pleasant		9.07
Ethylbenzene	100	100	NA	1	6.7	2,000	Ether	2.3	8.76
Fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	500	50	NA	12	23	5,000	Chloroform-like	10.2	11.35
Naphthalene	10, Skin	10	NA	0.9	5.9	250	Moth Balls	0.3	8.12
n-propylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethane	NA	NA	NA	NA	NA	NA	Sweet	NA	NA
Toluene	100	100	NA	0.9	9.5	2,000	Sweet	2.1	8.82
Trichloroethylene	100	50	NA	8	12.5	1,000	Chloroform	1.36	9.45
1,2,4-Trimethylbenzene	NA	25	NA	0.9	6.4	NA	Distinct	2.4	NA
1,3,5-Trimethylbenzene	NA	25	NA	NA	NA	NA	Distinct	2.4	NA
Vinyl Chloride	1	1	NA	NA	NA	NA	NA	NA	NA
Xylenes (o,m,p)	100	100	NA	1	7	1,000	Sweet	1.1	8.56
Metals						,			
Arsenic	0.01	0.2	NA	NA	NA	100, Ca	Almond	NA	NA
Cadmium	0.2	0.5	NA	NA	NA	NA	NA	NA	NA
Chromium	1	0.5	NA	NA	NA	NA	NA	NA	NA
Lead	0.05	0.15	NA	NA	NA	700	NA	NA	NA
Mercury	0.05	0.05	NA	NA	NA	28	Odorless	NA	NA
Selenium	0.2	0.02	NA	NA	NA	Unknown	NA	NA	NA
Other									
Asbestos	0.1 (f/cc)	NA	1.0 (f/cc)	NA	NA	NA	NA	NA	NA

⁽b) OSHA-PEL Permissible Exposure Limit (flame weighted average, 8-hour): NIOSH Guide, June 1990 (e) Lower Exposure Limit (%) Co ACGIH – 8 hour time weighted average from Threshold Limit Values and Biological Exposure Indices for 2003. (f) Upper Exposure Limit (%)

⁽d) Metal compounds in mg/m3 (e) Lower Exposure Limit (%)

⁽g) Immediately Dangerous to Life or Health Level: NIOSH Guide, June 1990.

All values are given in parts per million (PPM) unless otherwise indicated.
 Ca = Possible Human Carcinogen, no IDLH information.



Appendix 4

Community Air Monitoring Plan



Site-Specific Community Air Monitoring Plan BCP Site #C411017

Location:

Greenport Crossings 181 Union Turnpike (Route 66) Town of Greenport, New York

Prepared For:

Greenport Crossings, LLC 40 Corbett Road Montgomery, New York 12549

LaBella Project No. 210408

April 25, 2011

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1.0 INTRODUCTION

This Site Specific Community Air Monitoring Plan (CAMP) has been prepared by LaBella Associates, P.C. (LaBella) on behalf of the Greenport Crossings, LLC. This CAMP addresses potential Volatile Organic Compound (VOC) vapor and particulate emissions that may occur during site redevelopment activities (e.g. building demolition) at the property located at 181 Union Turnpike, Town of Greenport, Colombia County, New York.

This CAMP is based on the air monitoring specified in the New York State Department of Health (NYSDOH) Generic CAMP (included as Appendix 1A of the DER-10 NYSDEC Technical Guidance for Site Investigation and Remediation dated May 2010). However, this CAMP also includes more stringent (i.e., lower level) criteria for VOC monitoring as an added level of protection for Site occupants and the community.

1.1 Site Description

The Site consists of two parcels totaling approximately 10.4 acres of land that is currently occupied by a vacant 105,000 +/- square ft single story building that is constructed of wood, steel, and masonry framing. The original portion of this structure was constructed in the early 1920s. Based on the information contained in the previously completed documents additions were constructed in the 1950s and early 1960s. The V&O Press Company occupied the Site from approximately 1921 to the 1990s. V&O Press manufactured drill presses and other metal products. The Site has remained vacant for approximately the past 20 years.

The properties directly adjacent to the Site and their reported occupants are provided below:

Address	Street	Direction	OWNER
301	Union Turnpike	North	Columbia County IDA
172	Union Turnpike	North	Sixty-Six Properties
188	Union Turnpike	North	Realty Holding Co. Inc.
176-178	Union Turnpike	North	American Properties 2007, LLC
17	Industrial Tract	Southwest	Lorbrook Realty Inc.
205	Merle Avenue	West	Merle Oil Co. Inc.
26	Industrial Tract	West	Irv Schroder & Sons Inc.
76	Industrial Tract	West	WEAPT LLC
77	Industrial Tract	South	Patsy Zanchelli
35	Industrial Tract	South	Paul D'Onofrio
84	Industrial Tract	East	Schwans Sales Enterprises

Source - Landmax Data Systems Inc.

The site setting appears to consist of mixed industrial, municipal and retail uses and is located in a suburban locale.

2.0 PURPOSE

Various levels of VOCs, semi-VOCs, and metals (collectively refered to as "constituents of concern" (COCs)) have been detected in the soil at the Site or are suspected to be contained in the soil at the Site. The presence of these COCs through disturbance of soil at the Site can potentially result in nuisance odors or fugitive emissions to the neighborhood in the immediate vicinity of the Site as well as to the various occupants of the Site. However, it should be noted that this CAMP is in-place as a precautionary measure.

This CAMP is specific to activities being conducted as part of the building demolition and all ground intrusive activities at the Site. The CAMP describes the air monitoring activities to be completed in order to provide a measure of protection for any downwind receptors including Site occupants and occupants of neighboring properties. This CAMP is not intended to provide action levels for respiratory protection of workers involved with the building demolition.

3.0 METHODOLOGY

This CAMP has been designed for building demolition and all ground intrusive activities at the Site. [Note: VOC monitoring will only be conducted during ground intrusive activities (i.e. not during building demolition)]. The CAMP is arranged in the following sections:

- Section 3.1: Site Background Monitoring This section identifies the background monitoring (VOC and fugitive dust) to be completed at the beginning of each day and periodically throughout the day when building demolition activities are being conducted. The background monitoring is used for comparing readings from the other monitoring locations.
- Section 3.2: Downwind Perimeter Monitoring This section identifies the downwind perimeter work area monitoring (VOC and fugitive dust) to be completed continuously during the building demolition activities. Action levels are identified in this section.

Section 3.3: Nearest Potential Receptor Monitoring – This section identifies additional VOC monitoring that will be completed during building demolition activities to provide an added measure of protection at this Site that would not normally be required by NYSDEC or NYSDOH (i.e., this is above and beyond the NYSDOH Generic CAMP). Action levels are identified in this section. The Nearest Potential Receptor Monitoring Location will be designated throughout the project at the north end of the Site adjacent to Union Turnpike right-of-way.

It should be noted that based on the type of work, the monitoring locations will be moved throughout the day to comply with the appropriate testing location.

In addition to the above, this CAMP also contains a Vapor Emission to Sensitive Receptors Response Plan (Section 4.0). This includes actions to be taken in the event that sustained exceedances of the specified action levels occur.

3.1 Site Background Monitoring

At the beginning of each day of field work during the building demolition activities, a wind sock or flag will be used to monitor wind direction in the work areas. Based upon daily wind conditions, a background monitoring location will be established. [Note: In the event that the wind direction changes, the background monitoring location will be moved to an appropriate upwind location.] The background monitoring location will be at least 25 feet from the work area in an upwind location. Subsequent to establishing the initial background measurements (VOC and particulate, see below), background measurements will be collected every 60 minutes throughout the duration of the building demolition activities for that day. The specific background monitoring is defined below:

Background VOC Monitoring:

A photo-ionization Detector (PID) capable of data logging will be used to screen the ambient air or VOCs in the background location (i.e., upwind). The PID will be calibrated daily (in accordance with the manufacturer's specifications) prior to collecting the background readings. The background readings will be collected by a 15-minute running average which will be used for comparison to the downwind perimeter monitoring (refer to Section 3.2) and the nearest potential receptor monitoring (refer to Section 3.3). After the initial reading, periodic background readings will be collected every 60-minutes. VOC monitoring will only be conducted during ground intrusive activities (i.e. not during building demolition).

Background Fugitive Dust Monitoring:

A DustTrakTM Model 8520 aerosol monitor or equivalent will be used for measuring particulates. The meter must be capable of measuring matter less than 10 micrometers in size (PM-10). The dust monitor will be calibrated daily (in accordance with the manufacturer's specifications) prior to collecting the background readings. The background dust monitoring will consist of collecting measurements integrated over a 15 minute period and will be used for comparison to the downwind perimeter monitoring (refer to Section 3.2). After the initial reading, periodic background readings will be collected every 60-minutes.

3.2 Downwind Perimeter Monitoring

Subsequent to collecting the initial Background Monitoring measurements, continuous monitoring of the downwind perimeter of the work area (i.e., exclusion zone) will be conducted throughout the duration of the building demolition activities that day. The downwind perimeter will vary depending on the work; however, in general this will be approximately 30 feet from the location of the work being completed. For example, in the event a Geoprobe boring is being completed, the downwind perimeter monitoring would be conducted approximately 30-ft. from the boring location.

Downwind Perimeter VOC Monitoring:

A PID capable of calculating 15 minute averages will be used to monitor for VOCs at the downwind perimeter location for comparison to action levels . The PID will be calibrated daily (in accordance with the manufacturer's specifications) at the beginning of each day. An audible alarm will be set on the PID to sound in the event that total organic vapors exceed 5 parts per million (ppm) above the background readings. For example, if the background reading is 2 ppm, then the alarm will be set for 7 ppm. VOC monitoring will only conducted during ground intrusive activities (i.e., not during building demolition), unless building demolition results in the disturbance or removal of any portion of the building, such as a slab, that is below ground surface.

Actions for Elevated VOC Readings

- 1. In the event that the action level of 5 ppm above background is exceeded, then work activities will be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities can resume with continued monitoring.
- 2. If total organic vapor levels at the downwind perimeter of the work area persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities must be halted, the source of vapors identified, corrective actions taken to abate emissions (refer to Section 4.0 for engineering controls), and monitoring continued. After these steps, work activities can resume provided that the total organic vapor level 200-feet downwind of the work area or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less but in no case less than 20 feet, is below 5 ppm over background (background based on the 15-minute average).
- 3. If the organic vapor level is above 25 ppm at the perimeter of the work area, activities must be shutdown and the Vapor Emission to Sensitive Receptors Response Plan initiated, refer to Section 4.0.

All of the 15-minute readings will be recorded and will be available to NYSDEC and NYSDOH for viewing upon request. Instantaneous readings, if any, that are used for decision purposes will also be recorded.

Downwind Perimeter Fugitive Dust Monitoring:

A DustTrakTM Model 8520 aerosol monitor or equivalent will be used for measuring particulates. The dust meter must be capable of measuring matter less than 10 micrometers in size (PM-10) and be equipped with an audible alarm. The dust meter will be calibrated daily (in accordance with the manufacturer's specifications) prior to collecting readings. The dust monitoring will be conducted continuously and the measurements integrated over a 15 minute period. The results will be compared to the background monitoring (refer to Section 3.1). An audible alarm will be set on the dust meter to sound in the event that particulate levels exceed 100 micrograms per cubic meter (μ g/m³) greater than background for the 15-minute period. For example, if the background reading is $100 \ \mu$ g/m³, then the alarm will be set for $200 \ \mu$ g/m³.

Actions for Elevated Particulate Readings

- 1. If the downwind PM-10 particulate level is 100 micrograms per cubic meter (mcg/m³) greater than background (upwind) for the 15-minute period or if airborne dust is observed leaving the work area, then Fugitive Dust Control Techniques must be employed (see below). Work may continue with dust suppression techniques provided that downwind PM-10 particulate levels do not exceed 150 μ g/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 $\mu g/m^3$ above the upwind level, work must be stopped and the Fugitive Dust Control Techniques identified below will be reevaluated. In this event the NYSDEC Project Manager will be notified. Work can resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within 150 $\mu g/m^3$ of the upwind level and in preventing visible dust migration.

All of the 15-minute readings will be recorded and will be available to NYSDEC and NYSDOH for viewing upon request.

Fugitive Dust Control Techniques

Dust suppression techniques will be utilized for the duration of building demolition and subsequent removal of building debris. One or more of the following dust control measures will be implemented in the event that the above action levels are exceeded:

- Apply water on exposed soils.
- Apply water continuously during building demolition to area being razed.
- Wetting equipment and test pit faces.
- Reducing test pit sizes.
- Immediately placing any investigation derived waste in drums and/or covering with plastic sheeting.

3.3 Nearest Potential Receptor Monitoring

As requested by the NYSDEC, the Nearest Potential Monitoring Location will be located at the north end of the Site adjacent to the Union Turnpike right of way. This monitoring location was selected to provide

a fixed monitoring station in close proximity to the publically accessible right-of-way. The site will be protected with a 6-foot chain link fence. It is not anticipated that non-project related personnel will enter the project site. This monitoring station will insure that fugitive emissions have not occurred beyond the project fence line. A PID capable of calculating 15 minute averages will be used to continuously monitor for VOCs and Fugitive Dust emissions between the nearest potential receptor and the work area. Specifically, the PID capable of calculating 15 minute averages will be located half the distance between the perimeter of the work area (exclusion zone) and the nearest potential receptor, hereinafter referred to as the "Nearest Potential Receptor Monitoring Location". It should be noted that this location is not dependent on wind direction. The PID capable of calculating 15 minute averageswill be calibrated daily (in accordance with the manufacturer's specifications) prior to collecting readings. The PID capable of calculating 15 minute averageswill be operated in continuous mode and evaluate 15-minute running averages to account for any drift. An audible alarm will be set on the PID capable of calculating 15 minute averagesto sound in the event that total organic vapors exceed 1 ppm above the background readings. For example, if the background reading is 2 ppm, then the alarm will be set for 3 ppm.

A DustTrakTM Model 8520 aerosol monitor or equivalent will be used for measuring particulates. The dust meter must be capable of measuring matter less than 10 micrometers in size (PM-10) and be equipped with an audible alarm. The dust meter will be calibrated daily (in accordance with the manufacturer's specifications) prior to collecting readings. The dust monitoring will be conducted continuously and the measurements integrated over a 15 minute period. The results will be compared to the background monitoring (refer to Section 3.1). An audible alarm will be set on the dust meter to sound in the event that particulate levels exceed 100 micrograms per cubic meter (μ g/m³) greater than background for the 15-minute period. For example, if the background reading is 100 μ g/m³, then the alarm will be set for 200 μ g/m³.

Actions for Elevated VOC Readings

- 1. In the event that the action level of 1 ppm above background is exceeded, then work activities will be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 1 ppm over background at the Nearest Potential Receptor Monitoring Location work activities can resume with continued monitoring (assuming the downwind perimeter location is also below it's action level, refer to Section 3.2).
- 2. If total organic vapor levels at the Nearest Potential Receptor Monitoring Location persist at levels in excess of 1 ppm over background but less than 3 ppm, work activities must be halted, the source of vapors identified, corrective actions taken to abate emissions (refer to Section 4.0 for engineering controls), and monitoring continued. After these steps, work activities can resume provided that the total organic vapor level at the Nearest Potential Receptor Monitoring Location is below 10 ppm over background (background based on the 15-minute average).
- 3. If the organic vapor level is above 3 ppm at the Nearest Potential Receptor Monitoring Location, activities must be shutdown and the Vapor Emission to Sensitive Receptors Response Plan initiated, refer to Section 4.0.

All of the 15-minute readings will be recorded and will be available to NYSDEC and NYSDOH for viewing upon request. Instantaneous readings, if any, that are used for

decision purposes will also be recorded.

Fugitive Dust Control Techniques

One or more of the following dust control measures will be implemented in the event that the above action levels are exceeded:

- Apply water on exposed soils.
- Apply water continuously during building demolition to area being razed.
- Wetting equipment and test pit faces.
- Reducing test pit sizes.

Immediately placing any investigation derived waste in drums and/or covering with plastic sheeting.

4.0 VAPOR EMISSION TO SENSITIVE RECEPTORS RESPONSE PLAN

Section 4.0 is only included this plan only as a contingency to the Site specific CAMP if a sensitive receptor population is identified during the course of the project and it is determined that the identified sensitive receptor population may be impacted by site related contaminants migrating off-site then Section 4.0 will be implemented.

Engineering controls to abate a VOC emissions source will immediately be put into effect if the action levels for VOC monitoring identified in Sections 3.2 and 3.3 are exceeded. These engineering controls may include:

- Vapor suppression utilizing foam vapor suppressants, polyethylene sheeting, or water.
- Covering emission sources with stockpiled materials.

If the measures taken to abate the emission source are ineffective and the total organic vapor readings continue to be above the specified action levels for more than 15 minutes (5 ppm at the downwind perimeter monitoring location or 1 ppm at the Nearest Potential Receptor Monitoring Location), then the following actions shall be placed into effect.

- Occupants of the residential and commercial buildings will be advised to stay inside their respective structure and to close all windows.
- All personnel listed in the Emergency Contacts section of the HASP for this project will be contacted.
- The Site Safety Supervisor will immediately contact the local authorities (fire department) and advise them of the circumstances.
- Continuous air monitoring will be conducted at the Downwind Perimeter Location, the Nearest Potential Receptor Monitoring Location and within the work zone and 1 minute average measurements will be recorded every 15 minutes. Air monitoring may be halted or modified by the Site Safety Supervisor when two successive measurements are below the specified action levels.

If readings remain elevated above the specified action levels for a period of 60 minutes (5 ppm at the downwind perimeter monitoring location or 1 ppm at the Nearest Potential Receptor Monitoring

Location) the Site Safety Officer will request that local authorities evacuate the occupants of the buildings.
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Appendix 5

Demolition Package



Demolition Specification Package BCP Site #C411017

Location:

Greenport Crossings 181 Union Turnpike (Route 66) Town of Greenport, New York

Prepared by:

LABELLA
LaBella Associates, P.C.
300 State Street
Rochester, New York 14614

in association with:



BL Companies 355 Research Parkway Meriden,CT 06450

LaBella Project No. 210408 February 2011

Demolition Specification Package

BCP Site #C411017

Location:

Greenport Crossings 181 Union Turnpike (Route 66) Town of Greenport, New York

Prepared by:

LABELIA

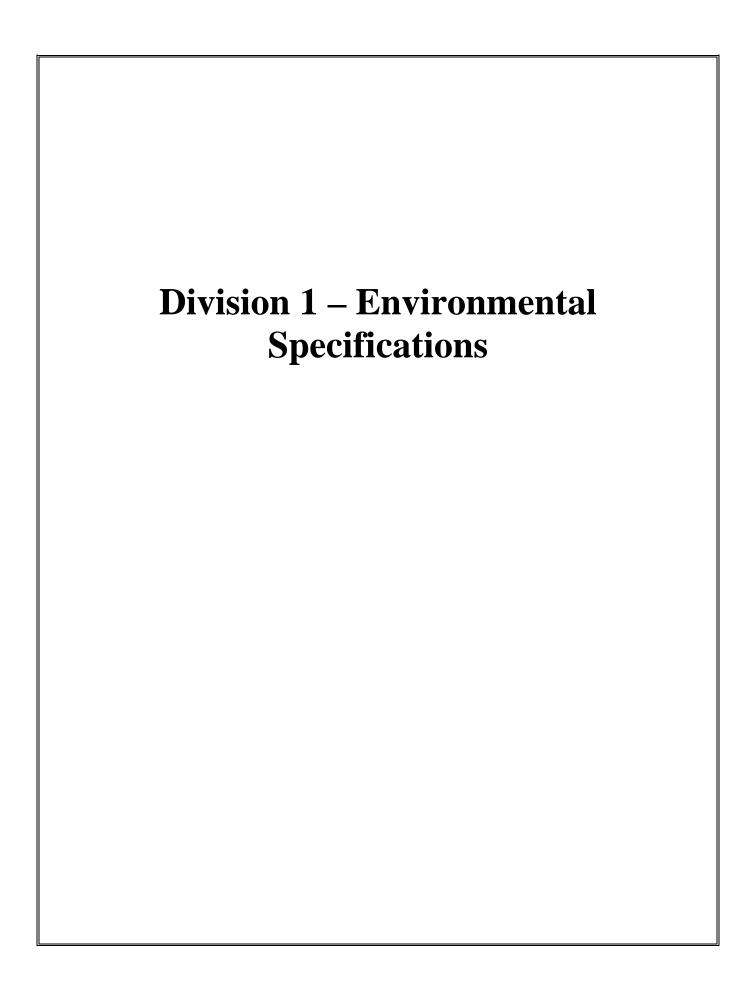
LaBella Associates, P.C. 300 State Street Rochester, New York 14614

in association with:



BL Companies 355 Research Parkway Meriden,CT 06450

LaBella Project No. 210408 February 2011



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SECTION 11111 DECONTAMINATION OF EQUIPMENT AND BUILDING MATERIALS

PART 1 - GENERAL

1.1 WORK COMPLETED UNDER THIS SECTION

- Decontamination of all building materials with visible staining, confirmed impacts or that contained chemicals.
- Containerizing of all waste materials generated.

1.2 REFERENCES

CANACODO DE ARCO

Α.	o NYCKK Part 300	Sond waste Management Facilities
B.	6 NYCRR Part 370	Hazardous Waste Management System – General

Calid Wasta Managament Englishes

C. 6 NYCRR Part 371 Identification and Listing of Hazardous Waste

D. 40 CFR Part 82 Protection of Stratospheric Ozone; Refrigerant Recycling; Substitute Refrigerants

E. 6 NYCRR Part 374-3 Standards for Universal Waste

F. Local Sewer Use Law

G. Local Water Districts Rules and Regulations

1.3 RELATED SPECIFICATIONS

• Containerization, Characterization and Disposal of Waste: Section 11114

1.4 DEFINITIONS

- A. *Owner* refers to Greenport Crossings, LLC.
- B. Contractor indicates the Prime Contractor awarded work covered under this contract.
- C. *Equipment* indicates any tanks, piping, valves, compressors, fume hoods, ductwork, etc. that is not a structural part of the building.
- D. *Building Materials* indicates any flooring, walls, ceiling, metal catwalks, etc. that are a structural part of the building.
- E. Regulated Solid Waste indicates materials such as plastics, metals (non-recyclable), and/or C&D not to be re-used on-site. [Note: This does not include any materials that have been characterized and are considered Asbestos Containing Materials, PCB Containing Materials, Hazardous Waste, Non-Hazardous Waste, etc.]

- F. *PCB Containing Materials* indicates materials which have been characterized and contain greater than 50 parts per million (ppm) of PCB or are assumed PCB containing materials based on the material type (e.g., PCB light ballasts).
- G. *Mercury Containing Materials* indicates materials which have been characterized fluorescent light tubes, of mercury or are assumed mercury containing materials based on the material type (e.g., mercury vapor light ballasts, mercury switches, etc.).
- H. Asbestos Containing Materials (ACM) indicates materials which have been characterized and contain 1% of asbestos or are assumed ACM based on the material type.
- I. Listed Hazardous Waste 6 NYCRR Part 597 indicates a material that has been deemed a hazardous waste based on the Waste Generator's knowledge or has undergone analytical testing and is shown to be a characteristic hazardous waste.
- J. *Non-Hazardous Waste* indicates a material that has undergone waste characterization testing and the characterization testing did not identify characteristics of hazardous waste.
- K. *Non-Hazardous Decon Method* indicates that the equipment or building material shall be cleaned by a detergent power wash followed by a rinse with potable water. The wash water shall include a non-hazardous detergent that is acceptable for discharge to the POTW System.
- L. TS&D Facility indicates any facility that treats, stores, or disposes of any wastes.
- M. Waste Characterization indicates certified laboratory analysis performed on any waste material for the purpose of acceptance at a TS&D Facility. Analytical parameters are determined on a case by case basis in conjunction with the TS&D Facility. All Waste Characterization Sampling is the responsibility of the Contractor.
- N. Waste Generator indicates Greenport Crossings, LLC for this project.
- O. Waste Manifest indicates the regulatory paperwork signed by the Waste Generator that accompanies each shipment of waste from the Site to the TS&D Facility. Waste Manifests are to be completed by the Contractor.
- P. Waste Profile indicates the regulatory paperwork signed by Waste Generator for the purpose of acceptance at a TS&D Facility. Completion of all Waste Profiles is the responsibility of the Contractor. Waste Profiles are to be completed by the Contractor.
- Q. Waste Storage Area indicates the designated location selected by the Contractor for storage of wastes that have been containerized but are awaiting characterization results or have been characterized and are awaiting transport and disposal.

1.5 CONTRACTOR QUALIFICATIONS

- A. All contractors performing work involving hazardous materials at the Site shall be pre-qualified by LaBella and the Owner prior to selection and contracting.
- B. The following items shall be required to be submitted for pre-qualification review:
 - Evidence of a minimum 5 years experience in work involving hazardous materials.

- Include evidence of experience and training of personnel to be performing decontamination activities and handling hazardous waste streams.
- DOT Hazardous Waste Transportation ID Number.
- Proof of all training required under OSHA and EPA standards for all workers involved, including but not limited to: OSHA 40-hr. HazWaste Operations Certification.

1.6 SUMBITTALS

- A. The Contractor shall prepare a Site-Specific Health and Safety Plan and submit it to, and approved by, the Owner prior to initiating any on-site work.
- B. The Contractor shall prepare a non-hazardous decontamination plan prior to conducting any decontamination. The plan shall include decontamination pad information, methods of decontamination, containerization of waters and methods for deeming decontamination is complete.
- C. The Contractor shall prepare as necessary individual hazardous waste decontamination plans prior to conducting decontamination of equipment that contained hazardous waste. The plan(s) shall include decontamination pad information, methods of decontamination, containerization of waters and/or wash fluids and methods for deeming decontamination is complete.

PART 2 - PRODUCTS

2.1 MATERIALS AND EQUIPMENT

- A. The Contractor shall provide all necessary personal protection equipment (PPE), material and equipment to properly decontaminate equipment and building materials which may have contained or been impacted by hazardous waste, non-hazardous waste, PCB containing waste, ACM, mercury containing waste, regulated solid waste, etc. to the satisfaction of the Owner and LaBella.
- B. The Contractor shall provide high-pressure sprayers, appropriate decontamination pad(s), non-hazardous detergents, and other appropriate cleaning utensils/materials.
- C. Potable water shall comply with all applicable New York State Department of Health (NYSDOH) regulations. Hydrant use requires the use of a meter and backflow preventer. The Contractor shall obtain hydrant use permits and pay all fees and deposits.
- D. The Contractor shall provide all necessary containers (e.g., NYSDOT approved 55-gallon drums, 85-gallon drum overpacks, etc.) to the satisfaction of the Owner and LaBella's Project Geologist.
- E. The Contractor shall provide all necessary 6-mil reinforced polyethylene sheeting that meets all requirements of ANSI Specification D2103 in order to complete the project.

PART 3 – EXECUTION

This part of the specifications identifies the required coordination for all parties (3.1), the anticipated requirements for decontamination equipment (3.2) the anticipated requirements for decontamination of stained building materials or building materials that were impacted with hazardous or non-hazardous

waste, and (3.3) the requirements for labeling of all decontamination waters and rinse waters.

3.1 COORDINATION WITH THE OWNER AND LABELLA

- A. The Owner or LaBella's Project Geologist will be on-site during demolition and the disturbance of the subsurface during the project.
- B. The Contractor shall obtain approval from the LaBella's Project Geologist prior to initiating decontamination activities for all equipment or building materials.
- C. The Contractor shall allow and provide access to the work at all times for the Owner and LaBella's Project Geologist to complete testing and observations.
- D. The Contractor shall follow the directions of the Owner and/or LaBella's Project Geologist regarding decontamination of all equipment and building materials.
- E. During the work, if conditions are encountered which require the presence of the Owner or LaBella's Project Geologist, the Contractor shall notify the Owner and immediately stop work until the Owner or LaBella's Project Geologist is present.
- F. The attached Building Equipment and Materials Decontamination Flow Chart provides the general coordination requirements to be adhered to by the Contractor.
- G. The Contractor is required to secure approval from either the Owner and/or LaBella's Project Geologist prior to the removal of any material from the site.
- H. The Contractor is required to secure approval from either the Owner and/or LaBella's Project Geologist prior to the removal of any material from the site.

3.2 DECONTAMINATION OF EQUIPMENT

This Section assumes that all waste has been removed from the equipment or piping to be decontaminated. The Contractor should refer to Section 11114 Containerization, Characterization and Disposal of Waste for the containing of waste prior to decontamination and for characterizing and disposing of decontamination liquids.

The Contractor is responsible for establishing a work area boundary that will accomplish the following objectives:

- Establish a decontamination zone to allow only authorized access to the contaminated area and the personnel decontamination area.
- Ensure that non-authorized people do not accidentally enter the contaminated area.
- Ensure the safety of people in the vicinity of the work area.
- Ensure contaminants are not spread outside the work area.
- A. The Contractor shall be responsible for segregating all equipment and labeling/tracking the equipment to note which waste was contained in the equipment. This information will be provided to LaBella's Project Geologist. The equipment will remain labeled and on site until waste characterization data is received and required decontamination methods are determined. The Contractor is responsible for all waste characterization sampling and disposal.

- B. All equipment that contained only staining or non-hazardous waste shall be decontaminated by the Contractor by the Non-Hazardous Decon Method (refer to definitions), unless otherwise instructed by the Owner or LaBella's Project Geologist. The Contractor shall be responsible for decontamination to the extent required by the off-site disposal or recycling facility. The Contractor shall containerize and appropriately label all containers generated by the Non-Hazardous Decon Method, refer to Section 3.4. It is intended that decontamination liquids generated by the Non-Hazardous Decon Method will be characterized as necessary and disposed of by the Contractor. The Contract shall secure approval from the Owner and LaBella's Project Geologist prior to the off-site disposal of any material/wastes.
- C. All equipment that contained hazardous waste shall require the Contractor to submit a waste specific decontamination plan for written approval by the Owner and LaBella's Project Geologist. Subsequent to approval, the Contractor shall proceed with the approved decontamination plan. The Contractor shall containerize and clearly label all containers generated by the decontamination of equipment that contained hazardous waste. Decontamination operations of different hazardous waste streams may require to be containerized separately. The Contractor should refer to Section 11114 on the characterization and disposal of waters generated from decontamination of equipment.
- D. The Contractor shall note that all equipment decontaminated (regardless of method) may require the Contractor to perform post-decontamination sampling prior to removal from the Site. In all instances, the Contractor shall request approval from LaBella's Project Geologist prior to equipment being deemed 'clean' and removed from the Site. The Contractor shall note that in the event such sampling is completed and identifies additional decontamination is required, it shall be the responsibility of the Contractor to complete additional decontamination activities and subsequent waste characterization sampling.
- E. The anticipated equipment that may require decontamination are provided below; however, items may be encountered that are not listed below:
 - 1) Floors, walls. Note decontamination may require power wash and rinse with various detergents or alternative cleaning compounds (actual method will depend on the characterization testing).
 - 2) Drain traps and plumbing fixtures. Note decontamination may require power wash and rinse with various detergents or alternative cleaning compounds (actual method will depend on the characterization testing).
 - 3) Tanks, compressors, pumps, and piping. Note decontamination may require power wash and rinse with various detergents or alternative cleaning compounds or potentially intact piping/processes may require triple wash and triple rinse (actual method will depend on the characterization testing).

3.3 DECONTAMINATION OF BUILDING MATERIALS

This Section assumes that all waste/debris has been removed from in and around the building materials (i.e., only staining remains). The Contractor should refer to Section 11114 Containerization, Characterization and Disposal of Waste for the containing of waste prior to decontamination. The intent of decontaminating the building materials will be to facilitate removal of building materials and building demolition in accordance with the specified reuse/recycling for that material.

- A. The Contractor shall be responsible for tracking all waste/debris that was removed/characterized from each area of the buildings. The waste characterization completed by the Contractor will determine the required decontamination methods to be used. Subsequent to removal of the debris/waste and equipment, LaBella's Project Geologist shall be notified that the area is ready for evaluation of building materials. The Contractor shall sample all building materials required for testing.
- B. The characterization of building materials and areas of staining shall determine the need for decontamination of building materials and the methods of decontamination.
- C. In general, areas of staining or that contained non-hazardous waste shall be decontaminated by the Contractor using the Non-Hazardous Decon Method (refer to definitions). In all cases, the Contractor shall request approval to decontaminate an area prior to proceeding with building decontamination activities. The Contractor shall containerize, appropriately label, characterize and Dispose of all wash and rinse waters generated by the Non-Hazardous Decon Method.
- D. All building materials that contained hazardous waste or were impacted by hazardous waste shall require the Contractor to submit a waste specific decontamination plan for written approval by the Owner and LaBella. Subsequent to approval, the Contractor shall proceed with the approved decontamination plan. The Contractor shall containerize and appropriately label all wash and rinse waters generated by the decontamination of building materials that contained hazardous waste. Decontamination operations of different waste streams may require to be containerized separately. The characterization and disposal of all waste generated during this process is the responsibility of the Contractor.
- E. The Contractor shall note that all building materials decontaminated (regardless of method) may require post-decontamination sampling. In all instances, the Contractor shall request approval from LaBella prior to the material being deemed 'clean'. The Contractor shall note that in the event such sampling is completed and identifies additional decontamination is required, it shall be the responsibility of the Contractor to complete additional decontamination activities.
- F. The anticipated building materials that may require decontamination are provided below; however, items may be encountered that are not listed below:
 - 1) Concrete floors and walls concrete floors and walls may have standing water that was impacted with contaminants or could be stained by oils or other materials. Note decontamination of these materials may require power wash and rinse with various detergents or alternative cleaning compounds to extract contaminants (such as triple wash/rinse with solvents) or potentially scarifying the concrete (including collecting dust and wash waters).
 - 2) Concrete sumps concrete sumps may have standing water that was impacted with contaminants or could be stained by oils or other materials. Note decontamination of these materials may require power wash and rinse with various detergents or alternative cleaning

- compounds to extract contaminants (such as triple wash/rinse with solvents) or potentially scarifying the concrete (including collecting dust and wash waters).
- 3) Metal lined sumps metal lined sumps may have standing water that was impacted with contaminants or could be stained by oils or other materials. Note decontamination of these materials may require power wash and rinse with various detergents or alternative cleaning compounds (actual method will depend on the characterization testing).
- 4) Metal catwalks and I-beams metal building materials could have oily residues or have been submerged in impacted water. Note decontamination of these materials may require power wash and rinse with various detergents or alternative cleaning compounds (actual method will depend on the characterization testing).

3.4 LABELING OF DECONTAMINATION WATERS AND RINSE WATERS

A. A label shall be affixed to each container (no labels shall be placed on a container lid) (e.g., drum, frac tank, etc.) generated during decontamination activities and affixed at the time it is generated. The label shall be legible and contain the following minimum information: date the waste was generated, the equipment or building materials that were decontaminated by the waters, the person(s) who containerized the material and either state "Water from Non-Hazardous Decon Operations" or "Water from Hazardous Waste Decon Operations". Disposal of all such wastes is the responsibility of the Contractor.

END OF SECTION 11111

SECTION 11112 DEMOLITION AND ENVIRONMENTAL MANAGEMENT OF IMPACTED MEDIA

PART 1 - GENERAL

1.1 WORK COMPLETED UNDER THIS SECTION

- Demolition of all structures.
- Removal of all floor slabs and foundations.
- Transportation and disposal of all waste.
- Segregation of waste streams.
- Management of Impacted Media

1.2 RELATED WORK SPECIFIED ELSEWHERE

- Earthwork and Backfill: Section 02250
- Soil Compaction: Section 02251
- Erosion and Stormwater Control: Section 02270
- Containerization, Characterization and Disposal of Waste: Section 11114
- Decontamination of Equipment and Building Materials: Section 11111

1.3 DEFINITIONS

- A. *Owner* refers to Greenport Crossings, LLC.
- B. Contractor indicates the Prime Contractor awarded work covered under this contract.
- C. *Demolition Materials* indicates any large foundations, wood, metal scrap, plastic, drainage piping, refuse, or other miscellaneous solid waste.
- D. *Hazardous* indicates materials which are hazardous by any characteristic including Corrosivity, Toxicity, and Ignitability, as defined in 40 CFR 262, and/or materials which contain polychlorinated biphenyls (PCBs) at concentrations greater than 50 parts per million (ppm) as defined in 40 CFR Part 761.
- E. Listed Hazardous Waste 6 NYCRR Part 597 indicates a material that has been deemed a hazardous waste based on the Waste Generator's knowledge or has undergone analytical testing and is shown to be a characteristic hazardous waste.
- F. *Non-Hazardous* indicates materials which are not hazardous by any characteristic as defined in 40 CFR 262.
- G. *Non-Hazardous Waste* indicates a material that has undergone waste characterization testing and the characterization testing did not identify characteristics of hazardous waste.
- H. *Impacted Groundwater* indicates groundwater impacted by contaminants including, but not limited to, petroleum products, chlorinated solvents, and/or elevated metals.

- I. Impacted Media includes Impacted Solid Waste, Impacted Soil, and Impacted Groundwater as defined.
- J. *Impacted Soil* indicates soil or fill materials impacted by contaminants including, but not limited to, petroleum products, PCBs, chlorinated solvents, elevated metals and/or any other regulated constituent of concern.
- K. *Impacted Solid Waste* indicates hazardous and non-hazardous waste, including but not limited to soil, sediments, sludge, liquids, and groundwater, impacted by contaminants including, but not limited to, petroleum products, PCBs, chlorinated solvents, elevated metals and/or any other regulated constituent of concern, in addition to demolition material (e.g., concrete, steel, plastic, etc.) which has been impacted by any of the above.
- L. *M/P Sub-Grade Structures* indicates mechanical/plumbing-related (M/P) sub-grade structures including, but not limited to, hydraulic lifts, floor/trench drains and associated piping, oil/water separators, pits, and waste-water disposal structures.
- M. *Orphan* refers to M/P sub-grade structures or Underground Storage Tanks (USTs) which are out of use and whose presence and/or location is uncertain and therefore are not shown on the plans.
- N. Regulated Solid Waste indicates materials such as plastics, metals (non-recyclable), and/or C&D not to be re-used on-site. [Note: This does not include any materials that have been characterized and are considered Asbestos Containing Materials, PCB Containing Materials, Hazardous Waste, Non-Hazardous Waste, etc.]
- O. TS&D Facility indicates any facility that treats, stores, or disposes of any wastes.
- P. Waste Characterization testing indicates certified laboratory analytical testing done on any waste material for the purpose of acceptance at a TS&D Facility. Analytical parameters are determined on a case by case basis in conjunction with the TS&D Facility. Waste Characterization testing is the responsibility of the Contractor.
- Q. Waste Generator indicates Greenport Crossings, LLC for this project
- R. Waste Manifest indicates the regulatory paperwork signed by the Waste Generator that accompanies each shipment of waste from the Site to the TS&D Facility. Waste Manifests are to be completed by the Contractor.
- S. *Waste Profile* indicates the regulatory paperwork completed by a waste generator for the purpose of acceptance at a *TS&D* Facility. Waste Profiles are to be completed by the Contractor.
- T. Waste Storage Area indicates the designated location selected by the Contractor and LaBella's Project Geologist for storage of wastes that have been containerized but are awaiting characterization results or have been characterized and are awaiting transport and disposal.

1.4 SUBMITTALS

- A. The Contractor shall develop a Site-Specific Health and Safety Plan.
- B. The Contractor shall submit certificates of completion of 40-hour HAZWOPER training for all employees to be engaged in sub-surface work at the Site.

- C. The Contractor shall submit to the Owner and LaBella for approval a list of proposed waste disposal and/or recycling facilities for disposal of all waste streams anticipated to be generated as part of the work. No waste will be allowed to be shipped to a facility not pre-approved by the Owner and LaBella.
- D. The Contractor shall provide completed waste profiles to the Owner and LaBella for review and approval prior to shipment of any materials.
- E. The Contractor shall provide a copy of the appropriate Industrial Wastewater Discharge Permit prior to discharge of any water to any sewers.
- F. The Contractor shall provide a copy of any required UST Removal permit issued by the City of Hudson and approved by the City of Hudson Fire Marshall. The Contractor shall also comply will all other regulatory requirements associated with the decommissioning and removal of underground storage tanks.
- G. The Contractor shall submit material data and technical specifications for all materials specified in Part 2 of this Section.

PART 2 - PRODUCTS

2.1 MATERIALS AND EQUIPMENT

- A. The Contractor shall provide all necessary material and equipment as to manage hazardous and non-hazardous waste, including but not limited to soil, sediments, sludge, liquids, groundwater, and demolition material (e.g., concrete, steel, plastic, etc.), to the satisfaction of LaBella's Project Geologist and the Owner.
- B. The Contractor shall provide high-pressure sprayers for decontamination activities.
- C. Water: Potable water shall comply with all applicable NYSDOH regulations. Hydrant use requires the use of a meter and backflow preventer. The Contractor shall obtain hydrant use permits and pay all fees and deposits.
- D. The Contractor shall provide all material and equipment necessary to implement the dust suppression system, to the satisfaction of LaBella's Project Geologist and Owner. The Contractor will provide a water truck with a minimum capacity of 4,000 gallons for dust suppression at no extra cost to the Owner and as required by LaBella's Project Geologist and Owner.
- E. The Contractor shall provide reinforced 6-mil polyethylene sheeting that meets all requirements of ANSI Specification D2103.
- F. The Contractor shall provide new DOT approved 55-gallon drums for liquids containerization. The drums should be of material compatible with their contents. Alternatively if the volume of the material generated is significant then frac tanks may be utilized for collection and storage.

PART 3 – EXECUTION

3.1 COORDINATION WITH THE ENVIRONMENTAL CONSULTANT

A. LaBella's Project Geologist will be on-site continuously during phases of the project when building slabs, foundations, utilities and/or M/P sub-grade structures that are located in areas of known or likely contamination are scheduled to be removed.

B. Notification to LaBella

- 1. LaBella shall be notified when the following types of work will take place:
 - Removal of floor slabs and foundations
 - Removal of M/P Sub-grade Structures or USTs
 - Removal/Termination of existing sub-grade Utilities
 - Any site grading activity
 - All other excavation work
- C. The Contractor shall notify LaBella at least 2 working days prior to conducting work requiring the presence of LaBella's Project Geologist on site as defined above.
- D. The Contractor shall allow and provide access to the work at all times for LaBella's Project Geologist to complete testing and observations.
- E. The Contractor shall follow the directions of LaBella's Project Geologist regarding classification, reuse, recycling, salvage, or stockpile for off-site disposal of impacted or potentially impacted sub-surface materials. No sub-grade structures, pavements, slabs, demolition materials or other materials in contact with on-site soils shall be removed from the site without the written approval of the Owner or LaBella.
- F. During the work, if conditions are encountered which require the presence of LaBella's Project Geologist; the Contractor shall notify LaBella and immediately stop work requiring LaBella's Project Geologist's presence until LaBella's Project Geologist is on-site. The Owner is not responsible for costs resulting from any subsequent delays if 2 working days notification was not given.

3.2 DEMOLITION PROCEDURES

- A. The cumulative test results from the soil samples taken as part of previous subsurface investigations are considered insufficient for this project. Additional sampling and testing is anticipated to fully characterize on-site conditions. Interim Remedial Measures (IRM) are anticipated to be completed during or immediately after building demolition. However, it is anticipated that (a) not all impacted media will be removed during the IRM phase, and (b) unknown areas of impacted media may be encountered. Procedures to address these situations are included in this specification.
- B. Demolition material including any wood, metal scrap, drainage piping, or other miscellaneous solid waste shall be separately stockpiled for off-site disposal. Disposal by the Contractor shall be as follows:
 - 1. Demolition material excluding non-impacted concrete and brick targeted for on-site recycling and recyclable materials shall be transported to a NYSDEC Part 360 permitted Landfill for disposal. All off-site Disposal Sites require prior approval from the Owner and/or LaBella before any material is allowed to leave the site.

- 2. Concrete and brick shall be recycled on site in accordance with the applicable Specifications.
- 3. Impacted demolition material that can be cleaned as described in 3.2 C below, to the satisfaction of LaBella's Project Geologist shall be taken to the appropriate disposal facility based on characterization sampling or recycled following cleaning, as deemed appropriate by LaBella.
- 4. Any non-contaminated metal scrap shall be taken to a recycling facility.
- 5. Any material removed from the site shall be handled, packaged, transported and disposed of in accordance with all applicable regulations. The Contractor is responsible for completing all waste characterization, securing all Permits and complying with all NYSDOT requirements. No material shall be disposed of at a non-permitted facility.
- 6. The Contractor is required to provide all waste disposal documentation (e.g. manifests, waste profiles, waste characterizations laboratory reports, etc.) to the Owner and LaBella within two business days.
- C. The Contractor shall stage the following materials and conduct all required waste characterization sampling:
 - 1. Any demolition materials which are physically unacceptable for re-use, or which exhibit evidence of impairment, and cannot be cleaned.
 - 2. The Contractor shall not transport or dispose off-site any environmentally impacted media, solid waste, or demolition material.
- D. Cleaning of Impacted Demolition Material shall be by physical methods such as scraping, shaking, brushing, etc. Should the Contractor utilize methods which generate liquid waste streams, the Contractor is responsible for proper containerization and disposal of said wastestream. The Contractor shall collect the appropriate waste characterization sampling and analysis.
- E. The Contractor shall not transport or dispose of any soil or sub grade fill materials from the site without express written permission from the Owner and LaBella.
- F. The Soils Management Plan (SMP) (refer to Section 3.3) will aid in minimizing the health, safety, and environmental issues associated with the excavation and relocations of these materials.
- G. Particulate and ambient air monitoring and the availability of dust suppression measures are required by the NYSDEC during construction activities that disturb the Existing Building, Impacted Solid Waste, Impacted Soil, or Impacted Groundwater. LaBella's Project Geologist shall perform the particulate and ambient air monitoring during demolition related construction activities and activities that disturb the subsurface. LaBella's Project Geologist will provide air monitoring data to the Contractor at the Contractor's request, and whenever predetermined levels are exceeded. It is anticipated that the majority of the excavation work can be performed in Level D personal protective equipment. The Contractor shall provide 40-Hour OSHA-trained workers for those activities which have the potential to encounter hazardous substances or hazardous waste, including all sub-surface activities. The Contractor is responsible for all dust suppression activity to comply with the action levels outlined in the Community Air Monitoring Plan (CAMP).

3.3 SOIL MANAGEMENT

- A. The Site is currently enrolled in the NYSDEC Brownfield Cleanup Program (BCP). This enrollment requires that all work conducted on-site comply with specific best management practices to ensure that any disturbance of the on-site constituents of concern are done in compliance with all Rules and Regulations.
- B. The Contractor shall implement the following Soil Management Practices. Classification of Solid Waste and Impacted Media
 - 1. Areas of Impacted Media may be present throughout the Project Area. It should be noted there is a potential for unknown areas of Impacted Media in the project area that may be encountered during demolition.
 - 2. LaBella's Project Geologist shall classify areas of impacted media as they are exposed by the Contractor's demolition/excavation activities. Impacted media shall be screened by LaBella's Project Geologist in the excavator bucket or as practicable, as it is encountered by the Contractor. LaBella's Project Geologist will classify the materials into the categories described in the following table:

Material Classification	Material Description	Disposal / Re-use	On-Site Cover Requirements
Class 1	 Solid Waste Impacted Media including but not limited to slag, ash, and cinders, etc. Soil, groundwater, or Solid Waste Impacted Media containing petroleum hydrocarbon related compounds that are less than the Part 375 RUSCOs, NYSDEC TOGS 1.1.1. 	 Can be re-used at Site If cannot be re-used at the Site, must be legally disposed of at a NYS Part 360 landfill 	 Must be covered with 12-inches of non-impacted soil or fill, or with asphalt, concrete paving or slabs. Cannot be placed within two feet of the overburden groundwater table.

On-Site Re-Use and Disposal Requirements (continued)

Material Classification	Material Description	Disposal / Re-use	On-Site Cover Requirements
Class 2	Soil, groundwater, or Solid Waste Impacted Media containing petroleum hydrocarbon related compounds that are above the Part 375 RUSCOs, NYSDEC TOGS 1.1.1.	Shall be legally disposed of at a permitted NYS Part 360 landfill.	Cannot be re-used on-site. Must be staged on and covered with 6-mil polyethylene sheeting pending disposal at a NYS Part 360 landfill.
Class 3	Solid waste physically unacceptable for re-use or recycling (e.g. lumber, refuse, metal scrap, large foundations, large pieces of concrete or brick unacceptable for reuse onsite, drainage piping, municipal waste). This includes all wood blocking utilized in conjunction with the interior floor matrix of the existing structure.	May contain evidence of Impairment.	 Off-site disposal at NYS part 360 permitted landfill. Requires Owner approval. Visibly non contaminated solid waste such as steel, concrete and brick may be transported to a recycling facility.
Class 4	Layers of native non- impacted soil and earth that do not contain evidence of impairment.	 Unrestricted reuse on-site May be removed off-site with sampling and testing 	 Sampling and analysis for each 1,000 cubic yard pile. Off-site disposal requires Owner approval. Disposal location to be approved in writing by Greenport Crossing and LaBella.

Notes:

NOTE: Based on the constituents of concern, in addition to the field screening methods described above the Contractor may be required to collect representative samples for laboratory analysis to confirm the actual level of contaminants within the target matrix. LaBella's Project Geologist may direct the contractor to manage the material in accordance with a higher Material Class until waste characterization data is received.

Notes:

1. Soils that are encountered at the site that demonstrate evidence of impairment will be screened with a PID. Soils that exhibit a PID reading of less than 10 ppm must be sampled and tested before being considered for re-use.

- 2. The Contractor shall not transport or dispose off-site any environmentally impacted media, solid waste, or demolition material without complete characterization and approval as required under this contract.
 - 3. Impacted Soil, Sediments, Liquids, and Impacted Groundwater may be recognized by petroleum or chemical odors, visual gray to black staining of soil, sheen on surface water, and measurements of VOCs on a total Photo-Ionization Detector (PID) meter, PPB Rae or by other screening methods. The volatilization of contaminants or the presence of elevated concentrations of metals present in Impacted Media may represent a worker health and safety concern for construction workers at the Site. The Community Air Monitoring Plan described in Section 3.5, details methods and procedures that LaBella's Project Geologist will use to monitor for these concerns.
 - 4. If questions arise during identification of Impacted Media, LaBella's Project Geologist shall make the final determination for the classification on how the spoils generated during the construction activities at the project location will be managed.
 - 5. The Contractor shall follow the procedures outlined in the following sections, the Site specific CAMP, and the Contractor's Site-Specific Health and Safety Plan during all ground intrusive activities at the Site.
- C. On-Site Management of Impacted Soil and Groundwater
 - <u>Note</u>: It is not the intent of this contract to require that the demolition contractor be required to conduct soil remediation as part of the scope of work for this project. However, it is possible that during the course of the demolition of the on-site structures the contractor may encounter Impacted Soil or other media. As a general course of action, these materials when encountered need to be managed in accordance with the Specifications and not re-utilized on-site. Section 3.3 C describes the contractor's responsibility under this contract.
 - 1. Impacted Soil shall be screened by LaBella's Project Geologist to determine its Material Classification according to the table in 3.2-B-2 above. Impacted Soil shall be screened by LaBella's Project Geologist in the excavator bucket or as practicable, as it is encountered by the Contractor. Impacted Soil that is classified as contaminated and requiring off-site disposal shall be stockpiled and staged on and covered with one layer of reinforced 6-mil thick polyethylene sheeting at the end of each work day. Staging area details are provided at the end of this Section. The Contractor shall secure the sheeting and maintain such stockpiles' integrity to the satisfaction of LaBella's Project Geologist. Stockpiling locations shall be approved by LaBella's Project Geologist in accordance with the Specification.
 - 2. Demolition items that are in contact with and contaminated by Impacted Soil when removed/excavated during the work shall be decontaminated by the Contractor in accordance with DER-10, and the Impacted Soil shall be managed in accordance with Section 3.3 C above at the discretion of LaBella's Project Geologist. If Impacted Soil is encountered in small quantities (i.e. within a single test pit) and excavated at the direction of LaBella's Project Geologist, it shall be staged on and covered with one layer of reinforced 6-mil thick polyethylene sheeting. The contractor will be responsible for disposal of any impacted soil and groundwater generated as part of this project. The Contractor will not be required to excavate quantities greater than 15 in-place cubic

- yards. Impacted Soil attached to building foundations or underground piping shall be removed and managed in accordance with Section 3.3 C.
- 3. LaBella's Project Geologist shall be the sole judge of whether demolition materials are impacted, and whether they have been adequately decontaminated. The decision of LaBella's Project Geologist shall be binding on the Contractor. The Contractor is not required to perform soil excavation to remove the source of contamination, except as described above.
- 4. Impacted demolition materials which cannot be decontaminated shall be stockpiled separately from demolition materials considered free of impacted media in areas approved by LaBella's Project Geologist. Impacted Demolition materials shall be staged on and covered with one layer of reinforced 6-mil thick polyethylene sheeting when stockpiles are not actively being worked and at the end of each work day. The Contractor shall secure sheeting and maintain such stockpiles' integrity to the satisfaction of LaBella's Project Geologist and the NYSDEC. LaBella's Project Geologist shall determine demolition materials unable to be segregated from Impacted Soil.
- 5. Non-Impacted Soil that does not contain constituents of concern that is excavated during the work shall not be removed from the site. This material shall be evaluated by LaBella's Project Geologist, and if acceptable, used as approved on-site backfill in accordance with the specifications.
- 6. At the end of each day the Contractor shall cover stockpiled materials with reinforced 6-mil polyethylene sheeting to minimize transport of particulates by wind or rain. The Contractor shall ensure that cover remains in place.
- 7. Impacted Soil shall not be reutilized as backfill.
- 8. If it is determined that Groundwater at the project location is required to be pumped to advance demolition activities, the Contractor shall pump the Groundwater into a holding tank and staged on-site pending discharge under a site-specific Discharge Permit or transported off-site for disposal. The Contractor shall perform all characterization testing. If the water is determined by characterization testing to be suitable for discharge to the sewer, the Contractor shall be responsible for obtaining all applicable permits, including an Industrial Wastewater Discharge permit as required by the Municipality.
- 9. The Contractor shall not discharge or remove any impacted wastewater from the Site without obtaining express written permission from the Owner and LaBella.
- D. Orphan Underground Tanks and M/P Sub-Grade Structures
 - 1. During demolition activities there is a potential to encounter orphan Underground Storage Tanks (USTs), or M/P sub-grade structures that contain impacted media. If encountered, these items shall require specific management and disposal requirements outlined in this Section.
 - 2. If orphan UST(s) or M/P sub-grade structures are encountered by the Contractor, work shall stop immediately in the vicinity of the UST or structure and LaBella must be immediately notified. LaBella's Project Geologist will assess the condition of the UST(s)

- or structure, where practicable. LaBella's Project Geologist shall determine when it is practicable to resume demolition work in the vicinity of the UST(s) or structure.
- 3. The Contractor shall immediately notify LaBella, the Owner, and the NYSDEC upon any known environmental release from and/or encountered but not limited to an UST, or M/P sub-grade structure. The Contractor, LaBella, the Owner, and/or anyone with knowledge of a spill or release must notify the NYSDEC as required by 6NYCRR Part 613.8, 6NYCRR Part 595.2, 6NYCRR 597.2 or any other local, state, or federal agency laws and regulations.
- 4. If a UST or M/P sub-grade structure is damaged during discovery such that the contents of the structure are released, the Contractor shall provide the appropriately trained personnel and equipment to address the release. Possible action items include; sludges, non-aqueous liquids, or contaminated water shall be removed from the subsurface structure and the sludges or liquids shall be containerized and characterized by the Contractor, and staged on-site pending off-site disposal by others under separate contract.
- 5. Demolition items such as USTs or M/P sub-grade structures may contain sludges, non-aqueous liquids, or contaminated water. To the extent feasible the Contractor shall avoid damaging such structures upon discovery. Based on the special nature of the work associated with the decommissioning and removal of USTs or M/P sub-grade structures that contain regulated or hazardous wastes the removal of such structures will be completed by others (outside of the demolition contract). The subsurface structures will be decontaminated in accordance with NYSDEC DER-10, and the sludges or liquids containerized, characterized, and staged on-site pending off-site disposal by others under separate contract. Coordination between the Contractor and Specialty Environmental Contractor will be completed by LaBella. The removal of any USTs or M/P sub-grade structures will be completed as soon as possible based on each discrete situation. LaBella will work closely with the Contractor to minimize the impact to the Contractor's demolition schedule.
- 6. Demolition of non-suspect M/P structures (i.e. storm distribution boxes, etc.) will be the responsibility of the Contractor. During removal/decommissioning of the M/P sub-grade structures LaBella's Project Geologist shall evaluate the soils adjacent to each structure. If it is determined that negative impacts to site soils have occurred, then the Contractor shall conduct a preliminary test pitting assessment of any area of environmental concern as directed by LaBella's Project Geologist in order to provide an area from which subsurface soil, solid waste, and fill materials can be readily observed and sampled by LaBella's Project Geologist. In addition, test pitting will provide a practical method to determine if subsurface structures may interfere with planned corrective action and site redevelopment activities.

Following excavation, test pits must be backfilled to match the surrounding grade and in accordance with all backfill and compaction requirements.

- 7. All sub-grade structures shall be inspected by LaBella's Project Geologist to determine suitability for reuse, recycling, or disposal in accordance with the Specifications.
- 8. LaBella's Project Geologist shall visually assess the subsurface structures, associated soil, and any solid waste from the test pits, and will monitor the air from the soil in the test pit excavations for volatile organic compounds using a PID. The information

- gathered from the visual assessment and instrument readings will be used to determine locations to collect soil samples for characterization.
- 9. The Contractor shall be responsible for all testing and characterization of Impacted Media and demolition materials described in this Section.
- 10. After the M/P Structure is removed the Contractor shall backfill the excavation with material approved by LaBella and the Owner.
- 11. The Contractor shall be responsible handling costs associated with all tank permits that may need to be obtained from the local municipality, NYSDEC, etc.
- E. Construction of Temporary Vehicle and Equipment Decontamination Pad:
 - 1. The Contractor shall construct a temporary decontamination pad that will be used to decontaminate the earthwork related equipment in a location determined in the field and agreed upon by the Contractor and LaBella's Project Geologist.
 - 2. The decontamination pad shall be constructed of two layers of 6-mil reinforced polyethylene sheeting, with a sump, for the purposes of collecting wash water. Wash water will be stored in 55-gallon drums or storage tanks. Accumulated sediments shall be legally disposed of in accordance with all applicable regulations at a location approved by LaBella and the Owner.
 - 3. The Contractor shall be responsible for all costs relating to legally disposing of the decontamination pad materials, wastewater and sediments at a facility approved by LaBella and the Owner. All permits and waste disposal manifests shall be submitted to the Owner and LaBella for review and signature prior to shipment. All permits, waste disposal manifest, and receipts associated with decontamination pad materials disposal shall be submitted to the Owner and LaBella.
 - 4. The Contractor shall provide potable water and high-pressure sprayers for decontamination activities.

F. Services Provided by the Environmental Consultant

Greenport Crossings, LLC has retained LaBella to perform the following work:

- 1. Classify impacted media as they are exposed by the Contractor's demolition/excavation activities.
- 2. Monitor Impacted Fill and soils during excavation and determine clean soil media from impacted media.
- 3. Conduct particulate monitoring of ambient air quality at the perimeter of the project location during work hours, and provide guidance to the Contractor regarding the need for implementation of dust suppression measures.
- 4. Conduct VOC monitoring of ambient air at the work area and the perimeter of the project location, and provide guidance to the Contractor regarding the need for implementation of VOC suppression measures during ground intrusive activities.

- 5. Provide assistance to the QEP regarding waste sampling and characterization as reqested by the QEP.
- 6. Review waste profiles and shipping papers.
- 7. Communicate with and obtain written approvals from the Owner and LaBella.
- 8. Create and distribute a list of Emergency Contacts to be notified under the provisions of the CAMP detailed in section 3.4.

G. Services Provided by the Contractor

The Contractor shall provide all labor, equipment, and materials necessary to perform the following work items as specified in this Section, including:

- 1. Coordination of utilities clearance.
- 2. Segregation of impacted media from demolition materials.
- 3. Dewatering of excavation, containerization of all removed wastewaters and discharge/disposal of said waters.
- 4. Implementation of dust and VOC suppression measures as determined by LaBella's Project Geologist or the Owner.
- 5. Loading, containerizing, and transportation of impacted media from the excavation area to an on-site staging area.
- 6. Conducting all waste sampling, characterization, and preparation of all waste profiles and manifests.
- 7. The Contractor shall not remove any material from the project site without approval from LaBella's Project Geologist and the Owner.
- 8. The Contractor shall be responsible for providing all necessary and legally required training for its workers, including but not limited to OSHA 40-hour HAZWOPER training and respirator fit testing.

H. Disposal and Permit Records

- 1. The Owner shall approve proposed TS&D facilities and Waste Transporters prior to use.
- 2. Removal or disposal of any site materials or items shall be approved in advance by the Owner and LaBella, including submission of completed Waste Profiles and Waste Manifests for signature by the Owner of the Owner's approved representative.
- 3. Copies of all waste disposal manifests, and receipts shall be submitted to the Owner and LaBella by the Contractor within 24-hours upon removal from the project location.

4. All permits obtained by the Contractor associated with the work shall be immediately submitted to the Owner and LaBella.

I. Specific Work Tasks, Information and Requirements

- 1. The Contractor shall attend a meeting with the Owner, LaBella, and the NYSDEC to discuss Impacted Media management concerns. The Contractor shall coordinate the meeting.
- 2. The Contractor shall coordinate the planned staging of Impacted Media with LaBella's Project Geologist. Specific areas shall be designated for the staging of each type of impacted media so as to allow for a smooth work flow and minimize exposure routes to the public and the environment.
- 3. During the demolition activities that involve subsurface intrusive work, the Contractor shall notify LaBella. LaBella's Project Geologist shall visually characterize and assess the impacted media. The Contractor shall rely on the judgment of the LaBella's Project Geologist and manage the impacted media accordingly.
- 4. Impacted media or demolition materials which cannot be decontaminated according to NYSDEC DER-10 shall not be removed from the project location.
- 5. LaBella's Project Geologist shall conduct environmental testing during the project to assess potential hazards and impacts both within and at the perimeter of the work area. These hazards and impacts include respiratory hazards during excavation, soil classification, and generation and off-site transmission of fugitive particulate and VOC emissions. Based on the guidelines established in the Soil Management Plan, LaBella's Project Geologist shall have the authority to stop work if measured levels exceed guidelines outlined in the Community Air Monitoring Plan.
- 6. The Contractor is solely responsible for the means, methods, techniques, sequences and procedures for all activities under the direct control of Contractor.
- 7. The Contractor shall perform all work under this contract in accordance with all local, state and federal laws, regulations, and requirements including but not limited to New York State Department of Environmental Conservation, United States Environmental Protection Agency, United States Department of Transportation, and Occupational Safety and Health Administration.
- 8. The NYSDEC, Owner, or LaBella's Project Geologist shall have the right to stop or shut down contract activities based on the Contractor's failure to perform or respond in accordance with the Demolition Work Plan. The Contractor is responsible for any costs incurred for any work stoppage or shut down.

3.4 COMMUNITY AIR MONITORING PLAN

- A. This Community Air Monitoring Plan (CAMP) addresses potential particulate and VOC air quality issues that may arise during demolition activities outlined in the Contract Documents.
- B. LaBella's Project Geologist shall be responsible to implement the sampling and recording requirements outlined in the CAMP.

- C. The construction tasks included under this CAMP include any ground intrusive activities that have the potential to disturb impacted media including but not limited to site preparation, utility excavations, removal of subsurface structures, removal of foundations and floor slabs, solid waste transport and site grading. Particulate and VOC air monitoring will not be required during activities that do not contact the impacted media or disturb the sub surface at the project location. This CAMP details real-time monitoring activities to be carried out during the construction activities, to minimize the potential for neighborhood exposure to airborne hazards resulting from particulate (dust) or VOC emissions during the intrusive construction work.
- D. This CAMP addresses the methods that will be implemented to monitor particulate levels at the perimeter of and within the work area. In the event elevated particulate levels or VOCs are encountered, this CAMP identifies the steps that shall be taken by the Contractor to rectify the elevated levels.
- E. LaBella's Project Geologist will make the final determination regarding implementation of the Minor and Major Vapor Emission Plans detailed below. The decision of LaBella's Project Geologist shall be binding on the Contractor.

F. Methodology

1. The construction activities at the Site will consist of primarily earthwork as it relates to demolition, site preparation, utility excavations, solid waste transport and site grading. The following programs will be implemented to monitor and, if necessary, control the potential migration of fugitive dust from the site.

G. Perimeter Monitoring

- 1. Each day of fieldwork during activities that have the potential to disturb impacted media, a wind sock or flag provided by the Contractor will be used to monitor wind direction in the work areas (excavation, soil staging, and soil grading areas). Based upon daily wind conditions LaBella's Project Geologist shall identify three temporary monitoring points, at the perimeter of the Site or work area, one up and two downwind of the work areas.
- 2. Real time particulate monitoring shall be performed by LaBella's Project Geologist utilizing DustTrakTM Model 8520 aerosol monitors or equivalent. Particulate concentrations will be monitored continuously at the upwind and downwind perimeters of the exclusion zone at temporary particulate monitoring stations. The equipment will be equipped with an audible alarm to indicate exceedance of the action level. In addition, fugitive dust migration will be visually assessed during all work activities. Particulate monitoring may be temporarily suspended only during periods of heavy rain.
- 3. VOC monitoring will be performed with a Photoionization Detector (PID) equipped with a 10.6 eV lamp or equivalent. VOC concentrations will be monitored continuously at the upwind and downwind perimeter monitoring stations during all ground intrusive activities.
- 4. A photo-ionization Detector (PID) capable of data logging will be used to screen the ambient air or VOCs in the background location (i.e., upwind). The PID will be calibrated daily (in accordance with the manufacturer's specifications) prior to collecting the background readings. The background readings will be collected by a 15-minute running average which will be used for comparison to the downwind perimeter

- monitoring and the nearest potential receptor monitoring. After the initial reading, periodic background readings will be collected every 60-minutes
- 5. Throughout the day, measurements will be recorded at intervals specified above. The recorded 5 minute averages will be used to determine the difference in value between upwind and downwind particulate and VOC concentrations. Work shall be temporarily halted and engineering controls, detailed in this document shall be implemented if the difference between the upwind and downwind particulate ambient air measurements exceed $100 \, \mu g/m^3$, or downwind VOC ambient air readings exceed upwind readings by 5 parts per million (ppm). If work is required to be temporarily halted, the Contractor shall implement dust suppression methods or other means to control fugitive dust and VOCs emissions.

H. Dust Suppression

- 1. If the monitoring at the Site Perimeter, as described in this document, indicates an upwind/downwind difference in fugitive particulate emissions greater than 100 μg/m³, the Contractor shall implement dust control measures as directed by the Environmental Consultant that may include the following methods:
 - Apply water on haul roads.
 - Wetting equipment and excavation faces.
 - Restricting vehicle speeds to 10 mph.
 - Hauling material in properly tarped containers.
 - Spraying water in buckets during excavation and dumping.
 - Reducing excavation size and/or number of excavations.
- 2. The Contractor shall have an onsite designated water truck with a minimum capacity of 4,000 gallons. The Contractor shall obtain any necessary permits for hydrant usage, etc.
- 3. If, after implementation of dust suppression techniques, downwind particulate levels are greater than 150 $\mu g/m3$ above the upwind level, work must be stopped and a reevaluation of activities initiated. Work can resume provided that dust suppression measures and other controls are successful in reducing the downwind particulate concentration to within 150 $\mu g/m3$ of the upwind level and in preventing visible dust migration.

I. Minor Vapor Emission Plan

- 1. If any single Work Area Perimeter ambient air reading of total VOC exceeds 5 ppm above background, as a 5 minute average, work activities must be temporarily halted and monitoring continued. If the total VOC level readily decreases (per instantaneous readings) below 5 ppm over background, work activities can resume with continued monitoring.
- 2. Work activities may continue if total organic vapors in the ambient air are between 5 ppm and 25 ppm over background within the Work Area, provided that the organic vapor levels measured at the Work Area Perimeter remain below 5 ppm over background. If sustained PID readings of between 1.0 ppm and 25 ppm are recorded in the breathing zone within the work area then either personnel are to leave the work area until satisfactory readings are obtained or approved personnel may re-enter the work areas wearing a ½ face respirator with organic vapor cartridges for an 8-hour duration.

Alternatively, if it is determined that a specific compound is the cause for the elevated readings (e.g. benzene) then a benzene specific colorometric tube may be utilized to determine the level of benzene within the breathing zone. If it is determined, via the colorometric tube, that benzene in the breathing zone is less than 1.0 ppm by volume then work may continue in Level D. If it is determined that the benzene level in the breathing zone is greater than 1.0 ppm by volume then approved personnel may re-enter the work areas wearing a ½ face respirator with organic vapor cartridges for an 8-hour duration.

- 3. All work activities shall be halted if VOC measurements in the ambient air remain above 5 ppm at the Work Area Perimeter and the Major Vapor Emission Response Plan detailed in Section J below will be implemented immediately if organic vapor levels in the ambient air exceed 5 ppm, as a 5 minute average, over background at the Site Perimeter.
- 4. If VOC concentrations are encountered within the Work Area at concentrations above 25 ppm, but remain below 5 ppm at the Work Area Perimeter, approved personnel may reenter the work areas wearing a ½ face respirator with organic vapor cartridges for an 8-hour duration when VOC concentrations average between 25-50 ppm. Organic vapor cartridges are to be changed after each 8-hours of use, breakthrough, or at the start of each shift. If PID readings are sustained, in the work area, at levels above 50 ppm for a 5 minute average, work shall be stopped immediately until safe levels of VOCs are encountered.
- 5. Nuisance odors at perimeter of site will require mitigation regardless of PID readings.

J. Major Vapor Emission Plan

- 1. Engineering controls to abate the VOC emissions source shall immediately be put into effect by the Contractor if total organic vapor levels in the ambient air exceed 5 ppm above background at the Site Perimeter or at the Work Area Perimeter. The implementation of these engineering controls shall be directed by the Environmental Consultant and may include:
 - Vapor suppression utilizing foam vapor suppressants, polyethylene sheeting, or water.
 - Backfilling of excavations.
 - Covering emission sources with stockpiled materials.
- 2. Following the implementation of the engineering controls detailed in 1. above, work activities may resume with continued monitoring provided that the total organic vapor levels 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less, but in no case less than 20 feet, is below 5 ppm over background.
- 3. If the organic vapor level is above 25 ppm at the perimeter of the work area, activities must be shut down.
- 4. If the measures taken to abate the emission source are ineffective and the total organic vapor readings continue at 5 ppm or above background for more than 15 minutes 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less, but in no case less than 20 feet, then the following actions shall be placed into effect by the Environmental Consultant:

- Occupants of neighboring residential and commercial buildings shall be advised to stay inside their respective structure and to close all windows.
- All personnel listed in the Emergency Contacts section of the HASP for this project will be contacted.
- The Site Safety Supervisor shall immediately contact the local authorities and advise them of the circumstances.
- Continuous air monitoring shall be conducted at the Site Perimeter and 1 minute average measurements will be recorded every 15 minutes. Air monitoring may be halted or modified by the Environmental Consultant when two successive measurements are below 5 ppm.
- 5. If readings remain elevated above 5 ppm over background 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less, but in no case less than 20 feet, for a period of 30 minutes the Environmental Consultant shall request that local authorities evacuate the occupants of any affected neighboring buildings.
- 6. Payment for implementation of the Contractor actions required by the Major Vapor Emissions Plan shall be on a unit price basis agreed upon by the Owner and the Contractor.
- 7. Nuisance odors at perimeter of site will require mitigation regardless of PID readings.

K. Record Keeping and Quality Control

- 1. Each day, prior to the commencement of the intrusive earthwork work the particulate and organic vapor monitoring equipment will be calibrated and recorded on a daily log sheet per instrument manufacturer's specifications by the Environmental Consultant. The PID will be calibrated with isobutylene gas at a concentration of 100 ppm.
- 2. Perimeter and Work Area air monitoring readings and/or datalogs will be recorded on a daily log sheet including the location, date and time, and instrument reading. All 15-minute readings will be recorded and be available for State (DEC and DOH) personnel to review. Instantaneous readings, if any, used for decision purposes will also be recorded.
- 3. If there are particulate and organic vapor measurements that are above the threshold outlined in this CAMP, corrective action measures, if applicable, will be recorded for each occurrence.
- 4. A graphical representation of data (including explanation for exceedances and field notes) should be submitted to DEC/DOH weekly.

SECTION 11113 IMPORTED FILL MATERIAL SAMPLING

PART 1 - GENERAL

1.1 WORK COMPLETED UNDER THIS SECTION

• Sampling imported backfill.

1.2 REFERENCES

- A. NYSDEC DER-10 Technical Guidance for Site Investigation and Remediation (most recent version)
- B. 6 NYCRR Part 360 Solid Waste Management Facilities

1.3 RELATED SPECIFICATIONS

- Containerization, Characterization and Disposal of Waste: Section 11114
- Earthwork and Backfill: Section 02250
- Soil Compaction: Section 02251
- Erosion and Stormwater Control: Section 02270

1.4 DEFINITIONS

- A. *Owner* refers to Greenport Crossings, LLC.
- B. *Contractor* indicates the Prime Contractor awarded work covered under this contract.

1.5 SUMBITTALS

A. The QEP shall provide analytical data that shows that excavated soil to be reused and imported backfill have been sampled and analyzed in accordance with DER-10.

PART 2 – Sampling and Analysis of Imported Fill Material

- A. 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 gravel, rock or stone, consisting of virgin material from a permitted mine or quarry.
- B. The Contractor must provide documentation of the source of fill to the Owner and LaBella 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;

- 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; and
- v. analytical results of the material tested.
- C. Bills of lading should be provided to the Owner and LaBella to document that the fill delivered was from a NYSDEC approved source(s).
- D. The QEP will sample and analyze the fill being imported to the site in accordance with this subdivision and the Table below. The QEP will submit a sampling plan to the NYSDEC to obtain approval. The sampling plan shall include but may not be limited to the number, type of samples, and laboratory analyses proposed by the QEP. Samples of the fill will likely be collected based on the soil quantity and type of constituents identified in the table and will be a combination of discrete and composite samples, handled as follows:
 - i. for Volatile Organic Compounds (VOCs) only, grab samples are allowed. These grab samples are one or more discrete samples taken from the fill, with the number as specified in the volatile column of the Table below for the soil quantity in question, and analyzed for the VOCs identified in NYSDEC DER-10, Appendix 5; or
 - ii. for Semi-VOCs (SVOCs), inorganics and Polychlorinated Biphenyls (PCBs)/pesticides:
 - (1) one or more composite samples are collected from the volume of soil identified in the Table below for analysis, with each composite from a different location in the fill volume:
 - (2) each composite is prepared by collecting discrete samples from 3 to 5 random locations from the volume of soil to be tested; and
 - (3) the discrete samples are mixed, and after mixing, a sample of the mixture is analyzed for the SVOCs, inorganic and PCBs/pesticide constituents.

Recommended Number of Soil Samples for Soil Imported To a Site				
Contaminant	VOCs	SVOCs, Inorganics & PCBs/Pesticides		

Soil Quantity (cubic yards)	Discrete Samples	Composite	Discrete Samples/Composite
0-50	1	1	3-5 discrete samples from different locations in
50-100	2	1	the fill being provided will comprise a composite
100-200	3	1	sample for analysis
200-300	4	1	
300-400	4	2	
400-500	5	2	
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		

The number of required samples are specified in the Table above, which may be modified by the NYSDEC project manager based on various factors.

SECTION 11114 CONTAINERIZATION, CHARACTERIZATION AND DISPOSAL OF WASTE

PART 1 - GENERAL

1.1 WORK COMPLETED UNDER THIS SECTION

- Containerizing of all waste to be removed and disposed of off-site.
- Characterization of all waste to be removed and disposed of off-site.
- Transportation and disposal of all waste.

1.2 REFERENCES

- A. 6 NYCRR Part 360 Solid Waste Management Facilities
- B. 6 NYCRR Part 370 Hazardous Waste Management System General
- C. 6 NYCRR Part 371 Identification and Listing of Hazardous Waste
- D. 40 CFR Part 82 Protection of Stratospheric Ozone; Refrigerant Recycling; Substitute Refrigerants
- E. 6 NYCRR Part 374-3 Standards for Universal Waste
- F. 6 NYCRR Part 364 Waste Transporter Permit

1.3 SPECIFICATIONS FOR REFERENCE

• Decontamination of Equipment and Building Materials: Section 11111

1.4 DEFINITIONS

- A. *Owner* refers to Greenport Crossings, LLC and the waste generator.
- B. Regulated Solid Waste indicates materials such as plastics, metals, etc. (non-recyclables). [Note: This does not include any materials that have been characterized and are considered Asbestos Containing Materials, PCB Containing Materials, Hazardous Waste, etc.]
- C. *PCB Containing Materials* indicates materials which have been characterized and contain greater than 50 parts per million (ppm) of PCB or are assumed PCB containing materials based on the material type (e.g., PCB light ballasts).
- D. *Mercury Containing Materials* indicates materials which have been characterized fluorescent light tubes, of mercury or are assumed mercury containing materials based on the material type (e.g., mercury vapor light ballasts, mercury switches, etc.).
- E. Asbestos Containing Materials (ACM) indicates materials which have been characterized and contain 1% or greater of asbestos or are assumed ACM based on the material type.

- F. Part 597 Hazardous Waste indicates a material that has been deemed a hazardous waste based on the Waste Generator's knowledge or has undergone analytical testing and is shown to be a characteristic hazardous waste.
- G. *Non-Hazardous Waste* indicates a material that has undergone waste characterization testing and the characterization testing did not identify characteristics of hazardous waste.
- H. TS&D Facility indicates any facility that treats, stores, or disposes of any wastes.
- I. Waste Characterization indicates certified laboratory analysis performed on any waste material for the purpose of acceptance at a TS&D Facility. Analytical parameters are determined on a case by case basis in conjunction with the TS&D Facility.
- J. Waste Generator indicates Greenport Crossings, LLC for this project.
- K. Waste Manifest indicates the regulatory paperwork signed by the Waste Generator that accompanies each shipment of waste from the Site to the TS&D Facility.
- L. Waste Profile indicates the regulatory paperwork signed by Waste Generator for the purpose of acceptance at a TS&D Facility.
- M. Waste Storage Area indicates the designated location for storage of wastes that have been containerized but are awaiting characterization results or have been characterized and are awaiting transport and disposal.

1.5 CONTRACTOR QUALIFICATIONS

- A. All contractors performing work involving hazardous materials at the Site shall be pre-qualified by the Owner and LaBella prior to selection and contracting.
- B. The following items shall be required to be submitted for pre-qualification review:
 - Include evidence of experience and training of personnel to be performing containerization, characterization and disposal activities of all hazardous waste streams.
 - DOT Waste Transportation ID Number for non-hazardous waste.
 - DOT Hazardous Waste Transportation ID Number.
 - Proof of all training required under OSHA and EPA standards for all workers involved, including but not limited to: OSHA 40-hr. HazWaste Operations Certification.
 - NYSDOL Asbestos License.
 - NYSDOL Employee Certifications.

1.6 SUMBITTALS

- A. The Contractor shall prepare a Site-Specific Health and Safety Plan prior to initiating any on-site work.
- B. The Contractor is responsible for waste characterization; however, the Owner and LaBella reserve the right to conduct laboratory testing as part of their work. The Contractor shall submit to the Owner and LaBella a list of all laboratories proposed to conduct any such testing. Note, all laboratories shall be New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP) certified for the testing to be completed.

- C. The Contractor shall provide completed waste profiles for each waste type to the Owner and LaBella. Each waste profile will be approved and signed by the Owner or Owner's designated representative.
- D. The Contractor shall provide to LaBella and Owner completed waste manifests for all non-hazardous and hazardous wastes to be shipped. The waste manifests will be approved and signed by the Owner or Owner's designated representative prior to shipping any non-hazardous or hazardous waste.

PART 2 - PRODUCTS

2.1 MATERIALS AND EQUIPMENT

- A. The Contractor shall provide all necessary material and equipment to properly containerize, characterize, transport and dispose of all waste generated as part of the work, including, but not limited to, hazardous waste, non-hazardous waste, PCB containing waste, ACM, mercury containing waste, regulated solid waste (e.g., metal, plastic, etc.), to the satisfaction of the Owner and LaBella.
- B. The Contractor shall provide all necessary containers (e.g., NYSDOT approved 55-gallon drums, 85-gallon drum overpacks, etc.) to the satisfaction of the Owner and LaBella.
- C. The Contractor shall provide all necessary 6-mil reinforced polyethylene sheeting that meets all requirements of ANSI Specification D2103 in order to complete the project.

PART 3 – EXECUTION

This part of the specifications identifies the required coordination for all parties in items relating to waste disposal (3.1), the requirements for containerization and characterization of all waste materials to be disposed of off-site (3.2), and the requirements for transportation and disposal of all waste materials (3.3). The Contractor should refer to Section 11111 for the decontamination of building equipment and materials.

3.1 COORDINATION WITH THE OWNER AND LABELLA

- A. LaBella's Project Geologist will be on-site continuously during all ground intrusive work.
- B. The Contractor shall not transport or dispose of any waste materials generated from the site without express written permission from the Owner or LaBella.
- C. The Contractor shall notify the Owner and LaBella at least two working days prior to removing any manifested waste. At the time of waste removal, the contractor shall supply the Owner and LaBella's Project Geologist the Generator Copy of the waste manifest.
- D. The Contractor shall notify the Owner and LaBella at the time of all waste (manifested waste and waste not requiring a manifest) being transported off-site in order for the Owner and LaBella's Project Geologist to log the material being removed and the transporter information (e.g., truck number, plate number, etc.).
- E. The Contractor shall provide the Owner and LaBella a copy of weigh tickets for all shipments of waste within 24 hours of the waste being taken off the Site.

- F. The Contractor shall allow and provide access to the work at all times for the Owner,LaBella's Project Geologist, and the NYSDEC/NYSDOH to complete testing and observations.
- G. The Contractor shall follow the directions of the Owner and/or LaBella's Project Geologistregarding characterization, reuse, recycling, salvage, or off-site disposal of any waste.
- H. During the work, if conditions are encountered which require the presence of LaBella's Project Geologist, the Contractor shall notify the Owner and LaBella and immediately stop work until the Owner or LaBella's Project Geologist is present.

3.2 Waste Containerizing and Characterization

The work to be completed includes the demolition/removal of building materials and equipment which may contain or have contained hazardous materials. This item does not include the previously characterized materials (e.g., ACM, PCB light ballasts, known hazardous waste debris, etc.). The waste handling, containerizing, transporting and disposal requirements for the following previously characterized materials are identified in their respective sections. In addition to these other sections, the building debris identified as a characteristic hazardous waste is discussed in Part 4 of this section.

Building materials (e.g., concrete, I-Beams, etc.) that are not impacted will be removed/disposed as part of the demolition contract. The handling of equipment and building materials that are stained or previously contained non hazardous or hazardous materials may require decontamination, refer to Specification Section 11111.

The Contractor is responsible for establishing a work area boundary that will accomplish the following objectives:

- Establish a decontamination zone to allow only authorized access to the contaminated area and the personnel decontamination area
- Ensure that non-authorized people do not accidentally enter the contaminated area
- Ensure the safety of people in the vicinity of the work area
- Ensure contaminants are not spread outside the work area.

Work under this item shall consist of the containerization and characterization of materials not previously characterized. The attached flowchart identifies the general procedures for assessing, containerizing, characterizing, storing, transporting and disposing of potential materials that will require removal from building materials and equipment. In general, the approach will be as follows:

- 1. The Contractor shall assess all equipment and building material for visible staining, residues, liquids or solids. If any residue, liquids or solids are present the Contractor shall containerize the material in an appropriate container and stage the container in the Waste Storage Area.
- 2. The Contractor shall not mix different waste streams in the same container.
- 3. The containers used for storage of waste must be United States Department of Transportation (DOT) approved. The contractor shall supply all necessary drums, bins, tanks, and tank trucks when necessary. Containers shall remain closed at all times except when material is being added.
- 4. The Contractor shall affix a legible label to each container (no label shall be placed on the lid of a container) (e.g., drum, frac tank, etc.) generated during containing of waste that has not been precharacterized. The label shall be affixed at the time the waste is containerized and the following minimum information will be on the label: date generated, a brief description of the waste, the person(s) who containerized the material, the location the material was removed from and the following statement "Waste Pending Characterization Results".
- 5. The Contractor shall establish a Waste Storage Area that is a secure area out of the elements that shall be approved by the Owner and LaBella's Project Geologist. The Contractor shall allow the Owner and LaBella's Project Geologistaccess to this area upon request.
- 6. Contractor shall inspect the Waste Storage Area daily to ensure the containers are not leaking, are segregated into compatible groups, and labeled properly with appropriate dates and waste description. Contractor shall complete an inspection form and retain the completed inspection forms at the Site and these forms shall be available to the Owner and/or LaBella's Project Geologist upon request.
- 7. The Contractor shall provide the waste characterization testing results to the Owner and LaBella and identify the status of the waste (i.e., hazardous, non-hazardous, etc.).
- 8. The Contractor shall be responsible for removing all equipment and all building materials within the buildings, including removal of piping in chases/tunnels and up to exterior building walls. The anticipated equipment/materials that may contain waste (residual materials, debris, liquids and/or solids) and require containerizing and characterization are listed below (but not limited to):
 - a. Drain Traps and Plumbing: It is to be assumed that drain traps may contain hazardous materials. The Contractor shall remove the trap so that the trap contents are contained to prevent spillage during removal and a visual check for any materials shall be conducted. In the event materials are observed, the Contractor shall appropriately containerize and characterize the material (refer to above). It is anticipated that drain traps and plumbing could contain or be impacted by (but not limited to) ACM, VOCs (including solvents), SVOCs, heavy metals, acids and/or bases.
 - b. Equipment and Piping: All intact equipment and piping at the Site shall be assumed to to contain hazardous materials. The Contractor shall be responsible for assessing equipment (e.g., tanks, pumps, etc.) and piping for contents, containerizing all materials encountered and subsequently characterizing the materials. It is anticipated that equipment and piping could contain or be impacted by (but not limited to) ACM, VOCs (including solvents), SVOCs, heavy metals, acids and/or bases.
 - c. Basement and sumps: All liquid in the basement, and liquids in sumps, pits, drains, etc. will require dewatering to facilitate removal of equipment/piping in these locations and to evaluate the underlying concrete for waste characterization. It is anticipated that liquids in basement and sumps could contain or be impacted by (but not limited to) ACM, VOCs (including solvents), SVOCs, heavy metals, acids and/or bases. The sump at the southeast

- end of the main building contains liquid with a petroleum odor. The liquid in this sump has been sampled. Appendix 1 contains mapping that shows the approximate location of this sump and analytical data associated with the contents of the sump.
- d. Wood Paver Blocks: Wood paver blocks are used throughout the Site building. Representative samples of the wood paver blocks have been submitted for laboratory analysis. The location of the wood paver samples and the associated analytical data are included in Appendix 1.
- e. Drums and Containers: Several drums and containers are present in the Site building that will require containerizing, characterizing and disposal. Drums containing apparent fuel oil and water are located in the eastern addition as noted on the figure in Appendix 1. The contents of these drums were sampled and submitted for laboratory analysis. The analytical results are included in Appendix 1.
- f. Fluorescent Light Ballasts: The contractor should refer to Section 11117 for requirements on Fluorescent light ballasts.
- g. Mercury containing materials are assumed to be hazardous and shall be containerized in drums pending waste characterization sampling by the QEP.
- h. Concrete and other building materials: As part of the decontamination procedures, concrete and other building materials may be generated and require containerizing, characterizing and disposal. Representative samples of concrete to be removed were sampled and submitted for laboratory analysis. The locations of the concrete samples and analytical data are included in Appendix 1.
- i. Decontamination waters from hazardous and non-hazardous decontamination operations. It is anticipated that drain traps and plumbing could contain or be impacted by (but not limited to) ACM, VOCs (including solvents), SVOCs, heavy metals, acids and/or bases.

3.3 Waste Transport and Disposal

- 1. The Contractor shall appropriately label all waste upon receipt of the waste characterization results. The waste labels shall be in accordance with NYSDOT labeling requirements for the waste type (i.e., hazardous, non-hazardous, ACM, etc.) as well as 6 NYCRR Part 371-373.
- 2. The Contractor shall notify the Owner and LaBella upon receipt of any characterization data indicating a hazardous waste. The Owner and LaBella reserves the right to require by the Contractor or conduct alternate sampling (e.g., 'Contained-In Demonstration') prior to profiling or disposing of hazardous waste.
- 3. The Contractor shall submit a waste profile to the Owner and LaBella for each waste stream required by the TS&D Facility. The waste profile will be approved and signed by Greenport Crossings, LLC prior to submitting to the TS&D Facility. The Contractor shall submit waste profiles to the TS&D Facility after approval by the Owner and LaBella.
- 4. After approval of the waste profile by the TS&D Facility, the Contractor shall be responsible for providing the Owner and LaBella completed waste manifests for all waste requiring a manifest. All waste manifests will be approved and signed by the Owner or the Owner's designated representative prior to submitting to the TS&D Facility. The Contractor shall submit waste profiles to the TS&D Facility after approval by the Owner and LaBella.
- 5. The Contractor shall be responsible for ensuring all waste leaves the Site in DOT approved containers. The Contractor shall be responsible for any errors in waste characterization resulting in returned waste material from the TS&D Facility.

- 6. The Contractor shall be responsible for ensuring that all waste transported is transported by a NYSDEC Part 364 certified transporter for the waste being transported.
- 7. The Contractor shall provide the Owner and LaBella a copy of all weigh tickets within 24 hours of the waste leaving the Site.
- 8. The Contractor shall provide the Owner and LaBella's Project Geologist a copy of all manifests at the time the waste leaves the Site.

SECTION 11115 - ASBESTOS REMOVAL

PART I -GENERAL

1.1 SCOPE OF WORK

- A. Work of this Section shall be performed in accordance with the requirements of the Contract Documents, including but not limited to Instructions to Bidders, Agreement and General Conditions and General Requirements.
- B. This Section references procedures for the removal of existing asbestos-containing materials (ACM) that will be disturbed or are disturbed during construction of this project.
- C. Furnish all labor, materials, supervision, construction tools and equipment necessary to remove and dispose of the asbestos-containing materials identified in the Pre-Demolition/Renovation Regulated Building Materials Assessment Report, dated November 2010, prepared by LaBella Associates. This report incorporates and includes all testing data obtained for the site and is attached as Appendix A.
- D. The Contractor shall be aware of all conditions of the Project and is responsible for verifying quantities and locations of all Work to be performed referenced in the Contract Documents. Failure to do so shall not relieve the Contractor of its obligation to furnish all labor and materials necessary to perform the Work.
- E. Removal or disturbance of ACM shall be completed in compliance with all governing regulations, including Code Rule 56. Each Contractor shall be responsible for abatement work necessary to complete the work of their contract. Any Contractor who requires the removal or disturbance of asbestos-containing material (ACM) to complete his work shall obtain the services of a certified asbestos abatement contractor to remove the ACM in compliance with this specification and all applicable rules and regulations.
- F. LaBella shall approve the asbestos abatement contractor prior to the beginning of the work. Unless otherwise noted, all costs for asbestos abatement work shall be included in the general contractor's bid.
- G. It is the intentions of the contract documents to have the General Contractor provide an approved certified Asbestos Abatement Contractor.
- H. Working hours shall be as required and approved by the Owner. Asbestos abatement activities including, but not limited to, work area preparation, gross removal activities, cleaning activities, waste removal, etc. may need to be performed during 'off-hours' (including nights and weekends). In addition, multiple mobilizations may be required to perform the work identified in this project. The Contractor shall coordinate and schedule all Work with the Owner's representative.
- I. Locations and quantities of all materials to be removed by the abatement contractor must be field verified. Information given on drawings and in the specifications is for general orientation and information only.
- J. The contractor shall have at least one supervisor on the job site at all times who can read and write and is fluent in English, while the project is in progress. The supervisor must be able to communicate fluently with all employees and the Owner's representatives.
- K. Contractor shall provide temporary protection to keep the work areas enclosed, where required, during the performance of the Contract Work. The Contractor shall be responsible for any damage caused as a result of improper temporary protection.

- L. The Contractor is responsible for keeping the work area in a clean and safe condition at all times.
- M. Contractor is to coordinate with other trades on the job concerning scheduling, phasing, etc.

1.2 SPECIAL CONDITIONS

- A. Any special job conditions, including variances obtained by the Owner, are described below.
 - A Site-Specific variance application has been submitted to the NYSDOL for review and approval. A copy can be obtained by contacting the Owner or LaBella Associates.

1.3 CODES AND REGULATIONS

- A. General Applicability of Codes and Regulations and Standards: Except to the extent that more explicit or more stringent requirements are written directly into the Contract Documents, all applicable codes, regulations and standards have the same force and effect (and are made a part of the Contract Documents by reference) as if copied directly into the Contract Documents, or as if published copies are bound herewith.
- B. <u>Contractor Responsibility:</u> The Contractor shall assume full responsibility and liability for the compliance with all applicable Federal, State and local regulations pertaining to work practices, hauling, disposal, and protection of workers, visitors to the site and persons occupying areas adjacent to the site. The Contractor is responsible for providing medical examinations and maintaining medical records of personnel as required by the applicable Federal, State and local regulations. The contractor shall hold the Owner and Owner's Representative harmless for failure to comply with any applicable work, hauling, disposal, safety, health or other regulation on the part of himself, his employees or his subcontractors.
- C. <u>Federal Requirements:</u> which govern asbestos abatement work or hauling and disposal of asbestos waste materials include but are not limited to the following:

OSHA: U.S. Department of Labor, Occupational Safety and Health Administration (OSHA), including but not limited to:

Occupational Exposure to Asbestos, Tremolite, Anthophyllite, and Actinolite; Final Rules Title 29, Part 1926, Section 1101 of the Code of Federal Regulations

Respiratory Protection

Title 29, Part 1910, Section 134 of the Code of Federal Regulations

Access to Employee Exposure and Medical Records Title 29, Part 1910, Section 2 of the Code of Federal Regulations

Hazard Communication

Title 29, Part 1910, Section 1200 of the Code of Federal Regulations

<u>DOT:</u> U.S. Department of Transportation, including but not limited to:

Hazardous Substances

Title 29, Part 171 and 172 of the Code of Federal Regulations

EPA: U.S. Environmental Protection Agency (EPA), including but not limited to:

National Emission Standard for Hazardous Air Pollutants (NESHAPS) National Emission Standard for Asbestos Title 40, Part 61, Subpart A, and revised Subpart M (Revised Subpart B) of the Code of

Federal Regulations dated November 20, 1990

D. <u>State Requirements:</u> which govern asbestos abatement work or hauling and disposal of asbestos waste materials include but are not limited to the following:

New York State Department of Labor (NYSDOL) 12 NYCCR Part 56, as ammended January 11, 2006. Also know as Industrial Code Rule 56 (Code Rule 56).

New York State Department of Environmental Conservation (DEC) Regulations regarding waste collector registration Title 6, Part 364 of the New York State Official compilation of Codes, Rules and Regulations. An annual "Industrial Waste Hauler Permit" specifically for asbestos-containing materials is required for transportation of asbestos-containing waste to the disposal site.

E. Local Requirements: Abide by all local requirements which govern asbestos abatement work or hauling and disposal of asbestos waste materials.

1.4 SUBMITTALS:

- A. Prior to commencement of any work (minimum of seven days prior to starting work) involving the disturbance of ACM, the Contractor shall submit the following for review and approval:
 - 1. Copy of current NYSDOL Asbestos Contractor's License (DOH-432)
 - 2. Copies of current worker's Asbestos Handler's Certificates
 - 3. Provide a statement signed by an authorized representative of the company stating that the Building Occupants/Other Trades notification required by ICR 56 will be or has been posted at least 10 days prior to the start of abatement. Provide a copy of the notification that will be posted at the job site
 - 4. Copies of all proposed site-specific variances
 - 5. Copy of current asbestos specific liability insurance
 - 6. Copies of Project Notifications and proof of submittal (e.g. certified mail receipt) to NYSDOL and USEPA
 - 7. Copy of NYSDEC permit for waste hauler
 - 8. Name and address of landfill where asbestos-containing waste materials are to be buried. Include contact person and telephone number, and NYSDEC Part 360 permit number or other applicable permits
 - 9. Site-specific work plan in accordance with Section 1.5 D
 - 10. On a weekly basis, submit copies of all waste shipment records and disposal site receipts to the Owner
- B. During the project, legible copies of the following items must be submitted to the Owner or LaBella. If personnel records are not available at this time, workers will not be able to work on-site until copies are provided:

- 1. NYSDOL Asbestos Handling Certificates (DOH 442) for all persons employed on the project
- 2. Project Log Book entries
- 3. Any and all changes to the Contract, should any occur
- 4. Personal sampling results within 24 hours of sampling
- C. Upon completion of the project, legible copies of the following items must be submitted to the Owner or LaBella:
 - 1. Waste manifests, shipment records, and landfill receipts signed by the landfill operator submitted within 2 days after the waste leaves the site. A percentage of the final payment will be withheld until the waste shipment record is received by the Owner and LaBella.

1.5 QUALITY ASSURANCE

- A. Comply with the most recent edition of compilation of Codes, Rules and Regulations of the State of New York (Statutory Authority: Labor Law Section 906), including Rule 56 of Title 12 NYCRR, New York State, Department of labor, most currently amended (hereinafter referred to in this Specification as Code Rule 56). Note: Article 30 of the Labor Law sets forth procedures and standards that must be met by parties who desire to obtain variations of any of the requirements of this rule.
- B. Comply with all current and appropriate Federal, State and Local rules and regulations regarding work of this section, including those of the following agencies:
 - New York State Uniform Fire Prevention and Building Code
 - New York State Department of Labor
 - New York State Department of Environmental Conservation (DEC)
 - Occupational Safety and Health Administration (OSHA)
 - United States Environmental Protection Agency (EPA)
- C. Pre-Work Conference: Before the work of this section is scheduled to commence, a conference will be held at the site for the purpose of reviewing the Contract Documents, discussing requirements for the work and reviewing the work procedures. The conference shall be attended by the asbestos abatement contractor.
- D. Work Plan: The Contractor shall prepare a detailed work plan and submit the plan no later than one week prior to the start of the abatement project. The work plan shall include, but not be limited to:
 - 1. A preliminary schedule for completion of the work:
 - a. Show the complete sequence of abatement activities and the sequencing of Work within each building or building section.
 - b. Show the dates for the beginning and completion of each major element of Work including substantial completion dates for each Work Area, building, or phase.
 - 2. Work procedures that will be utilized (including anticipated decon and negative air exhaust locations).
 - 3. Types of equipment anticipated to be used for the project.
 - 4. Estimated crew size.
 - 5. The anticipated work hours.
 - 6. Emergency procedures for fire and medical emergencies and for failure of containment barriers.

- 7. Project Notifications: As required by Federal and State regulatory agencies together with proof of transmittal (i.e. certified mail return receipt).
- 8. Building Occupant Notification: As required by regulatory agencies.
- 9. Abatement Work Plan: Provide plans that clearly indicate the following:
 - a. All Work Areas/containments numbered sequentially.
 - b. Locations and types of all decontamination enclosures.
 - c. Entrances and exits to each Work Areas/containments.
 - d. Type of abatement activity/technique for each Work Area/containment.
 - e. Number and location of negative air units and exhaust. Also provide calculations for determining number of negative air pressure units.
 - f. Proposed location and construction of storage facilities and field office.
 - g. Location of water and electrical connections to building services.
 - h. Waste transport routes through the building to the waste storage container.
- 10. Disposal Site/Landfill Permit from applicable regulatory agency.
- 11. NYS Department of Environmental Conservation Waste Transporter Permit.
- E. Progress Meetings: The Owner or LaBella will hold general progress meetings as required. A representative of the Contractor, and the Owner is to be properly represented at each meeting.
- F. Daily Log: The Contractor is to maintain within the Decontamination Unit a daily log documenting the dates and time of, but not limited to, the following items:
 - 1. Meetings; purpose, attendees, brief discussion
 - 2. Visitations; authorized and unauthorized
 - 3. Special or unusual events, i.e. barrier breeching, equipment failures, accidents
 - 4. Air monitoring tests and test results.
 - 5. Other entries as detailed in Code Rule 56-7.3 Asbestos Contractor Daily Project Log.

Submit three (3) copies of this log at final closeout of the Project as a Project closeout submittal.

- G. Project Monitor: The Project Monitor shall be a representative of the Owner during the asbestos abatement portion of the project. The Project Monitor has the following responsibilities:
 - 1. The Project Monitor shall oversee work practices and inspect for compliance with all applicable regulations and standards, and the Contract Documents.
 - 2. The Project Monitor shall have at all times access to the work areas whenever it is in preparation or in progress. The Contractor shall provide the Project Monitor with keys to all locks located on the entrance(s) to the decontamination unit(s) and all other secured areas.
 - 3. The Project Monitor, in conjunction with the Owner, will be the interpreter of the requirements of the Contract Documents and the judge of the performance thereunder.
 - 4. The Project Monitor and/or the Owner will have the authority to reject work which is not in compliance with the requirements of the Contract Documents or Federal, State, or Local Regulations. The decision of the Owner will be final.
- H. Air Sampling and Analysis
 - 1. Area Air Sampling and Analysis
 - a. The Owner will be responsible for hiring an independent third party firm to perform the required area air sampling and analysis in accordance with ICR 56.

- b. The Contractor is required to ensure cooperation of its personnel with the Air Sampling Technician (AST) for general air sampling, and testing of each work area after completion of asbestos work prior to removal of containment barriers.
- c. All air samples shall be analyzed using Phase Contrast Microscopy (PCM) in accordance with NIOSH method 7400.

2. Personal Air Sampling:

- a. As per the requirements of OSHA 1926.1101, the Contractor shall be required to perform personal air monitoring in order to determine that appropriate respiratory protection is being utilized.
- b. The analysis of personal air samples shall be conducted by an ELAP approved laboratory, subject to approval of the Owner or LaBella.
- c. Results of personnel air sample analyses shall be available, verbally, within twenty-four (24) hours of sampling and shall be posted at the work site within 48 hours. Results shall be submitted in accordance with the requirements of Section 1.5 F.

3. Final Clearance Air Sampling:

- a. For Code Rule 56 PCM Analysis: When required, the clearance air monitoring results shall be considered satisfactory when every sample demonstrates an airborne concentration of asbestos fibers of less than 0.01 fibers per cubic centimeter, or the background level, whichever is greater.
- b. The Contractor shall pay for all additional costs incurred by the Owner, including additional air monitoring, project monitoring, engineering fees, and sample analysis required if clearance air monitoring fails, or if completion of abatement work is not in accordance with approved progress schedule.

1.6 GENERAL PROCEDURES

- A. General Requirements Comply with Code Rule 56's procedures for entry, exit, logging in, showering, personal protective equipment, tools, clothing, etc., throughout the asbestos abatement. Respiratory equipment shall be as required by OSHA and air monitoring results. (Except for authorized visitors as required by Rule 56). Non-certified workers will not be allowed in the work area.
- B. Equipment and Waste Container Decontamination and Removal Code Rule 56's procedures for large projects (cleaning, recontainerization, holding areas, etc.) shall be followed.

PART 2 - PRODUCTS

2.1 MATERIALS AND EQUIPMENT

- A. General Requirements: Code Rule 56's requirements for materials and equipment shall apply.
- B. Miscellaneous protective materials Provide plywood sheathing, hardboard, etc., as required to provide protective cover over surfaces of existing construction and finishes to eliminate damage

- resulting from work of this section, including impact and water damage. Poly shall comply with Code Rule-56 including fire retardant requirements.
- C. Water and electricity shall be furnished by Contractor without charge to the Owner. Contractor shall provide an in-line backflow preventer at water source, and utilize non-leaking hoses.
- D. The Contractor shall supply the Project Monitor and Air Monitor with sufficient electricity to operate all high volume air monitoring pumps as may be required during the course of the project.

PART 3 - EXECUTION

3.1 REMOVAL REQUIREMENTS

- A. Perform work under this contract in accordance with the standards referenced in Part 1 of this Section. The provisions of any site-specific variances to Code Rule 56, or other asbestos standards, obtained for this project may not be implemented until approval is given by the Owner or LaBella.
- B. Work that results in the disturbance of asbestos-containing materials shall be performed by a licensed asbestos abatement contractor who employs certified workers in accordance with all applicable standards referenced herein. If additional suspect ACM is discovered during the course of abatement, the Contractor shall notify the Owner or LaBella immediately.
- C. The Contractor shall protect all items/existing construction intended to remain.
- D. Should the area beyond the asbestos work area(s) become contaminated with asbestos-containing dust or debris as a consequence of the work, immediately institute emergency procedures established for asbestos removal. All costs incurred in decontaminating such non-work areas shall be borne by the Contractor at no additional cost to the Owner.

3.2 WORK AREA PROTECTION

A. General Requirements: Code Rule 56's requirements for general work area preparation shall apply, including vacating, signs, power, timing, HVAC isolation, isolation barriers, objects, exits, toilets, etc.

3.3 PERSONAL AND WASTE DECONTAMINATION ENCLOSURE SYSTEMS

A. Comply with Code Rule 56's requirements for enclosure, showers, room types and configuration, etc.

3.4 DECONTAMINATION ENCLOSURE SYSTEMS/WORK AREA BARRIERS

A. General Requirements: Comply with Code Rule 56 requirements for maintenance of work area barriers. (Setting, inspection, repairs, cleaning, etc.)

3.5 HANDLING AND REMOVAL PROCEDURES

- A. General Requirements: Comply with Code Rule 56 requirements regarding handling and removal procedures.
- B. Dry removal or disturbance: No dry removal or disturbance or asbestos materials shall be permitted.
- C. Wetting requirements: The asbestos material shall be wetted as necessary with amended water to keep asbestos fibers from becoming airborne. If any friable material is encountered, all of its surfaces shall be saturated.
- D. Cleaning of surfaces: After completion of all stripping work, surfaces where asbestos material has been removed or handled shall be HEPA vacuumed.

3.6 CLEANING PROCEDURES

- A. General requirements: Code Rule 56's requirements for containerization, dust cleanup, tools and enclosure cleanup, etc., shall apply. Cleanup shall be by HEPA the vacuum.
- B. Post-abatement requirements: Code Rule 56's requirements shall apply (tool/equipment cleanup, general cleanup), waste removal, clearance air monitoring, etc).

3.7 ASBESTOS WASTE TRANSPORTATION AND DISPOSAL

- A. Contractor shall minimally transport and dispose of all of the Category I non-friable asbestos waste material according to correct applicable NYSDEC transportation requirements, Part 364, and solid waste requirements Part 360.
- B. If any removed material is "friable", Contractor shall handle it as such and transport and dispose of as "friable" asbestos waste per regulations referenced in Part 1 of this Section.
- C. All waste generated as a result of this work shall be removed from the site within 10 days of completion and clearance of abatement work.
- D. Log disposal site transportation names, etc., per Code Rule 56.
- E. All loading, transportation, and disposal shall also comply with NESHAPS 40 CFR 61 150 paragraphs C, D and E including all requirements for loading signs, shipment records, content certificate, record receipts, notifications, etc.

3.8 TEMPORARY PROTECTION OF FACILITIES

A. Contractor shall provide temporary enclosure as required to protect the existing facilities from adverse weather conditions and maintain the interior environment in its normal condition. The contractor shall maintain the building secure from intrusion at all times and exits shall be operational during construction whenever the building is occupied. Temporary door and window enclosures shall be secure, weather resistant and lockable, if operable.

3.9 RESTORATION

- A. Remove temporary decontamination facilities and restore area designated for these facilities to its original condition or better.
- B. After final clearance, the Contractor shall replace all filters of the associated portions of the existing building HVAC system that were affected by the abatement operations, remove locks and restore power. All temporary power supplies shall be disconnected, power lockouts removed and building power restored. All temporary plumbing shall be removed.
- C. Finishes damaged by asbestos removal operation including, but not limited to, plaster/paint damage due to taping of polyethylene sheeting and floor tile lifted due to humid conditions, shall be restored prior to final payment. Finishes unable to be restored shall be replaced under this Contract.

3.10 PROJECT COMPLETION REQUIREMENTS

- A. Submission by the Contractor to the Owner of the job log book as described in Section 1.5 paragraph F.
- B. Inspection of the work sites by the Project Manager's representative and the Owner's representative for substantial completion of the Scope of Work.
- C. Submission by the Contractor to the Owner of the waste disposal manifest verifying that all waste generated at the project site has been disposed of at an EPA approved waste site. A 10% payment retainage shall be withheld by the Owner until receipt of all waste manifests.

SECTION 11116 - REMOVAL AND DISPOSAL OF LEAD-CONTAINING MATERIALS

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. Work of this Section shall be performed in accordance with the requirements of the Contract Documents, including but not limited to Instructions to Bidders, Agreement and General Conditions and General Requirements
- B. This Section specifies the requirements for protection of workers; prevention of contamination of adjacent areas; performing lead-abatement, post-abatement cleaning, pre-disposal testing of removed materials; and appropriate disposal of removed materials.
- C. Lead testing has not been completed at this facility. Painted items such as, but not limited to, interior walls, steel doors, door frames, ventilation units, stairway components, etc are assumed to be coated with lead-based paint. All painted materials will be removed from the project work area and properly disposed of.
- D. Lead abatement, paint removal or de-leading activities separate from general demolition, is not required for this project. As such, a lead abatement work plan is not required unless paint removal or de-leading activities are initiated.

1.02 RELATED WORK SPECIFIED ELSEWHERE

A. Section Not Used.

1.03 REFERENCES

- A. New York State Department of Environmental Conservation (DEC) 6NYCRR:
 - 1. Part 360 Solid Waste Management Facilities.
 - 2. Part 364 Waste Transporter Permits.
 - 3. Part 370 Hazardous Waste Management System-General.
 - 4. Part 371 Identification and Listing of Hazardous Wastes.
 - 5. Part 372 Hazardous Waste Manifest System and Related Standards for Generators, Transporters and Facilities.
 - 6. Part 373 Hazardous Waste Management Facilities.
- B. Occupational Safety and Health Administration (OSHA): Lead Exposure in Construction: Interim Final Rule 29 CFR 1926.62.
- C. U.S. Environmental Protection Agency (EPA): Resource Conservation and Recovery Act (RCRA) Section 3004 Hazardous and Solid Waste Amendments.
- D. U.S. Environmental Protection Agency (EPA): Lead-based Paint Poisoning Prevention 40 CFR 745.

- E. U.S. Environmental Protection Agency (EPA): Toxicity Characteristics Leaching Procedure EPA Method 1311.
- F. H.U.D. Lead paint Removal Guidelines.

1.04 DEFINITIONS

- A. Lead-Containing Materials: Lead testing has not been completed at this facility. Painted items such as, but not limited to, interior walls, steel doors, door frames, ventilation units, stairway components, etc. are assumed to be coated with lead-based paint.
- B. Lead Control Area: A restricted access area, or structure with containment, to prevent the spread of lead dust, paint chips, or debris from lead-containing material or paint removal operations.
- C. Lead Abatement: Procedures and methods used to remove lead coatings from building materials. The selective removal of lead-containing materials separate from the removal or demolition of other building materials.

1.05 SUBMITTALS

- A. Product Data: Catalog sheets, specifications, and application instructions for chemical paint removal products, if used.
- B. Quality Control Submittals:
 - 1. Worker's Qualifications Data:
 - a. Name of each person who will be performing the Work and their employer's name, business address and telephone number.
 - b. Documentation of employee participation in the Contractor's Lead Exposure Control Program.
 - 2. Work Plan: Submit one copy of the work plan required under Quality Assurance Article.
 - 3. Waste Transporter Permit: One copy of transporter's current waste transporter permit.

C. Contract Closeout Submittals:

- 1. Disposal Site Receipts: Copy of each receipt showing the lead-containing materials have been properly disposed.
- 2. Certification: If lead abatement procedures have been utilized, certify in writing that inside and outside the lead control area samples are below the levels specified under cleaning criteria. Provide copies of laboratory reports of clearance tests.

1.06 QUALITY ASSURANCE

- A. Worker's Qualifications: The persons performing lead abatement and their supervisor shall be personally experienced in lead abatement work. Successful completion of a lead-abatement certification program as approved by the Owner or LaBella may be considered instead of actual work experience.
- B. Regulatory Requirements: Comply with the referenced standards.
- C. Pre-Work Conference: Before the Work of this Section is scheduled to commence, a conference will be held by LaBella at the Site for the purpose of reviewing the Contract Documents, discussing requirements for the Work, and reviewing the Work procedures. If lead abatement procedures will be utilized, the conference shall be attended by the Contractor, the lead removal subcontractor, and the testing firm employed by the Owner.
- D. Lead-Containing Material Removal Work Plan: At the conclusion of the prework conference, before the physical lead abatement Work begins, prepare a detailed lead-containing material removal work plan. The work plan shall include, but not be limited to, a drawing indicating the location, size, and details of lead control areas, location and details of decontamination facilities, sequencing of lead removal, work procedures, types of equipment, crew size, and emergency procedures for fire and medical emergencies.

1.07 PROJECT CONDITIONS

A. Shut-down of Air Handling System: Complete the Work of this Section within the time limitation allowed for shut-down of the air handling system serving the work area. The air handling system will not be restarted until approval of the post-abatement tests following the last cleaning.

PART 2 PRODUCTS

2.01 PAINT REMOVAL PRODUCTS

- A. Paint Removal with Heat Guns: If heat guns are used, provide heat guns that are flameless, electrical, paint-softener type, with controls to prevent operation in excess of 1,100° F.
- B. Chemical Paint Removal Products: If a chemical paint remover is used, provide a product that will not produce noxious fumes.
- C. Mechanical Paint Removal: If paint is removed by mechanical methods, provide UL 586 labeled, high efficiency particulate air (HEPA) filter system, certified as being capable of trapping and retaining mono-dispersed particles as small as 0.3 micrometers at a minimum efficiency of 99.97 percent.

PART 3 EXECUTION

3.01 NOTIFICATION

A. Notify LaBella a minimum of 5 working days prior to the start of any work involving the disturbance of lead-containing materials.

3.02 EMPLOYEE PROTECTION

- A. Comply with all applicable Occupational Safety and Health Administration (OSHA) Requirements.
- B. Unprotected workers shall be prevented from entering Lead Control Areas until interim clearance testing has shown that cleaning criteria have been met.

3.03 WORK AREA PROTECTION

- A. Lead Control Area Requirements: Provide a lead control area where the disturbance of lead-containing materials will be performed in accordance with the approved Work Plan.
- B. Protection of Existing Work to Remain: Perform lead removal work without damage or contamination of adjacent areas.

3.04 LEAD-CONTAINING MATERIAL REMOVAL

A. Perform removal of lead-containing materials in accordance with this section and general demolition requirements. Lead abatement, if performed, shall be completed in accordance with an approved lead abatement work plan. Use procedures and equipment as required to limit occupational and environmental exposure to lead when lead-containing materials are removed in accordance with referenced standards. Limit the production and dissemination of dust as much as possible. Perform manual wet sanding and scraping to the maximum extent feasible.

3.05 POST-ABATEMENT TESTING

A. If lead abatement procedures are utilized, the Owner will employ the services of an independent testing firm to perform post-abatement testing of surfaces within the lead control area, and areas adjacent to the lead control area. Samples will be analyzed by a New York State Department of Health, Environmental Laboratory Approval Program (NYS ELAP) accredited laboratory.

3.06 POST ABATEMENT CLEANING CRITERIA

- A. Cleaning criteria is separated into 2 categories; surfaces within the lead control area, and areas adjacent to the lead control area:
 - 1. Surfaces within the Lead Control Area: In each area where the abatement has been performed, compare the sample results with the criteria listed below. If any of the samples exceed these criteria, reclean and LaBella will retest failed areas until the criteria is met. All costs

associated with the retesting of failed areas will be charged back to the Contractor.

- a. Floors: 40 micrograms of lead per square foot.
- b. Window Sills: 250 micrograms of lead per square foot.
- c. Window Troughs: 400 micrograms of lead per square foot.
- Area's Adjacent to the Lead Control Area: If the post-abatement test
 results indicate an increase in lead concentration over Pre-abatement
 concentrations or the above listed criteria, whichever is higher, the area
 has been contaminated by the abatement process and cleaning is
 mandatory.
 - a. Clean all affected surfaces and schedule repeat testing with the Owner's testing firm. If results still exceed pre-abatement levels reclean surfaces and test until lead concentrations are below preabatement levels. LaBella will retest failed areas until the criteria are met. All costs associated with the retesting of failed areas will be charged back to the Contractor.

3.07 CERTIFICATION OF COMPLETION OF ABATEMENT

A. Prior to removal of the lead control area by the Contractor, LaBella shall receive a report from the independent testing laboratory indicating that the lead control area, and the areas adjacent to the lead control areas have lead concentrations below the levels specified under cleaning criteria. LaBella will notify the Contractor of sample results.

3.08 PRE-DISPOSAL TESTING

- A. Prior to disposal, test the removed materials for toxicity in accordance with EPA Method 1311, Toxicity Characteristic Leaching Procedure (TCLP) for8 RCRA Metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver.
 - 1. Test results indicating a value greater that 5 ppm lead classifies the removed material as Hazardous Waste.
 - Waste that has exceeded TCLP criteria stated above shall be treated as regulated hazardous waste and disposed of as per all applicable regulations.

3.09 DISPOSAL OF LEAD-CONTAINING MATERIAL AND RELATED DEBRIS

- A. Transport and dispose of lead-containing material classified as Hazardous Waste in accordance with the standards referenced in Part 1 of this Section.
- B. Transport and dispose of lead-containing material classified as Non-Hazardous Waste in accordance with standards referenced in Part 1 of this Section.
- C. Submission by the Contractor to the Owner of the waste disposal manifest verifying that all waste generated at the project site has been disposed of at an EPA approved waste site. A 10% payment retainage shall be withheld by the Owner until receipt of all waste manifests.

D. If waste materials are not to be disposed of as regulated hazardous waste, submit documentation showing that waste material has not exceeded the TCLP criteria classifying lead hazardous waste, as required in Section 3.08.

3.10 RESTORATION

- A. Remove temporary decontamination facilities and restore area designated for these facilities to its original condition or better.
- B. Where existing work is damaged or contaminated, restore work to its original condition or better.

SECTION 11117 - REMOVAL OF REGULATED COMMERCIAL/INDUSTRIAL WASTES

PART I -GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to work of this Section.

1.2 SCOPE OF WORK

- A. Furnish all labor, materials, supervision, construction tools and equipment necessary to remove and dispose of all regulated commercial and industrial wastes. This work includes, but is not limited to, the removal of the following:
 - 1. Remove and collect all fluoresecent light bulbs for recycling at an approved mercury recycling facility. Packaging and delivery of bulbs to the recycling facility is part of this project.
 - 2. Remove and collect all mercury-containing items such as high intensity discharge lamps, switches and thermostats for recycling at an approved mercury recycling facility. Some of these items have been identified in the building and are referenced in the Regulated Building Materials Assessment, located in Appendix 1. Packaging and delivery of such items to the recycling facility is a part of this project.
 - 3. Remove and properly dispose of lubricating oil from HVAC units, air compressors, and other such oil-filled items that may be present. Some of these items have been identified in the building and are referenced in the Regulated Building Materials Assessment, located in Appendix 1.
 - 4. Remove and properly dispose of refrigerent from HVAC units, drinking fountains, refrigerated display cases, and other such items that may be present. Some of these items have been identified in the building and are referenced in the Regulated Building Materials Assessment, located in Appendix 1.
- B. Coordinate with other trades on the job concerning scheduling, phasing, etc.

1.3 DEFINITIONS

A. Remove: Detach items from existing construction and legally dispose of them off-site unless indicated to be removed and salavaged or recycled.

1.4 QUALITY ASSURANCE

- A. Comply with all current and appropriate Federal, State and Local rules and regulations regarding work of this section, including those of the following agencies:
 - NYCRR: New York State Codes, Rules, and Regulations, NYSDEC
 - New York State Department of Labor
 - Occupational Safety and Health Administration (OSHA)
 - United States Environmental Protection Agency (EPA)
- B. Quality Control Submittals:

- 1. Detailed list of the codes, rules and regulations which are understood to govern the Work. This list must cite specific title, chapter, and section of the citation.
- 2. Listing of licenses or permits issued by government agencies authorizing the handling of the waste by the qualified Company, transporter, and operator of the disposal facility.
- 3. Detailed step by step procedure indicating how the Work is to be accomplished. Procedure shall also include information for off-site Work, such as:
 - a. Method of disposal.
 - b. Owner and operator of the disposal facility.
 - c. Location of the disposal facility.
 - d. Method of transporting to the disposal facility.
- C. Quality Company: The Work shall be performed by a qualified company having at least 3 years of experience directly applicable to the services required.

PART 3 - EXECUTION

3.1 REMOVAL REQUIREMENTS

- A. Remove and dispose of all regulated commercial and industrial wastes. Some regulated wastes have been identified in the building and are referenced in the Pre-Demolition Hazardous Materials Assessment, located in Appendix 1. If additional suspect regulated waste material is discovered during the course of abatement, the Contractor shall notify the Owner and LaBella immediately.
- B. The Contractor shall protect all items/existing construction intended to remain.
- C. Regulated Waste Transportation and Disposal:
 - 1. Contractor shall transport, recycle or dispose of all of the regulated commercial and industrial waste material according to applicable NYSDEC transportation and disposal requirements.
 - 2. Transportation and disposal records or manifests are to be delivered to the Owner or LaBella within two business days.

SECTION 11118 - DISPOSAL OF PCB LIQUID FILLED ELECTRICAL EQUIPMENT

PART 1 GENERAL

1.01 REFERENCES

- A. 6 NYCRR, Parts 361, 364, 370, 371, 372, 373, and 376.
- B. 29 CFR, Part 1910.120.
- C. 40 CFR, Parts 260, 261, 262, 263, 264, 265, 268, and 761.
- D. 49 CFR, Parts 171, 172, and 173.
- E. ANSI/IEEE Standard 799.

1.02 DEFINITIONS

- A. Definitions and Abbreviations:
 - 1. PCB: Polychlorinated Biphenyls.
 - 2. PPM: Parts per million.
 - 3. NYCRR: New York State Codes, Rules, and Regulations.
 - 4. CFR: Code of Federal Regulations.
 - 5. TSD Facility: Treatment, Storage, Disposal Facility.

1.03 DESCRIPTION

A. The existing electrical equipment may contain fluid with 500 ppm or more of PCBs which identifies, within the scope of Federal and State regulations, the fluid and the equipment as PCB and PCB articles. The Contractor is required to characterize all fluids associated with all on-site electrical equipment. All handling, containerization and disposal of any electrical, or other potentially PCB containing equipment, shall be completed as part of the Contractors Base Bid. All handling, containerization and disposal of any electrical, or other potentially PCB containing equipment, shall be completed in accordance with all applicable Rules and Regulations.

1.04 SUBMITTALS

- A. Quality Control Submittals:
 - 1. Detailed plan for notifying proper local, state, and federal authorities of any incident, required to be reported, that occurs during the handling and transportation of this hazardous waste.
 - 2. Detailed plan for containment and cleanup of any PCB spill that occurs during the handling and transportation of the PCB liquid.
 - 3. Listing of licenses or permits issued by government agencies authorizing the handling of PCB products by the service company, transporter, and operator of the TSD Facility.
 - 4. Detailed step by step procedure indicating how the Work is to be accomplished. Procedure shall also include information for off-site Work, such as:

- a. Method of disposal.
- b. Owner and operator of the TSD Facility.
- c. Location of the TSD Facility.
- d. Method of transporting to the TSD Facility.
- e. Name and address of the transporter, if different from the service company.
- 5. Service Company Data:
 - a. Name, address, and telephone number.
 - b. Brochure explaining services offered.
 - c. Experience directly applicable to the required services.
 - d. Type and listing of equipment proposed to be used for the Work.
 - e. Licenses, permits, or certificates authorizing the handling of PCB products.
- 6. Transporter Company Data:
 - a. Name, address, and telephone number.
 - b. Brochure explaining services offered.
 - c. Experience directly applicable to the required services.
 - d. Type and listing of equipment proposed to be used for the Work.
 - e. Licenses, permits, or certificates authorizing the handling of PCB products.
- 7. Treatment, Storage, Disposal Facility Data:
 - a. Name, address, and telephone number.
 - b. Brochure explaining services offered.
 - c. Experience directly applicable to the required services.
 - d. Type and listing of equipment proposed to be used for the Work.
 - e. Licenses, permits, or certificates authorizing the handling of PCB products.

B. Contract Closeout Submittals:

1. Generator's Copies of Hazardous Waste Manifest and Other Documents: Deliver the generator's copies to LaBella for delivery to appropriate facility personnel.

1.05 QUALITY ASSURANCE

A. Service Company: The Work shall be performed by a qualified company specifically permitted by the U. S. Environmental Protection Agency, Region 2 to operate as a commercially operated PCB smelting or incineration disposal company.

1.06 PROJECT CONDITIONS

- A. Environmental Requirements:
 - 1. Comply with applicable governmental agency codes, rules, and regulations for handling PCB fluids and articles.

PART 2 PRODUCTS

2.01 MATERIALS FOR USE DURING DISPOSAL PROCEDURE

A. Furnish the required drums, containers, and other materials which meet applicable governmental agency codes, rules and regulations.

PART 3 EXECUTION

3.01 PERFORMANCE

A. Remove, and thermally destroy by smelting and incineration, the PCB fluids and articles in accordance with applicable governmental agency codes, rules, and regulations. No PCB fluids or articles shall be disposed of by landfill.

Division 2 - Sitework	

GREENPORT CROSSINGS TABLE OF CONTENTS DEMOLITION SPECIFICATIONS

SPECIFICATIONS

DIVISION 2 - SITEWORK

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SECTION 02012	SWEEPING AND WATER FOR DUST CONTROL
SECTION 02110	CLEARING AND GRUBBING
SECTION 02112	RESTORATION
SECTION 02114	ABANDONING SEWER/MANHOLES
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SECTION 02400	DEMOLITION
SECTION 02500	PAVEMENT REMOVAL
SECTION 02508	COLD RECLAIMED ASPHALT PAVEMENT
SECTION 02515	PAVEMENT REPAIR
SECTION 02821	CHAIN LINK FENCES AND GATES

SECTION 02000 DIVISION 2 - INTRODUCTION TO SITEWORK SPECIFICATIONS

The following Specifications shall apply to the Work under this Contract in Division 2.

Within the Specifications of this Contract, the following definitions shall apply:

<u>Standard Specifications</u> shall mean the **State of New York, Department of Transportation, Standard Specifications May 2006 or latest edition.** Only those portions of the Standard Specifications that are referred to in the "PRODUCTS" and/or "EXECUTION" sections of this Contract's Specifications, not supplemented and/or amended therein, shall apply. Within the referred to portions of the Standard Specifications wherein the following terms are used they shall mean respectively:

Owner: Greenport Crossings, LLC

40 Corbett Road

Montgomery, New York 12549

Engineer: BL Companies, Inc.

355 Research Parkway Meriden, CT 06450

or other authorized representative

Inspector: Representative of Owner or other duly authorized

representative.

Laboratory designated and retained by

the Contractor.

<u>Applicable Safety Code</u>: shall mean the latest edition including any and all amendments, revisions and additions thereto of the Federal Department of Labor, Occupational Safety and Health Administration's "Occupational Safety and Health Standards" and "Safety and Health Regulations for Construction," or State of **New York** "Building Code", whichever is the more stringent for the applicable requirement.

The following format is used to differentiate sections of each specification: PART 1 GENERAL, PART 2 PRODUCTS, PART 3 EXECUTION, An omission of any of the above shall mean that it does not apply.

LIST OF ABBREVIATIONS

AASHTO - American Association of State Highway and Transportation Officials

ASTM - American Society of Testing and Materials
ANSI - American National Standard Institute
AWWA - American Water Works Association
AISC - American Institute of Steel Construction

AWS -American Welding Society

END OF SECTION 02000

TRAFFIC AND CONSTRUCTION

PART 1 GENERAL

1.1 REQUIREMENTS, CODES

- A. All applicable portions of Division 1 General Requirements shall be considered as included with this section.
- B. The following are minimum requirements and shall govern except that all Federal, Local and/or State Codes and Ordinances shall govern when their requirements are in excess hereof.

1.2 RELATED DOCUMENTS

A. Drawings and General Provisions of Contract, including General and Supplementary Conditions and other Division 1 Specifications Sections, apply to this Section.

1.3 RELATED SECTIONS

A. Section 02011 - Trafficmen

1.4 SUMMARY

- A. <u>Access and Safety</u> The Contractor shall keep all existing highways and public sidewalks open to vehicular and pedestrian traffic according to the Town of Greenport Police Department requirements, Town of Greenport Public Works Department and State of New York Department of Transportation requirements except as otherwise stipulated below or as directed by the Engineer. The portions of highways over which traffic is maintained shall be kept in such condition that traffic will be safely and adequately accommodated. Sidewalks are to kept free of excavated materials, tools, machinery and other objects that will impede or endanger pedestrian traffic. Suitable ingress and egress provisions shall be made for abutting owners and tenants at all times.
- B. <u>Trafficmen</u> The Contractor shall furnish uniformed policemen to act as trafficmen at all locations that the proper officials may deem necessary. The trafficmen will be assigned in conformance with requirements and conditions of the Town of Greenport Police Department, and Town of Greenport Department of Public Works, and in accordance with Ordinances of the Town of Greenport and the requirements of the *New York State Department of Transportation (NYSDOT)*.

PART 2 PRODUCTS

Not applicable.

PART 3 EXECUTION

The Contractor shall furnish, erect, light and maintain such signs, barricades and warning lights as needed or directed by the Engineer, and the **NYSDOT** and the Town of Greenport, for the regulation and protection of traffic and pedestrians. Such signs, barricades and warning lights shall be used to keep pedestrians and vehicles from equipment, materials, obstacles, excavations and newly constructed structures as directed by the Engineer, **NYSDOT** and the Town of Greenport. Flagman shall be provided for the regulation and protection of traffic and pedestrians as needed or directed.

END OF SECTION 02010

TRAFFICMEN

PART 1 GENERAL

1.1 REQUIREMENTS, CODES

- A. All applicable portions of Division 1 General Requirements shall be considered as included with this section.
- B. The following are minimum requirements and shall govern except that all Federal, Local and/or State Codes and Ordinances shall govern when their requirements are in excess hereof.

1.2 RELATED DOCUMENTS

A. Drawings and General Provisions of Contract, including General and Supplementary Conditions and other Division 1 Specifications Sections, apply to this Section.

1.3 SUMMARY

A. The Contractor shall furnish uniformed policemen to act as trafficmen at all locations that the proper officials deem necessary. The trafficmen will be assigned in conformance with the requirements of the **NYSDOT** Permit stipulations, requirements of the Town of Greenport, and as ordered by the Engineer, or Town officials.

PART 2 PRODUCTS

Not applicable.

PART 3 EXECUTION

Not applicable.

END OF SECTION 02011

TRAFFICMEN 02011 - 1

CLEARING AND GRUBBING

PART 1 GENERAL

1.1 REQUIREMENTS, CODES

- All applicable portions of Division 1 General Requirements shall be considered as included with this section.
- B. The following are minimum requirements and shall govern except that all Federal, Local and/or State Codes and Ordinances shall govern when their requirements are in excess hereof.

1.2 RELATED DOCUMENTS

A. Drawings and General Provisions of Contract, including General and Supplementary Conditions and other Division 1 Specifications Sections, apply to this Section.

1.3 SUMMARY

A. <u>Clearing the land</u> within the limits of demolition and/or construction and appurtenant designated areas which are a part of the contract, of trees, bushes, grass, and other plant life, brush piles, wood piles, rubbish and all objectionable material as indicated or directed and in strict accordance with the Contract Documents. Not included under this is building demolition and removal and road pavement removal and environmental remediation work which shall be included under the appropriate items in these Specifications.

The limits of clearing and grubbing shall be staked in the field by the Contractor and the limits shall be approved by the Owner, *Environmental Consultant* and Engineer prior to beginning clearing and grubbing, and demolition operations.

- B. Protection of existing structures, trees, or vegetation indicated on the Contract Drawings to remain.
- C. <u>Installation of construction fence</u> for tree and shrub protection.
- D. <u>Protection of existing trees</u> and shrubs designated to remain.
- E. Topsoil Stripping
- F. Refer to Section 02500 for Pavement Removal and to Section 02508 for Cold Reclaimed Asphalt Pavement.
- G. <u>Clearing, tree cutting:</u> tree removal, grubbing and removal of other vegetation in areas so designated.
- H. <u>Disposal</u> of existing site trash or site debris not otherwise stockpiled, stored or salvaged.
- I. <u>Temporary erosion and sedimentation control measures</u> in accordance with Section 02270.
- J. <u>Backfill and Earthwork</u> in accordance with Section 02200.

1.4 SUBMITTALS

- A. <u>Test Reports:</u> Submit the following reports directly to Engineer from the Owners consultant testing service with copy to Contractor. *The Environmental Consultant will submit imported topsoil sampling plans to NYSDOT for approval.*
 - Test reports on topsoil suitability and corrective recommendations to make the
 topsoil acceptable for use on the project. Test reports shall include analytical
 data that shows that any topsoil imported to the site has been sampled and
 analyzed in accordance with Section 11113 -Imported Fill Material Sampling, and
 NYSDEC DER 10 Technical Guidance for Site Investigation and
 Remediation.
- B. Photographs or video, sufficiently detailed, of existing conditions of trees and plantings, adjoining construction, and site improvements that might be misconstrued as damaged caused by demolition or site clearing work.

1.5 ENVIRONMENTAL REQUIREMENTS

- A. Construct temporary erosion control systems as shown on Construction Drawings or as directed by the "Storm Water Pollution Prevention Plan" (SWPPP) to protect adjacent properties and water resources from erosion and sedimentation.
- B. In event that sitework on this project will disturb 5 or more acres; Contractor shall not begin construction without "State Pollution Discharge Elimination System" (SPDES) permit governing discharge of storm water from site for entire demolition period. SPDES permit requires SWPPP to be in place during construction.
- C. Contractor shall be totally responsible for conducting storm water management practices in accordance with SPDES permit and for enforcement action taken or imposed by Federal or State agencies, including cost of fines, construction delays, and remedial actions resulting from Contractor's failure to comply with provisions of SPDES permit.

1.6 RELATED SECTIONS

- A. Division 2 Section 02112 Restoration for repair of damages caused by Clearing and Grubbing activities.
- B. Division 2 Section 02270 Water Pollution Control (Soil Erosion) for temporary erosion and sedimentation control procedures.
- C. Division 2 Section 02200 Earthwork for soil materials, excavating, backfilling and site grading.
- D. Division 2 Section 02400 Demolition for demolition of buildings, structures, and site improvements.
- E. Section 11113 Imported Fill Material Sampling

1.7 MATERIAL OWNERSHIP

A. Except for stripped topsoil or other materials indicated to remain Owner's property, cleared materials shall become Contractor's property and shall be removed from Project site. No materials will be removed from the site without proper waste characterization and without approval from the Environmental Consultant and NYSDEC.

1.8 QUALITY ASSURANCE

- A. <u>Codes and Standards:</u> Perform excavation work in compliance with applicable requirements of authorities having jurisdiction.
- B. <u>Testing and Inspection Service:</u> Owner will employ and pay for a qualified testing and inspection laboratory or USDA laboratory to perform topsoil testing and inspection service during earthwork operations.
- C. <u>Surveys:</u> The Contractor shall engage a licensed professional surveyor as necessary to do the staking out of the work through the demolition period.

1.9 **DEFINITIONS**

- A. <u>Topsoil:</u> Topsoil is defined as friable loam surface soil found in a depth of not less than 3". Satisfactory topsoil is reasonably free of subsoil, clay lumps, stones, and other objects over 2" in diameter, and without weeds, roots and other objectionable material.
- B. <u>Tree Protection Zone</u>: Area surrounding individual trees or groups of trees to be protected during construction, and defined by the drip line of individual trees or the perimeter drip line of groups of trees, unless otherwise indicated.

1.10 PROJECT CONDITIONS

- A. Traffic: Minimize interference with adjoining roads, streets, walks, and other adjacent occupied or used facilities during site-clearing operations.
 - 1. Do not close or obstruct streets, walks, or other adjacent occupied or used facilities without permission from Owner and authorities having jurisdiction.
 - 2. Provide alternate routes around closed or obstructed traffic ways if required by authorities having jurisdiction.
- B. Improvements on Adjoining Property: Authority for performing any site clearing indicated on property adjoining Owner's property will be obtained by Owner before award of Contract.
 - 1. Do not work on adjoining property.
- C. Salvageable Improvements: Carefully remove items indicated to be salvaged and store on Owner's premises where indicated.
- D. Utility Locator Service: Notify utility locator service for area where Project is located before site clearing.
- E. Do not commence site clearing operations or demolition until temporary or permanent erosion and sedimentation control measures are in place

PART 2 PRODUCTS

A. Tree Protection

Fence: 4'-0" high "Safety Barricade" fencing model UX4050, as manufactured by Tensar Corporation, Morrow, Georgia and distributed by Contech Construction Products, or approved equal. Fencing shall be orange in color, with a top tension rope of 3/8" braided nylon/polypropylene.

Posts: Heavy gauge steel posts 6'-0" long, sample to be approved.

- B. Satisfactory Soil Materials: Requirements for satisfactory soil materials are specified in Division 2 Section 02200 "Earthwork."
 - 1. Obtain approved borrow soil material off-site when satisfactory soil materials are not available on-site. Comply with requirements of these specifications for imported fill material sampling.

PART 3 EXECUTION

3.1 PREPARATION

- A. Protect and maintain *groundwater monitoring wells*, benchmarks and survey control points from disturbance during demolition work.
- B. Locate and clearly flag trees and vegetation to remain during construction.
- C. Protect existing site improvements to remain from damage during construction.
 - Restore damaged improvements to their original condition, as acceptable to Owner.

3.2 TEMPORARY EROSION AND SEDIMENTATION CONTROL

- A. Provide temporary erosion and sedimentation control measures to prevent soil erosion and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways, according to sediment and erosion control drawings.
- B. Inspect, repair and maintain erosion and sedimentation control measures during construction until permanent vegetation has been established.
- C. Remove erosion and sedimentation controls and restore and stabilize areas disturbed during removal.
- D. Prior to the start of clearing and grubbing operations, the Contractor shall install all erosion control devices as indicated on the Contract Drawings. The Contractor shall arrange a field walk with the *Environmental Consultant*, Engineer and Town of Greenport officials to check on the adequacy of the controls. Any deficiencies found during this field walk shall be corrected prior to starting the clearing and grubbing operations. The Contractor shall be responsible for the proper maintenance of these erosion control devices throughout the performance of the clearing and grubbing work.

3.3 TREE PROTECTION

- A. Erect and maintain temporary fencing around tree protection zones before **starting** site clearing, Remove fence when construction is complete.
 - Do not store demolition materials, construction materials, debris, or excavated material within fenced area.

- 2. Do not permit vehicles, equipment, or foot traffic within fenced areas.
- 3. Maintain fenced area free of weeds and trash.
- B. Do not excavate within tree protection zones, unless otherwise indicated.
- C. Where excavation for new construction is required within tree protection zones, hand clear and excavate to minimize damage to root systems. Use narrow-tine spading forks, comb soil to expose roots, and cleanly cut roots as close to excavation as possible.
 - 1. Cover exposed roots with burlap and water regularly.
 - 2. Temporarily support and protect roots from damage until they are permanently redirected and covered with soil.
 - 3. Coat cut faces of roots more than 1-1/2 inches in diameter with an emulsified asphalt or other approved coating formulated for use on damaged plant tissues.
 - 4. Backfill with soil as soon as possible.
- D. Repair or replace trees and vegetation indicated to remain that are damaged by construction operations, in a manner approved by Engineer.
 - 1. Employ an arborist, licensed in jurisdiction where Project is located, to submit details of proposed repairs and to repair damage to trees and shrubs.
 - 2. Replace trees that cannot be repaired and restored to full-growth status, as determined by Engineer.
 - 3. Prior to commencing clearing and grubbing operations, the Contractor shall walk the job with the Owner or Owner's Representative in order to determine and mark the extent of clearing and grubbing and to determine what specific trees are to be preserved. Tree protection fencing shall be installed where indicated on the drawings and as directed. Post burial depth shall be 2'-0" so that the top of the fence is flush with post. Spacing of posts shall be 6'-0" on center. Fencing fabric shall be attached to posts per manufacturer's recommendations. Provide top tension line and weave through top edge of fence fabric. Secure to terminal posts. Do not remove until the completion of the project or as approved by the Owner.

3.4 CLEARING AND GRUBBING

- A. The Contractor shall remove trees, stumps, brush, rubbish and all objectionable material only as required to perform the Demolition work and as indicated on the Contract Drawings. The Contractor shall control his operations so as to minimize the disturbance to all areas. Throughout the construction period, protect trees, shrubs and other features to remain from damage and harmful occurrences. Repair immediately any damage done to tree crowns or root systems. Cutting to be done by a licensed arborist. Paint cuts over 1" in diameter with a tree dressing or paint specifically designed for this purpose. If trees or shrubs designated to remain are removed erroneously or damaged beyond satisfactory repair, they shall be replaced with species approved and planted where directed. Replacement shall be appropriately sized to replace damaged plant.
- B. Within the limits of clearing and grubbing shown on the Contract Drawings, all trees, except otherwise noted on Contract Drawings, or flagged for protection, shall be cut off and stumps removed. Remove root systems and stumps completely.

- C. The Contractor, at his own expense, shall dispose of all such trees, stumps, and vegetation and wood chips off site in a satisfactory manner or as directed by the Engineer. Disposal shall be approved by the Environmental Consultant and the NYSDEC. Comply with requirements of Section 11114 regarding containerization, characterization and disposal of waste. The Contractor shall remove all rubbish and refuse to such a point off the site as may be directed.
- D. Immediately after the clearing and grubbing operations have been completed, where indicated on the Contract Drawings or as directed by the Engineer these areas shall be temporarily seeded in accordance with Sections 02270 "Water Pollution Control (Soil Erosion)", of these specifications.
- E. The Contractor shall provide and maintain staking throughout the demolition period required for accurate demolition of each stage of the work, adequate for Owner's inspection.
- F. Dispose of all timber, stumps, and vegetation offsite at Contractors expense or as directed by the Engineer. Asphalt, concrete, etc. shall be disposed of off site in a satisfactory manner. Remove all rubbish and refuse to such a point off the site as may be directed. Secure offsite disposal permits from regulatory agencies at no expense to Owner. Do not allow vegetation stumps, etc. to be consolidated within fill material or buried. Disposal shall be approved by the Environmental Consultant and the NYSDEC. Comply with requirements of Section 11114 regarding containerization, characterization and disposal of waste.
- G. Salvage any items indicated on the Contract Drawings and store. Dismantle without damage and store in a location directed by the Owner. These items shall remain the property of the Owner. The Contractor shall transport items to be salvaged to a location directed by the Owner.

3.5 TOPSOIL STRIPPING

- A. Topsoil shall consist of organic surficial soil found in depth of not less than 6-inches. Satisfactory topsoil shall be reasonably free of subsoil, clay lumps, stones and other objects over 2-inches in diameter, weeds, roots, and other objectionable material.
- B. Strip topsoil to whatever depths encountered in a manner to prevent intermingling with underlying subsoil or other objectionable material.

Remove heavy growths of grass from areas before stripping.

- C. Stockpile topsoil in storage piles in areas shown, or where directed. Construct storage piles to freely drain surface water. Cover storage piles if required to prevent wind-blown dust.
 - 1. Do not stockpile topsoil within tree protection zones.
 - Dispose of excess topsoil as specified for waste material disposal.
 - 3. Stockpile surplus topsoil to allow for respreading deeper topsoil.

3.6 DISPOSAL

A. Disposal: Remove surplus soil materials, unsuitable topsoil, obstructions, and waste materials including trash and debris, and legally dispose of them off Owner's property.

Disposal shall be approved by the Environmental Consultant and the NYSDEC. Comply with requirements of Section 11114 regarding containerization, characterization and disposal of waste.

1. Separate recyclable materials produced during site clearing from other non-recyclable materials. Store or stockpile without intermixing with other materials and transport them to recycling facilities.

END OF SECTION 02110

SWEEPING AND WATER FOR DUST CONTROL

PART 1 GENERAL

1.1 REQUIREMENTS, CODES

- A. All applicable portions of Division 1 General Requirements shall be considered as included with this section.
- B. The following are minimum requirements and shall govern except that all Federal, Local and/or State Codes and Ordinances shall govern when their requirements are in excess hereof.

1.2 RELATED DOCUMENTS

A. Drawings and General Provisions of Contract, including General and Supplementary Conditions and other Division 1 Specifications Sections, apply to this Section.

1.3 SUMMARY

A. The Contractor shall furnish a pickup sweeper, water application equipment, and accessory equipment and utilize it for the removal of earth and/or other dust producing materials from paved surfaces and from exposed earth surfaces for the purpose of allaying dust conditions during demolition and construction.

PART 2 PRODUCTS

Water used shall be *potable* water obtained from sources approved by the Owner.

PART 3 EXECUTION

The contractor shall have available and maintain in an operable condition equipment capable of efficiently sweeping up earth and/or other materials from paved surfaces. This equipment shall include suitable provisions for the application of water ahead of the sweeping brooms to prevent dusting, for the pickup, internal storage and removal of sweepings, and for the cleaning of areas of heavy accumulation beyond the capacity of the sweeper.

The Contractor shall exercise every precaution and means to prevent and control dust arising out of all demolition and construction operations from becoming a nuisance to abutting property owners or surrounding neighborhoods. Pavements adjoining trenches shall be kept broomed off and washed clean of excess trench material wherever and whenever required or directed. Water and/or calcium chloride shall be applied to surface areas within the area of Work, to all earth piles along trenches, earth stock-piles and surfaces of refilled trenches at such rates and at such times and in locations as may be required or directed by the Owner to allay dust conditions. The disposal of all sweepings shall meet with the approval of the Owner.

The Contractor shall have available and maintain in an operable condition at all times, sufficient equipment for the purpose of applying water for dust control.

Watering equipment shall consist of pipelines, tanks, tank trucks, distributors, pumps, meters, hose or other devices, approved by the Owner which are capable of applying a uniform spread of water over the surface. A suitable device for a positive shut-off and for regulating the flow of water shall be located so as to permit positive operator control.

END OF SECTION 02012

WATER FOR DUST CONTROL 02012 - 1

RESTORATION

PART 1 GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and General Provisions of Contract, including General and Supplementary Conditions and other Division 1 Specifications Sections, apply to this Section.

1.2 SUMMARY

- A. The Contractor shall replace and/or restore to the condition existing immediately prior to demolition or better than this condition, all signs, mailboxes, topsoil, lawns, bushes, sprinkler heads, shrubs, curb boxes, traffic control signs, monitoring wells, covers, trees, fences, fields, walls, walks, driveways, curbs, incidental works, or any and all other property removed or harmed in any way by reason of work done under this Contract except pavement repair or any item excepted elsewhere in the Contract Documents.
- B. Restoration is divided into two categories:
 - 1. Non-maintained areas are defined as pastures, orchards, open-field, woodlands or other areas which are not regularly maintained by the property owner.
 - 2. A maintained area is defined as a lawn, garden, shrub area, drive, walk or other surface or surface structures, all of which are maintained in a regular fashion.

1.3 RELATED SECTIONS

- A. Section 02270 Water Pollution Control (Soil Erosion)
- B. Section 02200 Earthwork
- C. Section 02515 Pavement Repair
- D. Section 11113 Imported Fill Material Sampling

PART 2 PRODUCTS

NOT USED

PART 3 EXECUTION

- A. In restoring Non-maintained and Maintained areas the Contractor shall:
 - Replace to an equivalent depth any topsoil that has been removed during the excavation.
 - 2. Remove from the property all trees, brush and other items that the Contractor has cut in order to perform his work and dispose of the materials in a fashion approved by the Engineer.

RESTORATION 02112 - 1

- 3. Remove from the property upon completion of the Work or soon as directed by the Engineer all excess materials such as stone, pipe, concrete block, gravel, etc. that the Contractor may have stockpiled for use during the course of the Work.
- 4. Leave the land in smooth, even condition. All ruts, holes or other undesirable grading conditions which resulted from work under this Contract shall be filled and the area so graded to eliminate ponding. All drainage courses shall be restored to their pre-existing condition or better.
- Fertilize and seed those areas where the original ground cover was removed or disturbed by operations under this Contract, as specified in Section 02270 "Water Pollution Control."
- 6. Reset all public or private monuments, iron pipes, curb boxes, manhole covers, sprinkler heads and piping and all types of property line and geodetic markers damaged or disturbed by operations under this Contract. This work will be done by a licensed land surveyor or authorized agent approved by the Engineer all at no additional cost to the Owner.
- 7. Repair, reset or replace as directed by the Engineer, all walks, driveways, curbs, pipes, walls, utilities, fences, railings, stone walls, etc., and ornamental or utilitarian domestic accessories, such as but not limited to arbors, fireplaces, sheds, or other surfaces, structures, or property which may have been damaged, either directly or indirectly by his operations under this Contract.
- 8. Walks and driveways shall be equivalent to that removed but in no case shall concrete or bituminous concrete walks and driveways be of less quality than that shown on the Contract Drawings.
- B. In addition within Maintained Areas, the Contractor shall:
 - 1. Unless otherwise approved or indicated, replace in kind all trees and cultivated bushes and shrubs damaged due to demolition operations. The Contractor shall not be required to replace in kind trees of more than 3 inch caliper. Trees over this caliper shall be cut and removed as approved by the Engineer. For any such trees cut and removed, the Contractor shall replace them with a tree of like or approved kind, of 2-1/2 to 3 inch caliper, planted in a location as directed by the property owner but not more than 100 feet from the original tree's position.
 - 2. Notify each property owner of any cultivated trees and shrubs scheduled for replacement or transplanting as ordered by Engineer. The Contractor shall then implement the planting/transplanting program to the satisfaction of the property owner and Engineer. However, in no case shall trees be planted within 10 feet measured horizontally at the edge of a new pavement or new underground pipe line. The Contractor will not be required to plant or transplant any shrub or tree over 200 feet away from its original location. Responsibility for successful plant or transplanting rests with the Contractor, and any trees or shrubs that do not survive planting or transplanting shall be replaced to the satisfaction of the Owner by the Contractor at the Contractor's expense. However, no tree or shrub required for replacement shall be over 3 inch caliper.
- C. Prior to demolition, the Contractor will carefully identify for inspection, by flagging, any trees and cultivated bushes and shrubs which are to be transplanted. No trees or shrubs shall be transplanted without prior inspection and approval by the Engineer or his representatives. No trees, shrubs or bushes shall be cut or removed without notification of the Owner unless specifically called for in the Contract Drawings.

RESTORATION 02112 - 2

All landscaping work, transplanting, planting, etc., within the limits of maintained areas, will be done by a Landscaping Contractor or Sub-Contractor.

All work under this section shall conform to applicable sections of these specifications and the Standard Specifications.

END OF SECTION 02112

RESTORATION 02112 - 3

ABANDONING SEWERS/MANHOLES

PART 1 GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of Contract, including General Conditions and Division 1 Specification Sections, apply to this Section.

1.2 RELATED SECTIONS

- A. Section 02010 Traffic and Construction
- B. Section 02011 Trafficmen
- C. Section 02200 Earthwork
- D. Section 11113 Imported Fill Material Sampling

1.3 SUMMARY

A. The work under this item shall consist of plugging, filling and abandoning storm sewers, manholes, catch basins, or other structures, so directed by the *Environmental Consultant* and Engineer, that are to remain in place. Sewers, manholes, and/or other structures to be abandoned shall be as indicated on the Contract Drawings or as ordered by the Engineer. Otherwise storm sewers, manholes, catch basins or other structures are to be removed as shown on the Contract Drawings.

PART 2 PRODUCTS

- A. <u>Backfill</u>: The backfill material for filling sewers, catch basins, manholes, and structures shall be fine mason sand or other material as may be acceptable to the *Environmental Consultant and* Engineer. A lean mixture of concrete will also be acceptable. Backfill material for filling manholes or other structures shall conform to Structural Fill as specified in Section 02200, Earthwork and should be sampled in accordance with requirements of the Imported Fill Material Sampling specification and approved by the Environmental Consultant and the NYSDEC.
- B. <u>Caps And/Or Plugs</u>: All pipes (e.g. manhole pipe stubs, building laterals, sewers to be abandoned, etc.) shall be either plugged with manufactured units or masonry bulkheads as specified hereinafter.
- C. <u>Manufactured Plugs</u>: Whenever possible, manufactured watertight plugs shall be used. The material of the plug shall be compatible with the pipe and when necessary shall be given a protective coating.

Pipe shall be closed with the plug having a gasket set into the bell of the pipe in accordance with the manufacturer's recommended installation procedures and as approved by the Engineer.

D. <u>Masonry Bulkheads</u>: Where manufactured plugs are not available, the Contractor shall cap pipes to be abandoned by constructing masonry bulkheads of brick, of a thickness appropriate to the size of the pipe, (no less than 6 inches thickness) its depth below surface and other conditions. The outside of brick bulkheads shall be parged with non-shrink mortar.

PART 3 EXECUTION

- A. Sewers to be abandoned, unless directed otherwise by the Engineer, shall be filled with fine mason sand, lean mixture of concrete or other acceptable material and plugged at each end. Prior to abandoning any sewer, it shall be the Contractor's responsibility to ensure that no active connections remain to the sewer. The Contractor shall locate all existing building laterals and remove the lateral or abandon the lateral if so indicated on the Contract Drawings. Should after said abandonment, live connections be discovered, the Contractor shall be responsible for any direct or consequent damages caused therefrom and it shall be his responsibility to perform any and all remedial work to correct same at no additional cost to the Owner.
- B. The Contractor shall fill the sewer, catch basin, manhole, or structure by pumping or blowing sand through long hoses into the sewer and slowly pulling the hose out. A lean flowable mixture of concrete will also be an acceptable method of filling pipes, catch basins, manholes, or structures to be abandoned. Said filling will be done so that the sewer catch basin, manhole, or structure is completely filled. The Contractor shall submit a plan of his procedure to the Engineer for his review, prior to commencement of work.
- C. After the pipe has been removed from the catch basin or manhole, or after the pipe is filled with mason sand or concrete, the end of the pipe or opening in catch basin or manhole shall be plugged as specified as follows:
 - Whenever possible manufactured watertight plugs shall be used. Pipe shall be closed with the plug having a gasket set into the bell of the pipe in accordance with the manufacturer's recommended installation procedures and as approved by the Engineer.
 - 2. Where manufactured plugs are not available, the Contractor shall cap pipes to be abandoned by constructing masonry bulkheads of brick, of a thickness appropriate to the size of the pipe (no less than 6 inches thickness), its depth below surface and other conditions. The outside of brick bulkheads shall be parged with non-shrink mortar.
- D. Manhole or catch basin frames and covers on structures to be abandoned shall be removed from the site of work at no additional cost to the Owner.
- E. All floor slabs in catch basins, manholes, or structures shall be broken so as to permit free passage of water.
- F. All pieces of broken masonry and rubble shall be removed and disposed of as directed by the Engineer and in accordance with the Containerization, Characterization and Disposal of Waste specification.
- G. Backfill shall be compacted in 8 inch layers and placed to the level of the surrounding existing grade, to subgrade or as directed by the Engineer.

END OF SECTION 02114

EXCAVATION SUPPORT SYSTEMS

PART 1 GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes, but is not limited to, the following:
 - 1. Shoring and bracing necessary to protect other improvements.
 - 2. Maintenance of shoring and bracing.
 - 3. Removal of shoring and bracing, as required.
- B. Types of shoring and bracing systems include, but are not limited to, the following:
 - 1. Steel H-section (soldier) piles.
 - 2. Timber lagging.
- C. Excavation for Demolition specified in Section 02200.

1.3 SUBMITTALS

- A. General: Submit the following in accordance with Conditions of Contract and Division 1 Specification Sections.
- B. Layout drawings for excavation support system and other data prepared by, or under the supervision of, a qualified professional engineer. System designed and calculations must be acceptable to local authorities having jurisdiction.

1.4 QUALITY ASSURANCE

- A. **Contractor** Engineer Qualifications: A professional engineer legally authorized to practice in jurisdiction where Project is located, and experienced in providing successful engineering services for excavation support systems similar in extent required for this Project.
- B. Supervision: Engage and assign supervision of excavation support system to a qualified professional engineer foundation consultant.
 - 1. Submit name of engaged consultant and qualifying technical experience.
- C. Regulations: Comply with codes and ordinances of governing authorities having jurisdiction.

1.5 **JOB CONDITIONS**

A. Before starting work, verify governing dimensions and elevations. Verify the condition of the adjoining properties. Take photographs to record any existing settlement or cracking of structures, pavements, and other improvements. Prepare a list of such damages,

- verified by dating photographs, and signed by contractor and others conducting investigation.
- B. Survey adjacent structures and improvements, employing qualified professional engineer, establishing exact elevations at fixed points to act as benchmarks. Clearly identify benchmarks and record existing elevations.
- C. During excavation, re-survey benchmarks weekly, maintaining accurate log of surveyed elevations for comparison with original elevations. Promptly notify Owner if changes in elevations occur or if cracks, sags, or other damage is evident.

1.6 EXISTING UTILITIES

- Protect existing active sewer, water, gas, electricity and other utility services and structures.
- B. Notify municipal agencies and service utility companies having jurisdiction. Comply with requirements of governing authorities and agencies for protection, relocation, removal, and discontinuing of services.

PART 2 PRODUCTS

2.1 MATERIALS

- A. General: Provide adequate shoring and bracing materials which will support loads imposed. Materials need not be new, but should be in serviceable condition.
- B. Structural Steel: ASTM A 36.
- C. Timber Lagging: Any species, rough-cut, mixed hardwood, nominal 3 inches thick, unless otherwise indicated.

PART 3 EXECUTION

3.1 SHORING

- A. Wherever shoring is required, locate the system to clear permanent construction and to permit forming and finishing of concrete surfaces. Provide shoring systems adequately anchored and braced to resist earth and hydrostatic pressures.
- B. Shoring systems retaining earth on which the support or stability of existing construction is dependent must be left in place at completion of work.

3.2 BRACING

- A. Locate bracing to clear columns, floor framing construction, and other permanent work. If necessary to move a brace, install new bracing prior to removal of original brace.
- B. Do not place bracing where it will be cast into or included in permanent concrete work, except as otherwise acceptable to Owner and Engineer.
- C. Install internal bracing, if required, to prevent spreading or distortion of braced frames.

- D. Maintain bracing until structural elements are supported by other bracing or until permanent construction is able to withstand lateral earth, wind and hydrostatic pressures.
- E. Remove sheeting, shoring, and bracing in stages to avoid disturbance to underlying soils and damage to structures, pavements, facilities and utilities.
- F. Repair or replace, as acceptable to Owner and Engineer, adjacent work damaged or displaced through installation or removal of shoring and bracing work.

END OF SECTION 02160

EARTHWORK

PART 1 GENERAL

1.1 REFERENCES

- A. Drawings and general provisions of Contract, including general provisions of Contract, including General Contract Conditions and Division 1 Specifications Sections apply to this Section.
- B. The Contract Drawings indicate and show limits of demolition and/or construction for this project. These Specifications specify material and work requirements for this project. Both are complementary to each other, and both shall be followed to properly complete the work.

1.2 GENERAL DESCRIPTION

- A. Without limiting the generality thereof, furnish all labor and materials to complete all earthwork within the limits of work as shown on the contract drawings and/or herein specified including, but not necessarily limited to:
 - Construction stakeout performed by a licensed surveying firm provided by the contractor.
 - 2. Excavation and backfilling to provide access to all work areas.
 - 3. Excavation and stockpiling of materials suitable for reuse at an approved on-site location.
 - 4. Excavation and legal off-site disposal of unsuitable or excess materials, including existing organic materials, boulders, excess topsoil, boulders, and overburden soils.
 - 5. Soil and rock structure excavation, providing and placing backfill materials, backfilling and compacting of utility trenches and foundation, building and tree removal voids.
 - 6. Furnishing and installing sheeting, shoring and bracing for excavations as required by Federal, State and Local laws, regulations and ordinances.
 - 7. Furnishing and placing various gradations of crushed stone and related materials in areas designated on the plan.
 - 8. Dewatering, pumping, bailing and control of all groundwater and surface water for all work under this Contract.
 - 9. Dust, erosion, siltation and environmental controls.
 - 10. Removal and disposal of debris materials and surplus excavated soils.
 - 11. Removal and disposal of environmentally impacted soils in accordance with Environmental Specifications including Demolition and Environmental Management of Impacted Media specification and the Containerization, Characterization and Disposal of Waste specification, and Remedial Action Plan.

12. Backfilling and compaction of environmentally impacted soils excavation voids and compaction.

B. Related Work Described Elsewhere:

1.	Submittals	General Conditions
2.	Testing Laboratory Services for Quality Control	General Conditions
3.	Clearing and Grubbing	Section 02110
4.	Water Pollution Control (Soil Erosion)	Section 02270
5.	Demolition	Section 02400
6.	Imported Fill	Section 11113

C. Law and Regulations

- 1. All work shall be accomplished in accordance with regulations of local, county and state agencies and national or utility company standards as they apply.
- 2. Secure all necessary permits from municipal, county and state departments having jurisdiction prior to the start of construction and furnish proof of acceptance upon completion of the work.

1.3 QUALITY ASSURANCE

- A. Comply with all the requirements of this section and with all applicable local, state and federal regulations having jurisdiction.
- B. An independent testing laboratory, selected and paid by Owner, shall be retained to perform construction testing on site based **on** the following:
 - 1. Compaction requirements for all soils shall be in accordance with ASTM maximum dry density as determined by ASTM D-1557.
 - 2. The in-place soil density shall be determined in accordance with ASTM Standard Method of Test for Density of Soil in Place by Nuclear Methods (shallow depth), Designation D-2922 or by the Sand-Cone Method, Designation D-1556.
 - 3. Area of Building Demolition: In cut areas, not less than 1 compaction test for every 2,000 sq. ft. In fill areas, same rate of testing for each 12-in lift, measured loose.
 - 4. Trench Backfill: One in place field density test for each 150 feet *or* less of trench but no fewer than two tests, in each initial and final backfill layer.
 - 5. If compaction requirements are not complied with at any time during construction process, remove and recompact deficient areas until proper compaction is obtained at no additional expense to Owner.
 - 6. The independent testing laboratory shall prepare test reports with the following minimum information:

Report shall consist of narrative and sketch and include as a minimum:

- Date and job project number on each sheet
- Testing Lab name, telephone number, technician name.
- Location of each test on site sketch at location of test.
- Elevation of test.
- Date(s) of compaction.
- Date(s) of testing.
- Lab maximum densities and optimum moisture and field density at each location.
- Outline of all foundation walls.
- Outline of all underground piping and trenching.
- Gradation and moisture density proctor report for all materials used on site.

In the event that test performed fails to meet Specifications, Owner and Contractor shall be notified immediately by the independent testing laboratory.

- 7. Costs related to retesting due to failure shall be paid for by the Contractor at no additional expense to Owner. Owner reserves right to employ an independent testing laboratory and to direct testing that is deemed necessary. Contractor shall provide free access to site for testing activities.
- C. Costs for sampling, transporting and making all laboratory tests required to obtain characteristics of materials from on-site and off-site sources proposed to be used for fills, refills, surcharge fills and backfills including gradation tests and determination of moisture-density relationships, shall be borne by the Contractor.

1.4 USE OF EXPLOSIVES

Use of Explosives is not allowed.

1.5 SUBMITTALS

- A. Test Reports: Submit in accordance with Division 1, General Conditions.
 - 1. At least one (1) gradation test and one plasticity test per ASTM D 4318 report for each type of fill beneath structures, pavements and utilities, which have been removed. Report shall include name and location of sample tested.
 - 2. Compaction Curves per ASTM D-1557 for each type of soil material used.

The Owner will retain a Geotechnical Engineering consultant who will perform various tests and observations to determine if the Contractor is using proper materials and construction methods, and is achieving the minimum amount of compaction as required by these specifications.

B. Photographs of existing adjacent structures and site improvements, prior to commencement of demolition work and after completion of all demolition related work under this contract.

1.6 SITE INVESTIGATION

A. The Contractor acknowledges that he has satisfied himself as to the nature and location of the work, the general and local conditions, particularly those bearing upon transportation, disposal, handling and storage of materials, availability of labor, water, electric power, roads and uncertainties of weather, groundwater table or similar physical conditions at the site, the conformation of subsurface materials to be encountered, the character of equipment and facilities needed prior to and during the prosecution of the work and all other matters which can in any way affect the work or the cost thereof under this contract. Any failure by the Contractor to acquaint himself with all information concerning these conditions will not relieve him from responsibility for estimating properly the difficulty or cost of successfully performing the work.

1.7 PROTECTION OF EXISTING STRUCTURES

- A. The Contractor shall protect existing underground utilities to remain, the location of which is shown approximately on the drawings or which are located in the field. Utilities whose location is not known shall be protected insofar as possible. All costs for repair of broken or damaged utilities will be the responsibility of the Contractor.
- B. Visit the site to review all details of the work and working conditions and to verify dimensions in the field including headroom and interference's from adjacent structures. Notify the Owner in writing of any discrepancy before performing any work.
- C. Protect existing above ground structures, landscaping, appurtenances from movement or settlement. Provide bracing and shoring as needed.
- D. Consult official records of existing utilities, both surface and subsurface, and their connections to be fully informed on all existing conditions and limitations as they apply to this work and its relation to other construction work. The Contractor shall contact **Dig Safely New York at 800-962-7962** to assist in locating utilities at least 3 working days prior to performing any earthwork operations on the site.
- E. Make a personal inspection of the site to evaluate the conditions affecting the work. No claim for additional costs will be allowed because of lack of knowledge of any existing conditions discernible from observation of the site, adjoining properties, or other available sources of information.

1.8 APPLICABLE STANDARDS

- A. ASTM D-422 Method for sieve analysis of fine and coarse aggregates.
- B. ASTM D-1140 Method for determination of fine soil fraction.
- C. ASTM D-1557 Test method for moisture density relationships of soils and soil aggregate mixtures.
- ASTM D-2167 Test method for density of soil and soil aggregate in place by the balloon method.
- E. ASTM D 4318 Test method for determination of Plasticy Index of soils.
- **F**. ASTM D-5195 Test method for density of soil and rock at depths below the surface by nuclear methods.
- **G.** ASTM D-5220 Test method for water content of soil and rock in-place by neutron depth probe method.

1.9 SITE PREPARATION

- A. The Contractor shall verify existing grades prior to beginning general earthwork. If existing grades are at variance with the Contract Drawings, notify the Owner and receive instructions prior to proceeding.
- B. All bench marks and monuments shall be protected during demolition and/or construction. If disturbed or destroyed, replace in original position.
- C. Construction stakeout shall be by a licensed surveying firm provided by the contractor. Exact locations and grade points are to be staked or fixed by the surveying firm prior to construction.

PART 2 PRODUCTS

2.1 MATERIALS

A. <u>Structural Fill</u> – Structural Fill is for use as backfill in the building demolition areas, in utility trench removal areas and in pavement areas, and where specified. It should consist of non environmentally impacted on site soils in an acceptable moisture condition, durable bank or crushed gravel, stone, or recycled concrete, and be mixed or blended with a suitable filler material to provide a uniform mixture, and conform to the following gradation requirements.

Sieve Size	Percent Passing by Weight
3 inch	100
No. 4	15 to 45
No. 100	0 to 30
No. 200	0 to 15

B. <u>Gravel Base</u> – This material is for use as slab-on-grade base course and where specified. It should consist of stone, gravel, lightweight aggregate, and recycled concrete, and conform to the following gradation requirements, Coarse Aggregate AASHTO Number 57).

Sieve Size	Percent Passing by Weight
1½ inch	100
1 inch	95 to 100
½ inch	25 to 60
No. 4	0 to 10
No. 8	0 to 5

C. <u>Suitable Onsite Fill</u> – This material consists of on-site, excavated inorganic non-environmentally impacted granular soil from on site and is for use as an alternative to Structural Fill. It should consist of sand, gravel, rock fragments, recycled concrete or a mixture thereof. On-site materials may be reused provided materials and rocks larger than 6 inches are removed, the material consists of a soil matrix, and it is placed and compacted to create a stable subgrade. Onsite Fill will need to be well-graded for compaction and structural support, and to maximize on-site reuse.

Rocks with a diameter larger than 6 inches should not be used. Rocks with a diameter larger than 6 inches may only be used in fill embankments more than 6 feet below the finished grade of the future parking fields provided they are placed to form a stable subgrade in a soil matrix that is free of voids.

Onsite Fill may not be used in areas sensitive to drainage and on site soil fill may need to be screened to segregate large and unsuitable materials. On site fill may be sensitive to moisture and may require moisture conditioning to maximize on-site reuse.

D. <u>Crushed Stone for Processed Aggregate Base</u> – This material is for use as pavement base course and where specified. It should consist of stone and gravel, and conform to the following gradation requirements (NYS DOT Type 304 Type 2 Stone).

Sieve Size	Percent Passing by Weight
2"	100
1/4"	25 to 60
No. 40	5 to 40
No. 200	0 to 10

E. <u>3/4-Inch Crushed Stone</u> – This material is for use as drainage backfill and where specified. It should consist of stone, gravel, and recycled concrete, and conform to the following gradation requirements, Coarse Aggregate AASHTO Number 67).

Sieve Size	Percent Passing by Weight
1 inch	100
¾ inch	90 to 100
¾ inch	20 to 55
No. 4	0 to 10
No. 8	0 to 5
No. 200	0 to 2

F. <u>NYSDOT Type 4 Stone</u>— This material is for use as base material and as a permanent base where specified. It should consist of stone, gravel, and recycled concrete, and conform to the following gradation requirements.

Sieve Size	Percent Passing by Weight
2 inch	100
½ inch	30 to 65
No. 40	5 to 40
No. 200	0 to 10

- G. <u>Topsoil</u> shall consist of suitable organic soil, free from ice and snow, clay, large stones, or debris and be approved by the Engineer.
- H. <u>Corrugated Polyethylene Pipe</u> Smooth interior conforming to AASHTO M 294 and M 252.

2.2 USE OF MATERIALS

A. Structural Fill

Use this material in demolition areas such as in foundation, building and tree removal voids, utility trench removal areas, beneath building footprint foundations, floor slabs, and in other future soil bearing situations. This material may also be used for below pavements, for fill slopes, as sidewalk subbase, and where raises in grade are required.

B. Sand and Gravel

This material is used for above and around subdrainage systems as outlined herein and for base material for sidewalk repairs. The Contractor may also choose to use this material as a working mat in wet areas and to expedite dewatering and pumping.

C. Suitable On Site Fill

Use this material for fill slopes, within the building footprint if moisture controlled, and gradation requirements for structural fill are met, and under pavements subgrades, if gradation requirements are met.

D. <u>Processed Aggregate Base Course</u>

Use this material as a base course below flexible and rigid pavements and sidewalks.

E. 3/4" Crushed Stone

Use this material for pipe bedding, or where indicated on the Contract Drawings.

F. NYSDOT 304 No 4 Stone

Use this material for base material as a pavement base, or where specified or where indicated on the Contract Drawings.

G. <u>Corrugated Polyethylene Tubing</u>

Use this tubing for all subdrains.

H. Topsoil

Use topsoil for final grading of proposed grass areas.

PART 3 - EXECUTION

3.1 EXAMINATION AND PREPARATION

- A. Verify that survey benchmark and intended elevation for the work are as indicated.
- B. Identify required lines, levels, contours, and datum.
- C. Notify Owner in writing of unexpected subsurface conditions and discontinue affected work in area until notified to resume work.
- D. Identify and flag known utility locations. Maintain and protect existing utilities to remain and which pass through the work areas.
- E. Verify fill material to be reused are acceptable.

3.2 PROTECTION OF ADJACENT WORK

- A. Protect all adjacent structures which may be damaged by dewatering and excavation work, including service utilities and pipe chases. All damage caused by construction activities shall be repaired by the Contractor at no additional expense to the Owner.
- B. Grade excavations and fills to prevent surface water runoff into the work area or to adjacent properties.
- C. Protect benchmarks, property corners and all other survey monuments from damage or displacement. If a marker needs to be removed it shall be referenced by a licensed land surveyor and replaced, as necessary, by the same.

3.3 EXCAVATION AND REMOVAL OF TOPSOIL AND MISCELLANEOUS FILL AND MISCELLANEOUS MATERIAL

- A. Materials suitable for reuse as determined by the **Owner's** Geotechnical Engineer shall be stored in designated locations that will not interfere with demolition or building operations. As previously specified, topsoil to be reused shall be free from clay, large stones and debris. All materials not suitable for reuse shall be legally disposed of off-site as specified elsewhere in the Contract Documents.
- B. Excavated topsoil, unusable boulders, unusable excavated rock and unsuitable materials shall be removed and stockpiled at a designated location if to be reused or otherwise removed from the project at the Contractor's expense.
- C. Clean Concrete building demolition debris and/or excavated rock consisting of on-site boulders and mechanically broken ledge shall be stockpiled on-site for preparation of primary and secondary crushing, as necessary, for reuse at locations on-site provided material gradations after any processing, screening and mixing operations meet those outlined in Section 2.01 herein. Alternatively, all excavated rock should be legally disposed of off-site. Boulders encountered on-site may be disposed of on-site at selected locations approved by the Engineer outside future building pad areas of influence.

3.4 SITE AND FOUNDATION DEMOLITION EXCAVATION

- A. All areas within the limits of demolition work shall be excavated to remove items to be demolished and backfilled with suitable material to the subgrade lines and elevations as shown on the plans and cross sections in accordance with these specifications
 - Surplus material, if any, shall be disposed of off-site in a legal manner at the Contractor's expense and in accordance with the Containerization, Characterization and Disposal of Waste specification.
- B. The Contractor shall follow a construction procedure which permits visual identification of subgrade soils.
 - In the event that groundwater is encountered, the Owner and Environmental Scientist may require that the size of the open excavation be limited to that which can be handled by the Contractor's chosen method of dewatering and allow visual observation of the bottom and placement of all fill in the dry.
- C. If subgrade soils become loose and saturated, the Contractor shall be required to excavate such loose and saturated soils and replace them, at no additional cost to the Owner, with compacted gravel fill in order to stabilize areas which may become disturbed due to surface runoff, demolition or construction disturbances by the Contractor, and subsurface seepage pressure and also to expedite pumping.

- D Protect all subgrade soils. Excavate subgrade soils which become disturbed, and backfill in accordance with specifications at Contractor's expense.
- E. Maintain safe and stable excavation walls in accordance with OSHA requirements.
- F Excavate in a manner that will not disturb existing foundations to remain. Plans for excavating near existing remaining foundations shall be submitted to the Engineer for approval prior to beginning such excavation.
- G Correct unauthorized excavation at no additional cost to the Owner.

3.5 TRENCH DEMOLITION EXCAVATION

- A. Excavate for demolition of sewer, water, and drainage piping and other utilities at locations indicated on the Contract Drawings. Dewater trenches to permit work to be performed in dry conditions. Over excavate and remove unsuitable material and replace and compact with crushed stone or material approved by the Engineer.
- B. Cut trenches sufficiently wide to enable installation and inspection of utilities. Cut trenches sufficiently wide to allow compaction of fills with a double-drum, walk-behind vibratory roller. Slope or shore trenches in accordance with OSHA standards.
- C. Support pipe and conduit to remain during placement and compaction of bedding fill.
- D. Backfill trenches with specified material according to the specifications contained herein and the Contract Drawings to required contours and elevations.
- E. Place and compact fill materials in accordance with specifications contained hereinafter.
- F. Dispose of unsuitable materials, rock not to be used, etc. in a legal manner offsite and in accordance with the Containerization, Characterization and Disposal of Waste specification.

3.6 PROOFROLLING

- A. Proofroll existing natural soil subgrade and fill subgrades within building demolition and pavement demolition areas prior to placement of fill in all building and pavement areas or prior to backfilling of utilities in demolition areas, in two perpendicular directions. Proofrolling shall consist of multiple passes over the subgrade using a smooth drum vibratory drum-roller (minimum 15-ton static drum weight) to locate soft, yielding, loose or unstable subgrades. Any soft, weaving or deleterious areas shall be locally excavated and replaced with compacted Structural Fill or Suitable Onsite Fill to form a stable subgrade. This work shall be performed under the direct observation of the Geotechnical Engineer. The Geotechnical Engineer may elect to waive this work within wet areas, if excessive disturbance is being created.
- B. If the exposed subgrade is wet or otherwise susceptible to disturbance, the Geotechnical Engineer may waive proofrolling requirements.

3.7 SHORING, SHEETING AND BRACING

A. Provide shoring, sheeting and/or bracing of excavations as required to assure complete safety against collapse of earth at side of excavations. Alternatively, lay back excavations to a stable slope.

- B. Excavations shall be adequately sheeted, shored and braced as necessary to permit proper execution of the work and to protect all slopes and earth banks until new building walls are cured and acceptable for backfill. Sheet piling shall be installed if required to prevent cave-ins or settlement and to protect workmen and utilities. Shoring and bracing may be removed as the backfilling progresses, but only when banks are safe against caving, taking all necessary precautions to prevent collapse of excavation sides. Bracing of all foundation walls during backfilling and compaction is the responsibility of the Contractor.
- C. Comply with OSHA and local safety regulations.
- D. Remove sheeting or shoring, etc. as backfilling operations progress, taking all necessary precautions to prevent collapse of excavation sides. Where sheeting is required to be left in place, as determined by the Geotechnical Engineer, in areas not indicated on Contract Drawings, additional payment will be made as provided under change order.
- E. Temporary bracing of all below-grade walls to eliminate movement during backfilling will be required except in cases where the wall have been integrated into the permanent superstructure and derive support therefrom. The design and proposed construction procedure for bracing systems shall be submitted to the Engineer for approval at least two weeks prior to commencing backfill operations.

3.8 PLACEMENT AND COMPACTION OF FILL

A. All areas within the limits of demolition work shall be filled or excavated and filled with suitable materials to the subgrade lines and elevations as shown on the plans as herein specified. The use of on-site materials shall be permitted only if such materials meet the respective requirements of the Section 2.01, MATERIALS section of these Specifications and only when authorized by the Geotechnical Engineer and given that the material meets the reuse requirements as outlined in NYSDEC DER- 10, Technical Guidance Document for Site Investigation and Remediation.

Off-site borrow material necessary to achieve design subgrades shall be provided at the Contractor's expense and shall also meet the requirements of the sub-part 2.01 section of these specifications. All fill materials, including existing suitable on-site materials and off-site borrow materials, shall be in conformance with the sub-part 2.01 section of these specifications and given that the material meets the reuse requirements as outlined in NYSDEC DER- 10, Technical Guidance Document for Site Investigation and Remediation and is in accordance with imported fill material specifications. Do not place backfill or fill material on surfaces that are muddy, frozen or contain frost or ice. Remove and replace or scarify and air dry satisfactory soil materials that are too wet to compact to specified density.

- B. The Geotechnical Engineer must be allowed sufficient time to make necessary observations and tests. A minimum of four working days shall be required by the Geotechnical Engineer for performing laboratory compaction and sieve tests. Forty-eight hours notice shall be given by the Contractor to the Geotechnical Engineer when field observations and tests are required.
- C. Grade and compact fill surface to readily shed water. Slope fill surfaces away from buildings a minimum of two inches in 10 feet, unless otherwise noted. Make grade changes gradual. Blend slope into level areas.
- D. Where horizontal layers meet a naturally rising slope exceeding 1 vertical to 5 horizontal, key layer into slope by benching into the slope with minimum 4 foot high vertical steps.

- E. Compact fill within 10 feet of the back of any retaining walls with a vibratory plate compactor weighing no more than 300 pounds.
- F. At completion of work, leave site completely free of excess fill materials.
- G. The degree of compaction shall be based on a maximum dry density as determined by ASTM D-1557. Compaction of silt and clays and of fine sand and silty sand shall be per materials at moisture contents within the percentages of acceptable optimum moisture contents. The degree of compaction for fill placed in various areas shall be as follows:

	<u>Areas</u>	Maximum Degree of Compaction
1.	Gravel Fill below slabs and in future load bearing locations	95%
2.	Structural Fill in demolished utilities, foundations and floor slab areas	95%
3.	Controlled Suitable On Site Fill within 6 feet of pavement surface	95%
4.	Structural Fill or Controlled Suitable On Site Fill deeper than 6 feet below pa	92% avements
5.	Crushed Stone for pavement base courses	95%
6.	Base material and subgrade Below pavement and sidewalk	95%
7.	Trench backfill	95%
8.	All fill in slope areas at or steeper than 10 Horiz. to 1 Vert.	92%
9.	Gravel fill around subdrains	Tamp into place with hand operated flat plate vibratory compactor to 95%

H. After all excavation has been completed, unless indicating otherwise herein, all new fill materials shall be deposited in loose lift thickness not exceeding ten (10) inches in depth over the areas to be filled. In exceptional cases, the Geotechnical Engineer may permit the first layer to be thicker than ten (10) inches.

The entire area of each layer shall be compacted with the specified equipment to the specified degree as outlined herein. No subsequent layer shall be deposited until the specified compaction is achieved for the previous layer. If necessary to obtain the required compaction due to fill becoming too dry, water shall be added if authorized by the Geotechnical Engineer.

Compacted fills shall be prevented from freezing by use of approved admixtures or by use of approved protection on the surface, or both.

I. Excavated material containing rock or stone greater than 6" in largest dimension is unacceptable as fill within 24 inches of proposed subgrade elevation in the proposed building and paving area.

Rock or stone less than 3" in largest dimension is acceptable as fill within 24" of proposed subgrade when mixed with suitable material.

Rock or stone less than 2" in largest dimension and mixed with suitable material is acceptable as fill within the upper 2' of proposed subgrade.

J. Procedures

- 1. Protect both fill and cut areas by grading surface topography to promote drainage away from these areas and by providing smooth surfaces which readily shed water.
- 2. To the extent that it is practicable, each layer of fill shall be compacted to the specified density the same day it is placed.
- 3. Fill that is too wet for proper compaction shall be diced, harrowed, or otherwise dried to a proper moisture content for compaction to the required density. If the fill material cannot be dried within forty-eight (48) hours of placement, it shall be removed and replaced with drier fill.
 New fill shall have a moisture content which is within 5% of the optimum moisture content per ASTM D-1557 for Clay and Silt placed greater than 6 feet below pavement or embankment grades. (Within 3% of the optimum moisture content within the top six feet below future building and pavement subgrades).

3.9 FILL PLACEMENT IN TRENCHES

- A. As soon as practicable after the pipe has been removed, backfilling shall be performed. The Contractor shall be held responsible for the satisfactory execution of pipe line demolition. If subsequent testing shows defects in materials or workmanship, the necessary repairs and replacements shall be made by the Contractor at his own expense to the satisfaction of the Geotechnical Engineer
- B. Backfill shall be placed simultaneously on either side of the pipe alignment. In placing material, care shall be taken that stones do not strike the pipe.
- C. From the bottom of the pipe in the trench to a minimum of 12 inches above any remaining pipe, the trench shall be backfilled by placing and packing the specified materials by hand shovel. The filling shall be carried up evenly on both sides of the pipe, care being taken not to raise or otherwise dislodge the pipe. Backfill to this depth shall be thoroughly compacted with approved hand-operated devices.
- D. No stone or rock fragment greater than 3 inches shall be placed into the trench. Large masses of backfilling materials shall not be dropped into the tamped layers of backfill. Trench backfilling shall be placed in 8 inch maximum loose lifts.
- E. No compaction shall be done when the material is too wet to be compacted properly; at such times, the compaction work shall be suspended until the previously placed and new materials have dried out sufficiently to permit proper compaction, or such other precautions shall be taken as may be necessary to obtain proper compaction. Water jetting or flooding to attain compaction is not permitted.

F. An independent testing laboratory shall perform compaction test at intervals not exceeding 150'-0" of trench for the first and final eight-inch (8") lift of compacted trench backfill and furnish copies of test results as specified.

3.10 REUSE OF EXCAVATED MATERIALS

A. Inorganic on-site soils (i.e. portions of existing fill materials) which are excavated during site grading and demolition of buildings and utilities may be reused as fill materials providing that the excavated materials meet the requirements of sub-part 2.01 of these specifications and are of suitable moisture content and meet the soil reuse requirements set forth in NYSDEC DER-10. Rock which is excavated during site grading and removal of buildings and utilities may be reused as fill materials providing that the excavated materials meet the requirements of these specifications.

3.11 DEWATERING

A. General

- This section specifies the designing, furnishing, installing, maintaining, operating and removing of a complete temporary dewatering system as required to lower and control water levels, hydrostatic pressures during construction; disposing of pumped water; construction, maintaining, observing and, except where indicated or required to remain in place, removing or filling of dewatering tubing and observation well; and instrumentation for control of the system.
- 2. The Contractor shall provide, at his own expense, adequate pumping and drainage facilities to keep the *excavation* areas sufficiently dry from groundwater and/or surface runoff so as not to adversely affect construction procedures or cause excessive disturbance of underlying natural ground. The drainage of all water resulting from pumping shall be arranged so as not to cause damage to adjacent property. All requirements of local environmental or conservation authorities shall be satisfied with respect to discharge of pumped water. Discharge of pumped water shall comply with requirements of the Demolition and Environmental Management of Imported *Media* specification.
- 3. Dewatering includes lowering the water table and intercepting seepage which would otherwise emerge from the slopes or bottom of the excavation, thereby decreasing the stability of excavated slopes, causing loss of material from beneath the slopes or bottom of the excavation and hauling characteristics of soil, and/or causing rupture or heaving of the bottom of an excavation.

B. Design Criteria

- 1. Design of dewatering system which will:
 - Develop a substantially dry and workable subgrade for the execution of subsequent operations;
 - b) Cause no damage due to the loss of ground from incompletely drained soils or removal of soil particles in the discharge.
- 2. Relocate dewatering procedures which cause, or threaten to cause, damage to new or existing facilities. These *modifications* will be at no additional expense to the Owner.

- 3. Modify dewatering procedures which cause, or threaten to cause, damage to new or existing facilities. These modifications will be at no additional expense to the Owner.
- 4. Maintain the artificially lowered groundwater table at least 2 feet below the proposed excavation levels.

C. Job Conditions

- The Contractor shall repair damage, disruption or interference to existing properties, buildings, structures, utilities and other work resulting directly or indirectly from operations conducted under this contract, loss of ground due to incompletely drained soils, or removal of soil particles in discharge from the dewatering operations, to the Geotechnical Engineer's satisfaction at no cost to the Owner.
- 2. Provide means for sampling dewatering system discharge so that water quality can be determined on a routine basis. A sampling plan should be submitted to NYSDEC for approval
- 3. All dewatering tubing to be left in-place below building areas shall be pressure grouted with neat cement to prevent long-term loss of soil fines into the tubing with subsequent potential for advanced structure settlements.
- 4. Comply with Environmental Specifications within the Contract.

D. <u>Execution</u>

1. <u>Surface Drainage</u>

- a) Intercept and divert surface drainage away from the excavations and observation wells.
- b) Design surface drainage systems so that they do not cause erosion on or off the site or cause unwanted flow of water.
- c) Remove the surface drainage system when no longer required.
- d) Remove debris and restore the site or sites to original conditions.
- e) Surface drainage may be discharged into storm sewers provided that any necessary permits are obtained by the Contractor and surface waters are not environmentally impacted and such discharge is in compliance with the Containerization, Characterization and Disposal of Waste specification.

Drainage of Excavated Area

- a) Collect surface water and seepage which may enter the excavation, and divert the water into a sump so that it can be drained or pumped away from the work area. Use frac tanks as specified in environmental specifications.
- b) Install settling basins or other approved apparatus as required to reduce the amount of soil fine particles which may be carried by water diverted or pumped during demolition or construction.

- c) Dispose of water in a manner approved by the Owner and Owner's Geotechnical Engineer and Environmental Consultant or NYSDEC, and in compliance with the Containerization, Characterization and Disposal of Waste specification.
- d) Backfill sumps and settling basins when no longer required with structural fill material, concrete or other material as approved by the Geotechnical Engineer.

3. Dewatering of Subsurface Water

- a) Dispose of subsurface water collected in a manner approved by the Owner and Geotechnical Engineer and Environmental Scientist in work areas.
- Maintain continuous and complete effectiveness of the installation at all times.
- c) Maintain water levels at such elevations that no damage to the structure can occur because of excessive or deficient hydrostatic pressure.

3.12 PAVEMENT BASE AND SUBBASE IN PAVEMENT REPAIR AREAS

A. <u>Subbase preparation shall be carefully</u> shaped to the required cross section and compacted as follows:

The entire area of each layer of the embankment and the subgrade in the excavated areas shall be uniformly compacted to at least the required minimum density by use of compaction equipment consisting of rollers, compactors or a combination thereof. Earth-moving and other equipment not specifically manufactured for compaction purposes shall not be considered as compaction equipment. Compact each lift by a minimum of six passes of a Bomag 210 vibratory roller or equivalent vibratory roller.

- B. The dry density after compaction shall not be less than 95 percent of the dry density for that soil when tested in accordance with AASHTO T 180, Method D.
- C. <u>Where underdrains and outlets are specified</u> on the plans or ordered by the Engineer, they shall be in place and functioning before any subbase material is placed.
- D. <u>Install geotextile filter fabric</u> in unsuitable fill locations and if directed by the Geotechnical Engineer in compliance with manufacturers requirements at pavement subgrade.
- E. <u>Spread subbase material</u> uniformly upon the required grade, in courses not to exceed 6 inches in thickness after final compaction. However, if the required thickness of subbase does not exceed 8 inches, it may be placed in one course when compacted by heavy compaction equipment. If hand operated tampers are utilized, layers shall not exceed more than 4 inches in loose depth.
- F. Compact after each course has been placed as specified above; its entire area shall be compacted with equipment specifically manufactured for that purpose. The sole use of

hauling and spreading equipment shall not be considered as a substitute for compacting equipment.

Exception to the use of compacting equipment shall be allowed where subbase is made of gravel and used in conjunction with a traffic bound gravel surface in which case the work shall be as follows:

G. Spreading shall begin at the end of the project nearest the source of supply of the material in such a way that, as the work progresses, the material is trucked over that already in place so as to obtain as much compaction as possible during construction. No other compaction of the material will be required.

Should the foundation material beneath any subbase become churned up and mixed with subbase at any time, the Contractor shall, without additional compensation, remove the mixture and replace it with new subbase material to the required thickness shown on the plans or as previously required by the Engineer. Such replaced subbase material shall be compacted to the required minimum density placed upon the prepared subbase to a depth which will not be less than the required depth after compaction. The subbase shall be true to line and grade a minimum of 200 feet in advance of the work.

Maximum thickness of the course shall not exceed four (4) inches prior to compaction unless permitted by the Engineer.

H. <u>Processed aggregate base</u> preparation shall be uniformly placed upon the prepared subbase to a depth which will not be less than the required depth after compaction. The subbase shall be true to line and grade a minimum of 200 feet in advance of the work.

Maximum thickness of the course shall not exceed four (4) inches prior to compaction unless permitted by the Engineer.

I. <u>The bottom course</u> shall be spread uniformly upon the prepared subbase. Only approved spreaders or stone boxes shall be used. Power graders shall not be used unless otherwise permitted by the Engineer.

After the aggregate is spread, it shall be thoroughly compacted and bound use of equipment specifically manufactured for that purpose. Rollers shall deliver a ground pressure of not less than 300 pounds per linear inch of contact width and shall weigh not less than 10 tons. Vibratory units shall have a static weight of not less than 4 tons. Water may be used during the compaction and binding operation. Water shall be applied from an approved watering device. The direction and intensity of the stream shall be as ordered by the Engineer. The compacting and binding operation shall begin at the outside edges, overlapping the shoulders for a distance of not less than 6 inches and progress towards the middle, parallel with the centerline of the pavement. The work shall cover the entire surface of the course with uniform overlapping of each preceding track or pass. Areas of super-elevation and special cross slope shall be compacted by beginning at the lowest edge and proceeding towards the higher edge, unless otherwise directed by the Engineer. The compacting and binding operation shall be continued until the voids in the aggregates have been reduced to provide a firm and uniform surface satisfactory to the Engineer. The amount of compactive effort shall be as directed by the Engineer, but in no case shall be less than four (4) complete passes of the compacting equipment being used. Any surface fines shall be distributed uniformly by use of brooms during the compacting and binding operations. All aggregate shall be completely compacted and bound at the end of each day's work or when traffic is to be permitted to operate on the road.

J. <u>Construction methods for the top course</u> shall be the same as described for the bottom course. Construction of the top course shall not commence until the bottom course has been

approved by the Engineer and accepted. Final total thickness of the two courses shall equal the thickness as specified on the plans.

Any soft yielding or irregular areas which develop during or after work on either course shall be removed and replaced with suitable aggregate as required. The area shall then be rebound and recompacted until it is brought to a uniform surface to match the adjacent base all as approved by the Engineer.

3.13 GRADING AND ELEVATIONS

- A. Grading outside building lines shall consist of grading areas adjacent to building lines to drain away from structures and to prevent ponding. Finish ground surfaces shall be free from irregular surface changes, and meet the following requirements:
 - 1. Grassed areas: Finish areas scheduled to receive topsoil to within not more than 2" above or below the required subgrade elevations.
 - 2. Walks: Shape surface of areas under walks to line, grade and cross-section, with finish surface not more than 1" above or below the required subgrade elevation.
 - 3. Pavements: Shape surface areas under pavement to line, grade and cross-section, with finish surface not more than 1" above or below the required subgrade elevation.
 - 4. Grading of building areas shall be checked by string line from grade stakes set at not more than 50' centers. Tolerance of <u>0.10 feet</u>, more or less, will be permitted. Contractor to provide engineering and field staking necessary for verification of lines, grades, and elevations.
- B. The Owner's representative may make such adjustments in grades and alignment as are found necessary in order to avoid interference and other special conditions encountered. Grading of backfills shall provide smooth, even surfaces, except as otherwise required. Minimum cover over pipes shall, in any case, conform to requirements of local and state agencies having jurisdiction.
- C. Modify dewatering procedures which cause, or threaten to cause, damage to new or existing facilities. These modifications will be at no additional expense to the Owner.
- D. Maintain the artificially lowered groundwater table at least 2 feet below the proposed excavation levels.

3.14 REMOVAL OF SURPLUS MATERIALS

A. Remove all surplus earth, boulders, crushed concrete and rock materials including unsuitable miscellaneous fill materials and building debris, not needed to complete filling and grading to an approved area off-site and outside of the work limits unless otherwise directed. No on-site area shall be approved by the Owner. All surplus materials removed off-site and outside of the work limits shall become the property of the Contractor. Costs for transportation and disposal of surplus on-site and off-site materials shall be included in the Contractor's Lump Sum Bid Price. Surplus materials removal shall comply with requirements of the Containerization, Characterization and Disposal of Waste specification.

3.15 FIELD QUALITY CONTROL

EARTHWORK 02200-17

- A. Provide for observation by the Geotechnical Engineer of bottom excavation and of bearing surfaces.
- B. Testing and analysis of fill materials will be performed in accordance with ASTM D-422. D-1140 and D-1557.
- In-place compaction testing will be performed in accordance with ASTM D-1556, D-2167 or ASTM D-5195.
- D. If tests indicate work does not meet specified requirements, remove work or recompact where appropriate, replace and retest at no cost to Owner.

3.16 PROTECTION

- A. Protect excavations to prevent cave-in or loose soil or debris from falling into excavation. Observe OSHA standards for trenching and excavation.
- B. Protect bottom of excavation and soil adjacent to and beneath foundations from freezing. Do not place fill over frozen soil.
- C. Recompact fills subjected to vehicular traffic or other disturbances.

END OF SECTION 02200

EARTHWORK 02200-18

SECTION 02270

WATER POLLUTION CONTROL (SOIL EROSION)

PART 1 GENERAL

1.1 PURPOSE

The purpose of implementing the Water Pollution Control (Soil Erosion) plan is to facilitate the demolition of the facilities with a minimum amount of environmental nuisance from the standpoint of erosion, sedimentation and dust pollution. To this end, satisfactory preventive measures shall be employed. This work shall be performed as required by New York State Department of Environmental Conservation and shall consist of temporary control measures during the life of this Contract as well as permanent control measures which will remain beyond the length of construction contract to effectively control land erosion and water pollution.

1.2 RELATED DOCUMENTS

Drawings and general provisions of contract, including General Conditions and Division 1 Specification Sections apply to this Section.

Stormwater Pollution Prevention Plan for Construction Activities for Greenport Crossings, Greenport, New York.

1.3 SECTION INCLUDES

The work under this section shall consist of any and all temporary and/or permanent measures to control water pollution and soil erosion as may be required, specified herein, shown on the Contract Drawings or directed by the Owner, during the demolition and/or construction of the work embraced under this contract and for such a length of time after the completion of the work embraced under this contract as determined by the Owner.

This work applies to, but is not limited to, any construction work resulting in water pollution or soil erosion.

The work shall consist of temporary erosion control protection measures to control water pollution and soil erosion through the use of berms, dikes, dams, sediment basins, sediment traps, temporary seeding, erosion control mats, gravel, mulches, grasses, slope drains, ditches, channels, riprap, fabric fences, geo-fabrics, hay bales, and grading to control surface runoff and other erosion control devices or methods.

The work shall also include the construction and maintenance and cleaning of any temporary sediment basins and sediment traps to the required volumes and at the locations shown on the contract drawings or as directed by the Engineer.

The Contractor will be required to submit for approval to the Owner a detailed sequence of demolition and an Erosion and Sedimentation Control Plan in conformance with the Contract Drawings and as specified herein. This sequence of demolition shall be submitted a minimum of fourteen (14) days prior to the start of any construction.

Demolition shall not proceed until the erosion and sedimentation controls have been placed and have been approved by the Engineer.

The Contractor will be required to have on site trained person(s) in Stormwater Pollution Prevention and who shall carry NYSDEC proof of training card on site and who shall monitor and supervise Stormwater Pollution Prevention and preparation of SWPPP inspection reports.

1.4 RELATED SECTIONS

- A. Section 02110 Clearing and Grubbing
- B. Section 02200 Earthwork
- C. Demolition Drawings

1.5 ENVIRONMENTAL REQUIREMENTS

Protect adjacent properties and water resources from erosion and sediment damage throughout life of contract.

A notice of intent (NOI) and Stormwater Pollution Prevention Plan will be required to be submitted and approved by the New York State DEC by the Contractor prior to the start of any demolition or construction activity on site, the Contractor shall comply with SPDES requirements for stormwater discharges.

PART 2 PRODUCTS

2.1 MATERIALS

- A. The materials shall be satisfactory to the Owner and may consist of the following:
 - Mulches may be hay, straw, wood cellulose, wood chips, stone, netting, burlap, plastic sheets or other suitable mulch material acceptable to the Owner. Mulches shall be reasonably clean and free of noxious weeds and deleterious materials. Asphalt sprays will not be allowed. The Contractor shall prevent straw, wood chips, etc. from entering any reservoirs or watercourses.

For Seeded Areas: Either one or a combination of the following:

- 1. <u>Hay</u>: Timothy hay, mixed clover and timothy hay, or other acceptable native or forage grasses, well-cured to less than 20% moisture content, by weight.
- 2. <u>Straw</u>: Either wheat or oat straw, reasonably free of viable seed, well cured to less than 20% moisture content, by weight.
- 3. <u>Wood Fiber</u>: Specially prepared, biodegradable, air-dried wood fibers manufactured from 100% wood chips or bark from lumber mill processing operations, tinted with nontoxic, green dye and containing an organic tackifier approved for use with wood fibers; manufactured to applied with hydraulic seeding equipment; and meeting the following requirements:

•	Moisture Content	15% Maximum
•	Organic Matter	95% Minimum
	(Oven-Dried Basis)	

•	Water Holding Capacity	1,000 Minimum
	(Grams of Water per 100	
	Grams of Fiber)	

•	Tackifier Content	2.5% to 3.5%
	(By weight)	

- B. <u>Mulch Binders</u>: The following or other acceptable binder materials manufactured for this purpose:
 - 1. <u>Recycled Cellulose Fiber</u>: Specifically prepared, biodegradable, shredded paper particles, comprised of recycled newsprint or other recycled wood cellulose fiber, containing a furactant and nontoxic, green dye; manufactured to be applied with hydraulic seeding equipment; and meeting the following requirements:

Moisture Content
 17% Maximum

Organic Matter
 80% Maximum

(Oven-Dried Basis)

Water Holding Capacity
 900 Minimum

(Grams of Water Per 100 Grams of Fiber)

2. <u>Wood Fiber</u>: Specifically prepared, biodegradable, air-dried wood fibers manufactured from 100% wood chips or bark from lumber mill processing operations, tinted with nontoxic, green dye and containing an organic tackifier approved for use with wood fibers; manufactured to be applied with hydraulic seeding equipment; and meeting the following requirements:

Moisture Content
 15% Maximum

Organic Matter
 95% Maximum

(Oven-Dried Basis)

Water Holding Capacity
 1000 Minimum

(Grams of Water Per 100 Grams of Fiber)

• Tackifier Content 2.5% to 3.5%

(By weight)

- 3. <u>Nonasphaltic Emulsion</u>: Either water soluble natural vegetable gum blended with gelling and hardening agents or a water soluble blend of hydrophyllic polymers, viscosifiers, sticking aids, and gums.
- 4. Polyvinyl Acetate: Emulsion resin, containing 60% ±1% total solids by weight.
- 5. Recycled Cellulose Fiber/Wood Fiber Mixture: Specifically prepared mixture of biodegradable, air-dried wood fiber, manufactured from wood chips or bark, and shredded paper particles, comprised of recycled newsprint or other recycled cellulose fiber combined with a surfactant and a nontoxic, green dye; manufactured to be applied with hydraulic seeding equipment; and meeting the following requirements:

Wood Fiber 45% to 55%

• Recycled Cellulose Fiber 45% to 55%

Moisture Content
 21% Maximum

Organic Matter 97% Maximum

(Oven-Dried Basis)

Water Holding Capacity
 900 Minimum

(Grams of Water Per 100 Grams of Fiber)

C. Erosion Control Blankets: As specified on Contract Drawings.

- D. <u>Slope drains or ditches</u> may be constructed of pipe, rubble, riprap, geosynthetic erosion control mats, sod, burlap, jute and excelsior matting, or other material satisfactory to the Owner and Engineer.
- E. <u>Sediment Traps</u> shall be constructed with materials in accordance with Section 2-40 of the New York State, Department of Transportation, Specifications, 2006, or latest revised edition.
- F. <u>Permanent Grass</u> shall conform to the following except that the seeding may be altered by the Owner if requested by the Contractor to suit special areas or conditions.

PERMANENT SEEDING MIXTURE (LAWNS)

15%	Perennial Ryegrass (Blend of Three Improved Hybrids)
25%	Fine Leaf or Creeping Fescue (Blend of Three Improved Hybrids)
60%	Kentucky Bluegrass (Blend of Three Improved Hybrids)

G. <u>Temporary Grass</u> shall conform to the following except that the seeding may be altered by the Owner if requested by the Contractor to suit special areas or conditions.

TEMPORARY SEEDING MIXTURE TYPE I (TOPSOIL STOCKPILES)

<u>Species</u>	Proportion by Weight (Pounds)	Minimum Purity <u>(Percent</u>)	Minimum Germination (Percent)
Perennial Ryegrass (Lolium perenne)	50	90	85
Annual Ryegrass (Lolium mult. perenne)	50	90	85

TEMPORARY SEEDING MIXTURE TYPE II (FILTER STRIPS)

	Proportion by Weight	Minimum Purity	Minimum Germination
<u>Species</u>	(Pounds)	(Percent)	(Percent)
K-31 Tall Fescue			
(Festuca arundinaceal)	30	30	90-95
Birdsfoot Trefoil*			
(Lotus cornicultus var. arvensis)	24	24	90-95
Annual Ryegrass			
(Lolium multiflorium)	16	16	90-95
Alsike Clover			
(Trifolium hydridum)	10	10	90-95
Timothy			
(Phleum pratense)	16	16	90-95
Red Top			
(Agrostis alba)	4	4	90-95

TEMPORARY SEEDING MIXTURE TYPE III

	Prop	ortion N	dinimum	Minimum
	by W	eight F	Purity	Germination
<u>Species</u>	(Pounds)	(Percent)	(Per	cent)
K-31 Tall Fescue				

(Festuca arundinaceal)	70	70	90-95
Birdsfoot Trefoil*			
(Lotus cornicultus var. arvensis)	20	20	90-95
Red Top			
(Agrostis alba)	10	10	90-95

H. <u>Geotextile Fabrics for erosion control</u> shall consist of durable polypropylene, polyethylene or other material approved by the Engineer or as shown on the Contract Drawings conforming to the following:

Grab Tensile Strength 2	00
Mullen Burst Strength 3	75
Trapezoidal Tear Strength 1	00
Modules (Load & 10% elong.)	25
Water Perm. Coeff. (cm./sec.) 0	.005
Thickness (mils) 2	4
Weight (oz/sq.yd) 4	.0
Ultraviolet Stability M	1aximum

- I. <u>Hay bales</u> shall be made of hay with 40 pounds minimum weight and 120 pounds maximum weight. Wood stakes shall be a minimum of 1 inch by 1 inch nominal size by a minimum of 3 feet long.
- J. <u>Silt Barrier Fence</u> shall consist of Class 3 geotextile material, woven from isotatic polypropylene monofilaments, non-biodegradable, and resistant to chemical degradation. Material shall meet or exceed the following standards:

1.	Resistance to Installation	Specifications
	Stresses	
a.	Grab tensile strength (lbs.)	ASTM-D-1682 90
b.	Grab tensile elongation (%)	ASTM-D-1682 15-25
C.	Burst strength (psi)	ASTM-D-751 200
d.	Trapezoidal tear strength (lbs.)	ASTM- D-2263 50
2.	Performance Criteria During	Specifications
	Service Life	
a.	Slurry flow rate (gals/min/ft)	VTM-51 0.3
b.	Retention efficiency	VTM-51 75
3.	Environmental Factors	Specifications
a.	Ultraviolet resistance, strength	ASTM-D-1982 80
	retention	500 hrs of Xenon Atlas Twin
		Arc Weather-O-meter

K. <u>Sediment basins</u> shall be constructed of materials conforming to applicable items as shown on the contract drawings or per NYSDEC requirements.

PART 3 EXECUTION

A. <u>Erosion and Sedimentation Control Plan</u>: After the award of the Contract and fourteen (14) days prior to beginning any construction, the Contractor shall submit to the Owner and Local County Conservation District Officials a final Erosion and Sedimentation Control Plan and Construction Schedule based on these specifications and the Contract Drawings. Said final plan shall be reviewed by the Owner and as applicable by the Town of Greenport and Local County Conservation District Officials and a meeting shall be conducted to coordinate the contractor's activities and to satisfy any comments. Said final plan shall be accepted by the

Owner and the Town of Greenport and Local County Conservation District Officials prior to the commencement of any construction or demolition.

- B. The Owner has the authority to control the surface area of earth materials exposed by construction operations and to direct the Contractor to immediately provide permanent or temporary pollution control measures to prevent contamination of adjacent streams, watercourses, lakes, ponds, or other areas of water impoundment. Every effort shall be made by the Contractor to immediately provide permanent or temporary pollution control measures to prevent contamination of adjacent streams, watercourses, lakes, ponds, or other areas of water impoundment. Every effort shall be made by the Contractor to prevent erosion on the site and abutting property.
- C. <u>The Owner</u> has the authority to direct the Contractor to divert surface water runoff away from exposed raw earth surfaces through the use of temporary berms, dikes, and diversion channels.
- D. The erosion control features shall be installed and maintained by the Contractor, and shall be checked daily and after each severe rain storm for damage, until such features are no longer needed. All sediment traps and sediment basins shall have the accumulated sediment and/or clean water removed before it significantly reduces their storage volume or function, prior to the next rain storm forecast for the region. All grounds disturbed by any of the operations necessary to complete the work for this project are to be permanently seeded. This is to be accomplished as soon as possible, but no later than ten (10) days after construction. If seeding cannot be completed within the ten (10) day period due to weather conditions, the disturbed area shall be mulched with straw at the rate of two (2) bales per 1,000 square feet. This straw shall be anchored with mulch netting according to the manufacturer's recommendations or other appropriate means.
- E. <u>Temporary seeding</u> will be used to protect exposed land surfaces that will not be permanently protected for a period more than two months, but less than twelve (12) months. Temporary vegetation will provide short-term rapid cover until permanent vegetation or other protection can be established.
- F. <u>Sedimentation Basins (when indicated on the Contract Drawings)</u> shall be constructed to the dimensions and details as shown on the Contract Drawings and as directed by local governing authorities and the Owner. Except as may be required to provide access to the work and to secure on-job materials required, the sedimentation basins shall be constructed prior to the start of any other work upstream from the basins in the runoff area controlled by the bowl. The Contractor shall install additional basins dependent on the Contractors sequence of operations and location of construction.

The Contractor shall provide and maintain adequate access to the basin, and shall be responsible for the maintenance, cleaning, protection and repair of all sediment basins for the life of the contract.

When the sedimentation basin is no longer required, or when otherwise directed, satisfactorily recondition the site by filling in excavated areas, removing dams, and by removing embankments, riser pipe assemblies, corrugated metal pipe, and anti-seep collars. Restore the areas to equal to or better than the conditions which existed prior to disturbance. Satisfactorily dispose of all surplus soils or materials and in compliance with the Containerization, Characterization and Disposal of Waste specification.

G. <u>All slopes</u> of stockpile material and other disturbed areas shall be stabilized and protected by surrounding with silt fencing, mulching, seeding, or otherwise protected as the work progresses to comply with the intent of this specification. All damaged areas shall be

- repaired as soon as possible. The Owner shall limit the surface area of each material exposed if the Contractor fails to sufficiently protect the slopes to prevent pollution.
- H. <u>The Contractor</u> shall at all times have on hand the necessary materials and equipment to provide for early slope stabilization and corrective measurements to damaged slopes.
- I. <u>Temporary channels, ditches and out-falls</u> shall be protected prior to directing water into them to prevent erosion.
- J. <u>The erosion control features</u> installed by the Contractor shall be maintained by the Contractor and he shall remove such installations if ordered by the Owner.
- K. <u>The Contractor</u> shall operate all equipment and perform all construction operations so as to minimize pollution. The Contractor shall cease any of his operations which will increase pollution during rain storms.
- L. <u>Hay bales</u> shall be placed as shown on the plans or as directed by the Owner. They shall be held in place by two wooden stakes in each bale. Bales shall be maintained or replaced as ordered by the Owner until they are no longer necessary for the purpose intended or are ordered removed by the Owner.
- M. When filter fabric is used it shall be mounted on posts with or without fence backing as recommended by the fabric manufacturer. The bottom six inches of fabric shall be buried by either trenching, laying the six inch section horizontally across the trench and burying or by laying the six-inch section horizontally on the ground and burying by ramping the topsoil up to the control fence.
- N. <u>The installations</u> shall be maintained or replaced until they are no longer necessary for the purpose intended or are ordered removed by the Owner.
- O. <u>The filter fabric fence</u> systems will be completely removed from the project at the completion of the project, unless specifically authorized by the Owner to be left in place.
- P. <u>Hay bale systems</u> will be allowed to remain in toe of slope areas unless ordered removed by the Owner.
- Q. <u>Filter fabric</u> shall be non-rotting, acid and alkali resistant and have sufficient strength and permeability for the purpose intended, including handling and backfilling operations. Fibers shall be low water absorbent. The fiber network must be dimensionally stable and resistant to delamination. The fabric shall be free of any chemical treatment or coating that will reduce its permeability. The fabric shall also be free of any flaws or defects which will alter its physical properties. Torn or punctured fabrics shall not be used. For each specific use, only commercially available fabric which is certified in writing by the manufacturer for the purpose intended shall be used. The Contractor shall submit a two foot square sample of each type of fabric to be used along with, technical data sheets, certified test reports, materials, certificates and certificates of compliance. The Engineer reserves the right to reject any fabric which he deems unsatisfactory for a specific use. The brand name shall be labeled on the fabric or the fabric container. Fabrics which are susceptible to damage from sunlight or heat shall be so identified by suitable warning information on the packaging material.

Fabric susceptible to sunlight damage shall not be used in any installations where exposure to light will exceed 30 days, unless specifically authorized in writing by the Owner.

R. <u>Temporary Seeding and Mulching</u> shall be applied by procedures as per the New York State Department of Transportation Specifications or by referring to the applicable county soil

conservation districts agronomically acceptable procedures. All soil areas to be exposed to the elements for more than fourteen (14) days but less than twelve (12) months are to be stabilized by temporary seeding and mulching. The rates of application shall be as follows:

TEMPORARY SEEDING MIXTURE TYPE I (TOPSOIL PILES)

APPLICATION RATE 4 LBS./MSF
FERTILIZER TYPE 10-10-10
FERT. APPLICATION RATE 220 LBS./ACRE
LIMING RATE 100 LBS./MSF
MULCH TYPE STRAW

MULCHING RATE 1,200LBS./1000 SY

TEMPORARY SEEDING MIXTURE TYPE II (FILTER STRIPS)

APPLICATION RATE 4 LBS./MSF
FERTILIZER TYPE 10-10-10
FERT. APPLICATION RATE 220 LBS./ACRE
LIMING RATE 200 LBS./MSF
MULCH TYPE STRAW

MULCHING RATE 1,200LBS./1000 SY

TEMPORARY SEEDING MIXTURE TYPE III

APPLICATION RATE 10.5 LBS./MSF FERTILIZER TYPE 20-60-20 FERT. APPLICATION RATE 220 LBS./ACRE LIMING RATE 100 LBS./MSF

- S. <u>Temporary erosion control systems</u> installed by Contractor shall be maintained as directed by Owner to control siltation during life of contract. Contractor must respond to maintenance or additional work ordered by Owner within 24 hours.
- T. Permanent Seeding shall be applied by the following rates of application:

PERMANENT SEEDING MIXTURE (LAWNS)

APPLICATION RATE 5 LBS./MSF FERTILIZER TYPE 10-20-20

FERT. APPLICATION RATE 140 LBS./1000 SY LIMING RATE 100 LBS./MSF

MULCH TYPE WOOD CELLULOSE

FIBERS

MULCHING RATE 1,200LBS./ACRE

ANCHORING MATERIAL EC3000 COPOLYMER

TACKIFIER

ANCHORING METHOD SLURRY, MIX AND

SPRAY

ANCHORING RATE OF APPLICATION 3 LBS./ACRE

SEEDING SEASON DATES APRIL 15 – JUNE 15
AUG. 15 - OCT 1

U. <u>Restoration</u>: All areas disturbed by demolition shall be restored to a condition approved by the Owners Construction Representative. All areas disturbed by construction shall be restored to a condition equal to or better than that, which previously existed. All excess excavation material not used in backfill or final grading operations shall be removed from the site and disposed of elsewhere. The arrangements for such disposals are to be made by the Contractor and the Owner shall be provided with certifications for such disposals. Disposals shall comply with requirements of the Containerization, Characterization and Disposal of Waste specification.

END OF SECTION 02270

SECTION 02400

DEMOLITION

PART 1 GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and General Provisions of Contract, including General and Supplementary Conditions and other Division 1 Specifications Sections, apply to this Section.

1.2 RELATED SECTIONS

- Section 02200 General Earthwork.
- B. Section 02112 Restoration
- C. Section 02114 Abandoning Sewers/Manholes
- D. Section 02270 Water Pollution Control (Soil Erosion)
- E. Environmental Remediation Specifications within the Contract including Asbestos Abatement; Demolition and Environmental Management of Impacted Media; and Containerization, Characterization and Disposal of Waste specifications.
- F. Definition; Contract Drawings: The Demolition drawings indicate in general the areas, items, and extent of work to be performed; however, Contractor shall examine all the Contract Documents carefully to determine the exact scope of work required to complete the Project.

1.3 SUMMARY

- A. The work under this section consists of furnishing all labor, equipment, and materials necessary for the demolition or partial demolition of buildings and structures as indicated on the Contract Drawings along with the demolition, removal, and disposal of all existing slabs, footings, foundations, retaining walls, curbing, structures, demolition of underground tanks and piping, removal of demolished materials from site and removal of utility poles, light poles, piping, wiring, etc. as indicated on the Contract Drawings, along with the removal/ capping of utilities, payment of utility company fees, and backfilling voids. Demolition and removal of pavements, sidewalks, curbs and gutters, drainage structures, storm piping, utilities, signage, landscaping and railroad tracks; disconnecting and capping or removal of identified utilities. All footings and basement walls and pit walls shall be cut and removed completely where buildings are shown to be removed on the Contract Drawings. Also included is securing the necessary permits, payment of disposal fees, preparation of manifest forms, grading sideslopes of excavation or demolition voids, backfilling of excavation and demolition voids, utility trenches etc., compacting backfilled areas, disposing of surplus material, disposal of demolition material, installation of erosion controls such as haybales and siltation fences as required or ordered by the Engineer and cleaning up the site. This work shall not include clearing, grubbing or pavement removal except where the Contract Drawings so indicate, be ordered by the Engineer, or required. Perform work in accordance with OSHA - CFR29, Part 1926 Subpart T and all State and local ordinances.
- B. The work shall include the removal from the site of all rubbish, debris, reinforcing steel, block, wood, tanks and steel and other materials resulting from these demolition operations. Removals shall comply with requirements of the Demolition and

Environmental Management of Impacted Medial; and Containerization, Characterization and Disposal of Waste specifications.

- C. The work shall also include payment of any utility provider fees for disconnection or demolition or inspection of utilities to be removed and any temporary utility services to be provided.
- D. The work shall further include:
 - Crushing of clean concrete building components to 3-inch minus aggregate and stockpiling clean crushed concrete on site.
 - Separation of reinforcing steel, brick, wood, metal, fiberglass, glass and other nonconcrete material from concrete building components to be crushed and stockpiling.
 - Filling or removal of underground tanks, piping, and appurtenances as indicated on the Contract Drawings or as directed by the Engineer.
 - Filling voids in subgrade created as a result of removals or demolition.
 - Removal and disposal of any sidewalks, fences, stairs, walls, debris and rubbish in an approved offsite Landfill.
 - Removal and disposal of signage and sign supports where indicated on the Contract Drawings.
 - Install, remove and relocate chain link fence and gate from perimeter of demolition work area.
 - Removal and disposal of guide rails and posts.
 - Removal and disposal of fencing, fence posts, and bollards.
 - Removal and disposal of railroad tracks and ties.
 - Removal and disposal of Gas services (If any)
 - Capping of existing Gas Services (If any)
 - Removal of existing water services
 - Capping of existing Water Services
 - Hazardous material compliance.
 - Protection of work or improvements to remain.
 - Resetting monitoring wells disturbed by demolition work.
 - Protection of trees to remain.
 - Coordination with utility providers and removal of transformers and electrical equipment.

1.4 DEFINITIONS

- A. Demolish: Completely remove and legally dispose of off-site.
- Recycle: Recovery of demolition waste for subsequent processing in preparation for reuse.
- C. Clean Crushed Concrete shall mean concrete obtained from structures and buildings on the property (i) that does not contain hazardous substances, and (ii) that has been crushed to 3-inch minus with all debris and rebar removed.
- D. Salvage: Carefully detach from existing construction, in a manner to prevent damage, and deliver to Owner ready for reuse. Include fasteners or brackets needed for reattachment elsewhere.

1.5 MATERIAL OWNERSHIP

- A. Unless otherwise indicated, demolition wastes become property of Contractor.
- B. Historic items, relics, antiques, and similar objects including but not limited to, cornerstones and their contents, commemorative plaques and tablets, and other items of interest or value to Owner that may be uncovered during demolition remain the property of Owner.
 - 1. Carefully salvage in a manner to prevent damage and promptly return to Owner.

1.6 SUBMITTALS

- A. Materials Disposal, Salvage and Reuse Management Plan: Before the start of demolition, submit for the approval of Owner, a Materials Disposal, Salvage and Reuse Management Plan for all materials designated to be disposed of, salvaged or reused. The Plan shall indicate how the Contractor proposes to dispose of, salvage or reuse demolition waste. Include a list of salvage and reuse outlets which indicated salvageable materials will be sent to.
- B. Shop Drawings: Indicate areas for demolition, removal sequence and location of salvageable items.
 - Indicate location and construction of barricades, temporary fences and other temporary work.
- C. Proposed Protection Measures: Submit informational report, including drawings, that indicates the measures proposed for protecting individuals and property, for environmental protection, for dust control and, for noise control. Indicate proposed locations and construction of barriers.
 - Building Portions to Remain: Detail special measures proposed to protect existing portions of buildings to remain. Special measures shall be designed by the Contractor's New York State Licensed Professional Engineer and shall include the design of bracing, supports, structures, etc., necessary to maintain the structural integrity of building portions to remain, and to protect the building portion to remain from deterioration due to exposure to weather and other potential impacts such as uplift, racking, etc.
- D. Schedule of Building Demolition Activities: Indicate the following:

- 1. Detailed sequence of demolition work, with starting and ending dates for each activity.
- 2. Temporary interruption of utility services.
- 3. Shutoff and capping or re-routing of utility services.
- E. Inventory: Submit a list of items to be removed and salvaged and deliver to Owner prior to start of demolition.
- F. Predemolition Photographs or Video: Show existing conditions of adjoining construction and site improvements, including finish surfaces, that might be misconstrued as damage caused by building and site demolition operations. Submit before the Work begins.

1.7 QUALITY ASSURANCE

A. Regulatory Requirements:

Comply with all applicable requirements of the State of New York and applicable local ordinances and regulations concerning management of demolition and land clearing and any and all subsequent modifications and amendments to same.

- B. Predemolition Conference: Conduct conference at Project site to review methods and procedures related to building demolition including, but not limited to the following:
 - 1. Inspect and discuss condition of construction to be demolished.
 - 2. Review structural load limitation of existing structures.
 - 3. Review and finalize building demolition schedule and verify availability of demolition personnel, equipment, and facilities needed to make progress and avoid delays.
 - 4. Review and finalize protection requirements.
 - 5. Review procedures for noise and dust control.
 - 6. Review procedures for protection of adjacent buildings.
 - 7. Review items to be salvaged and returned to Owner.
 - 8. Review NYSDEC notifications for spill releases.
- C. Pre-Demolition Salvage and Reuse Management Conference:

Prior to the beginning of Work at the site, schedule and conduct a conference to review the Materials Disposal, Salvage and Reuse Management Plan and discuss procedures, schedules and specific requirements for materials to salvage, reuse, recycle or disposed. Discuss environmental remedial action plan, coordination and interface between the Contractor and other construction activities. Identify and resolve problems with compliance with plan and other requirements. Record minutes of the meeting, identifying all conclusions reached and matters requiring further discussion and resolution.

- Attendees: The Contractor and related Contractor personnel associated with the
 work of this section, including personnel to be in charge of the materials to be
 salvaged and reused; the Construction Quality Manager; the Environmental
 Consultant, the Engineer, NYSDEC Personnel; and such additional Owner
 personnel as the Owner deems appropriate.
- 2. Plan Revisions: Make any revision to the Materials Disposal, Salvage and Reuse Management Plan agreed upon during the meeting and incorporate

resolutions agreed to be made subsequent to the meeting. Submit the revised plan to the Engineer for approval.

- D. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in necessary crafts and who are completely familiar with specified requirements and methods needed for proper performance of work of the Section.
- E. Design Criteria; Bracing & Shoring:
 - Contractor shall be solely responsible for design, construction, and maintenance of all bracing and shoring to safely support all loads, and permit safe removal of existing items and structural members.
 - 2. Where only partial demolition occurs, bracing and shoring and other temporary facilities to protect the structural integrity and architectural components of the building are to remain in place until permanent new construction can safely assume loads previously borne by removed items/members.

1.8 REGULATORY REQUIREMENTS

- A. Conform to applicable sections of the International Building Code, the State of New York, Basic Building Code for demolition work. Also conform to applicable local code for demolition of structures, safety of adjacent structures, dust control, and runoff control.
- B. Obtain required permits and licenses from authorities. Pay associated fees including waste characterization and disposal charges.
- Notify affected utility providers before starting work and comply with their requirements.
- D. Do not disable or disrupt any active building fire or life safety systems without (3) three days prior written notice to Owner and local fire and building officials.
- E. Do not close or obstruct roadways, sidewalks, or fire hydrants without appropriate permits.
- F. Conform to applicable regulatory procedures when hazardous or contaminated materials are discovered, and to environmental specifications and remedial action plan.

1.9 JOB CONDITIONS

- A. Buildings to be demolished will be vacated and their use discontinued before start of the Work.
- B. Buildings immediately adjacent to demolition area will be occupied. Conduct building demolition so operations of occupied buildings will not be disrupted.
 - 1. Provide not less than 72 hours' notice of activities that will affect operations of adjacent occupied buildings.
 - 2. Maintain access to existing walkways, exits, and other facilities used by occupants of adjacent buildings.

- a. Do not close or obstruct walkways, exits, or other facilities used by occupants of adjacent buildings without written permission from authorities having jurisdiction.
- C. Owner assumes no responsibility for buildings and structures to be demolished.
 - 1. Conditions existing at time of inspection for bidding purpose will be maintained by Owner as far as practical.
- D. Hazardous Materials: See Environmental Specifications for abatement and remediation requirements and procedures.
 - If discovered, materials suspected of containing hazardous materials are encountered, do not disturb; immediately notify Environmental *Consultant* and Owner. Hazardous materials will be removed as directed by Owner and Environmental Scientist.
- E. Hazardous Materials: Hazardous materials are present in buildings and structures to be demolished. A report on the presence of hazardous materials is on file for review and use. Examine environmental specifications and report to become aware of locations where hazardous materials are present.
 - Hazardous material remediation is specified elsewhere in the Contract Documents.
 - Do not disturb hazardous materials or items suspected of containing hazardous materials except under procedures specified elsewhere in the Contract Documents.

F. Existing Conditions:

 Coordinate any work in street right-of-way with New York State DOT and governing agencies and comply with their requirements.

G. Protection:

- 1. Erect barriers, fences, guard rails, warning devices, enclosures, chutes, and shoring to protect personnel, existing work, structures to remain, and utilities remaining intact.
- 2. Adjoining Property: Adequately protect adjoining public and private property, structures, and improvements from damage due to Contract operations.
- 3. Security of Existing Work: Where only partial demolition is required, safeguard existing work from damage and/or vandalism. When work is not in progress, lock doors, gates, and windows, and barricade openings to prevent entrance. Review provisions with Engineer and Owner prior to commencing work.
- 4. Trees: Erect and maintain substantial protective wood, polyethylene or wire fence barricades to prevent damage to trees in work areas indicated to remain.

H. Sequencing, Scheduling:

1. Coordinate this work with asbestos and environmental abatement work, any new construction, and any removal work by Owner.

- Coordinate "shut-down" of utility services with Owner Representative. Keep existing facilities in operation with a minimum of Down-time". Schedule "downtime" during "off-hours".
- Asbestos: If at any time asbestos is encountered in existing work, Contractor shall cease work in that area immediately. Contractor shall accommodate other Contractors as directed under General Conditions.

1.10 ALTERNATIVES

A. Contractors Option: In lieu of protecting in-place, existing work to remain, Contractor may, at his option and expense, and if approved by Owner and Engineer, temporarily remove and store items, and then reinstall them in their original location.

PART 2 PRODUCTS

2.1 SOIL MATERIALS

A. Aggregate Fill materials as specified herein in Article 3.4(B.)(5.) and in Section 02200.

2.2 EXPLOSIVES

A. Use is not permitted.

PART 3 EXECUTION

3.1 INSPECTION

- A. Verify that work to be demolished is unoccupied and/or discontinued in use.
- B. Verify that utilities have been disconnected and capped before starting demolition operations.
- C. Review any available Project Record Documents of existing construction provided by Owner. Owner does not guarantee that existing conditions are same as those indicated in Project Record Documents.
- D. Inventory and record the condition of any items to be removed and salvaged. Provide photographs or video of conditions that might be misconstrued as damage caused by salvage operations.
- E. Perform an engineering survey of condition of building to determine whether removing any element might result in structural deficiency or unplanned collapse of any portion of structure or portion of structure to remain or adjacent structures during building demolition operations.
- F. Verify that hazardous materials have been remediated before proceeding with building demolition operations.

3.2 PREPARATION

A. Provide adequate protection of persons and property shall be executed in such a way as to avoid hazards to persons and property. All work shall be in accordance with the

Manual of Accident Prevention in Construction, latest addition, published by the Associated General Contractors of America, and the New York State Building Code.

- B. Existing Utilities: Locate, identify, disconnect, and seal or cap off indicated utilities serving building and structures to be demolished.
 - Owner will arrange to shut of indicated utilities when requested by Contractor.
 - 2. Arrange to shut off indicated utilities with utility companies/utility providers.
 - If removal, relocation, or abandonment of utility services will affect adjacent occupied buildings, then provide temporary utilities that bypass buildings and structures to be demolished and that maintain continuity of service to other buildings and structures.
 - 4. Cut off pipe or conduit a minimum of 24 inches below grade. Cap, valve, or plug and seal remaining portion of pipe or conduit after bypassing according to requirements of authorities having jurisdiction.
 - 5. Remove pipe, conduit or utility structures indicated on Demolition plans to be removed.
- C. Temporary Shoring: Provide and maintain interior and exterior shoring, bracing, or structural support to preserve stability and prevent unexpected movement or collapse of construction being demolished, and to preserve stability and prevent unexpected movement or collapse of building portion to remain..
 - Strengthen or add new supports when required during progress of demolition.
 - 2. Temporary shoring and protection measures shall be in accordance with 1.6 C.1.
- D. Salvaged Items: Comply with the following:
 - 1. Clean salvaged items of dirt and demolition debris.
 - 2. Store items in a secure area until delivery to Owner.
 - 3. Transport items to storage area designated by Owner.
 - 4. Protect items from damage during transportation and storage.
- E. The Contractor shall furnish and erect signs, lights, barricades, and other equipment as may be necessary for the safe prosecution of his work. All protection shall be removed when work is completed.
- F. The Contractor shall provide, erect, and maintain erosion control devices as indicated on the plans and in accordance with Section 02270 Water Pollution Control (Soil Erosion) of these specifications. These controls shall be installed prior to the commencement of any demolition work.
- G. The Contractor shall make the necessary arrangements with the various utility providers regarding disconnection, relocation, abandonment and protection of utility lines. Where utilities serve both work to be demolished, work to remain, and new work, coordinate, schedule, terminate, and cap serving utilities at or near work to be demolished in a manner to maintain continuity of service to work to remain and to provide service to new work.

- H. Coordinate all utility work with any Electrical, Plumbing and any other appropriate Specification Sections.
- I. Layout: Where partial removal is indicated, accurately layout limits of work. By careful study of the Contract Documents, determine the location and extent of partial (selective) demolition to be performed.

Visit the site and verify the extent and location of selective demolition required.

- 1. Carefully identify limits of selective demolition
- 2. Mark interface surfaces as required to enable workmen also to identify items to be removed, salvaged, and/or items to be left in place intact.
- Verify location of drainage system, utilities, and ALL underground lines, and other appurtenances, before starting utilities, and ALL underground lines, and other appurtenances, before starting work and before any demolition. If utilities, drainage, underground lines and other appurtenances are to remain, protect as required.

3.3 PROTECTION

- A. Existing Facilities: Protect adjacent walkways, building entries, and other building facilities during demolition operations. Maintain exits from existing buildings.
- B. Existing Utilities: Maintain utility services to remain and protect from damage during demolition operations.
 - 1. Provide temporary services during interruptions to existing utilities, as acceptable to Owner and authorities having jurisdiction.
 - a. Provide at least **72** hours' notice to occupants of affected buildings if shutdown of service is required during changeover.
- C. Temporary Protection: Erect temporary protection, such as walks, fences, railings, canopies, and covered passageways, where required by authorities having jurisdiction and as indicated.
 - 1. Protect adjacent buildings and facilities from damage due to demolition activities.
 - 2. Protect existing site improvements, appurtenances, and landscaping to remain.
 - Provide temporary barricades and other protection required to prevent injury to people and damage to adjacent buildings and facilities to remain.
 - 4. Provide protection to ensure safe passage of people around building demolition area and to and from occupied portions of adjacent buildings and structures.
 - 5. Protect walls, windows, roofs, and other adjacent exterior construction that are to remain and that are exposed to building demolition operations.
 - 6. Erect and maintain dustproof partitions and temporary enclosures to limit dust, noise, and dirt migration to occupied portions of adjacent buildings.
- D. Remove temporary barriers and protections where hazards no longer exist. Where open excavations or other hazardous conditions remain, leave temporary barriers and protections in place.

3.4 PERFORMANCE

- A. General: Prepare and follow an organized plan for demolition and removal of items,
 - 1. Shut off, cap, and otherwise protect existing public utility lines in accordance with the requirements of the public agency or utility having jurisdiction.
 - 2. Completely remove items scheduled to be demolished and removed, leaving surfaces clean, solid, and ready to receive new materials specified elsewhere.
 - 3. In all activities, comply with pertinent regulations of governmental agencies having jurisdiction.
 - 4. CAUTION! Take special care to not damage, modify or move existing utilities, permanent field equipment, landscape sprinkler lines, site drainage, or any other items except as required in this Contract. Any damage to any existing items to remain shall be repaired according to the requirements of the appropriate Specification Section at NO cost to the Owner.

B. Demolition:

- Within plan and depth limit lines for Earthwork (Section 02200) remove all surface and underground site improvements. Cut or remove any remaining footings or basement walls encountered completely.
- 2. All removal operations shall be wet down thoroughly as required to prevent the spread of dust.
- 3. Utilities shall be removed and/ or capped as indicated on the Contract Drawings and in accordance with the appropriate utility company and the Town of Greenport Water and Sewer Department for public water and sewer services. Concrete slabs to be removed shall be sawcut. The Contractor shall be responsible for any and all demolition related damage to structures and facilities which are to remain. The Contractor shall contact the appropriate utility companies and the Town of Greenport Water and Sewer Department to fully understand the work obligation and fees which the Contractor is responsible for.
- 4. The Contractor shall clean up and remove the debris resulting from demolition as the work progresses and as ordered by the Engineer. All debris, including crushed stone bedding and any salvageable items, shall become the property of the Contractor, who is therefore responsible for its proper disposal, etc., unless otherwise indicated to be stored or retained for the Owners use.
- 5. Backfilling of voids resulting from the removal of slabs, footings, piping, etc. shall include Structural Fill conforming to the following:

Structural Fill shall be obtained from an offsite source and shall consist of a clean bank run sand and gravel, crushed gravel or crushed concrete to 3 inch minus free from organic material, snow, ice, steel, plastic, wood demolition debris or other unsuitable materials, and shall be well graded within the following limits:

Sieve Size	Percent Passing by Weight
3-inch	100
No. 4	15 - 45
No. 100	0 - 30
No. 200	0 - 15

6. Slab, building wall and foundations removals shall be complete and shall be made to sufficient dimensions to permit construction of proposed buildings and utilities, building foundations and to provide adequate drainage. All Concrete slabs shall be completely removed. Building walls foundations and footings shall be completely removed except where to remain for support of building portion to remain. Excavation voids shall be backfilled. Excavated material suitable for the purpose shall be stored and later used for backfill.

Except as otherwise ordered by the Engineer, or specified elsewhere in these specifications, if the demolition excavation is carried lower than the required grade, the extra void shall be filled up to the proper grade with well compacted selected borrow or approved suitable excavated material as approved by the Engineer and at no additional expense to the Owner.

Demolition excavation shall be accomplished with a minimum of inconvenience 7. and danger to the public and all other parties. The area opened at any one time shall not exceed the space or spaces considered reasonable, necessary and expedient by the Engineer. In determining the area of open excavation and space for equipment, materials, and supplies needed, the Engineer shall consider the nature of the street or Right-of-Way and site conditions, the width and depth of excavation, types and methods of construction and equipment being used, inconvenience to the public and private parties, possible dangers and other matters. Streets and premises near the work shall be free from unnecessary obstructions, debris, etc., which is laying outside reasonable limits of space, promptly removed, and should the Contractor fail to remove the same, the Engineer may cause any part or all of such materials to be removed by such persons as he may employ at the Contractor's expense, and may deduct the costs thereof from payments which may be or may become due to the Contractor under this Contract. In any case where public safety urgently demands it, the Engineer may cause such materials to be removed without prior notice. If required, any or all of the excavated material and demolition debris shall be satisfactorily disinfected and deodorized or immediately removed from the work.

Materials of construction shall be so deposited, and the work shall be so conducted as to leave open and free for traffic all crosswalks and a space on each sidewalk not less than 1/3 the width of such sidewalk but not less than 5 feet in width.

Remove from the site all debris, rubbish, and other materials resulting from demolition operations in accordance with Demolition and Environmental Management of Impacted Medial; and Containerization, Characterization and Disposal of Waste specifications.

8. Any septic tanks and piping called for to be Abandon In-Place shall have their contents pumped and properly disposed of off-site in accordance with Demolition and Environmental Management of Impacted Medial; and Containerization, Characterization and Disposal of Waste specifications. The tank shall then be broken up with all voids filled with "Structural Fill" as specified herein. No portion of the broken up tank shall exist above 4' from proposed finished grade.

Otherwise, any septic tanks and piping and oil grit/grease traps and piping shall have their contents pumped and properly disposed of off-site. The tank and piping shall be completely removed and disposed of off-site. All voids shall be filled with compacted "Structural Fill" as specified herein.

Any encountered leaching fields, piping, distribution boxes and manholes shall be completely removed and disposed of off-site in accordance with Demolition and Environmental Management of Impacted *Media*; and Containerization, Characterization and Disposal of Waste specifications. *The environmental consultant and NYSDEC should inspect the excavations prior to backfilling and closing in place.*

- 9. Street hydrants, water gates, fire alarm boxes shall be kept accessible for use. During the progress of work, the Contractor shall maintain such sidewalks, driveways and roadways in satisfactory condition, and the work shall at all times be so conducted as to cause a minimum of inconvenience to public travel and permit safe access to private and public property along the line of the work.
- 10. Except when the plans specifically provide otherwise, excavated material may be stored along the line of the work in such a manner as to maintain traffic and provide access to abutting property. No material shall be stockpiled in State or Town Rights-of-Way unless authorized by the NYSDOT or Town of Greenport as applicable.
- 11. The Contractor shall at all times during the progress of work keep the excavations free from water. The water from the excavations shall be disposed of in such a manner as will not cause injury to the public health, nor to public or private property, nor to the work completed or in progress, nor to the surface of the streets, nor cause any interference with the use of the same by the public. All sewers for disposal of water and waste during construction shall be acceptably cleaned. Comply with environmental specifications in this contract for de-watering and disposal of water, and employ the use of tanks, sanitary sewer connections etc. as specified in Environmental Specifications.
- 12. All suitable material removed in making excavations shall be used for backfill. All surplus or unsuitable material shall be removed and disposed of as specified for surplus excavated material in the section "Earthwork". Additional material required for backfilling must be of an approved quality, and meet the requirements for Structural Fill (unless otherwise directed by the Engineer) and shall be from a source approved by the Engineer.

Backfill in excavated areas, walks, etc. shall be placed in layers 10 inches thick, and each layer shall be well compacted by mechanical tamping or similar methods, to the satisfaction of the Engineer, to 95% maximum dry density per ASTM D1557 (unless otherwise directed by the Engineer) before the succeeding layer is placed thereon. The tools and equipment used for tamping shall be subject to approval by the Engineer. All voids along sides of the structure shall be completely and carefully filled tight, using such fine materials, and labor, and tools as may be necessary.

If pneumatic tampers are used, they shall have a tamping face area of not less than 50 sq. in. in area and each complete assembly shall have a weight of not less than 2 pounds per square inch of tamping face area. When two or more tampers are joined together to form a multiple tamper, the area and weight requirements shall apply separately to each unit of the group. Hand tampers shall be used only upon written permission of the Engineer.

If the above specified materials cannot be found on the job the Contractor shall furnish same at no additional cost to the Owner. Lumpy material or large stones or rock or pavement fragments greater than 6 inches and greater than 3 inches where structural fill is called for, shall not be used for backfill material.

Backfill in streets and highways and building and utility removal footprints shall be compacted to a minimum dry density of 95 percent of the maximum dry density as determined by ASTM D-1557.

Rubbish, refuse, organic matter, odd bits of lumber, etc. shall not be buried in backfill. Frozen or other large lumps, large stone, rock or masses of broken masonry shall not be embedded in the backfill.

Backfilling in public streets and highways shall be done in accordance with the rules, regulations, laws and ordinances of the Town of Greenport and the New York State Department of Transportation. It is the Contractors responsibility to ascertain and comply with these requirements.

No separate payment will be made for backfilling, and all costs in connection therewith shall be included in the Contract Lump Sum price.

3.5 DISPOSAL OF DEMOLISHED MATERIALS

- A. Remove demolition waste materials from Project site and legally dispose of them in an EPA approved landfill acceptable to authorities having jurisdiction and in accordance with Environmental and remediation specifications within this Contract.
 - Do not allow demolished materials to accumulate on-site.
 - Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.

3.6 ADJUSTMENT AND CLEANING

- A. Repair of Damaged Work: Where operations damage work to remain, replace or restore work as directed by Engineer using qualified workmen of respective trades at no additional cost to Owner.
 - 1. Patching, repair and/or replacement shall match or be better than the existing work as to material, type, brand size, function, quality, texture, finish, workmanship, and other characteristics as approved by Engineer.
 - 2. Patching and repairs shall be aligned, in-plane, level, plumb, and have edges feathered to form smooth even transitions to existing work.
 - 3. Work shall conform to the same standards as all-new work, and shall be performed by skilled workers of the appropriate trade.
- B. Cleaning: Rake clean and/or broom clean as appropriate.

END OF SECTION 2400

SECTION 02500

PAVEMENT REMOVAL

PART 1 GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and General Provisions of Contract, including General and Supplementary Conditions and other Division 1 Specifications Sections, apply to this Section.

1.2 SUMMARY

This section includes the following

The Work under this section consists of the satisfactory removal of all asphalt and concrete pavement and/or bases, required for trench, roadway, structure and test pit excavation or directed by the Engineer.

PART 2 PRODUCTS

2.1 MATERIALS

Not Used

PART 3 EXECUTION

Pavement to be removed shall be cut uniformly along the lines shown on the Contract Drawings or as directed by the Engineer.

Concrete pavement and/or bases shall be cut with an approved concrete saw through a minimum of one third of the depth pavement/base.

Bituminous pavement/base to be removed shall be cut by saw or other approved methods.

After the pavement has been cut, care shall be exercised by the Contractor during breaking and removal of the pavement in order that the adjacent pavement outside the cut shall not be damaged.

The Contractor shall remove the excavated pavement from the site and dispose of in accordance with the Containerization, Characterization and Disposal of Waste specification, at a disposal area supplied by the Contractor at no additional cost to the Owner; or the Engineer may direct the Contractor to incorporate this material in other parts of the Work.

No sections or pieces of pavement shall be used for trench backfill and all such materials shall be kept separate from other excavated materials.

END OF SECTION 02500

PAVEMENT REMOVAL 02500 - 1

SECTION 02508

COLD RECLAIMED ASPHALT PAVEMENT

PART 1 GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and General Provisions of Contract, including General and Supplementary Conditions and other Division 1 Specifications Sections, apply to this Section.

1.2 SUMMARY

The Work under this section consists of the satisfactory rehabilitation of an existing pavement structure into a processed asphalt stabilized base (recycled) course. This mixture of pavement and gravel is to be processed, reshaped, rolled, compacted and fine graded to the cross sections and/or grades indicated on the Plans, all in accordance with these Specifications.

The remaining gravel base and/or subgrade may be modified to properly accommodate the processed asphalt stabilized base course.

Reclaimed Asphalt Pavement shall only be used as a pavement base material below pavements and shall not be used as a structural fill, or as a random fill or in non paved areas or below structures.

PART 2 PRODUCTS

2.1 MATERIALS

Materials for reclaimed asphalt pavements base shall consist of the processed asphalt materials plus the existing bases and shall conform to the following gradation requirements.

Sieve Size	Percent Passing by Weight
3"	100
2-1/2"	80-100
1-1/2"	70-100
3/4"	50-85
No. 4	30 - 55
No. 50	8 - 24
No. 200	2 - 12

If additional aggregate is needed, the Contractor may be directed to add material from an outside source. However, scarified pavement and gravel fines must be mixed together and thoroughly worked and/or reworked as described herein.

PART 3 EXECUTION

3.1 EQUIPMENT

The Contractor has the option to utilize whatever equipment can effectively pulverize, crush, mix and/or blend the recyclable materials to specification. Furthermore, the Contractor can either choose to process in-place or load and haul the recyclable materials to an off-site location, process them into the proper recycled material and return it to the job site.

The recycling equipment shall have a positive depth control to insure a uniform depth of processing. This equipment shall have the ability to process the complete design depth specified into a

homogeneous mass. It shall also be capable of crushing all oversized material encountered except ledge, or cobbles larger than 8 inches in diameter.

At least one vibratory roller shall be used on each reclaimed surface, and shall have a compacting width of not less than 5 feet. Each roller shall have a gross mass of not less than 10 tons.

Approved equipment shall be maintained in satisfactory working condition at all times.

Pavement to be removed shall be cut uniformly along the lines shown on the Contract Drawings or as directed by the Engineer.

Material returned to the project must meet approvals for imported fill (Part 375 and DER-10).

3.2 PROCEDURE

Prior to the start of Cold Reclaimed Asphalt Pavement operations, the Contractor shall locate and protect existing drainage and utility structures and underground pipes, culverts, conduits and other appurtenances.

All drainage, utility, and municipality structures shall be covered with steel plates. The voids remaining after the structures have been lowered are to be filled with a suitable material as determined by the Engineer. The Contractor will be responsible for the coordination with the respective utility companies for the lowering and raising of privately owned structures and gate boxes. The reclaiming operation shall not begin until all structures and boxes are lowered.

It shall be the Contractor's responsibility to maintain drainage functioning properly in the areas under construction up to the time when the final system is put into use. All structures lowered will be raised to the binder grade elevation upon placement of the binder course material for that section. Adjustment of the castings to final grade will not be allowed until the Engineer approves the placement of bituminous concrete top course material throughout the project.

Prior to the start of reclamation, the existing pavement shall be swept with a power sweeper to remove all trash, sand, dirt, organic matter, and other undesirable material, to the satisfaction of the Engineer.

Also, the existing pavement shall be sawcut full depth within the areas where the adjacent surface is to be protected (curb, side streets, etc.) as shown on the plans/or as directed by the Engineer.

The total thickness of the pavement structure, unless otherwise indicated, and uppermost portion of the sub-base layer shall be recycled to the design depth specified on the typical section(s).

Any required modifications to the remaining sub-base such as, but not limited to, cuts, fills, and grade realignment shall be made. Existing unsuitable material shall be removed to the lines and grades established by the Engineer and replaced with a suitable material, as determined by the Engineer. Existing surplus reclaimed material shall be used, when available, at no additional compensation.

All unsuitable material and/or excess reclaimed material shall become the property of the Contractor to be properly disposed of outside the project limits and in accordance with the Demolition and Environmental Management of Impacted Medial and the Containerization, Characterization and Disposal of Waste specification.

3.3 COMPACTION AND DUST CONTROL

The reclaimed material shall be rolled, compacted and fine graded to the specified cross section(s) and/or grades as shown or as established by the Engineer.

Compaction of reclaimed asphalt materials shall be achieved by the use of a vibratory roller having the capability of producing high amplitude and low frequency vibrations. The compaction shall be a minimum of 95% of the maximum dry density as determined by ASTM D-1557. If any portions are found to be unacceptable by the Engineer, such portions shall be reprocessed, regraded, and recompacted until the required specifications are met.

END OF SECTION 02508

SECTION 02515

PAVEMENT REPAIR

PART 1 GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and General Provisions of Contract, including General and Supplementary Conditions and other Division 1 Specifications Sections, apply to this Section.

1.2 RELATED SECTIONS

- A. Section 02200 Earthwork
- B. Section 02500 Pavement Removal

1.3 REFERENCE STANDARDS

A. New York State Department of Transportation Standard Specifications 2006 or latest edition, and as supplemented.

1.4 SUMMARY

Work under this section shall consist of the repair of all existing pavements which have been damaged or removed during the course of demolition or construction. The Work under this section shall also include the placement and subsequent removal of such temporary pavements, subgrade, backfill, and any other materials as may required for installation of the permanent repairs in accordance with the Contract Drawings and these Specifications or as directed by the Engineer.

<u>Pavement Repair – Bituminous – State Highway</u> – Shall include all Work necessary to provide pavement repairs to bituminous concrete pavements located within State highways.

<u>Pavement Repair - Concrete - State Highway</u> - Shall include all Work necessary to provide pavement repairs to concrete pavements located within State highways.

1.5 SUBMITTALS

- A. <u>Before asphaltic concrete pavement</u> is constructed, submit actual design mix to Owner for review and approval. Design mix submittal shall follow format as indicated in Asphalt Institute Manual MS-2, Marshall Stability Method; and shall include type/name of mix, gradation analysis, grade of asphalt cement used, Marshall Stability in lb, flow, effective asphalt content in percent, and direct references to State of New York Department of Transportation specifications sections for each material. Design shall be for mixture listed in current edition of NYSDOT specifications. Mix designs over 3 years old will not be accepted by Owner.
- B. <u>Joint Seal</u> Submit manufacturers product data for approval by the Engineer prior to delivery.

PART 2 PRODUCTS

- A. Subbase Shall conform to Section 02200 of these specifications.
- B. <u>Processed Aggregate Base</u> Shall conform to Section 02200 of these specifications and to the Contract Drawings.
- C. <u>Bituminous Concrete Mixtures</u> Shall conform to NYSDOT Standard Specifications Section 402 Flexible Pavements and Contract Drawings and details for the various types of bituminous concrete pavement mixes required.
- D. <u>Joint Seal</u> Shall conform to NYSDOT Standard Specifications and Contract Drawings and details for Asphalt Sealant Class BM-1.
- E. <u>Tack Coat</u> Emulsified asphalt; AASHTO M140 or AASHTO M208 SS-1h, CSS-1 or CSS-1h diluted with one part water to one part emulsified asphalt.

PART 3 - EXECUTION

A. Temporary Pavement

- Upon completion of the backfill, the Contractor shall construct the temporary pavement as shown on the Contract Drawings. If the temporary surface settles, additional bituminous material shall be added by the Contractor as ordered by the Engineer at no additional cost to the Owner. The surface shall be maintained smooth and even.
- 2. <u>Provide asphalt</u> aggregate mixture as recommended by local or state paving authority to suit project conditions. Use locally available materials and gradations which meet NYSDOT specifications and exhibit satisfactory records of previous installations, and as indicated on the Contract Drawings.

B. Permanent Pavement

- 1. Upon completion of all the other items of Work or when ordered by the Engineer, the Contractor shall remove the temporary bituminous surface, excavate and/or fill and regrade the base material and construct the permanent pavement as stated above and as shown on the Contract Drawings.
- 2. Construction of subgrade, subbase and aggregate base shall conform to Section 02200.
- 3. Proofroll prepared base material in accordance with Section 02200 Earthwork specifications to check for unstable areas. Paving work shall begin only after unsuitable areas have been corrected and are ready to receive paving.
- 4. Remove loose material from compacted base material surface.
- 5. Immediately before placing the mixture the base surface shall be cleaned by brooming or by other means acceptable by the Engineer. Unless this restriction is waived by written consent of the Engineer, the mixture shall be laid only during the period from April 1 to October 31, and further, these operations shall be carried on only when the surface is dry, the atmospheric temperature in the shade is at least 50°F and the weather is not foggy or rainy. The Engineer may, however, permit work of this character to continue when overtaken by sudden

storms, up to the amount which may be in transit from the plant at the time, provided the mixture is within temperature limits specified. Upon arrival, the mixture shall be dumped into the approved mechanical spreader and immediately spread and struck off to the full width required and to such appropriate loose depth for each successive course that when the work is completed the weight of the mixture required per square yard will be secured. Each course shall be struck off by the mechanical equipment. For use in striking off the bottom course the machine shall be equipped with easily adjustable strike-off plates. When approved in writing by the Engineer, the mechanical equipment may be omitted and spreading accomplished by hand.

- 6. Contact surfaces of curbing, gutters, manholes, etc., shall be painted with a thin uniform coat of hot asphalt cement, or tack coat, just before the material is placed against them. Where the bituminous material is spread on a concrete or an old bituminous base a uniform coat of asphalt shall be spread about one foot wide along each edge of the pavement to prevent water getting between the new pavement and the base. In any area where the new pavement is less than 1 ½ inches thick and on steep grades the Engineer may order a very light web-like coating of hot asphalt paint tack coat applied to the old pavement. Care must be taken not to apply too heavy a coating or large blobs of asphalt paint. All surfaces which have been in place longer than five calendar days shall receive a tack coat. Emulsions for tack coat shall be diluted 50/50 with water and shall not be heated in excess of 160°F. Care must be taken not to apply too heavy a coating; application rate of the diluted emulsion shall be 0.03 to 0.10 gallons per square yard. The emulsion shall be applied by a pressurized spray method approved by the Engineer.
- 7. The methods employed in performing the work for base course installation shall be used in bituminous concrete surface course construction.
- 8. After the courses have been screeded as specified, each shall be rolled with power rollers as hereinafter provided. When the course spread has set sufficiently or come to the proper condition, it shall be rolled at such a speed as not to cause undue displacement or shoving.

Rollers to be used to compact the course shall be power driven rollers weighing not less than ten tons. If only one roller is used, it shall be a tandem roller, a second roller may be of the three wheel type. The roller wheels shall be wet with only sufficient water to moisten the wheel surface.

The speed of the roller shall not exceed 3 miles per hour and shall at all times be slow enough to avoid displacement of the hot mixture. The rollers shall be in good condition. They shall be operated by experienced rollermen and must be kept in continuous operation as nearly as practicable in such a manner that all parts of the pavement shall receive substantially equal compression.

In all places inaccessible to a roller, such as adjacent to curbs, headers, gutters, bridges, manholes, etc., the required compression shall be secured with tamps. Depressions which may develop before the completion of the rolling shall be remedied by adding new material to bring such depressions to a true surface. Should any depressions remain after the final compaction has been obtained, new material shall be added to form a true and even surface. All high spots, high joints and other defects shall be adjusted as directed by the Engineer. Roll the surface until no roller marks are visible.

- 9. <u>A tack coat</u> shall be applied to any bituminous aggregate base course which has been in place over five days or has been used by traffic prior to placement of the bituminous surface course.
- 10. <u>Joint Seal Coat</u> shall be applied to joints between asphalt surface course and concrete to seal joint after the completion of bituminous paving. Minimum application width is 12-inches.

END OF SECTION 02515

SECTION 02821

CHAIN LINK FENCES AND GATES

PART I GENERAL

1.1 SECTION INCLUDES

A. Installation of chain link fences and gate units provided by single source including erection accessories, fittings, and fastenings.

1.2 RELATED SECTIONS

- A. Demolition Drawings.
- B. Section 2400 Demolition.
- C. Section 02200 Earthwork.

1.3 REFERENCE STANDARDS

A. American Society for Testing and Materials (ASTM) latest edition

1.	A 116	Zinc-Coated (Galvanized) Steel Woven Wire Fence Fabric
2.	A 53/A 53 M	Pipe, Steel, Black and Hot-Dipped Zinc Coated (Galvanized)
		Welded and Seamless, for Ordinary Uses
3.	A 121	Zinc-Coated (Galvanized) Steel Barbed Wire
4.	A 123	Zinc (Hot Dip Galvanized) Coatings on Iron and Steel Products
5.	A 153	Zinc Coating (Hot-Dip) on Iron and Steel Hardware
6.	A 392	Zinc-Coated Steel Chain-Link Fence Fabric
7.	A 428	Weight of Coating on Aluminum-Coated Iron or Steel Articles
8.	A 491	Aluminum-Coated Steel Chain Link Fence Fabric
9.	A 1011	Steel, Carbon (0.15 Maximum, Percent), Hot-Rolled, Sheet and
		Strip Commercial Quality
10.	A 585	Aluminum Coated Steel Barbed Wire
11.	C 94	Ready-Mixed Concrete
12.	F 567	Installation of Chain-Link Fence
13.	F 573	Residential Zinc-Coated Steel Chain Link Fence Fabric
14.	F1083	Pipe Steel, Hot Dipped, Zinc Coated (Galvanized) Welded, for
		Fence Structures

- B. Chain Link Fence Manufacturers Institute (CLFMI) latest edition Product Manual
- C. FS RR-F-191 Fencing Wire and Post Metal (and Gates, Chain Link Fence Fabric, and Accessories)

1.4 SUBMITTALS

- A. Product Data: Submit manufacturers specifications and installation instructions for each item which is factory fabricated.
- B. Shop Drawings: Submit shop drawings showing location of each item dimensions, plans, and elevations, large scale details, attachment device and other components and compliance with ASTM standards and specified bending strengths.

PART 2 PRODUCTS

2.1 ACCEPTABLE MANUFACTURERS

- A. Subject to compliance with requirements, provide products of one of following or approved equal:
 - 1. Allied Tube and Conduit Corp.
 - 2. Anchor Fence, Inc.
 - 3. United States Steel

2.2 MATERIALS

- A. Fabric:
 - No. 9 gage, 0.148" ± 0.00", finished size galvanized steel wires, 2-inch mesh, top and bottom selvages twisted and barbed conforming to ASTM A392, A491, F668, or F573.
 - 2. Fence Fabric shall be Polyvinyl Chloride-Coated steel fabric conforming to the requirements of ASTM F 668 Specification RR-F-00191.
 - 3. Furnish 1-piece fabric widths for fencing.
- B. End, Corner, and Pull Posts: Galvanized steel, minimum sizes and weights conforming to ASTM A120 as follows:
 - 1. Up to 6'-0" Fabric Height: 2.5" pipe (2.375-inch OD), 3.12 pounds per lineal foot, or 3.5-inch x 3.5-inch roll-formed section, 5.14-pounds per lineal foot.
 - 2. Over 6'-0" Fabric Height: 3.0" pipe (2.875-inch OD), 4.64 pounds per lineal foot, or 3.5-inch x 3.5-inch roll-formed section, 5.14 pounds per lineal foot.
- C. Line Posts: Galvanized steel, minimum sizes and weights conforming to ASTM A120 as follows:
 - 1. Up to 6'-0" Fabric Height: 2.0" pipe (1.90-inch OD), 2.28 pounds per lineal foot or 1.875-inch x 1.625-inch C-section, 2.70 pounds per lineal foot.
 - 2. Over 6'-0" to 8'-0" Fabric Height: 2.5" pipe (2.375-inch OD), 3.12 pounds per lineal foot or 2.25-inch x 1.875-inch H-section, 4.10 pounds per lineal foot.
 - 3. Over 8'-0" Fabric Height: 3.0" pipe (2.875-inch OD), 4.85 pounds per lineal foot or 2.25-inch x 1.875-inch H-section, 4.10 pounds per lineal foot.
 - 4. Concrete Fill: Provide concrete fill for steel post as indicated complying with requirements indicated in this Section for concrete design and mix.
- D. Gate Posts: Galvanized steel posts for supporting single gate leaf or 1 leaf of double gate installation, for nominal gate widths conforming to ASTM A120 as follows:
 - 1. Up to 6'-0": 3.0" pipe (2.875-inch OD), 4.64 pounds per lineal foot, or 3.5-inch x 3.5-inch roll-formed section, 5.14-pounds per lineal foot.
 - 2. Over 6'-0" to 13'-0": 6.00-inch OD pipe, 18.97 pounds per lineal foot.
- E. Top Rail: Rails 1.66-inch OD, 1.84-pounds per lineal foot or 1.625-inch x 1.25-inch roll-formed sections, 1.35 -pounds per lineal foot; galvanized steel, manufacturer's longest lengths conforming to ASTM A120.

- F. Couplings: Expansion type, approximately 6-inches long, for each joint.
- G. Attaching Devices: Provide means for attaching top rail securely to each gate corner, pull, and end post.
- H. Sleeves: Galvanized steel pipe not less than 6-inches long with inside diameter not less than ½ inch greater than outside diameter of pipe. Provide steel plate closure welded to bottom of sleeve of width and length not less than 1 inch greater than outside diameter of sleeve.
- I. Tension Wire: 7 gage galvanized steel, coated coil spring wire, located at bottom of fabric conforming to ASTM A116.
- Wire Ties: Class 1 galvanized steel, no less than 9 gage.
- K. Post Brace Assembly: Manufacturer's standard adjustable brace at end of gate posts and at both sides of corner and pull posts, with horizontal brace located at mid-height of fabric. Use same material as top rail for brace, and truss to line posts with 0.375-inch diameter rod and adjustable tightener.
- L. Post Tops: Galvanized steel, weather tight closure cap for each tubular post. Furnish caps with openings to permit passage of top rail.
- M. Stretcher Bars: Galvanized steel, 1 piece lengths equal to full height of fabric, with minimum cross-section of 3/16-inch x 3/4-inch. Provide 1 stretch bar for each gate and end post, and 2 for each corner and pull post.
- N. Stretch Bar Bands: Manufacturer's standard
- O. Gate Cross-bracing: 3/8-inch diameter galvanized steel adjustable length truss rods.
- P. Ready Mix Concrete: ASTM C94, mix design as follows:
 - 1. Mix concrete and deliver in accordance with ASTM C94.
 - 2. Design mix to produce normal weight concrete consisting of Portland cement, aggregate, water-reducing admixture, air-entraining admixture, and water to produce following:
 - a. Compressive Strength: 3,000 psi, minimum at 28 days, unless otherwise indicated on Construction Drawings.
 - b. Slump Range: 1 to 3 inches at time of placement
 - c. Air Entrainment: 5 to 8 percent
- Q. Water: Clean
- R. Swinging Gate Hardware:
 - 1. Hinges: Galvanized, size and material to suit gate size, non-lift-off type, offset to permit full 180-degree gate opening. Provide a pair of 1 1/2-inch hinges for each leaf over 6'-0" nominal height.
 - 2. Latch: Galvanized, forked type or plunger-bar type to permit operation from either side of gate, with padlock eye as integral part of latch.
- S. Double Gates Hardware: Provide gate stops for double gates, consisting of mushroom type of flush plate with anchors set in concrete, to engage center drop rod or plunger bar.

Include locking device and padlock eye as integral part of latch, using 1 padlock for locking both gate leaves.

2.3 GALVANIZING

- A. Fabric Finish: Galvanized, ASTM A 392, Class I, with not less than 1.2 oz zinc/sq. ft of surface.
- B. Framing: Galvanized steel, ASTM A 120 or A 123, with not less than 1.8 oz zinc/sq. ft of surface.
- C. Hardware and Accessories: Galvanized, ASTM A 153 with zinc weights in accordance with Table I.

PART 3 EXECUTION

3.1 GATE FABRICATION

- A. Fabricate swing gate perimeter frames of 1.90-inch OD pipe, galvanized steel. Provide horizontal and vertical members to ensure proper gate operation and attachment of fabric, hardware, and accessories. Space frame members maximum of 8'-0" apart.
- B. Assemble gate frames by welding or special fittings and rivets, for rigid connections. Install same fabric as for fence with stretcher bars at vertical edges. Install diagonal cross-bracing on gates as required ensuring rigid frame without sag or twist. Bars may be used at top and bottom edges. Attach stretchers to gate frame at 15 inches o.c. maximum.
- C. Attach hardware to provide security against removal or breakage.

3.2 CONCRETE MIXING

A. Mix materials to obtain concrete with minimum 28-day compressive strength of 3,000 psi; 1-inch maximum size aggregate, maximum 3-inch slump, and 5-8 percent entrained air.

3.3 INSTALLATION

- A. Comply with recommended procedures and instructions of fencing manufacturer. Provide secure, aligned installation with line posts spaced at 10'-0" o.c. maximum.
- B. Grade Set Posts: Drill or hand excavate using posthole digger in firm undisturbed or compacted soil.
- C. Excavate hole for each post to minimum diameter recommended by fence manufacturer but not less than 4 times the largest cross-section of post. Excavate hole depths not less than 48 inches below finish grade surface, or to greater depth if indicated on Contract Drawings.
- Center and align posts in holes with bottom of posts 3-inches above bottom of excavation.
- E. Place concrete around posts and vibrate or tamp for consolidation. Check each post for vertical and top alignment, and hold in position during placement and finishing operations. Extend concrete footing 2-inches above grade and trowel crown to shed water.

- F. Sleeve Set Posts: Anchor posts by means of pipe sleeves preset and anchored into concrete. After posts have been inserted into sleeves, fill annular space between post and sleeve solid with nonshrink, non-metallic grout, mixed and placed to comply with grout manufacturer's directions.
- G. Top Rails: Run rail continuously, bending to form radius for curved runs. Provide expansion couplings as recommended by manufacturer.
- H. Center Rails: Provide center rails where indicated. Install in 1 piece between posts and flush with post on fabric side, using special offset fittings where necessary.
- I. Brace Assemblies: Install braces so posts are plumb when diagonal rod are under proper tension.
- J. Tension Wire: Install tension wires through post cap loops before stretching fabric and tie to each post cap with not less than 6 gauge galvanized wire. Fasten fabric to tension wire using 11 gauge galvanized steel hog rings spaced 24-inches o.c.
- K. Fabric: Leave approximately 2 inches between finish grade and bottom selvage. Pull fabric taut and tie to posts, rails, and tension wires. Install fabric on security side of fence, and anchor to framework so that fabric remains in tension after pulling force is released.
- L. Stretcher Bars: Secure at end, corner, pull, and gate posts by threading through or clamping to fabric at 4 inches o.c. and secure to posts with metal bands spaced at 15 inches o.c.

M. Tie Wires:

- Use U-shaped wire, conforming to diameter of pipe to which attached, clasping pipe and fabric firmly when ends twisted at least 2 full turns. Bend ends of wire to minimize hazard to persons or clothing.
- 2. Tie fabric to line posts with wire ties spaced 12 inches o.c. Tie fabric to rails and braces with wire ties spaced 24 inches o.c. Tie fabric to tension wires with hog rings spaced 24-inches o.c.
- Manufacturer's standard procedure will be accepted if of equal strength and durability.
- N. Fasteners: Install nuts for tension bands and hardware bolts on side of fence opposite fabric side. Peen ends of bolts or score threads to prevent removal of nuts.
- O. Gates: Install gates plumb, level, and secure for full opening without interference. Install ground-set items in concrete for anchorage. Adjust hardware for smooth operation and lubrication.

3.4 MISCELLANEOUS INSTALLATION

- A. Use U-shape tie wires, conforming to the diameters of pipe, that clasp the pipe and fabric firmly with ends twisted at least 2 full turns.
 - 1. Bend ends of exposed wires to minimize hazards to persons or clothing.
 - 2. Install nuts for fasteners on tension bands and hardware bolts on the side of the fence opposite the fabric. The ends of bolts, once secure and checked for smooth operation, shall be peened to prevent removal of nuts.
 - 3. Repair coatings damaged in the field with methods and techniques as recommended by the manufacturer.

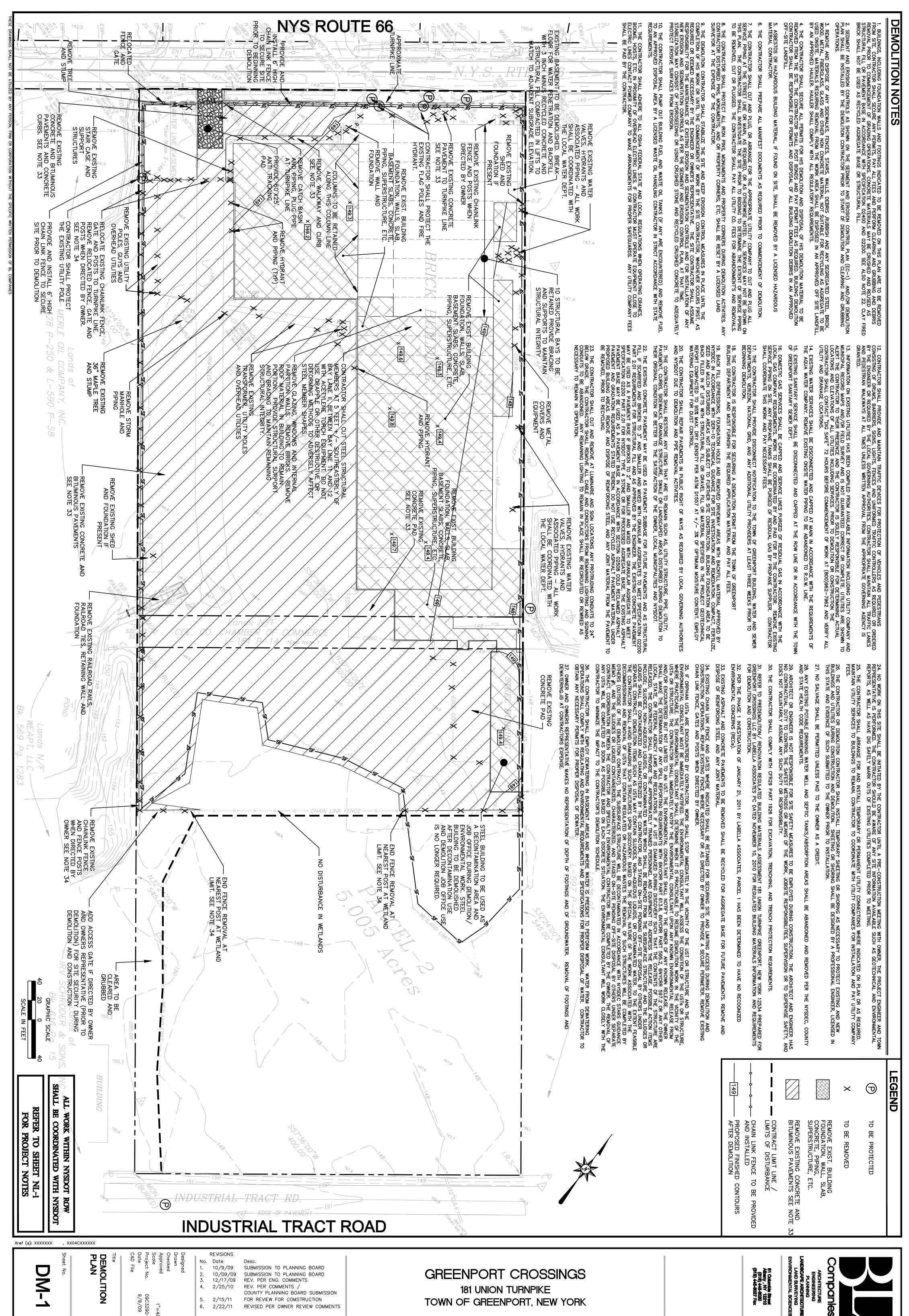
3.5 WARRANTY

A guarantee shall be furnished for all materials, installation, and workmanship to be free
of defects for a period of 1 year from date of acceptance unless noted otherwise in the
Contract Documents. Any defect in installation or workmanship shall be repaired, and
defective materials shall be replaced during the guarantee period without any cost to the
Owner.

END OF SECTION 02821



Figures



6. 2/22/11





Demolition Data Package

181 Union Turnpike (Route 66) Town of Greenport, New York

Client: Greenport Crossings, LLC

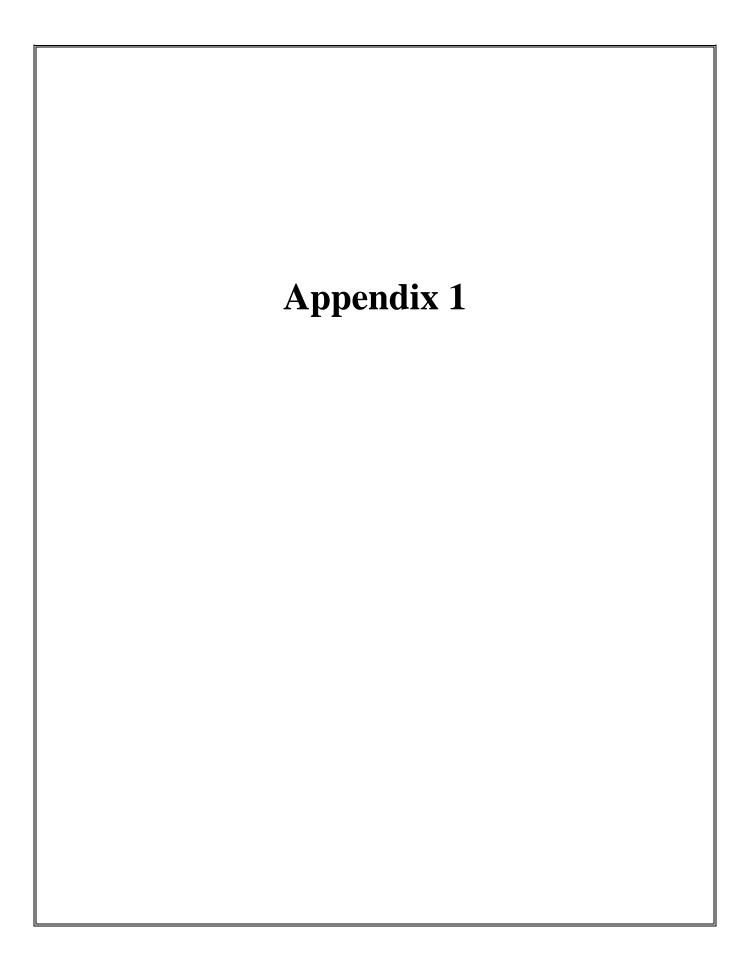
Title: Areas of Concern, Site Features, and Sample Locations



80 1 inch = 80 feet

210408

FIGURE 2







Appendix 1 - Demolition Package

181 Union Turnpike (Route 66) Town of Greenport, New York

Greenport Crossings



8

1 inch = 96 feet

210408

FIGURE 1

Client: LaBella Associates
Client Sample ID: PAVER 1

Lab ID: J2392-14

Date: 30-Nov-10

Project: LaBella Stand By

Collection Date: 11/18/10 17:00

Analyses	Result	Qual	RL	Units	DF Date Analyzed	Batch ID
SW846 8270D SVOA by GC-MS					· · · · · · · · · · · · · · · · · · ·	SW8270_S
Naphthalene	ND		1900	ug/Kg	5 11/30/2010 2:29	55864
Acenaphthene	ND		1900	ug/Kg	5 11/30/2010 2:29	55864
Fluorene	940	J	1900	ug/Kg	5 11/30/2010 2:29	55864
Phenanthrene	74000	E	1900	ug/Kg	5 11/30/2010 2:29	55864
Anthracene	12000		1900	ug/Kg	5 11/30/2010 2:29	55864
Fluoranthene	84000	E	1900	ug/Kg	5 11/30/2010 2:29	55864
Pyrene	78000	E	1900	ug/Kg	5 11/30/2010 2:29	55864
Benzo(a)anthracene	35000	E	1900	ug/Kg	5 11/30/2010 2:29	55864
Chrysene	41000	E	1900	ug/Kg	5 11/30/2010 2:29	55864
Benzo(b)fluoranthene	39000	E	1900	ug/Kg	5 11/30/2010 2:29	55864
Benzo(k)fluoranthene	22000		1900	ug/Kg	5 11/30/2010 2:29	55864
Benzo(a)pyrene	22000		1900	ug/Kg	5 11/30/2010 2:29	55864
Indeno(1,2,3-cd)pyrene	14000		1900	ug/Kg	5 11/30/2010 2:29	55864
Dibenzo(a,h)anthracene	4000		1900	ug/Kg	5 11/30/2010 2:29	55864
Benzo(g,h,i)perylene	15000		1900	ug/Kg	5 11/30/2010 2:29	55864
Surrogate: Nitrobenzene-d5	90.0		35-100	%REC	5 11/30/2010 2:29	55864
Surrogate: 2-Fluorobiphenyl	89.2		45-105	%REC	5 11/30/2010 2:29	55864
Surrogate: Terphenyl-d14	97.8		30-125	%REC	5 11/30/2010 2:29	55864
2,8-Dimethyldibenzo(b,d)thiophene	4300	JN		ug/Kg	5 11/30/2010 2:29	55864
9-Borabicyclo[3.3.1]nonane, 9-(2-phenyle	2900	JN		ug/Kg	5 11/30/2010 2:29	55864
9H-Fluoren-9-one	18000	JN		ug/Kg	5 11/30/2010 2:29	55864
Benzo[b]naphtho[2,1-d]thiophene	4800	JN		ug/Kg	5 11/30/2010 2:29	55864
Dibenzothiophene, 3-methyl-	25000	JN		ug/Kg	5 11/30/2010 2:29	55864
Phenanthrene, 1,7-dimethyl- (10.66802)	3100	JN		ug/Kg	5 11/30/2010 2:29	55864
Phenanthrene, 1,7-dimethyl- (10.68405)	2100	JN		ug/Kg	5 11/30/2010 2:29	55864
Phenanthrene, 2,5-dimethyl-	4400	JN		ug/Kg	5 11/30/2010 2:29	55864
Phenanthrene, 2-methyl-	37000	JN		ug/Kg	5 11/30/2010 2:29	55864
Phenanthrene, 4,5-dimethyl-	2400	JN		ug/Kg	5 11/30/2010 2:29	55864
Pyrene, 1-methyl- (11.24498)	2700	JN		ug/Kg	5 11/30/2010 2:29	55864
Pyrene, 1-methyl- (11.33578)	2600	JN		ug/Kg	5 11/30/2010 2:29	55864
Pyrene, 1-methyl- (11.43195)	4500	JN		ug/Kg	5 11/30/2010 2:29	55864
Thioxanthene	21000	JN		ug/Kg	5 11/30/2010 2:29	55864
Unknown (10.51310)	2500	J		ug/Kg	5 11/30/2010 2:29	55864
Unknown (10.83897)	2200	J		ug/Kg	5 11/30/2010 2:29	55864
Unknown (11.00458)	2400	J		ug/Kg	5 11/30/2010 2:29	55864
Unknown (11.11142)	3500	J		ug/Kg	5 11/30/2010 2:29	55864
Unknown (14.42355)	18000	J		ug/Kg	5 11/30/2010 2:29	55864
Perylene	40000	JN		ug/Kg	5 11/30/2010 2:29	55864

PRELIMINARY: Here are the preliminary results for your project submitted to Mitkem Laboratories. Please note: Data contained within this report have undergone preliminary review but may be subject to change pending final QA/QC review.

Qualifiers: ND - Not Detected at the Reporting Limit.

J - Analyt der tee below que it ation mits

B - Analy detects in the as ciated Nothor Block

DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits

R / PD ou de scepte recovery limits

L.- Vi eal ve untita n range

Client: LaBella Associates

Client Sample ID: PAVER 2

Lab ID: J2392-15

Date: 30-Nov-10

Project: LaBella Stand By

Collection Date: 11/18/10 9:30

Analyses	Result	Qual	RL	Units	DF Date Analyzed	Batch ID
SW846 8270D SVOA by GC-MS						SW8270_S
Naphthalene	4700		3400	ug/Kg	10 11/30/2010 2:53	55864
Acenaphthene	8900		3400	ug/Kg	10 11/30/2010 2:53	55864
Fluorene	12000		3400	ug/Kg	10 11/30/2010 2:53	55864
Phenanthrene	200000	E	3400	ug/Kg	10 11/30/2010 2:53	55864
Anthracene	38000		3400	ug/Kg	10 11/30/2010 2:53	55864
Fluoranthene	400000	E	3400	ug/Kg	10 11/30/2010 2:53	55864
Pyrene	290000	E	3400	ug/Kg	10 11/30/2010 2:53	55864
Benzo(a)anthracene	160000	E	3400	ug/Kg	10 11/30/2010 2:53	55864
Chrysene	160000	E	3400	ug/Kg	10 11/30/2010 2:53	55864
Benzo(b)fluoranthene	240000	E	3400	ug/Kg	10 11/30/2010 2:53	55864
Benzo(k)fluoranthene	78000	E	3400	ug/Kg	10 11/30/2010 2:53	55864
Benzo(a)pyrene	150000	E	3400	ug/Kg	10 11/30/2010 2:53	55864
Indeno(1,2,3-cd)pyrene	84000	E	3400	ug/Kg	10 11/30/2010 2:53	55864
Dibenzo(a,h)anthracene	27000		3400	ug/Kg	10 11/30/2010 2:53	55864
Benzo(g,h,i)perylene	90000	E	3400	ug/Kg	10 11/30/2010 2:53	55864
Surrogate: Nitrobenzene-d5	87.9		35-100	%REC	10 11/30/2010 2:53	55864
Surrogate: 2-Fluorobiphenyl	93.0		45-105	%REC	10 11/30/2010 2:53	55864
Surrogate: Terphenyl-d14	118		30-125	%REC	10 11/30/2010 2:53	55864
.alphaPinene	100000	JN		ug/Kg	10 11/30/2010 2:53	55864
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	2000	JN		ug/Kg	10 11/30/2010 2:53	55864
11H-Benzo[a]fluoren-11-one	1800	JN		ug/Kg	10 11/30/2010 2:53	55864
11H-Benzo[b]fluorene (11.34038)	4800	JN		ug/Kg	10 11/30/2010 2:53	55864
11H-Benzo[b]fluorene (11.39382)	1700	JN		ug/Kg	10 11/30/2010 2:53	55864
Benzo[b]naphtho[2,1-d]thiophene	2400	JN		ug/Kg	10 11/30/2010 2:53	55864
Benzo[e]pyrene	71000	JN		ug/Kg	10 11/30/2010 2:53	55864
Benzo[j]fluoranthene	190000	JN		ug/Kg	10 11/30/2010 2:53	55864
Dibenzo[def,mno]chrysene	150000	JN		ug/Kg	10 11/30/2010 2:53	55864
Phenanthrene, 1-methyl-	50000	JN		ug/Kg	10 11/30/2010 2:53	55864
Phenanthrene, 2,5-dimethyl-	3700	JN		ug/Kg	10 11/30/2010 2:53	55864
Pyrene, 1-methyl-	1800	JN		ug/Kg	10 11/30/2010 2:53	55864
Pyrene, 2-methyl-	3700	JN		ug/Kg	10 11/30/2010 2:53	55864
Pyrene, 4-methyl-	1900	JN		ug/Kg	10 11/30/2010 2:53	55864
Triphenylene, 2-methyl-	2100	JN		ug/Kg	10 11/30/2010 2:53	55864
Unknown (10.36278)	4000	J		ug/Kg	10 11/30/2010 2:53	55864
Unknown (11.26560)	4500	J		ug/Kg	10 11/30/2010 2:53	55864
Unknown (11.48463)	2300	J		ug/Kg	10 11/30/2010 2:53	55864
Unknown (11.92268)	2700	J		ug/Kg	10 11/30/2010 2:53	55864
Unknown (12.55305)	2700	J		ug/Kg	10 11/30/2010 2:53	55864

PRELIMINARY: Here are the preliminary results for your project submitted to Mitkem Laboratories. Please note: Data contained within this report have undergone preliminary review but may be subject to change pending final QA/QC review.

Qualifiers: ND - Not Detected at the Reporting Limit

J - Analyt det stee sels v quaitiation mits

B - Analy detecte in the associated Nother Block

DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits

R / D ou de cepte recovery limits

F. - Vi e al ve cantita in range

Date: 30-Nov-10

Client: LaBella Associates

Client Sample ID: PAVER 1

Lab ID: J2392-14

Project: LaBella Stand By

Collection Date: 11/18/10 17:00

Analyses	Result Qual	RL	Units	DF Date Analyzed	Batch ID
SW846 6010C Metals by ICP					SW6010_S
Arsenic	1.2	0.75	mg/Kg	1 11/30/2010 10:02	55937
Barium	33 B	7.5	mg/Kg	1 11/30/2010 10:02	55937
Cadmium	0.28	0.19	mg/Kg	1 11/30/2010 10:02	55937
Chromium	18 B	0.75	mg/Kg	1 11/30/2010 10:02	55937
Lead	27	0.37	mg/Kg	1 11/30/2010 10:02	55937
Selenium	0.52 J	1.1	mg/Kg	1 11/30/2010 10:02	55937
Silver	ND	1.1	mg/Kg	1 11/30/2010 10:02	55937
SW846 7471B Mercury by FIA					SW7471
Mercury	0.12 B	0.037	mg/Kg	1 11/29/2010 19:10	55938

PRELIMINARY: Here are the preliminary results for your project submitted to Mitkem Laboratories. Please note: Data contained within this report have undergone preliminary review but may be subject to change pending final QA/QC review.

- R / i 2D ou de acepte recovery limits
- Vi e al ve cantita a range
- RL Reporting Limit

Client: LaBella Associates

Client Sample ID: PAVER 2

Lab ID: J2392-15

Date: 30-Nov-10

Project: LaBella Stand By

Collection Date: 11/18/10 9:30

Analyses	Result Qual	RL Units	DF Date Analyzed	Batch ID
SW846 6010C Metals by ICP				SW6010_S
Arsenic	0.83 J	0.88 mg/Kg	1 11/30/2010 10:05	55937
Barium	60 B	8.8 mg/Kg	1 11/30/2010 10:05	55937
Cadmium	0.90	0.22 mg/Kg	1 11/30/2010 10:05	55937
Chromium	11 B	0.88 mg/Kg	1 11/30/2010 10:05	55937
Lead	22	0.44 mg/Kg	1 11/30/2010 10:05	55937
Selenium	ND	1.3 mg/Kg	1 11/30/2010 10:05	55937
Silver	0.78 BJ	1.3 mg/Kg	1 11/30/2010 10:05	55937
SW846 7471B Mercury by FIA				SW7471
Mercury	0.068 B	0.040 mg/Kg	1 11/29/2010 19:11	55938

PRELIMINARY: Here are the preliminary results for your project submitted to Mitkem Laboratories. Please note: Data contained within this report have undergone preliminary review but may be subject to change pending final QA/QC review.

Date: 30-Nov-10

Client: LaBella Associates

Client Sample ID: PAVER 2

Lab ID: J2392-15

Project: LaBella Stand By

Collection Date: 11/18/10 9:30

Analyses	Result Qual	RL	Units	DF Date Analyzed	Batch ID
SW846 8260C VOC by GC-MS				SW82	260_LOW_S
Chloromethane	ND	25	μg/Kg	1 11/24/2010 18:22	55886
Vinyl chloride	ND	25	μg/Kg	1 11/24/2010 18:22	55886
Bromomethane	ND	25	μg/Kg	1 11/24/2010 18:22	55886
Chloroethane	ND	25	μg/Kg	1 11/24/2010 18:22	55886
Trichlorofluoromethane	ND	25	μg/Kg	1 11/24/2010 18:22	55886
1,1-Dichloroethene	ND	25	μg/Kg	1 11/24/2010 18:22	55886
Acetone	36 B	25	μg/Kg	1 11/24/2010 18:22	55886
Carbon disulfide	ND	25	μg/Kg	1 11/24/2010 18:22	55886
Methylene chloride	ND	25	μg/Kg	1 11/24/2010 18:22	55886
trans-1,2-Dichloroethene	ND	25	μg/Kg	1 11/24/2010 18:22	55886
Methyl tert-butyl ether	ND	25	μg/Kg	1 11/24/2010 18:22	55886
1,1-Dichloroethane	ND	25	μg/Kg	1 11/24/2010 18:22	55886
Vinyl acetate	ND	25	μg/Kg	1 11/24/2010 18:22	55886
2-Butanone	ND	25	μg/Kg	1 11/24/2010 18:22	55886
cis-1,2-Dichloroethene	ND	25	μg/Kg	1 11/24/2010 18:22	55886
Chloroform	ND	25	μg/Kg	1 11/24/2010 18:22	55886
1,1,1-Trichloroethane	ND	25	μg/Kg	1 11/24/2010 18:22	55886
Carbon tetrachloride	ND	25	μg/Kg	1 11/24/2010 18:22	55886
1,2-Dichloroethane	ND	25	μg/Kg	1 11/24/2010 18:22	55886
Benzene	ND	25	μg/Kg	1 11/24/2010 18:22	55886
Trichloroethene	ND	25	μg/Kg	1 11/24/2010 18:22	55886
1,2-Dichloropropane	ND	25	μg/Kg	1 11/24/2010 18:22	55886
Bromodichloromethane	ND	25	μg/Kg	1 11/24/2010 18:22	55886
cis-1,3-Dichloropropene	ND	25	μg/Kg	1 11/24/2010 18:22	55886
4-Methyl-2-pentanone	ND	25	μg/Kg	1 11/24/2010 18:22	55886
Toluene	ND	25	μg/Kg	1 11/24/2010 18:22	55886
trans-1,3-Dichloropropene	ND	25	μg/Kg	1 11/24/2010 18:22	55886
1,1,2-Trichloroethane	ND	25	μg/Kg	1 11/24/2010 18:22	55886
Tetrachloroethene	ND	25	μg/Kg	1 11/24/2010 18:22	55886
2-Hexanone	ND	25	μg/Kg	1 11/24/2010 18:22	55886
Dibromochloromethane	ND	25	μg/Kg	1 11/24/2010 18:22	55886
Chlorobenzene	ND	25	μg/Kg	1 11/24/2010 18:22	55886
Ethylbenzene	ND	25	μg/Kg	1 11/24/2010 18:22	55886
m,p-Xylene	ND	25	μg/Kg	1 11/24/2010 18:22	55886
o-Xylene	ND	25	μg/Kg	1 11/24/2010 18:22	55886
Xylene (Total)	ND	25	μg/Kg	1 11/24/2010 18:22	55886
Styrene	ND	25	μg/Kg	1 11/24/2010 18:22	55886
Bromoform	ND	25	μg/Kg	1 11/24/2010 18:22	55886
Isopropylbenzene	ND		μg/Kg	1 11/24/2010 18:22	55886

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyt det stee below que it ation mits

B - Analy detects in it as ciated Nother Block

DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits

R/i D ou de cepte récovery limits

L-Vi e al ve cantita in range

Date: 30-Nov-10

Client: LaBella Associates

Client Sample ID: PAVER 2

Lab ID: J2392-15

Project: LaBella Stand By

Collection Date: 11/18/10 9:30

Analyses	Result Qual	RL	Units	DF Date Analyzed	Batch ID
SW846 8260C VOC by GC-MS				SW82	260_LOW_S
1,1,2,2-Tetrachloroethane	ND	25	μg/Kg	1 11/24/2010 18:22	55886
n-Propylbenzene	ND	25	μg/Kg	1 11/24/2010 18:22	55886
1,3,5-Trimethylbenzene	ND	25	μg/Kg	1 11/24/2010 18:22	55886
tert-Butylbenzene	ND	25	μg/Kg	1 11/24/2010 18:22	55886
1,2,4-Trimethylbenzene	ND	25	μg/Kg	1 11/24/2010 18:22	55886
sec-Butylbenzene	ND	25	μg/Kg	1 11/24/2010 18:22	55886
4-Isopropyltoluene	ND	25	μg/Kg	1 11/24/2010 18:22	55886
1,3-Dichlorobenzene	ND	25	μg/Kg	1 11/24/2010 18:22	55886
1,4-Dichlorobenzene	ND	25	μg/Kg	1 11/24/2010 18:22	55886
n-Butylbenzene	ND	25	μg/Kg	1 11/24/2010 18:22	55886
1,2-Dichlorobenzene	ND	25	μg/Kg	1 11/24/2010 18:22	55886
Naphthalene	58	25	μg/Kg	1 11/24/2010 18:22	55886
2-Chloroethyl vinyl ether	ND	25	μg/Kg	1 11/24/2010 18:22	55886
Surrogate: Dibromofluoromethane	96.6	65-132	%REC	1 11/24/2010 18:22	55886
Surrogate: 1,2-Dichloroethane-d4	98.1	65-128	%REC	1 11/24/2010 18:22	55886
Surrogate: Toluene-d8	106	85-115	%REC	1 11/24/2010 18:22	55886
Surrogate: Bromofluorobenzene	90.5	77-111	%REC	1 11/24/2010 18:22	55886

PRELIMINARY: Here are the preliminary results for your project submitted to Mitkem Laboratories. Please note: Data contained within this report have undergone preliminary review but may be subject to change pending final QA/QC review.

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyt Let Stee Sel V que it ation mits

B - Analy detecte in a as ciated M thoo Block

DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits

R = i 2D ou de ocepte recovery limits

F - Vale al vel antita in range

Date: 30-Nov-10

Client: LaBella Associates

Client Sample ID: PAVER 1 Project: LaBella Stand By

Lab ID: J2392-14 **Collection Date:** 11/18/10 17:00

Analyses	Result Qual	RL Units	DF Date Analyzed	Batch ID
SW846 8260C VOC by GC-MS			SW8	260_LOW_S
Chloromethane	ND	17 μg/Kg	1 11/24/2010 17:53	55886
Vinyl chloride	ND	17 μg/Kg	1 11/24/2010 17:53	55886
Bromomethane	ND	17 μg/Kg	1 11/24/2010 17:53	55886
Chloroethane	ND	17 μg/Kg	1 11/24/2010 17:53	55886
Trichlorofluoromethane	ND	17 μg/Kg	1 11/24/2010 17:53	55886
1,1-Dichloroethene	ND	17 μg/Kg	1 11/24/2010 17:53	55886
Acetone	450 B	17 μg/Kg	1 11/24/2010 17:53	55886
Carbon disulfide	ND	17 μg/Kg	1 11/24/2010 17:53	55886
Methylene chloride	ND	17 μg/Kg	1 11/24/2010 17:53	55886
trans-1,2-Dichloroethene	ND	17 μg/Kg	1 11/24/2010 17:53	55886
Methyl tert-butyl ether	ND	17 μg/Kg	1 11/24/2010 17:53	55886
1,1-Dichloroethane	ND	17 μg/Kg	1 11/24/2010 17:53	55886
Vinyl acetate	ND	17 μg/Kg	1 11/24/2010 17:53	55886
2-Butanone	ND	17 μg/Kg	1 11/24/2010 17:53	55886
cis-1,2-Dichloroethene	ND	17 μg/Kg	1 11/24/2010 17:53	55886
Chloroform	ND	17 μg/Kg	1 11/24/2010 17:53	55886
1,1,1-Trichloroethane	ND	17 μg/Kg	1 11/24/2010 17:53	55886
Carbon tetrachloride	ND	17 μg/Kg	1 11/24/2010 17:53	55886
1,2-Dichloroethane	ND	17 μg/Kg	1 11/24/2010 17:53	55886
Benzene	ND	17 μg/Kg	1 11/24/2010 17:53	55886
Trichloroethene	ND	17 μg/Kg	1 11/24/2010 17:53	55886
1,2-Dichloropropane	ND	17 μg/Kg	1 11/24/2010 17:53	55886
Bromodichloromethane	ND	17 μg/Kg	1 11/24/2010 17:53	55886
cis-1,3-Dichloropropene	ND	17 μg/Kg	1 11/24/2010 17:53	55886
4-Methyl-2-pentanone	49	17 μg/Kg	1 11/24/2010 17:53	55886
Toluene	56	17 μg/Kg	1 11/24/2010 17:53	55886
trans-1,3-Dichloropropene	ND	17 μg/Kg	1 11/24/2010 17:53	55886
1,1,2-Trichloroethane	ND	17 μg/Kg	1 11/24/2010 17:53	55886
Tetrachloroethene	ND	17 μg/Kg	1 11/24/2010 17:53	55886
2-Hexanone	ND	17 μg/Kg	1 11/24/2010 17:53	55886
Dibromochloromethane	ND	17 μg/Kg	1 11/24/2010 17:53	55886
Chlorobenzene	ND	17 μg/Kg	1 11/24/2010 17:53	55886
Ethylbenzene	ND	17 μg/Kg	1 11/24/2010 17:53	55886
m,p-Xylene	9.0 J	17 μg/Kg	1 11/24/2010 17:53	55886
o-Xylene	3.4 J	17 μg/Kg	1 11/24/2010 17:53	55886
Xylene (Total)	12 J	17 μg/Kg	1 11/24/2010 17:53	55886
Styrene	ND	17 μg/Kg	1 11/24/2010 17:53	55886
Bromoform	ND	17 μg/Kg	1 11/24/2010 17:53	55886
Isopropylbenzene	ND	17 μg/Kg	1 11/24/2010 17:53	55886

Qualifiers:

ND - Not Detected at the Reporting Limit.

J - Analyt det eter pel ev que iti ation mits

B - Analy detects in a sciate I N thos Black

DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits

R / D ou de accepte recovery limits

1 - Vi e al ve cantita n range

Date: 30-Nov-10

Client: LaBella Associates

Client Sample ID: PAVER 1

Lab ID: J2392-14

Project: LaBella Stand By

Collection Date: 11/18/10 17:00

Analyses	Result Qual	RL Units	DF Date Analyzed	Batch ID
SW846 8260C VOC by GC-MS			SW82	260_LOW_S
1,1,2,2-Tetrachloroethane	ND	17 μg/Kg	1 11/24/2010 17:53	55886
n-Propylbenzene	ND	17 μg/Kg	1 11/24/2010 17:53	55886
1,3,5-Trimethylbenzene	120	17 μg/Kg	1 11/24/2010 17:53	55886
tert-Butylbenzene	ND	17 μg/Kg	1 11/24/2010 17:53	55886
1,2,4-Trimethylbenzene	24	17 μg/Kg	1 11/24/2010 17:53	55886
sec-Butylbenzene	ND	17 μg/Kg	1 11/24/2010 17:53	55886
4-Isopropyltoluene	95	17 μg/Kg	1 11/24/2010 17:53	55886
1,3-Dichlorobenzene	ND	17 μg/Kg	1 11/24/2010 17:53	55886
1,4-Dichlorobenzene	ND	17 μg/Kg	1 11/24/2010 17:53	55886
n-Butylbenzene	ND	17 μg/Kg	1 11/24/2010 17:53	55886
1,2-Dichlorobenzene	3.8 BJ	17 μg/Kg	1 11/24/2010 17:53	55886
Naphthalene	330	17 μg/Kg	1 11/24/2010 17:53	55886
2-Chloroethyl vinyl ether	ND	17 μg/Kg	1 11/24/2010 17:53	55886
Surrogate: Dibromofluoromethane	99.0	65-132 %REC	1 11/24/2010 17:53	55886
Surrogate: 1,2-Dichloroethane-d4	96.9	65-128 %REC	1 11/24/2010 17:53	55886
Surrogate: Toluene-d8	105	85-115 %REC	1 11/24/2010 17:53	55886
Surrogate: Bromofluorobenzene	90.2	77-111 %REC	1 11/24/2010 17:53	55886

PRELIMINARY: Here are the preliminary results for your project submitted to Mitkem Laboratories. Please note: Data contained within this report have undergone preliminary review but may be subject to change pending final QA/QC review.

Qualifiers:

ND - Not Detected at the Reporting Limit.

J - Analyt det ater below que it ation mits

B - Analy detects in a sciated A those Block

DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits

R / PD ou de accepte recovery limits

C - V; e al ve contita n range

U.S. EPA - CLP

1

EPA SAMPLE NO.

		INORGAN	IC ANALYSIS DATA SHEET	CONCRETE 1
Lab Name:	Mitkem La	boratories	Contract: 210408	
Lab Code:	MITKEM	Case No.:	SAS No.:	SDG No.: SJ2405
Matrix (so	oil/water):	SOIL	Lab Sample ID: J24	05-03
Level (lov	w/med): MED		Date Received: 11/	19/2010
e Colido.	100 0			

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	5 12.9		NE	P
7440-39-3	Barium	100 118			P
7440-43-9	Cadmium	10 4.4		E	P
7440-47-3	Chromium	5 117		N	P
7439-92-1	Lead	5 121		E	P
7439-97-6	Mercury	0.2 0.12			CV
7782-49-2	Selenium	1.0 0.35	U	N	P
7440-22-4	Silver	0.035	U		P

Concentration Units (ug/L or mg/kg dry weight): MG/KG

ents:		

U.S. EPA - CLP

EPA SAMPLE NO.

		INORGANIC ANALYSIS DATA SHEET	CONCRETE 2
Lab Name:	Mitkem Laboratories	Contract: 210408	

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SJ2405

Matrix (soil/water): SOIL Lab Sample ID: J2405-04

Level (low/med): MED Date Received: 11/19/2010

% Solids: 100.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	С	Q	М
7440-38-2	Arsenic	8.6		NE	P
7440-39-3	Barium	181			P
7440-43-9	Cadmium	3.3		E	P
7440-47-3	Chromium	23.0		N	P
7439-92-1	Lead	98.3		E	Р
7439-97-6	Mercury	0.10			CV
7782-49-2	Selenium	1.2	В	N	Р
7440-22-4	Silver	4.5			P

Comme	nts:

U.S. EPA - CLP

1

EPA SAMPLE NO.

CONCRETE 3

INORGANIC	ANALYSIS	DATA	SHEET

Lab Name: Mitkem Laboratories

Contract: 210408

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: SJ2405

Matrix (soil/water): SOIL

Lab Sample ID: J2405-05

Level (low/med): MED

Date Received: 11/19/2010

% Solids: 100.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No. Analyte Concentration C Μ 7440-38-2 Arsenic 9.8 NE P 7440-39-3 Barium 94.1 Ρ 7440-43-9 Cadmium 0.58 P E 7440-47-3 Chromium 31.4 N P 7439-92-1 Lead 9.3 E P 7439-97-6 Mercury CV 0.028 B 7782-49-2|Selenium 0.50 UN P 7440-22-4 Silver 0.050 Ρ

Comme:	nts:	
		······································

Client: LaBella Associates

Client Sample ID: SUMP

Lab ID: J2392-12

Date: 30-Nov-10

Project: LaBella Stand By

Collection Date: 11/18/10 16:45

Analyses	Result Qual	RL Units	DF Date Analyzed	Batch ID
SM 4500 H+ B pH VALUE				SM4500_H+
рН	6.8	1.0 S.U.	1 11/22/2010 12:05	R54063

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Client: LaBella Associates

Client Sample ID: DRUMS

Lab ID: J2392-13

Date: 30-Nov-10

Project: LaBella Stand By

Collection Date: 11/18/10 16:50

Analyses	Result Qual	RL Units	DF Date Analyzed	Batch ID
SM 4500 H+ B pH VALUE				SM4500_H+
pН	7.6	1.0 S.U.	1 11/22/2010 12:06	R54063

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quanititation limits

B - Analyte detected in the associated Method Blank

DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Client: LaBella Associates

Client Sample ID: DRUMS

Lab ID: J2392-13

Date: 30-Nov-10

Project: LaBella Stand By

Collection Date: 11/18/10 16:50

Analyses	Result Qual	RL Units	DF Date Analyzed	Batch ID
SW846 6010C Metals by ICP				SW6010_W
Arsenic	ND	20 μg/L	1 11/24/2010 11:53	55836
Barium	77 J	200 μg/L	1 11/24/2010 11:53	55836
Cadmium	ND	5.0 μg/L	1 11/24/2010 11:53	55836
Chromium	ND	20 μg/L	1 11/24/2010 11:53	55836
Lead	ND	10 μg/L	1 11/24/2010 11:53	55836
Selenium	ND	30 μg/L	1 11/24/2010 11:53	55836
Silver	ND	30 μg/L	1 11/24/2010 11:53	55836
SW846 7470A Mercury by FIA				SW7470
Mercury	ND	0.20 µg/L	1 11/30/2010 15:30	55959

PRELIMINARY: Here are the preliminary results for your project submitted to Mitkem Laboratories. Please note: Data contained within this report have undergone preliminary review but may be subject to change pending final QA/QC review.

Client: LaBella Associates

Client Sample ID: SUMP

Lab ID: J2392-12

Date: 30-Nov-10

Project: LaBella Stand By

Collection Date: 11/18/10 16:45

Analyses	Result Qual	RL Units	DF Date Analyzed	Batch ID
SW846 6010C Metals by ICP				SW6010_W
Arsenic	ND	20 μg/L	1 11/24/2010 11:49	55836
Barium	460	200 μg/L	1 11/24/2010 11:49	55836
Cadmium	4.2 J	5.0 μg/L	1 11/24/2010 11:49	55836
Chromium	11 J	20 μg/L	1 11/24/2010 11:49	55836
Lead	140	10 μg/L	1 11/24/2010 11:49	55836
Selenium	ND	30 μg/L	1 11/24/2010 11:49	55836
Silver	ND	30 μg/L	1 11/24/2010 11:49	55836
SW846 7470A Mercury by FIA				SW7470
Mercury	ND	0.20 μg/L	1 11/30/2010 15:26	55959

PRELIMINARY: Here are the preliminary results for your project submitted to Mitkem Laboratories. Please note: Data contained within this report have undergone preliminary review but may be subject to change pending final QA/QC review.

Date: 30-Nov-10

Client: LaBella Associates

Client Sample ID: DRUMS

Lab ID: J2392-13

Project: LaBella Stand By **Collection Date:** 11/18/10 16:50

Analyses	Result Qual	RL Units	DF Date Analyzed	Batch ID
SW846 8260C VOC by GC-MS				SW8260_W
Chloromethane	ND	5.0 μg/L	1 11/22/2010 4:52	55783
Vinyl chloride	ND	5.0 μg/L	1 11/22/2010 4:52	55783
Bromomethane	ND	5.0 μg/L	1 11/22/2010 4:52	55783
Chloroethane	ND	5.0 μg/L	1 11/22/2010 4:52	55783
Trichlorofluoromethane	ND	5.0 μg/L	1 11/22/2010 4:52	55783
1,1-Dichloroethene	ND	5.0 μg/L	1 11/22/2010 4:52	55783
Acetone	ND	5.0 μg/L	1 11/22/2010 4:52	55783
Carbon disulfide	ND	5.0 μg/L	1 11/22/2010 4:52	55783
Methylene chloride	ND	5.0 μg/L	1 11/22/2010 4:52	55783
trans-1,2-Dichloroethene	ND	5.0 μg/L	1 11/22/2010 4:52	55783
Methyl tert-butyl ether	ND	5.0 μg/L	1 11/22/2010 4:52	55783
1,1-Dichloroethane	ND	5.0 μg/L	1 11/22/2010 4:52	55783
Vinyl acetate	ND	5.0 μg/L	1 11/22/2010 4:52	55783
2-Butanone	ND	5.0 μg/L	1 11/22/2010 4:52	55783
cis-1,2-Dichloroethene	ND	5.0 μg/L	1 11/22/2010 4:52	55783
Chloroform	ND	5.0 μg/L	1 11/22/2010 4:52	55783
1,1,1-Trichloroethane	ND	5.0 μg/L	1 11/22/2010 4:52	55783
Carbon tetrachloride	ND	5.0 μg/L	1 11/22/2010 4:52	55783
1,2-Dichloroethane	ND	5.0 μg/L	1 11/22/2010 4:52	55783
Benzene	ND	5.0 μg/L	1 11/22/2010 4:52	55783
Trichloroethene	ND	5.0 μg/L	1 11/22/2010 4:52	55783
1,2-Dichloropropane	ND	5.0 μg/L	1 11/22/2010 4:52	55783
Bromodichloromethane	ND	5.0 μg/L	1 11/22/2010 4:52	55783
cis-1,3-Dichloropropene	ND	5.0 μg/L	1 11/22/2010 4:52	55783
4-Methyl-2-pentanone	ND	5.0 μg/L	1 11/22/2010 4:52	55783
Toluene	ND	5.0 μg/L	1 11/22/2010 4:52	55783
trans-1,3-Dichloropropene	ND	5.0 μg/L	1 11/22/2010 4:52	55783
1,1,2-Trichloroethane	ND	5.0 μg/L	1 11/22/2010 4:52	55783
Tetrachloroethene	ND	5.0 μg/L	1 11/22/2010 4:52	55783
2-Hexanone	ND	5.0 μg/ L	1 11/22/2010 4:52	55783
Dibromochloromethane	ND	5.0 μg/L	1 11/22/2010 4:52	55783
Chlorobenzene	ND	5.0 μg/L	1 11/22/2010 4:52	55783
Ethylbenzene	ND	5.0 μg/L	1 11/22/2010 4:52	55783
m,p-Xylene	ND	5.0 μg/L	1 11/22/2010 4:52	55783
o-Xylene	ND	5.0 μg/L	1 11/22/2010 4:52	55783
Xylene (Total)	ND	5.0 μg/L	1 11/22/2010 4:52	55783
Styrene	ND	5.0 μg/L	1 11/22/2010 4:52	55783
Bromoform	ND	5.0 μg/L	1 11/22/2010 4:52	55783
Isopropylbenzene	ND	5.0 μg/L	1 11/22/2010 4:52	55783

Qualifiers:

ND - Not Detected at the Reporting Limit.

J - Analyti detates below quality ation mits

B - Analy detecte in as ciated N thor Black

DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits

R/i Dou de Scepte recovery limits

「-V≀ eal ve cantita n range

Date: 30-Nov-10

Client: LaBella Associates

Client Sample ID: DRUMS

Lab ID: J2392-13

Project: LaBella Stand By

Collection Date: 11/18/10 16:50

Analyses	Result Q	Qual RL	Units	DF Date Analyzed	Batch ID
SW846 8260C VOC by GC-MS					SW8260_W
1,1,2,2-Tetrachloroethane	ND	5.0	μg/L	1 11/22/2010 4:52	55783
n-Propylbenzene	ND	5.0	μg/L	1 11/22/2010 4:52	55783
1,3,5-Trimethylbenzene	ND	5.0	μg/L	1 11/22/2010 4:52	55783
tert-Butylbenzene	ND	5.0	μg/L	1 11/22/2010 4:52	55783
1,2,4-Trimethylbenzene	ND	5.0	μg/L	1 11/22/2010 4:52	55783
sec-Butylbenzene	ND	5.0	μg/L	1 11/22/2010 4:52	55783
4-Isopropyltoluene	ND	5.0	μg/L	1 11/22/2010 4:52	55783
1,3-Dichlorobenzene	ND	5.0	μg/L	1 11/22/2010 4:52	55783
1,4-Dichlorobenzene	ND	5.0	μg/L	1 11/22/2010 4:52	55783
n-Butylbenzene	ND	5.0	μg/L	1 11/22/2010 4:52	55783
1,2-Dichlorobenzene	ND	5.0	μg/L	1 11/22/2010 4:52	55783
Naphthalene	15	5.0	μg/L	1 11/22/2010 4:52	55783
2-Chloroethyl vinyl ether	ND	5.0	μg/L	1 11/22/2010 4:52	55783
Surrogate: Dibromofluoromethane	99.2	85-115	%REC	1 11/22/2010 4:52	55783
Surrogate: 1,2-Dichloroethane-d4	98.1	70-120	%REC	1 11/22/2010 4:52	55783
Surrogate: Toluene-d8	99.1	85-120	%REC	1 11/22/2010 4:52	55783
Surrogate: Bromofluorobenzene	95.6	75-120	%REC	1 11/22/2010 4:52	55783
(1-Methylpenta-1,3-dienyl)benzene	120 Jř	N	μg/L	1 11/22/2010 4:52	55783
1,2,3-Trimethylindene	150 Jř	N	μg/L	1 11/22/2010 4:52	55783
1H-Indene, 1,3-dimethyl-	160 JP	V	μg/L	1 11/22/2010 4:52	55783
1H-Indene, 2,3-dimethyl-	84 JN	V	μg/L	1 11/22/2010 4:52	55783
Benzene, 1,4-bis(1-methylethenyl)-	72 JN	V	μg/L	1 11/22/2010 4:52	55783
Naphthalene, 1,2-dihydro-6-methyl-	210 JN	V	μg/L	1 11/22/2010 4:52	55783
Naphthalene, 1,3-dimethyl-	1L 08	N	μg/L	1 11/22/2010 4:52	55783
Naphthalene, 1,4-dimethyl-	77 Jf	N	μg/L	1 11/22/2010 4:52	55783
Naphthalene, 2,7-dimethyl-	110 J	N	μg/L	1 11/22/2010 4:52	55783
Unknown (17.27728)	70 J		μg/L	1 11/22/2010 4:52	55783
Unknown (17.70297)	130 J		μg/L	1 11/22/2010 4:52	55783

PRELIMINARY: Here are the preliminary results for your project submitted to Mitkem Laboratories. Please note: Data contained within this report have undergone preliminary review but may be subject to change pending final QA/QC review.

Qualifiers:

ND - Not Detected at the Reporting Limit.

J - Analyti det étec pel v qui it ation mits

B - Analy detecte in as ciated N thod Block

DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits

R/1 Dou de scepte recovery limits

F-Va e al ve contita n range

Date: 30-Nov-10

Client: LaBella Associates

Client Sample ID: SUMP

Lab ID: J2392-12

Project: LaBella Stand By

Collection Date: 11/18/10 16:45

Analyses	Result	Qual R	L Units	DF Date Analyzed	Batch ID
SW846 8260C VOC by GC-MS					SW8260_W
Chloromethane	ND	5	.0 μg/L	1 11/22/2010 4:26	55783
Vinyl chloride	ND	5	.0 μg/L	1 11/22/2010 4:26	55783
Bromomethane	ND	5	.0 μg/L	1 11/22/2010 4:26	55783
Chloroethane	ND	5	0 μg/L	1 11/22/2010 4:26	55783
Trichlorofluoromethane	ND	5	0 μg/L	1 11/22/2010 4:26	55783
1,1-Dichloroethene	ND	5	.0 μg/L	1 11/22/2010 4:26	55783
Acetone	ND	5	.0 μg/L	1 11/22/2010 4:26	55783
Carbon disulfide	ND	5	.0 μg/L	1 11/22/2010 4:26	55783
Methylene chloride	ND	5	.0 μg/L	1 11/22/2010 4:26	55783
trans-1,2-Dichloroethene	ND	5	0 μg/L	1 11/22/2010 4:26	55783
Methyl tert-butyl ether	ND	5	.0 μg/L	1 11/22/2010 4:26	55783
1,1-Dichloroethane	ND	5	.0 μg/L	1 11/22/2010 4:26	55783
Vinyl acetate	ND	5	.0 μg/L	1 11/22/2010 4:26	55783
2-Butanone	ND	5	.0 μg/L	1 11/22/2010 4:26	55783
cis-1,2-Dichloroethene	ND	5	0 μg/L	1 11/22/2010 4:26	55783
Chloroform	ND	5	0 μg/L	1 11/22/2010 4:26	55783
1,1,1-Trichloroethane	ND	5	0 μg/L	1 11/22/2010 4:26	55783
Carbon tetrachloride	ND	5	0 μg/L	1 11/22/2010 4:26	55783
1,2-Dichloroethane	ND	5	0 μg/L	1 11/22/2010 4:26	55783
Benzene	ND	5	0 μg/L	1 11/22/2010 4:26	55783
Trichloroethene	ND	5	0 μg/L	1 11/22/2010 4:26	55783
1,2-Dichloropropane	ND	5	0 μg/L	1 11/22/2010 4:26	55783
Bromodichloromethane	ND	5	0 μg/L	1 11/22/2010 4:26	55783
cis-1,3-Dichloropropene	ND	5	0 μg/L	1 11/22/2010 4:26	55783
4-Methyl-2-pentanone	ND	5	0 μg/L	1 11/22/2010 4:26	55783
Toluene	13	5	0 μg/L	1 11/22/2010 4:26	55783
trans-1,3-Dichloropropene	ND	5	0 μg/L	1 11/22/2010 4:26	55783
1,1,2-Trichloroethane	ND	5	0 μg/L	1 11/22/2010 4:26	55783
Tetrachloroethene	3.0	J 5	.0 μg/L	1 11/22/2010 4:26	55783
2-Hexanone	ND	5	0 μg/L	1 11/22/2010 4:26	55783
Dibromochloromethane	ND	5	.0 μg/L	1 11/22/2010 4:26	55783
Chlorobenzene	ND	5	0 μg/L	1 11/22/2010 4:26	55783
Ethylbenzene	67	5	0 μg/L	1 11/22/2010 4:26	55783
m,p-Xylene	180	5	0 μg/L	1 11/22/2010 4:26	55783
o-Xylene	88	5	0 μg/L	1 11/22/2010 4:26	55783
Xylene (Total)	270	5	0 μg/L	1 11/22/2010 4:26	55783
Styrene	ND	5	0 μg/L	1 11/22/2010 4:26	55783
Bromoform	ND	5	0 μg/L	1 11/22/2010 4:26	55783
Isopropylbenzene	11	5	0 μg/L	1 11/22/2010 4:26	55783

Qualifiers:

ND - Not Detected at the Reporting Limit.

J - Analyti desisted below quivilation mits

B - Analy detecte in a seciated N thod Blok

DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits

R / 1 2D ou de .ccepte recovery limits

I' - Vi e al ve contita in range

Date: 30-Nov-10

Client: LaBella Associates

Client Sample ID: SUMP

Lab ID: J2392-12

Project: LaBella Stand By

Collection Date: 11/18/10 16:45

Analyses	Result Qual	RL Units	DF Date Analyzed	Batch ID
SW846 8260C VOC by GC-MS				SW8260_W
1,1,2,2-Tetrachloroethane	ND	5.0 μg/L	1 11/22/2010 4:26	55783
n-Propylbenzene	20	5.0 μg/L	1 11/22/2010 4:26	55783
1,3,5-Trimethylbenzene	46	5.0 μg/L	1 11/22/2010 4:26	55783
tert-Butylbenzene	ND	5.0 μg/L	1 11/22/2010 4:26	55783
1,2,4-Trimethylbenzene	170	5.0 μg/L	1 11/22/2010 4:26	55783
sec-Butylbenzene	22	5.0 μg/L	1 11/22/2010 4:26	55783
4-Isopropyltoluene	ND	5.0 μg/L	1 11/22/2010 4:26	55783
1,3-Dichlorobenzene	ND	5.0 μg/L	1 11/22/2010 4:26	55783
1,4-Dichlorobenzene	8.8	5.0 μg/L	1 11/22/2010 4:26	55783
n-Butylbenzene	54	5.0 μg/L	1 11/22/2010 4:26	55783
1,2-Dichlorobenzene	55	5.0 μg/L	1 11/22/2010 4:26	55783
Naphthalene	220 E	5.0 μg/L	1 11/22/2010 4:26	55783
2-Chloroethyl vinyl ether	ND	5.0 μg/L	1 11/22/2010 4:26	55783
Surrogate: Dibromofluoromethane	97.5	85-115 %REC	1 11/22/2010 4:26	55783
Surrogate: 1,2-Dichloroethane-d4	98.4	70-120 %REC	1 11/22/2010 4:26	55783
Surrogate: Toluene-d8	99.5	85-120 %REC	1 11/22/2010 4:26	55783
Surrogate: Bromofluorobenzene	95.5	75-120 %REC	1 11/22/2010 4:26	55783

PRELIMINARY: Here are the preliminary results for your project submitted to Mitkem Laboratories. Please note: Data contained within this report have undergone preliminary review but may be subject to change pending final QA/QC review.

Qualifiers:

ND - Not Detected at the Reporting Limit.

J - Analyti det stechel wiqui in ation, mits

B - Analy detects in it as clated N thor Black

DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits

R/12D ou de cepte recovery limits

L - Vi e al ve cantita in range

1H - FORM I ARO AROCLOR ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

CONCRETE 1

Lab Name: MITKEM LABORATORIES	Contract:	
Lab Code: MITKEM Case No.: J2405	Mod. Ref No.:	SDG No.: SJ2405
Matrix: (SOIL/SED/WATER) SOIL	Lab Sample ID:	J2405-03A
Sample wt/vol: 30.1 (g/mL) G	Lab File ID:	E2J9230F.D/E2J9230R.D
% Moisture: 0.0 Decanted: (Y/N) N	Date Received:	11/19/2010
Extraction: (Type) SONC	Date Extracted:	11/19/2010
Concentrated Extract Volume: 10000 (uL)	Date Analyzed:	11/30/2010
Injection Volume: 1.0 (uL) GPC Factor: 1.00	Dilution Factor:	5.0
GPC Cleanup:(Y/N) N pH:	Sulfur Cleanup:	(Y/N) Y
Acid Cleanup: (Y/N) Y		

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
12674-11-2	Aroclor-1016	160	U
11104-28-2	Aroclor-1221	160	U
11141-16-5	Aroclor-1232	160	U
53469-21-9	Aroclor-1242	160	U
12672-29-6	Aroclor-1248	160	Ū
11097-69-1	Aroclor-1254	160	U
11096-82-5	Aroclor-1260	930	

1H - FORM I ARO AROCLOR ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

CONCRETE 2

Lab Name: MITKEM LABORATORIES	Contract:	
Lab Code: MITKEM Case No.: J2405	Mod. Ref No.:	SDG No.: SJ2405
Matrix: (SOIL/SED/WATER) SOIL	Lab Sample ID:	J2405-04A
Sample wt/vol: 30.1 (g/mL) G	Lab File ID:	E2J9223F.D/E2J9223R.D
% Moisture: 0.0 Decanted: (Y/N) N	Date Received:	11/19/2010
Extraction: (Type) SONC	Date Extracted:	11/19/2010
Concentrated Extract Volume: 10000 (uL)	Date Analyzed:	11/30/2010
Injection Volume: 1.0 (uL) GPC Factor: 1.00	Dilution Factor:	1.0
GPC Cleanup: (Y/N) N pH:	Sulfur Cleanup:	(Y/N) Y
And Cleans, (V/M)		

Acid Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
12674-11-2	Aroclor-1016	33	U
11104-28-2	Aroclor-1221	33	U
11141-16-5	Aroclor-1232	33	U
53469-21-9	Aroclor-1242	33	U
12672-29-6	Aroclor-1248	33	Ū
11097-69-1	Aroclor-1254	33	U
11096-82-5	Aroclor-1260	280	

1H - FORM I ARO AROCLOR ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

CONCRETE 3

Lab Name: MITKEM LABORATORIES	Contract:	
Lab Code: MITKEM Case No.: J2405	Mod. Ref No.: SDG No.: SJ2405	
Matrix: (SOIL/SED/WATER) SOIL	Lab Sample ID: J2405-05A	
Sample wt/vol: 30.0 (g/mL) G	Lab File ID: E2J9224F.D/E2J9224R.D	
% Moisture: 0.0 Decanted: (Y/N) N	Date Received: 11/19/2010	
Extraction: (Type) SONC	Date Extracted: 11/19/2010	
Concentrated Extract Volume: 10000 (uL)	Date Analyzed: 11/30/2010	
Injection Volume: 1.0 (uL) GPC Factor: 1.00	Dilution Factor: 1.0	
GPC Cleanup: (Y/N) N pH:	Sulfur Cleanup: (Y/N) Y	
Acid Cleanup: (Y/N) Y		

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
12674-11-2	Aroclor-1016	33	U
11104-28-2	Aroclor-1221	33	U
11141-16-5	Aroclor-1232	33	Ū
53469-21-9	Aroclor-1242	33	U
12672-29-6	Aroclor-1248	. 33	U
11097-69-1	Aroclor-1254	. 33	U
11096-82-5	Aroclor-1260	110	

1A - FORM I VOA-1 VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA	SAMPLE	NO.
CONCR	ETE 1	

Lab Name: MITKEM LABOR	ATORIES			Contract:	
Lab Code: MITKEM	Case No.:	J2405		Mod. Ref No.:	SDG No.: SJ2405
Matrix: (SOIL/SED/WATER) SOIL			Lab Sample ID:	J2405-03B
Sample wt/vol: 5.	20 (g/mL)	G		Lab File ID:	V6H7924.D
Level: (TRACE/LOW/MED)	LOW		····	Date Received:	11/19/2010
% Moisture: not dec.	0.0			Date Analyzed:	11/23/2010
GC Column: DB-624	ID:	0.25	(mm)	Dilution Factor:	1.0
Soil Extract Volume:			(uL)	Soil Aliquot Vol	ume: (uL
Purge Volume: 10.0			(mL)		

		CONCENTRATION UNITS:	T
CAS NO.	COMPOUND	(ug/L or ug/Kg) µg/KG	Q
74-87-3	Chloromethane	4.8	Ū
75-01-4	Vinyl chloride	4.8	Ū
	Bromomethane	4.8	Ū
75-00-3	Chloroethane	4.8	U
75-69-4	Trichlorofluoromethane	4.8	U
75-35-4	1,1-Dichloroethene	4.8	U
67-64-1	Acetone	4.8	Ū
75-15-0	Carbon disulfide	4.8	Ū
75-09-2	Methylene chloride	4.8	Ū
156-60-5	trans-1,2-Dichloroethene	4.8	U
1634-04-4	Methyl tert-butyl ether	4.8	U
75-34-3	1,1-Dichloroethane	4.8	U
108-05-4	Vinyl acetate	4.8	U
78-93-3	2-Butanone	4.8	U
156-59-2	cis-1,2-Dichloroethene	4.8	U
67-66-3	Chloroform	4.8	U
71-55-6	1,1,1-Trichloroethane	4.8	U
	Carbon tetrachloride	4.8	U
	1,2-Dichloroethane	4.8	U
71-43-2	Benzene	4.8	Ū
79-01-6	Trichloroethene	4.8	U
78-87-5	1,2-Dichloropropane	4.8	U
75-27-4	Bromodichloromethane	4.8	U
10061-01-5	cis-1,3-Dichloropropene	4.8	U
108-10-1	4-Methyl-2-pentanone	4.8	Ū
108-88-3	Toluene	4.8	U
10061-02-6	trans-1,3-Dichloropropene	4.8	U
	1,1,2-Trichloroethane	4.8	U
127-18-4	Tetrachloroethene	4.8	U
	2-Hexanone	4.8	U
124-48-1	Dibromochloromethane	4.8	U
108-90-7	Chlorobenzene	4.8	Ū
	Ethylbenzene	4.8	Ü
	m,p-Xylene	4.8	U
95-47-6	o-Xylene	4.8	U

1B - FORM I VOA-2 VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA	SAM	PLE	NO.	
CONCR	ETE	1		~5.

Lab Name: MITKEM LABOR	RATORIES		Contract:	
Lab Code: MITKEM	Case No.:	J2405	Mod. Ref No.:	SDG No.: SJ2405
Matrix: (SOIL/SED/WATER	R) SOIL		Lab Sample ID:	J2405-03B
Sample wt/vol: 5.	20 (g/mL)	G	Lab File ID:	V6H7924.D
Level: (TRACE/LOW/MED)	LOW		Date Received:	11/19/2010
% Moisture: not dec.	0.0		Date Analyzed:	11/23/2010
GC Column: DB-624	ID:	0.25 (mm)	Dilution Factor:	1.0
Soil Extract Volume:		(uL)	Soil Aliquot Vol	ume: (uL)
Purge Volume: 10.0		(mL)		· · · · · · · · · · · · · · · · · · ·

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
1330-20-7	Xylene (Total)	4.8	U
100-42-5	Styrene	4.8	U
75-25-2	Brómoform	4.8	U
98-82-8	Isopropylbenzene	4.8	Ū
79-34-5	1,1,2,2-Tetrachloroethane	4.8	U
	n-Propylbenzene	4.8	U
108-67-8	1,3,5-Trimethylbenzene	4.8	Ŭ
98-06-6	tert-Butylbenzene	4.8	U
95-63-6	1,2,4-Trimethylbenzene	4.8	U
135-98-8	sec-Butylbenzene	4.8	U
99-87-6	4-Isopropyltoluene	4.8	U
541-73-1	1,3-Dichlorobenzene	4.8	U
106-46-7	1,4-Dichlorobenzene	4.8	U
104-51-8	n-Butylbenzene	4.8	U
95-50-1	1,2-Dichlorobenzene	4.8	U
91-20-3	Naphthalene	4.8	Ü
· 110-75-8	2-Chloroethyl vinyl ether	4.8	U

1J - FORM I VOA-TIC VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

EPA	SAMPL	
CONCE	RETE 1	

Lab Name: MITKEM LABOR	ATORIES	Contract:	
Lab Code: MITKEM	Case No.: J2405	Mod. Ref No.:	SDG No.: SJ2405
Matrix: (SOIL/SED/WATER	SOIL	Lab Sample ID:	J2405-03B
Sample wt/vol: 5.	20 (g/mL) G	Lab File ID:	V6H7924.D
Level: (TRACE or LOW/ME	D) LOW	Date Received:	11/19/2010
% Moisture: not dec.	0.0	Date Analyzed:	11/23/2010
GC Column: DB-624	ID: 0.25 (mm) Dilution Factor:	1.0
Soil Extract Volume:	(uL) Soil Aliquot Vol	ume:(uL)
CONCENTRATION UNITS: (u	g/L or ug/Kg) pG/KG	Purge Volume: 10	0.0
CAS NUMBER	COMPOUND NAME	RT	EST. CONC. Q
E96679€¹ Total Al	kanes	N/A	

¹EPA-designated Registry Number.

1A - FORM I VOA-1 VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA	SAMI	PLE	NO.	
CONCE	ETE	2		
				- 1

Lab Name: MITKEM LABORA	ATORIES			Contract:		
Lab Code: MITKEM	Case No.:	J2405		Mod. Ref No.:	SDG No.: SJ2405	
Matrix: (SOIL/SED/WATER) SOIL		·	Lab Sample ID:	J2405-04B	
Sample wt/vol: 5.	00 (g/mL)	G		Lab File ID:	V6H7925.D	
Level: (TRACE/LOW/MED)	LOW		No. of the last of	Date Received:	11/19/2010	
% Moisture: not dec.	0.0			Date Analyzed:	11/23/2010	
GC Column: DB-624	ID:	0.25	(mm)	Dilution Factor:	1.0	
Soil Extract Volume:			(uL)	Soil Aliquot Volu	me:	(uL)
Purge Volume: 10.0			(mL)			

		CONCENTRATION UNITS:	
CAS NO.	COMPOUND	(ug/L or ug/Kg) µG/KG	Q
74-87-3	Chloromethane	5.0	Ū
75-01-4	Vinyl chloride	5.0	Ū
	Bromomethane	5.0	Ū
75-00-3	Chloroethane	5.0	Ū
75-69-4	Trichlorofluoromethane	5.0	U
75-35-4	1,1-Dichloroethene	5.0	U
67-64-1	Acetone	7.8	
75-15-0	Carbon disulfide	5.0	U
75-09-2	Methylene chloride	4.2	J
	trans-1,2-Dichloroethene	5.0	U
	Methyl tert-butyl ether	5.0	U
75-34-3	1,1-Dichloroethane	5.0	Ū
108-05-4	Vinyl acetate	5.0	Ū
78-93-3	2-Butanone	5.0	Ū
156-59-2	cis-1,2-Dichloroethene	5.0	U
	Chloroform	5.0	Ū
	1,1,1-Trichloroethane	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
71-43-2	Benzene	5.0	U
79-01-6	Trichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	Ü
	Bromodichloromethane	5.0	U
10061-01-5	cis-1,3-Dichloropropene	5.0	U
108-10-1	4-Methyl-2-pentanone	5.0	Ū
108-88-3	Toluene	5.0	Ü
10061-02-6	trans-1,3-Dichloropropene	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
591-78-6	2-Hexanone	5.0	Ū
124-48-1	Dibromochloromethane	5.0	U
108-90-7	Chlorobenzene	5.0	U
100-41-4	Ethylbenzene	5.0	Ū
1330-20-7	m,p-Xylene	5.0	U
95-47-6	o-Xylene	5.0	U

1B - FORM I VOA-2 VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. CONCRETE 2

Lab Name:	MITKEM LABOR	ATORIES			Contract:	
Lab Code:	MITKEM	Case No.:	J2405		Mod. Ref No.:	SDG No.: SJ2405
Matrix: (SC	DIL/SED/WATER	SOIL			Lab Sample ID:	J2405-04B
Sample wt/v	vol: 5.	00 (g/mL)	G		Lab File ID:	V6H7925.D
Level: (TRA	CE/LOW/MED)	LOW			Date Received:	11/19/2010
% Moisture:	not dec.	0.0			Date Analyzed:	11/23/2010
GC Column:	DB-624	ID:	0.25	(mm)	Dilution Factor:	1.0
Soil Extrac	t Volume:			(uL)	Soil Aliquot Vol	ume: (uL)
Purae Volum	e: 10.0			(mI.)		

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
1330-20-7	Xylene (Total)	5.0	U
100-42-5	Styrene	5.0	Ü
75-25-2	Bromoform	5.0	U
98-82-8	Isopropylbenzene	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
103-65-1	n-Propylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	Ū
98-06-6	tert-Butylbenzene	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	Ū
135-98-8	sec-Butylbenzene	5.0	U
99-87-6	4-Isopropyltoluene	5.0	Ū
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
104-51-8	n-Butylbenzene	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	Ū
91-20-3	Naphthalene	1.5	J
110-75-8	2-Chloroethyl vinyl ether	5.0	U

1J - FORM I VOA-TIC VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

EPA	SAMI	PLE.	NO.	
CONC	RETE	2		

Lab Name:	MITKEM LAB	ORATORIES		Contract:		
Lab Code:	MITKEM	Case No.:	J2405	Mod. Ref No.:	SDG No.:	SJ2405
Matrix: (So	OIL/SED/WAT	ER) SOIL		Lab Sample ID:	J2405-04B	
Sample wt/	vol:	5.00 (g/mL)	G	Lab File ID:	V6H7925.D	
Level: (TR	ACE or LOW/	MED) LOW		Date Received:	11/19/2010	
% Moisture	: not dec.	0.0		Date Analyzed:	11/23/2010	
GC Column:	DB-624	ID:	0.25 (mm)	Dilution Factor:	1.0	
Soil Extra	ct Volume:		(uL)	Soil Aliquot Vol	ume:	(uL)
CONCENTRAT	ION UNITS:	(ug/L or ug/K	g) µG/KG	Purge Volume: 10	0.0	(mL)
CAS NUM	1BER	COMPOUND	NAME	RT	EST. CONC.	Q
E9	667961 Total	Alkanes		N/A		

¹EPA-designated Registry Number.

1A - FORM I VOA-1 VOLATILE ORGANICS-ANALYSIS DATA SHEET

EPA	SAMPI	E NO.
CONCR	ETE 3	

Lab Name: MITKEM LABOR	ATORIES	Contract:	
Lab Code: MITKEM	Case No.: J2405	Mod. Ref No.:	SDG No.: SJ2405
Matrix: (SOIL/SED/WATER) SOIL	Lab Sample ID:	J2405-05B
Sample wt/vol: 5.	00 (g/mL) G	Lab File ID:	V6H7926.D
Level: (TRACE/LOW/MED)	LOW	Date Received:	11/19/2010
% Moisture: not dec.	0.0	Date Analyzed:	11/23/2010
GC Column: DB-624	ID: 0.25	(mm) Dilution Factor:	1.0
Soil Extract Volume:		(uL) Soil Aliquot Volu	ıme: (uL)
Purge Volume: 10.0		(mL)	

		CONCENTRATION UNITS:	
CAS NO.	COMPOUND	(ug/L or ug/Kg) μG/KG	g Q
74-87-3	Chloromethane	5.0	U
75-01-4	Vinyl chloride	5.0	U
74-83-9	Bromomethane	5.0	U
75-00-3	Chloroethane	5.0	ט
75-69-4	Trichlorofluoromethane	5.0	U
75-35-4	1,1-Dichloroethene	5.0	U
67-64-1	Acetone	15	
75-15-0	Carbon disulfide	5.0	U
75-09-2	Methylene chloride	1.8	J
156-60-5	trans-1,2-Dichloroethene	5.0	U
1634-04-4	Methyl tert-butyl ether	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
108-05-4	Vinyl acetate .	5.0	U
78-93-3	2-Butanone	6.6	
156-59-2	cis-1,2-Dichloroethene	5.0	U
67-66-3	Chloroform	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
107-06-2	1,2-Dichloroethane	5.0	Ū
71-43-2	Benzene	5.0	U
79-01-6	Trichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
	Bromodichloromethane	5.0	U
10061-01-5	cis-1,3-Dichloropropene	5.0	Ü
	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	5.0	Ū
10061-02-6	trans-1,3-Dichloropropene	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	Ü
127-18-4	Tetrachloroethene	5.0	U
	2-Hexanone	5.0	Ū
	Dibromochloromethane	5.0	U
108-90-7	Chlorobenzene	5.0	U
	Ethylbenzene	5.0	U
1330-20-7	m,p-Xylene	5.0	U
95-47-6	o-Xylene	5.0	U

1B - FORM I VOA-2 VOLATILE ORGANICS ANALYSIS DATA SHEET

			NO.	
CONCR	ETE	3		
			EPA SAMPLE CONCRETE 3	EPA SAMPLE NO. CONCRETE 3

Lab Name: MITKEM LABO	RATORIES		Contract:	A
Lab Code: MITKEM	Case No.:	J2405	Mod. Ref No.:	SDG No.: SJ2405
Matrix: (SOIL/SED/WATE	R) SOIL		Lab Sample ID:	J2405-05B
Sample wt/vol: 5	.00 (g/mL)	G	Lab File ID:	V6H7926.D
Level: (TRACE/LOW/MED)	LOW		Date Received:	11/19/2010
% Moisture: not dec.	0.0		Date Analyzed:	11/23/2010
GC Column: DB-624	ID:	0.25 (mm)	Dilution Factor:	1.0
Soil Extract Volume:		(uL)	Soil Aliquot Vol	ume: (uL)
Purge Volume: 10.0		(mL)		

cas no.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
1330-20-7	Xylene (Total)	5.0	U
100-42-5	Styrene	5.0	U
	Bromoform	5.0	U
98-82-8	Isopropylbenzene	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
	n-Propylbenzene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	1.1	J
	tert-Butylbenzene	5.0	Ū
95-63-6	1,2,4-Trimethylbenzene	4.3	J
135-98-8	sec-Butylbenzene	5.0	U
99-87-6	4-Isopropyltoluene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	Ų
104-51-8	n-Butylbenzene	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	Ü
91-20-3	Naphthalene	67	
110-75-8	2-Chloroethyl vinyl ether	5.0	Ü

1J - FORM I VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

	EPA	SAMI	PLE	NO.	
	CONC	RETE	3		
I					
1					

Lab	Name: MITK	EM LABORATORIES	(Contract:			
Lab	Code: MITK	EM Case No.: J240	5 N	Mod. Ref No.:	SDG No.:	SJ2405	,
Mat	rix: (SOIL/S	ED/WATER) SOIL	I	Lab Sample ID:	J2405-05B		
Sam	ple wt/vol:	5.00 (g/mL) G	. I	Lab File ID:	V6H7926.D		
Lev	rel: (TRACE o	r LOW/MED) LOW		Date Received:	11/19/2010	<u> </u>	
% M	loisture: not	dec. 0.0	I	Date Analyzed:	11/23/2010		
GC	Column: DB-	624 ID: 0.25	(mm) · E	Dilution Factor	: 1.0		
Soi	l Extract Vo	lume:	(uL) S	Soil Aliquot Vo	lume:		(uL)
CON	CENTRATION U	NITS: (ug/L or ug/Kg)	µG/KG E	Purge Volume: 1	0.0		(mL)
	CAS NUMBER	COMPOUND NAME		RT	EST. CONC.	Q	<u>)</u>
01	112-40-3	Dodecane		14.935	370	NJ	
02		Unknown-01		15.598	240	J	
03	2051-30-1	Octane, 2,6-dimethyl-		15.750	400	NJ	
04	629-50-5	Tridecane		16.024	490	NJ	
05	6682-71-9	1H-Indene, 2,3-dihydro-4	,7-d	16.103	370	NJ	
06		Unknown-02		16.218	220	J	
07		Unknown-03		16.291	370	J	
80		Unknown-04		16.437	250	J	
09		Unknown-05		16.571	230	J	
10		Unknown-06		16.669	260	J	
11	91-57-6	Naphthalene, 2-methyl-		16.900	520	NJ	

17.106

N/A

12

340

NJ

⁹⁰⁻¹²⁻⁰ Naphthalene, 1-methyl-E9667961 Total Alkanes ¹EPA-designated Registry Number.

1D - FORM I SV-1 SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA	SAMPL		NO.	
CON	CRETE	1		

Lab Name: MITKE	1 LABORATORIES	Contract:	
Lab Code: MITKE	Case No.: J2405	Mod. Ref No.:	SDG No.: SJ2405
Matrix: (SOIL/SE	D/WATER) SOIL	Lab Sample ID:	J2405-03A
Sample wt/vol:	30.2 (g/mL) G	Lab File ID:	S3H0618.D
Level: (LOW/MED)	LOW	Extraction: (Typ	e) SONC
% Moisture:	Decanted: (Y/N)	Date Received:	11/19/2010
Concentrated Ext	ract Volume: 1000 (uL)	Date Extracted:	11/19/2010
Injection Volume	: 1.0 (uL) GPC Factor: 1.00	Date Analyzed:	11/30/2010
GPC Cleanup: (Y/N	N pH:	Dilution Factor:	1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
91-20-3	Naphthalene	330	U
83-32-9	Acenaphthene	330	Ū
86-73-7	Fluorene	330	U
85-01-8	Phenanthrene	430	
120-12-7	Anthracene	65	J
206-44-0	Fluoranthene	600	
129-00-0	Pyrene	480	
	Benzo(a)anthracene	210	J
218-01-9	Chrysene	300	J
205-99-2	Benzo(b)fluoranthene	370	1
	Benzo(k)fluoranthene	160	J
50-32-8	Benzo(a)pyrene	200	J
193-39-5	Indeno(1,2,3-cd)pyrene	150	J
53-70-3	Dibenzo(a,h)anthracene	41	J
191-24-2	Benzo(g,h,i)perylene	190	J

1D - FORM I SV-1 " SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CONCRETE 2

Lab Name: MITKEM LABORATORIES Contract: Lab Code: MITKEM Case No.: J2405 Mod. Ref No.: SDG No.: SJ2405 Lab Sample ID: J2405-04A Matrix: (SOIL/SED/WATER) SOIL Sample wt/vol: 25.3 (g/mL) G Lab File ID: S3H0619.D Level: (LOW/MED) LOW Extraction: (Type) SONC % Moisture: Decanted: (Y/N) Date Received: 11/19/2010 Concentrated Extract Volume: 5000 (uL) Date Extracted: 11/19/2010 Injection Volume: 1.0 (uL) GPC Factor: 1.00 Date Analyzed: 11/30/2010 GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
91-20-3	Naphthalene	. 2000	U
83-32-9	Acenaphthene	770	J
86-73-7	Fluorene	1000	J
85-01-8	Phenanthrene	18000	
120-12-7	Anthracene	4300	
206-44-0	Fluoranthene	19000	
129-00-0	Pyrene	13000	
56-55-3	Benzo(a)anthracene	8000	
218-01-9	Chrysene	9300	
205-99-2	Benzo(b) fluoranthene	7800	
207-08-9	Benzo(k)fluoranthene	3300	
50-32-8	Benzo(a)pyrene	4900	
193-39-5	Indeno(1,2,3-cd)pyrene	2500	
		920	J
191-24-2	Benzo(g,h,i)perylene	2700	

1D - FORM I SV-1 SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT	SA	MPLE	NO.
CONCRE	TE	3	

Lab Name: MITKEM LABORATORIES	Contract;
Lab Code: MITKEM Case No.: J2405	Mod. Ref No.: SDG No.: SJ2405
Matrix: (SOIL/SED/WATER) SOIL	Lab Sample ID: J2405-05A
Sample wt/vol: 17.7 (g/mL) G	Lab File ID: S3H0620.D
Level: (LOW/MED) LOW	Extraction: (Type) SONC
% Moisture: Decanted: (Y/N)	Date Received: 11/19/2010
Concentrated Extract Volume: 1000 (uL)	Date Extracted: 11/19/2010
Injection Volume: 1.0 (uL) GPC Factor: 1.00	Date Analyzed: 11/30/2010
GPC Cleanup: (Y/N) N pH:	Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
91-20-3	Naphthalene	750	<i>'</i>
83-32-9	Acenaphthene	3100	
86-73-7	Fluorene	6900	
85-01-8	Phenanthrene	25000	E
120-12-7	Anthracene	1500	
206-44-0	Fluoranthene	2100	
	Pyrene	4600	T
56-55-3	Benzo(a)anthracene	750	
	Chrysene	990	
205-99-2	Benzo(b)fluoranthene	1000	
	Benzo(k)fluoranthene	420	J
50-32-8	Benzo(a)pyrene	560	J
	Indeno(1,2,3-cd)pyrene	380	J
53-70-3	Dibenzo(a,h)anthracene	110	J
191-24-2	Benzo(g,h,i)perylene	460	J

$\label{eq:condition} \mbox{1D $-$\cdot$ FORM I SV-1}$ SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
CONCRETE 3DL

Lab Name: N	MITKEM	LABORATORIES		Contract:	
Lab Code: N	MITKEM	Case No.:	J2405	Mod. Ref No.:	SDG No.: SJ2405
Matrix: (SO	IL/SED/	WATER) SOIL		Lab Sample ID:	J2405-05ADL
Sample wt/vo	ol:	17.7 (g/mL)	G	Lab File ID:	S3H0626.D
Level: (LOW,	/MED)	LOW		Extraction: (Typ	e) SONC
% Moisture:		Decanted:	(Y/N)	Date Received:	11/19/2010
Concentrated	d Extra	ct Volume:	1000 (uL)	Date Extracted:	11/19/2010
Injection Vo	olume:	1.0 (uL) GPC F	actor: 1.00	Date Analyzed:	11/30/2010
GPC Cleanup:	: (Y/N)	N pH:	14/19/40/19/19	Dilution Factor:	4.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
91-20-3	Naphthalene	680	DJ
83-32-9	Acenaphthene	4500	D
86-73-7	Fluorene	7500	D
85-01-8	Phenanthrene	33000	D
120-12-7	Anthracene	1700	DJ
206-44-0	Fluoranthene	2300	D
129-00-0	Pyrene	4700	
	Benzo(a)anthracene	760	
	Chrysene	1100	DJ
205-99-2	Benzo(b)fluoranthene	990	DJ
	Benzo(k)fluoranthene	500	DJ
50-32-8	2-8 Benzo(a)pyrene 570		DJ
	Indeno(1,2,3-cd)pyrene	420 D	
53-70-3	Dibenzo(a,h)anthracene	2200 U	
191-24-2	Benzo(g,h,i)perylene	490	DJ

Client: LaBella Associates

Client Sample ID: SUMP

Lab ID: J2392-12

Date: 30-Nov-10

Project: LaBella Stand By

Collection Date: 11/18/10 16:45

Analyses	Result Qual	RL Units	DF Date Analyzed	Batch ID
SW846 8082A PCB by GC-ECD				SW8082_W
Aroctor-1016	ND	1.0 μg/L	1 11/29/2010 19:57	55795
Aroclor-1221	ND	1.0 μg/L	1 11/29/2010 19:57	55795
Aroclor-1232	ND	1.0 μg/L	1 11/29/2010 19:57	55795
Aroclor-1242	ND	1.0 μg/L	1 11/29/2010 19:57	55795
Aroclor-1248	ND	1.0 μg/L	1 11/29/2010 19:57	55795
Aroclor-1254	30 E	1.0 μg/L	1 11/29/2010 19:57	55795
Aroclor-1260	ND	1.0 μg/L	1 11/29/2010 19:57	55795
Surrogate: Tetrachloro-m-xylene	0 S	34-137 %REC	1 11/29/2010 19:57	55795
Surrogate: Decachlorobiphenyl	68.5	40-135 %REC	1 11/29/2010 19:57	55795

PRELIMINARY: Here are the preliminary results for your project submitted to Mitkem Laboratories. Please note: Data contained within this report have undergone preliminary review but may be subject to change pending final QA/QC review.

Qualifiers: ND - Not Detected at the Reporting Limit

J - Analyt detates set at quoiti ation mits

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DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits

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1. - Vi e al ve cantita n range

Client: LaBella Associates

Client Sample ID: DRUMS

Lab ID: J2392-13

Date: 30-Nov-10

Project: LaBella Stand By

Collection Date: 11/18/10 16:50

Analyses	Result Qual	RL Units	DF Date Analyzed	Batch ID
SW846 8082A PCB by GC-ECD				SW8082_W
Aroclor-1016	ND	1.0 μg/L	1 11/29/2010 20:15	55795
Aroclor-1221	ND	1.0 μg/L	1 11/29/2010 20:15	55795
Aroclor-1232	ND	1.0 μg/L	1 11/29/2010 20:15	55795
Aroclor-1242	ND	1.0 μg/L	1 11/29/2010 20:15	55795
Aroclor-1248	ND	1.0 μg/L	1 11/29/2010 20:15	55795
Aroclor-1254	ND	1.0 μg/L	1 11/29/2010 20:15	55795
Aroclor-1260	ND	1.0 μg/L	1 11/29/2010 20:15	55795
Surrogate: Tetrachloro-m-xylene	46.8	34-137 %REC	1 11/29/2010 20:15	55795
Surrogate: Decachlorobiphenyl	26.6 S	40-135 %REC	1 11/29/2010 20:15	55795

PRELIMINARY: Here are the preliminary results for your project submitted to Mitkem Laboratories. Please note: Data contained within this report have undergone preliminary review but may be subject to change pending final QA/QC review.

Qualifiers: ND - Not Detected at the Reporting Limit

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DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits

R / i ?D ou de .ccepte récovery limits

F - Vi e al ve cantita n range

Client: LaBella Associates

Client Sample ID: PAVER 1

Lab ID: J2392-14

Date: 30-Nov-10

Project: LaBella Stand By

Collection Date: 11/18/10 17:00

Analyses	Result Qual	RL Units	DF Date Analyzed	Batch ID
SW846 8082A PCB by GC-ECD				SW8082_S
Aroclor-1016	ND	35 μg/Kg	1 11/29/2010 18:27	55865
Aroclor-1221	ND	35 μg/Kg	1 11/29/2010 18:27	55865
Aroclor-1232	ND	35 μg/Kg	1 11/29/2010 18:27	55865
Aroclor-1242	ND	35 μg/Kg	1 11/29/2010 18:27	55865
Aroclor-1248	ND	35 μg/Kg	1 11/29/2010 18:27	55865
Aroclor-1254	380	35 μg/Kg	1 11/29/2010 18:27	55865
Aroclor-1260	ND	35 μg/Kg	1 11/29/2010 18:27	55865
Surrogate: Tetrachloro-m-xylene	67.8	34-147 %REC	1 11/29/2010 18:27	55865
Surrogate: Decachlorobiphenyl	85.3	60-125 %REC	1 11/29/2010 18:27	55865

PRELIMINARY: Here are the preliminary results for your project submitted to Mitkem Laboratories. Please note: Data contained within this report have undergone preliminary review but may be subject to change pending final QA/QC review.

Qualifiers: ND - Not Detected at the Reporting Limit

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DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits

R / 2D ou de scepte récovery limits

K - Vi e al ve contita n range

Client: LaBella Associates

Client Sample ID: PAVER 1

Lab ID: J2392-14

Date: 30-Nov-10

Project: LaBella Stand By

Collection Date: 11/18/10 17:00

Analyses	Result Qual	RL Units	DF Date Analyzed	Batch ID
SW846 8082A PCB by GC-ECD	_			SW8082_S
Aroclor-1016	ND	35 μg/Kg	1 11/29/2010 18:27	55865
Aroclor-1221	ND	35 μg/Kg	1 11/29/2010 18:27	55865
Aroclor-1232	· ND	35 μg/Kg	1 11/29/2010 18:27	55865
Aroclor-1242	ND	35 μg/Kg	1 11/29/2010 18:27	55865
Aroclor-1248	ND	35 μg/Kg	1 11/29/2010 18:27	55865
Aroclor-1254	380	35 μg/Kg	1 11/29/2010 18:27	55865
Aroclor-1260	ND	35 μg/Kg	1 11/29/2010 18:27	55865
Surrogate: Tetrachloro-m-xylene	67.8	34-147 %REC	1 11/29/2010 18:27	55865
Surrogate: Decachlorobiphenyl	85.3	60-125 %REC	1 11/29/2010 18:27	55865

PRELIMINARY: Here are the preliminary results for your project submitted to Mitkem Laboratories. Please note: Data contained within this report have undergone preliminary review but may be subject to change pending final QA/QC review.

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- RL Reporting Limit

Client: LaBella Associates

Client Sample ID: PAVER 2

Lab ID: J2392-15

Date: 30-Nov-10

Project: LaBella Stand By

Collection Date: 11/18/10 9:30

Analyses	Result Qual	RL	Units	DF Date Analyzed	Batch ID
SW846 8082A PCB by GC-ECD		-			SW8082_S
Aroclor-1016	ND	31	μg/Kg	1 11/29/2010 18:45	55865
Aroclor-1221	ND	31	μg/Kg	1 11/29/2010 18:45	55865
Aroclor-1232	ND	31	μg/Kg	1 11/29/2010 18:45	55865
Aroclor-1242	ND	31	μg/Kg	1 11/29/2010 18:45	55865
Aroclor-1248	ND	31	μg/Kg	1 11/29/2010 18:45	55865
Aroclor-1254	750 E	31	μg/Kg	1 11/29/2010 18:45	55865
Aroclor-1260	ND	31	μg/Kg	1 11/29/2010 18:45	55865
Surrogate: Tetrachloro-m-xylene	58.8	34-147	%REC	1 11/29/2010 18:45	55865
Surrogate: Decachlorobiphenyl	85.3	60-125	%REC	1 11/29/2010 18:45	55865

PRELIMINARY: Here are the preliminary results for your project submitted to Mitkem Laboratories. Please note: Data contained within this report have undergone preliminary review but may be subject to change pending final QA/QC review.

Qualifiers: ND - Not Detected at the Reporting Limit

J - Analyt det étec pel v qu'it ation mits

B - Analy detects in as ciated N thor Blok

DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits

R i D ou de scepte récovery limits

F - Vi e al ve contita en range



Appendix 6

STORMWATER POLLUTION PREVENTION PLAN For CONSTRUCTION ACTIVITIES

Greenport Crossings Town of Greenport, NY

PREPARED FOR:

Greenport Crossings, LLC 40 Corbett Road Montgomery, NY

SITE CONTRACTOR:

EMERGENCY 24-HOUR CONTACT:

Harbalwant Singh

Ph. 845-430-1688

Prepared by



BL Companies 355 Research Parkway Meriden, Ct 06450 Tel. (203) 630-1406 Fax (203) 630-1406

October 10, 2009 Revised: June 9, 2010 Revised: April 13, 2011

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that false statements made herein are punishable as a Class A misdemeanor pursuant to Section 210.45 of the Penal Law.

Signature of Greenport Crossing, LLC
Responsible Corporate Officer

Signature of Ingineer and S2807.

Signature of Ingineer and S2807.

Printed Name

Printed Name and Title

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TERRETERING DESCRIPTION OF THE PROPERTY OF THE

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- D. Copy of the Letter from the NOI Processing Center Authorizing Permit Coverage (to be inserted upon receipt)
- E. New York State Department of Environmental Conservation SPDES Construction General Permit
- F. Blank Notice of Termination (NOT) Form
- G. Operators Certification (operator to sign and insert into site SWPPP copy)
- H. Contractor / Subcontractor Certification Forms
- I. Construction Site Notice
- J. Permit Eligibility Documentation (to be inserted upon receipt)
- K. Stormwater Management Report
- K2. Operations and Maintenance Plan
- L. Construction Site Log Book
- M. Reporting and Retention of Records

Introduction and Definitions

The Stormwater Pollution Prevention Plan (SWPPP) purpose is to summarize and provide general requirements under environmental standards governing stormwater discharges from construction sites, so that construction activities associated with the site development will be in compliance with those requirements. The SWPPP discusses the responsibilities of the Operator and the Contractor, Erosion and Sediment Control Methods, Compliance Requirements, Inspection and Maintenance Procedures, and Record Keeping Requirements.

SWPPP Definitions

<u>Operator</u> shall be any party that have either has operational control over construction plans and specifications, including the ability to make modification to those plans and specifications or day-to-day operational control of those activities at a project which are necessary to ensure compliance with the SWPPP for the site or other permit conditions.

<u>Contractor</u> shall be that person or entity identified as such in the construction contract with the Operator. The term "Contractor" shall also include the Contractor's authorized representative, as well as any and all subcontractors retained by the Contractor.

<u>General Permit</u> shall mean the general stormwater permit for construction activities issued by the New York State Department of Environmental Conservation.

<u>Operator's Engineer</u> the person or entity retained by an Operator to design and oversee the implementation of the SWPPP.

<u>Qualified Inspector</u> is defined as a person knowledgeable in the principles and practices of erosion and sediment controls who possesses the skills to assess conditions at the construction site that could impact stormwater quality and to assess the effectiveness of any sediment and erosion control measures selected to control the quality of stormwater discharges from the construction activity.

Section 1.0 Responsibilities for Compliance with Storm Water Discharge Permit Regulations

Operator's Responsibilities:

1. An authorized corporate officer must sign the NOI and the SWPPP Certification Statement located on the cover page of the SWPPP.

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- 2. Require the Contractor to fully implement the SWPPP.
- 3. Forward a copy of the original permit certificate received from the NYSDEC to the Contractor for inclusion in the SWPPP and display at the job site.
- 4. Ensure, through periodic inspections by Operator's Project Manager, and document that the Contractor is implementing the controls, inspections, maintenance, record keeping, and all other requirements of the SWPPP.
- 5. File an appropriately signed Notice of Termination (NOT) form when site work construction is completed and stabilization is achieved.
- 6. Request and receive all SWPPP records from the Contractor and archive those records for a minimum of five (5) years after the NOT is filed.
- 7. Provide and document certification and training of the Contractor's Project Manager and Superintendent, which shall be performed at a pre-construction meeting and administered by the Operator's Project Manager.
- 8. If an off-site borrow or fill location or material storage site is to be used by the contractor or their subcontractor, the contractor shall be responsible to ensure that all appropriate permits have been obtained for such use. These permits may include local, state and federal permits. Copies of these permits are to be forward to the Operator for verification.
- 9. Provide qualified inspectors, and documentation of qualifications, for the controls implemented at the job site.

Contractor's Responsibilities:

- 1. Sign the SWPPP General Contractor's Certification Form in the SWPPP prepared for the job site
- 2. Provide subcontractor training and require all subcontractors to sign the Subcontractor's Certification Form in the SWPPP prepared for the job site.
- 3. Implement the erosion control, stabilization and other requirements of the SWPPP.
- **4.** Provide qualified inspectors, and documentation of qualifications, for the controls implemented at the job site.
- 5. Conduct all necessary inspections at the required intervals and prepare and retain written documentation of those inspections required by the NYSDEC General Permit.
- 6. Keep a copy of the SWPPP, the NOI, permit certificates, permit language; Materials Management Plan (MMP), and inspection records on the job site.
- 7. Post any documents required to be posted under the terms of the General Permit in a prominent place near the job site entrance.
- **8.** Contractor shall provide monthly training sessions for all subcontractors involved with the SWPPP.
- 9. Update and make changes to the SWPPP and supporting documents (such as the BMPs and/or MMP) as needed and with the approval of the Operator and the Operator's Engineer

10. Prepare and sign a NOT (Notice of Termination) form when site work construction is completed and stabilization is achieved.

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- 11. Transfer the SWPPP documents, along with all NOI, permit certificates, NOT, and written records required by the General Permit to the Operator for archiving in both paper and optically scanned format on a CD.
- 12. If an off-site borrow or fill location or material storage site is to be used by the contractor or their subcontractor, the contractor shall be responsible to ensure that all appropriate permits have been obtained for such use. These permits may include local, state and federal permits. Copies of these permits are to be forward to the Operator for verification.

Section 2.0 Written Stormwater Pollution Prevention Plan

Section 2.1 SCOPE AND PROCEDURES

Significant care has been taken on the development of the Stormwater Pollution Prevention Plan in order to properly implement the requirements of the National Storm Water Pollution Prevention Program, in addition to the New York State Department of Environmental Conservation State Pollutant Discharge Elimination System (SPDES) Construction General Permit which governs the stormwater discharges during construction in accordance with erosion control practices. The Contractor's participation in this program is mandatory and its non-compliance is subject to various remedies, including without limitation, fines and civil penalties incurred by the Operator.

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The Contractor shall manage the discharge of stormwater from the site in accordance with the New York State Department of Environmental Conservation Construction General Permit for Construction Activities Conditions. The Contractor shall be responsible for conducting the stormwater management practices in accordance with the permit. Potential pollutant sources for this project include exposed soil, vehicle fuels and lubricants, chemicals associated with building construction, and building materials. The Contractor shall be responsible for providing qualified inspectors to conduct the inspections required by the SWPPP. The Contractor shall be responsible for any enforcement action taken or imposed by federal, state, or local agencies, including the cost of fines, construction delays, and remedial actions resulting from the Contractor's failure to comply with the permit provisions. It shall be the responsibility of the Contractor to make any changes to the SWPPP necessary when the Contractor or any of his subcontractors elects to use borrow or fill or material storage sites, either contiguous to or remote from the construction site, when such sites are used solely for this construction site. Such sites are considered to be part of the construction site covered by the permit and this SWPPP. Off-site borrow, fill, or material storage sites, which are used for multiple construction projects, are not subject to this requirement, unless specifically required by state or local jurisdictional entity regulations. The Contractor should consider this requirement in negotiating with earthwork subcontractors, since the choice of an off-site borrow, fill, or material storage site may impact their duty to implement, make changes to, and perform inspections required by the SWPPP for the site.

The Operator (prior to the start of construction) will petition the New York State Department of Environmental Conservation for the stormwater discharges during construction at the site, which will be covered by the New York State Department of Environmental Conservation SPDES General Permit for Construction Activity for the State of New York, A Notice of Intent (NOI) to be covered under this permit will be filed by the Operator. The NOI must be submitted at least five (5), or sixty (60) business days, as appropriately determined in Part II of the New York State Department of Environmental Conservation SPDES General Permit for Stormwater Discharges from Construction Activity prior to any earth disturbing activities. Confirmation of delivery of the NOI to the NYSDEC must be included in the SWPPP. The signatory on the NOI must sign all documents (i.e., inspection reports) associated with the SWPPP. If the signatory chooses not to sign all documents, he/she must designate a duly authorized representative to sign all relevant documents. This designation must be made in writing and be included in the SWPPP. The duly authorized representative may be either a named individual or any individual occupying a named position. All stormwater measures, as outlined in this report, shall be in place and functioning before the start of any construction activities. Once all stormwater control measures are in place, the contractor shall notify the operator so that the operator's engineer will perform an assessment of the site and verify that the appropriate erosion and sediment controls have been installed and implemented.

Certification and training of the Contractor's Project Manager and Superintendent will be performed at the pre-construction meeting and administered by the Operator's Project Manager and Operator's Engineer. This certification and training shall stress the importance of the erosion and sediment control for water quality protection, the implementation of the erosion and sediment control plan, the importance to proper installation of erosion and sediment control measures, regular inspection by Qualified Personnel of erosion and sediment control measures, maintenance of erosion and sediment control measures, and record-keeping for inspections and maintenance activities. Upon completion of the certification and training, the project will receive a copy of the SWPPP for use by the Contractor's Project Manager and Superintendent with all required certifications and record keeping forms involved with the installation and/or maintenance of erosion and sediment control measures. The Operator's certification and training shall be in addition to any federal, state or local certifications or training required or available to comply with NPDES stormwater permit requirements by the Contractor. A completed form must be included in the SWPPP to provide documentation that the Pre-Construction Meeting has been conducted in compliance with these requirements.

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The SWPPP provides forms for both the General Contractor and Subcontractor(s) identifying the business name, address and telephone number along with the responsible representative for the Contractor and all subcontractors' who will implement the measures identified in the SWPPP. The general contractor shall sign the, general contractor's certification and all subcontractors shall sign the, subcontractor's certification, verifying they have been instructed on how to comply with and fully understand the requirements of the New York State Department of Environmental Conservation and SWPPP. These certifications must be signed, by a responsible corporate officer or other party meeting the signatory requirements of the Federal NPDES Permit and New York State Department of Environmental Conservation SPDES General Permit for Stormwater Discharges from Construction Activity Part VII. Section H, on behalf of each entity, prior to the Beginning of any Construction Activities and shall be filed in the project's SWPPP.

One copy of the SWPPP will be provided to the Operator and one copy will be provided for the site superintendent who shall update and maintain it on site at all times throughout the construction of the project. In addition, the site superintendent shall make the sites copy of the SWPPP readily available upon request by the Operator or New York State Department of Environmental Conservation or any other agency with regulatory authority over stormwater issues, and shall be kept on-site until the site complies with the final stabilization requirements. A notice must be posted near the main entrance of the construction site which contains a completed NOI, the location of the SWPPP and the name and phone number of a contact person responsible for scheduling SWPPP viewing times, and any other state specific requirements. The Notice of Coverage (NOC) or other form notifying the applicant that coverage under the applicable permit has been obtained must also be posted, once it is received.

Site Inspections are required at least once every seven (7) calendar days and within 24 hours after a rainfall event, and shall continue until the site complies with the final stabilization section of this document. A "Qualified" Inspector must conduct inspections. "Qualified" is defined as a person knowledgeable in the principles and practices of erosion and sediment controls who possesses the skills to assess conditions at the construction site that could impact stormwater quality and to assess the effectiveness of any sediment and erosion control measures selected to control the quality of stormwater discharges from the construction site. Each site inspection must document the inspector's findings and any required maintenance and/or repair for the erosion and sedimentation control measures. These documents are used to prove that the required inspection and maintenance were performed and shall be placed in the SWPPP. In addition to inspection and maintenance reports, records should be kept of the Construction Activities that occur on the site.

The inspection reports should also identify if any revisions to the SWPPP are warranted due to unexpected conditions. The SWPPP shall be amended whenever there is a change in contractors, offsite borrow site location, site design, construction phasing, spill or discharge of a hazardous material, or maintenance at the construction site that could have a significant effect on the discharge of pollutants to

surface waters that has not been previously addressed in the SWPPP. In addition to modifying the SWPPP, the site plans and reports may also require an amendment. Any changes to the SWPPP must be made in writing within 7 days of the date such modification. The Contractor's failure to modify the SWPPP to include off-site borrow or fill areas used solely for the project or to monitor or report deficiencies to the Operator will result in the Contractor being liable for fines resulting from any federal, state, or local agency enforcement action.

The Contractor shall provide monthly training sessions for all personnel and subcontractors involved with installing, applying, performing, maintaining and inspection of the SWPPP. Logs of each monthly training session shall be kept in the SWPPP. Training shall include construction requirements and maintenance for site-specific erosion control measures Maintenance Procedures for each of the Control Measures, spill prevention methods and cleanup procedures, and record keeping requirements.

The site will be considered finally stabilized when all soil disturbing activities have been completed and a uniform vegetative cover with a density of 85% for the unpaved areas and areas not covered by permanent structures has been established or equivalent permanent stabilization measures have been established and the site no longer discharges storm water associated with construction activities and a Notice of Termination (NOT) form has been filed by the Operator with the New York State Department of Environmental Conservation. The Operator's Project Manager must complete the NOT. The NOT must be signed by the signatory (or equivalent position) on the NOI. The Operator's Project Manager must provide a completed copy of the NOT to the Contractor for inclusion in the final SWPPP, which will then be scanned into the final SWPPP document as required. This filing terminates coverage under the General Permit and terminates the Contractor's responsibility to implement the SWPPP, but the requirements of the SWPPP, including periodic inspections, must be continued until the NOT is filed. Upon achieving this milestone, the Contractor shall also submit "Final Stabilization Certification/Termination Checklist".

Note: Prior to submitting the NOT, the permittee must identify all permanent stormwater management structures that have been constructed and provide the owners of such structures with a manual describing the operation and maintenance practices that will be necessary in order for the structure to function as designed after the site has been stabilized. The permittee must also certify that the permanent structures have been constructed as described in the SWPPP.

Section 2.2 PROJECT NAME AND SITE LOCATION

Greenport Crossings Town of Greenport Columbia County, New York

Total site area = 10.31 acres. Total site area to be disturbed = 7.03 acres (no more than 5 ac at a time). Total offsite area = 0.19 acres in Route 66. Total offsite area to be disturbed = 0.16 acres.

Section 2.3 OPERATORS NAME AND ADDRESS

Greenport Crossing, LLC 40 Corbett Road Montgomery, New York Phone: 845-430-1688

Contact person: Harbalwant Singh

Section 2.4.1 EXISTING CONDITIONS

The subject property consists of relatively flat unoccupied industrial site. The subject parcel is 10.31 acres located at 181 Union Turnpike, Town of Greenport, New York, Columbia County, New York. The site contains an unoccupied industrial building with associated improvements, grass, wooded, and wetland areas.

The subject property has a total relief of approximately 4-feet, sloping from the center of the site towards the north and towards the south. The area proposed for redevelopment is in the northern portion of the site and is developed. Part of the stormwater runoff currently drains north via overland flow to catch basins located in the NYSDOT right-of-way and the remainder flows to the on-site wetlands at the south end of the site. Because the site is currently developed, there are impervious areas and other improved features.

Section 2.4.2 PROPOSED CONDITIONS

The project involves the redevelopment of the unoccupied industrial parcel into a Hotel, Family Entertainment Center and a retail pad that include a gas station. A portion of the existing industrial building will be reused as part of the Hotel / Entertainment center.

The site is also enrolled in the NYSDEC Brownfield Cleanup Program (BCP). Management of Impacted Soil and Groundwater will comply with Best Management Practices and requirements of NYSDEC for the various material classifications of impacted soils.

The site will be graded to provide a relatively flat area for each of the proposed uses along with proposed driveways. Stormwater runoff will be collected in catch basins located at various locations throughout the parcel, then piped through a system of underground piping to a stormwater quality structure meeting NYSDEC requirements for total suspended solid removal. Peak post-construction flows will be less than preconstruction peak flows, for each watershed on site. Runoff will then discharge through existing drainage pipes located within the NYSDOT right of way.

Portions of the existing industrial building will be demolished and the remaining portions are to be redeveloped. Soil disturbing activities will include:

- A. Construction of temporary construction ingress / egress points and construction laydown areas
- B. Environmental remediation of building and site hotspots
- C. Partial demolition of existing building and removal of existing pavement.
- D. Construction of a temporary sediment trap
- E. Final grading and seeding
- F. Off-site improvements shall be made concurrently with items A through E above.

The site will be owned and developed by Greenport Crossing, LLC for which erosion and sediment controls have been developed and fully addressed in this written plan and the Erosion and Sediment Control Plan(s). See Sediment and Erosion Control Plans and associated Detail Sheets for additional details. The total acreage of this development is 10.31 acres of which 7.03 acres will be disturbed (5 ac max at any given time). Additionally, minor road improvements including new curbs, driveways and replacement of existing catch basins in Route 66 will disturb an additional 0.16 acres in the Route 66 highway limits.

Section 2.5 RUNOFF COEFFICIENT, SOILS AND RAINFALL INFORMATION

The initial coefficient of runoff for the pre-construction drainage area is "CN" = 89. The post-construction coefficient of runoff for the drainage area will be "CN" = 87.2 (calculation of weighted "CN" is shown below). The site drainage area is 10.69 acres of which 7.03 acres will be disturbed by construction activities.

The Route 66 drainage area is 0.19 acres of which 0.16 acres will be disturbed by construction activities. "CN" in the Route 66 drainage area is 98.

Calculation of "CN" value for post-construction site:

	CN	Area	AxCN
Impervious	98	5.02	492
Grass	80	1.03	82
Brush	77	4.48	345
Gravel	80	0.16	13
Total		10.69	932
Weighted CN	= 932/	10.6 = 87.2	2

The site and Route 66 have soils, which are described by the USDA Soil Conservation Service as:

Ue – Udorthents, Smoothed

The site is in Columbia County, which receives an average of 47.9 inches rainfall annually with the highest amounts of rainfall received in the months of May (4.9 inches), July (4.8 inches), and August (5.1 inches).

Section 2.5.1 STORMWATER MANAGEMENT FACILITY

SPDES Phase II requirements for stormwater discharge are to provide attenuation of the post development run-off at the 1-yr, 10-yr and 100-yr events to that of existing and to provide for water quality treatment of the collected stormwater, so that 80% Total Suspended Solids (TSS) and 40% phosphorus removal is achieved. To meet the SPDES Phase II requirements, the 1-yr post-development run-off volume should be detained and released over a 24-hour period to provide channel protection to the downstream receiving waters. Overbank Flood Protection is based on 10-yr storm and Flood Control Criteria is based on a 100-yr storm.

Based on NYSDEC Stormwater Management Design Manual, Chapter 9 (Redevelopment Projects) the 1-yr, 10-yr and 100-yr criteria does not apply to redevelopment sites that have a reduction in the total impervious coverage from that of pre-development conditions. The Proposed development falls into this classification.

The proposed development does include a DEC approved alternative practice for Water Quality Treatment (WQv) as the redevelopment criteria for a 25% reduction in impervious coverage is not met (the proposed development will result in a 16% impervious coverage reduction).

Section 2.6 RECEIVING WATERS

The site will discharge to two locations, the first is to the north, which discharges into an existing Stormwater Collection System in the NYSDOT right-of-way that discharges to an unnamed tributary to the Claverack Creek. The other discharge is to an Army Corp of Engineers Wetland in the south portion of the site

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A review of the protected TMDL waterways in New York, found at http://oaspub.epa.gov/waters/state_rept.control?p_state=NY did not identify Claverack Creek as being a waterway for which there is a total maximum daily load (TMDL) allocation. Four waters within Columbia County are listed in Appendix E of the New York State Department of Environmental Conservation SPDES General Permit for Stormwater Discharges from Construction Activity

Section 2.7 WETLANDS AND/OR OTHER SURFACE WATERS

There are 3.12 acres of wetlands on the property.

Section 2.8 EROSION AND SEDIMENT CONTROLS

Stabilization Practices (Permanent)

Permanent stabilization practices for this site include:

Land clearing activities shall be done only in areas where earthwork will be performed and shall progress, as earthwork is needed.

- A. Use of stabilization fabric for all slopes having a slope of 1V:3H or greater.
- B. Permanent seeding and planting of all unpaved areas using the hydromulching grass seeding technique.
- C. Installation of Rolled Erosion Control Products
- D. Mulching exposed areas.
- E. Vegetation preservation.

Stabilization Practices (Temporary)

Temporary stabilization practices for this site include:

Temporary seeding and planting of all unpaved areas using the hydromulching grass seeding technique.

- A. Mulching exposed areas.
- B. Soil Roughening.
- C. Frequent watering to minimize wind erosion during construction.

Structural Practices (Permanent)

Permanent structural practices for this site include:

- A. Drainage swales/ catch basins
- B. CDS Hydrodynamic Separator
- C. Catch Basins Sumps
- D. Wet Swales

Structural Practices (Temporary)

Structural practices for this site include:

A. Inlet protection at catch basins using temporary sediment traps and silt fence

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- B. Perimeter protection using silt fence and temporary drainage swales
- C. Stabilized construction ingress/egress
- D. Drainage swales

Sequence of Major Activities

The Contractor will be responsible for implementing the following erosion control and stormwater management control measures. The Contractor may designate these tasks to certain subcontractors as he sees fit, but the ultimate responsibility for implementing these controls and ensuring their proper functioning remains with the Contractor. The order of activities will be as follows (refer to the Sediment and Control Plan and Detail Sheets for details):

- **A.** Construct temporary construction entrances and exits at locations shown on the Erosion and Sediment Control Plan Sheets.
- B. Install perimeter silt fences
- C. Begin clearing and grubbing operations. Clearing and grubbing shall be done only in areas where earthwork will be performed and only in areas where building is planned to commence within 14 days after clearing and grubbing.
- **D.** Environmental remediation of building and remediation of site soil "hot spots".
- E. Commence building demolition as shown on the demolition plan in accordance with Local, State, and Federal regulations
- F. Commence pavement removal
- G. Install sediment trap and diversion ditches
- **H.** Commence site grading and begin storm system installation
- I. Disturbed areas of the site where construction activity has ceased for more than 14 days shall be temporarily seeded and watered.
- J. Install inlet/outlet protection at the locations of all grate inlets, curb inlets, and at the ends of all exposed storm sewer pipes. Finalize pavement subgrade preparation.
- **K.** Construct all curb, inlets, area inlets, and storm sewer manholes, as shown on the plans. Inlet protection may be removed temporarily for this construction.
- L. Remove inlet protection around inlets and manholes no more than 48 hours prior to placing stabilized base course.
- **M.** Offsite road improvements.
- N. Install base material as required for payement.
- O. Final grading and seeding and planting
- **P.** Remove silt fencing after all exposed surfaces are stabilized.
- **Q.** Remove temporary construction exits only prior to pavement construction in these areas (These areas are to be paved last).

The project will be constructed with less than 5 acres disturbed at once. The site contractor shall prepare a detailed construction schedule for the construction activities. The Site contractor shall adhere to the provided phasing plans at all times during construction.

Storm Water Management

The site will drain at a point at the northwest corner of the property and to wetlands on the south end of the property. The following stormwater management measures shall be incorporated on the site to treat stormwater discharges after construction is completed: Catch Basins with sumps, grassed swales, and a CDS unit.

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Operation and maintenance of the installed structures shall be the responsibility of the contractor until the site is deemed stable and turned over to the Operator.

Operation and maintenance schedule of installed stormwater management system:

- The site will be inspected every seven (7) calendar days
- All structures will be maintained in good working order; if repairs or other measures are found to be necessary, they will be made within 24 hours of report.
- Seeded areas shall be inspected for bare spots, washouts, and healthy growth.
- A maintenance inspection report will be made after each inspection and maintained onsite by the Operators Site Manager.

Off-Site Vehicle Tracking

A stabilized construction exit will be provided to help reduce vehicle tracking of sediments. The paved streets adjacent to the site entrance will be inspected daily and swept as necessary to remove any excess mud, dirt, or rock tracked from the site. Dump trucks hauling material from the construction site will be covered with a tarpaulin. The job site superintendent will be responsible for seeing that these procedures are followed.

Excavation Spoil Materials

Excavation spoil materials are generated during the excavation of the building footings and utilities installation. These materials must be properly managed to prevent them from contributing to storm water discharges. The materials generated from the development of this project will be managed by the following method: if suitable, spoils will be used for onsite fill otherwise the contractor will truck spoil material off site and a copy of the receiving site's permit will be added to this SWPPP.

Dust Control

One or more of the following methods will control wind erosion and dust:

- A. Covering 30% or more of the soil surface with a non-erodible material.
- B. Roughening the soil to produce ridges perpendicular to the prevailing wind. Ridges should be about six (6) inches in height.
- C. Frequent watering of excavation and fill areas.
- D. Providing gravel or paving at entrance/exit drives, parking areas and transit paths.

Construction Housekeeping Practices

A. All material resulting from clearing and grubbing will be stockpiled upslope from sedimentation controls.

B. The Contractor will designate specific areas for equipment cleaning, maintenance, and repair. These areas will be protected by a temporary perimeter berm.

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- C. The use of detergents for large-scale washing is prohibited.
- D. The contractor will develop a Spill Prevention and Response Plan for the site. This plan will outline the procedure to follow in case of an accidental spill. Appropriate contact names and phone numbers will be included.
- E. All material stockpile areas will be located in an area that minimizes the impacts of the materials affecting the stormwater quality. All toxic materials must be kept in waterproof containers.

Material Storage and Stockpiling

All material shall be stored per manufactures requirements, Stockpiling of material shall be monitored daily and in conformance with NYSDEC requirements for erosion control.

Sanitary Waste Disposal

Portable toilets may be permitted on-site and all sanitary waste shall be a hauled by NYS licensed hauler permitted to transport sanitary waste.

Collection of Waste Material

The site contractor shall provide an onsite trash-bin or dumpster for the collection of waste material which shall be disposed of at least once a week or more as required.

Concrete Waste From Trucks

The site contractor shall provide a designated place for an onsite concrete truck delivery washout. Said areas shall be protected with erosion control measures to prevent the runoff and pollution of downstream areas.

Contaminated Soils

Should contaminated soil be discovered during the course of construction, the Contractor shall be responsible for notifying the Owner/Operator and NYSDEC in accordance with NYSDEC requirements. The Contractor shall protect the area from further disturbance until a mitigation plan can be implemented.

Should a spill occur onsite during the course of construction activities, the Contractor shall notify the Owner/Operator and NYSDEC in accordance with NYSDEC requirements. The Contractor shall be responsible for the removal of all contaminated soils and associated cost.

Mitigation of Contaminated Soils

The removal of all contaminated soils shall be in the accordance with NYSDEC requirements and Remedial Action Plan for this site, and removed by a NYS Licensed Hauler and disposed of at a facility permitted to accept such waste.

Handling of Hazardous Substances and Hazardous Waste.

Hazardous Substances shall be handled in accordance with manufacturer requirements; and all local, state and federal requirements. Hazardous Waste shall be disposed of in accordance with

all local, state and federal requirements and shall be removed from the site by a NYS Licensed Hauler and disposed of at a facility permitted to accept such waste, and in accordance with the Remedial Action Plan for this site.

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Snow Removal

The Contractor shall designate an area on site to stockpile snow. The snow stockpile area shall have erosion control measures installed around its perimeter to prevent the runoff and pollution of downstream areas.

Spill Prevention and Control Measures

The Contractor shall be responsible for the training of all workers in the proper handling of all hazardous materials and control measures that will be necessary should a spill occur on-site. In the case that a spill does occur onsite, the Contractor shall store and maintain the proper equipment onsite necessary to control the further spread of any hazardous material.

Section 2.9 COMPLIANCE WITH REGULATIONS

The Contractor will obtain copies of any and all local, state and federal regulations which are applicable to storm water management, erosion control, and pollution minimization at the job site and will comply fully with such regulations. The Contractor will comply with all conditions of the New York State Department of Environmental Conservation Construction General Permit, including the conditions related to maintaining the SWPPP and evidence of compliance with the SWPPP at the job site and allowing regulatory personnel access to the job site and to records in order to determine compliance.

Section 2.10 INSPECTION AND MAINTENANCE PROCEDURES

The following inspection and maintenance practices will be used to maintain erosion and sediment controls and measures as required by the New York State Department of Environmental Conservation.

- 1. All control measures will be inspected at least every seven (7) calendar days.
- 2. All measures will be maintained in good working order; if repairs or other measures are found to be necessary, they will be initiated within 24 hours of report.
- 3. Built up sediment will be removed from silt fence when it has reached one-third the height of the fence.
- 4. Silt fences will be inspected for depth of sediment, tears, etc., to see if the fabric is securely attached to the fence posts, and to see that the fence posts are securely in the ground.
- 5. The sediment basins, if present, will be inspected for depth of sediment, and built up sediment will be removed when it reaches 25 percent of the design capacity.
- Temporary and permanent seeding and all other areas will be inspected for bare spots, washouts, and healthy growth.
- 7. A maintenance inspection report will be made after each inspection. Copies of the report forms to be completed by the inspector will need to be added to the SWPPP.

8. The job site superintendent or construction manager will be responsible for selecting and training the individuals who will be responsible for these inspections, maintenance and repair activities, and filling out inspection and maintenance reports.

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- 9. Personnel selected for the inspection and maintenance responsibilities will receive training from the job site superintendent or construction manager. They will be trained in all the inspection and maintenance practices necessary for keeping the erosion and sediment controls that are used onsite in good working order. They will also be trained in the completion of, initiation of actions required by, and the filing of the inspection forms. Documentation of this personnel training will be kept on site with the SWPPP.
- 10. Disturbed areas and materials storage areas will be inspected for evidence of or potential for pollutants entering stormwater systems.
- 11. Report to New York State Department of Environmental Conservation within 24 hours any noncompliance with the SWPPP that will endanger public health or the environment. Follow up with a written report within 5 days of the noncompliance event. The following events require 24 hour reporting: a) any unanticipated bypass which exceeds any effluent limitation in the permit, b) any upset which exceeds any effluent limitation in the permit, and c) a violation of a maximum daily discharge limitation for any of the pollutants listed by the EPA in the permit to be reported within 24 hours. The written submission must contain a description of the non-compliance and its cause; the period of non-compliance, including exact dates and times, and if the non-compliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the non-compliance.
- 12. Releases of hazardous substances or oil in excess of reportable quantities (as established under 40 CFR 110, 40 CFR 117 or 40 CFR 302) must be reported.
- 13. Note: The following is taken directly from the SPDES General Permit Parts IV.C.2 thru 4 and is required to be implemented prior to the commencement of construction.

Unless otherwise notified by the Department, the qualified inspector shall conduct site inspections in accordance with the following time table:

- a. For construction sites where soil disturbance activities are on going, the qualified inspector shall conduct a site inspection at least once every seven calendar days.
- 3. At a minimum, the qualified inspector shall inspect all erosion and sediment control practices to ensure integrity and effectiveness, all post construction stormwater management practices under construction to ensure that they are constructed in conformance with the SWPPP, all areas of disturbance that have not achieved final stabilization, all points of discharge to natural surface water bodies located within, or immediately adjacent to, the property boundaries of the construction site and all points of discharge from the construction site.
- 4. The qualified inspector shall prepare an inspection report subsequent to each and every inspection. At a minimum, the inspection report shall include and/or address the Following:
 - a. Date and Time of the Inspection;
 - b. Name and title of person(s) performing inspection;

c. A description of the weather and soil conditions (e.g. dry, wet, saturated,) at the time of the inspection;

- d. A description of the condition of the runoff at all points of discharge from the construction site. This shall include identification of any discharges of sediment from the construction site. Include discharges from conveyance systems (i.e. pipes, culverts, ditches, etc.) and overland flow;
- e. A description of the condition of all natural surface water bodies located within, or immediately adjacent to the property boundaries of the construction site which receive runoff from disturbed areas. This shall include identification of any discharges of sediment to the surface water body;
- f. Identification of all erosion and sediment control practices that need repair or maintenance;
- g. Identification of all erosion control and sediment control practices that were not installed properly or are not functioning as designed and need to be reinstalled or replaced;
- h. Description and sketch of areas that are disturbed at the time of the inspection and areas that have been stabilized (temporary and/or final) since the last inspection;
- Current phase of construction of all post-construction stormwater management practices and identification of all construction that is not in conformance with the SWPPP and technical standards;
- j. Corrective action(s) that must be taken to install, repair, replace, or maintain erosion and sediment control practices; and to correct deficiencies identified with the construction of the post construction stormwater management practice(s);
- k. Digital photographs, with date stamp, that clearly show the condition of all practices that have been identified as needing corrective actions. The *qualified inspector* shall attach paper color copies of the digital photographs to the inspection report being maintained onsite within seven (7) calendar days of the date of the inspection. The *qualified inspector* shall also take digital photographs, with date stamp, that clearly show the condition of the practice(s) after the corrective action has been completed. The *qualified inspector* shall attach paper color copies of the digital photographs to the inspection report that documents the completion of the corrective action work within seven (7) calendar days of that inspection.

Section 2.11 INSPECTION AND MAINTENANCE REPORT

Once installation of any required or optional erosion control device or measure has been implemented, at least every seven (7) calendar days and within 24 hours following a rainfall event of 0.5 inches or greater, inspections of each measure shall be performed by a Qualified Inspector.

All of the contractors report forms shall become an integral part of the SWPPP and shall be made readily accessible to governmental inspection officials, the Operator's Engineer, and the Operator for review upon request during visits to the project site. In addition, copies of the reports shall be provided to any of these persons, upon request, via mail or facsimile transmission. Inspection and maintenance report forms are to be maintained by the permittee for five years following the final stabilization of the site.

Section 2.12 RECORD KEEPING REQUIREMENTS

The Contractor shall keep the following records related to construction activities at the site:

- Dates when major grading activities occur and the areas that were graded
- Dates and details concerning the installation of structural controls
- Dates when construction activities cease in an area
- Dates when an areas is stabilized, either temporarily or permanently
- Dates of rainfall and the amount of rainfall
- Dates and descriptions of the character and amount of any spills of hazardous materials
- -Records of reports filed with regulatory agencies if reportable quantities of hazardous materials spilled

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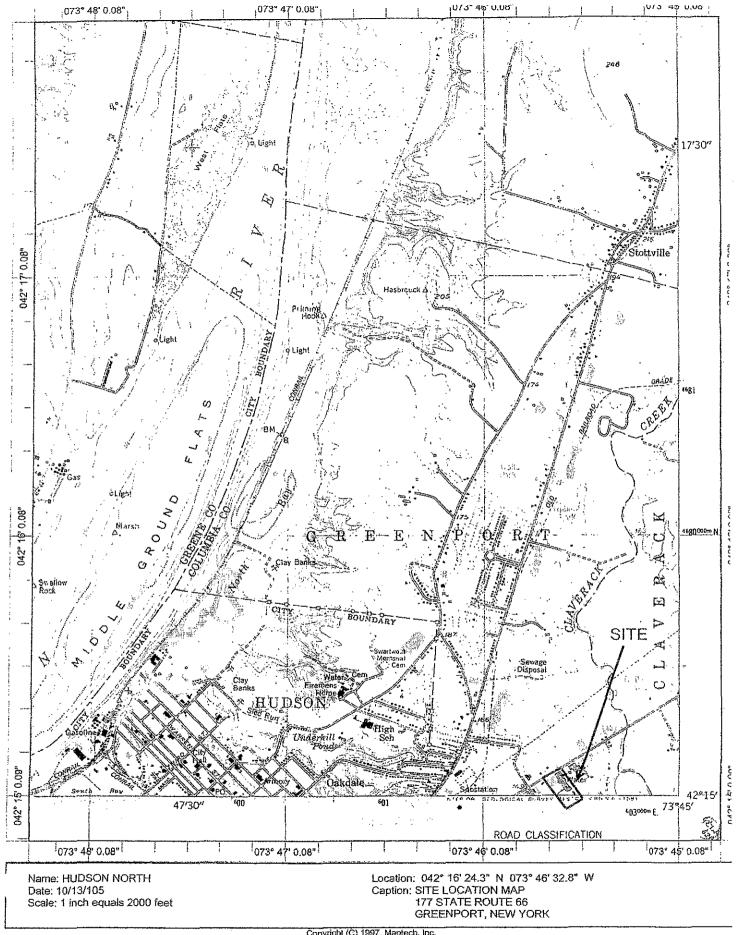
- -Per SPDES Standard Permit Conditions Part VII.F the operator shall maintain a record of all inspection reports in a site logbook. The site logbook shall be maintained on site and be made available to the permitting authority upon request. Prior to the commencement of construction, the operator shall certify in the site logbook that the SWPPP, meets all Federal, State, and local erosion and sediment control requirements.
- -The operator shall post at the site, in a publicly-accessible location a summary of the site inspection activities on a monthly basis.
- -The operator shall also prepare a written summary of its status with respect to compliance with the general permit at a min. frequency of every three months during which coverage under this permit exists.

Section 2.13 CONTROL OF NON-STORM WATER DISCHARGES

Certain types of discharges are allowable under the New York State Department of Environmental Conservation General Permit for Construction Activity, and it is the intent of this SWPPP to allow such discharges. These types of discharges will be allowed under the conditions that no pollutants will be allowed to come in contact with the water prior to or after its discharge. The following non-storm water discharges are allowed by the New York State Department of Environmental Conservation and may occur at the job site: Discharge from fire fighting activities; fire hydrant flushing; waters to which cleansers or other components have not been added that are used to wash vehicles or control dust in accordance with the SWPPP, routine external building washdown which does not use detergents; pavement washwaters where spills or leaks of toxic or hazardous materials have not occurred (unless all spilled material has been removed) and where detergents are not used; air conditioning condensate; springs; and foundation or footing drains where flows are not contaminated with process materials such as solvents.

APPENDIX A

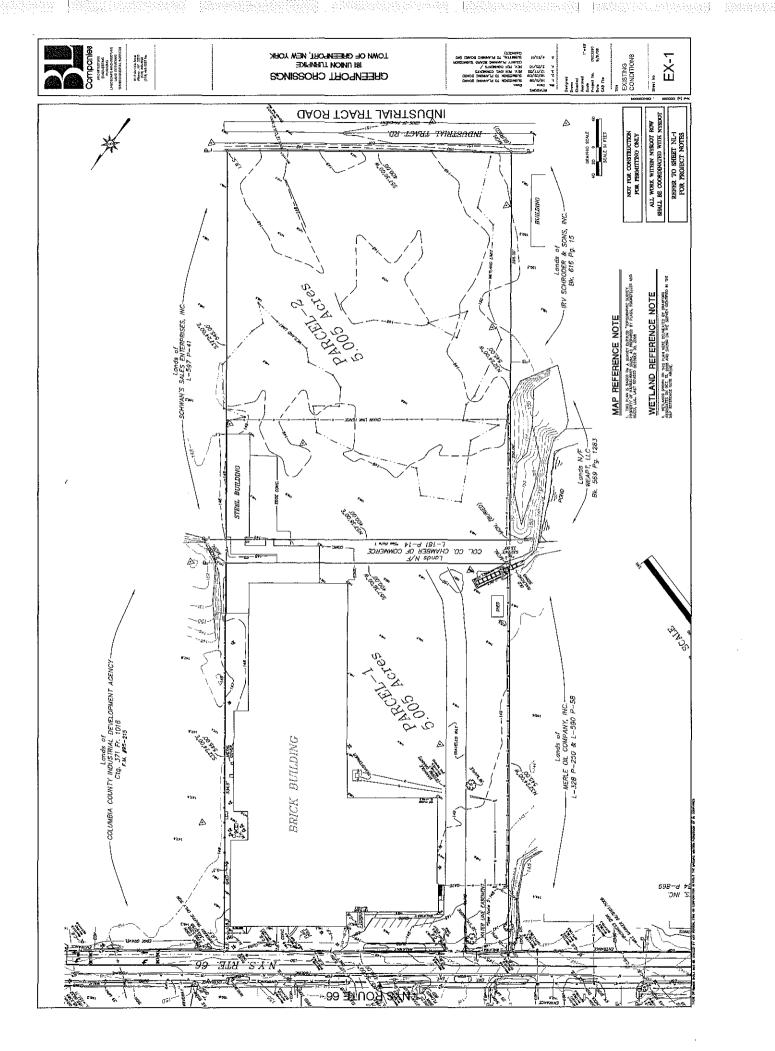
SITE LOCATION MAP

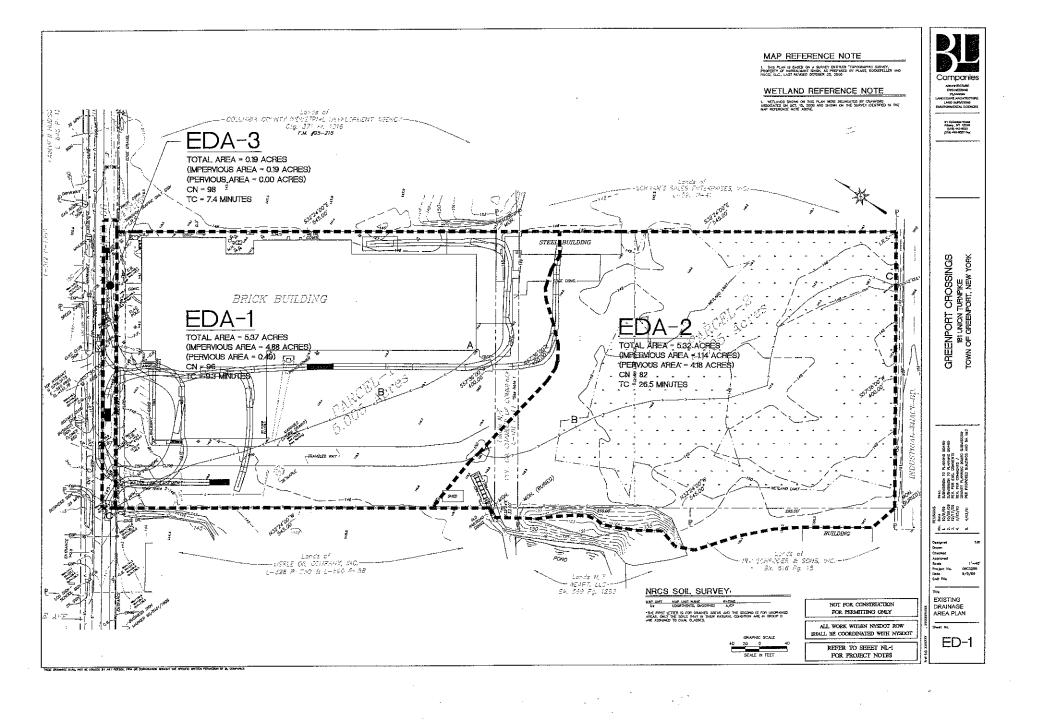


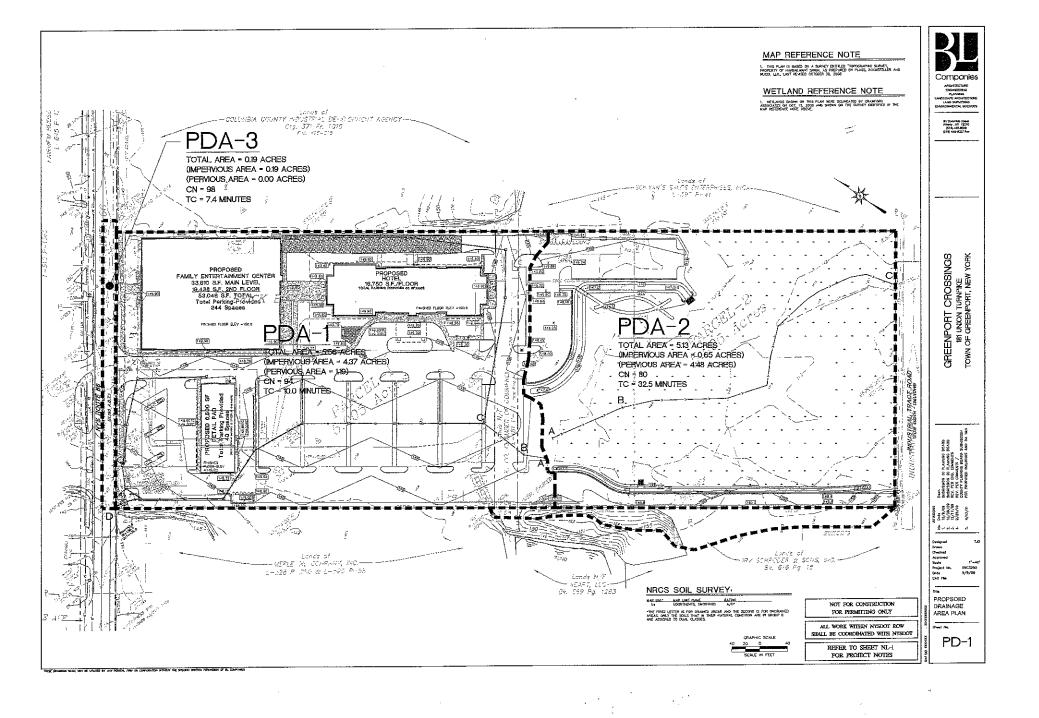
APPENDIX B

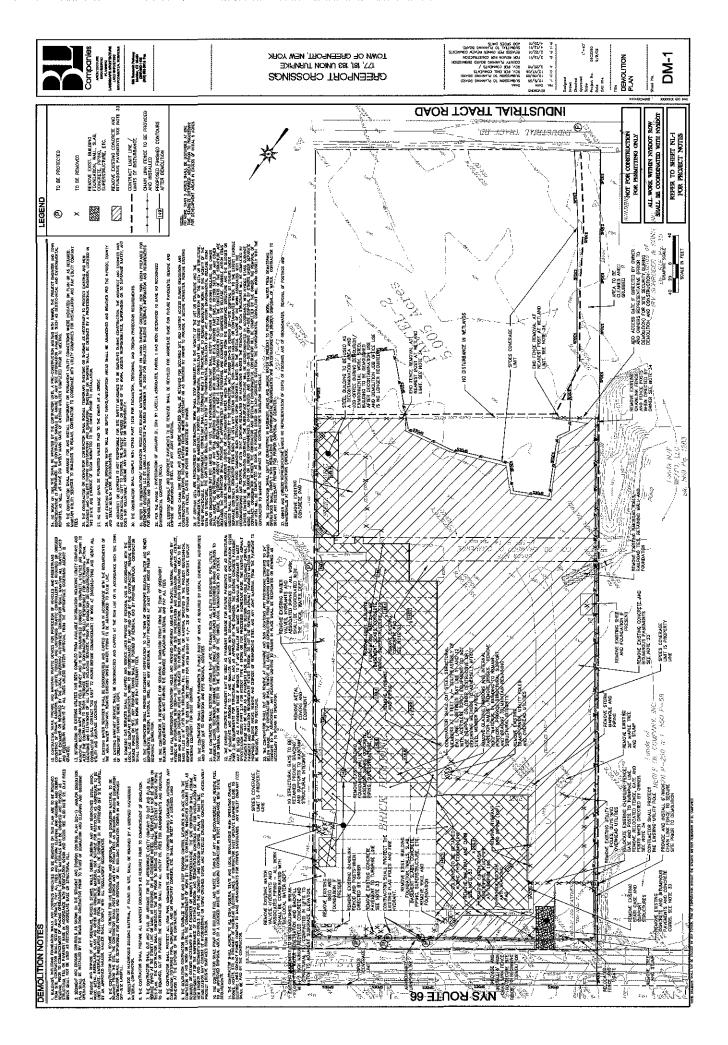
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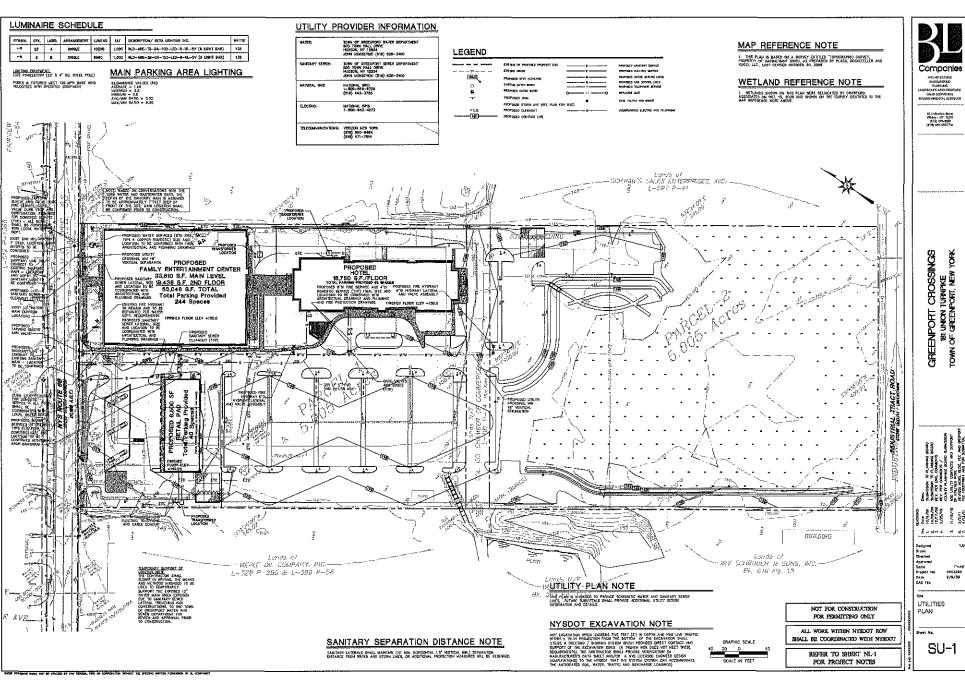
- EXISTING CONDITIONS (EX-1)
- DRAINAGE AREA PLANS (ED-1, PD-1)
- DEMOLITION PLAN (DM-1)
- GRADING AND DRAINAGE PLAN (GD-1)
- UTILITIES PLAN (SU-1)
- EROSION CONTROL PLAN (EC-1)
- SEDIMENT AND EROSION CONTROL NOTES AND DETAILS (EC-2)
- OFF-SITE ROADWAY PLAN (HWY-1)
- Detail Sheets (DN-2 DN-3)



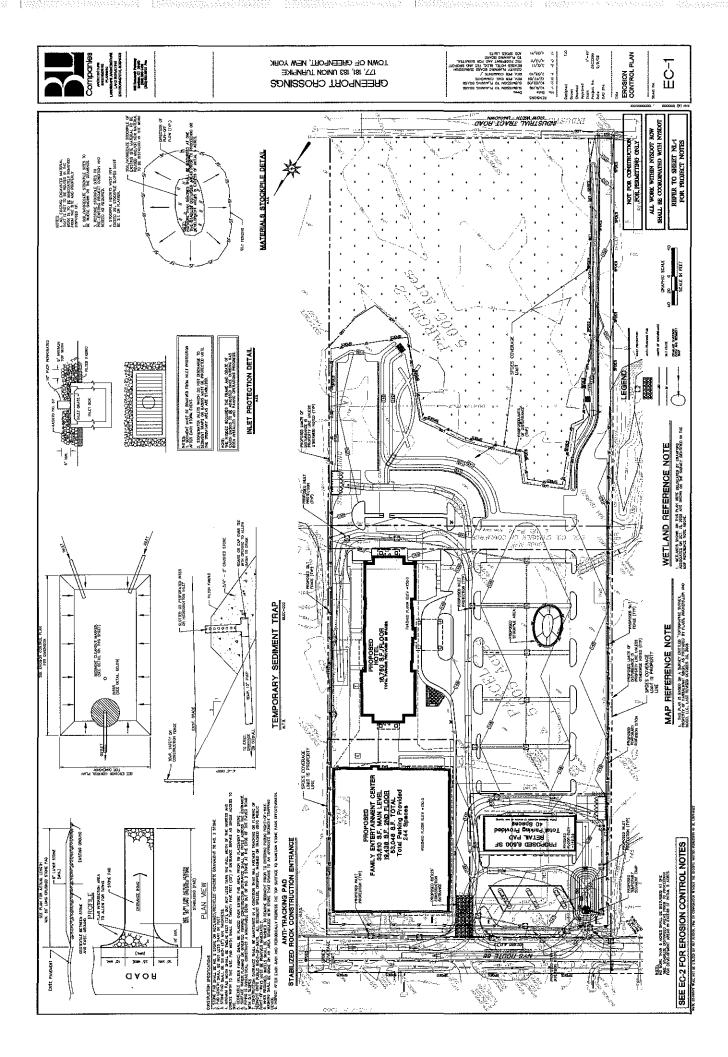








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STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

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 - 18. PINISH DRADING, GOAGINUCT PARKING ARCA SUBGRADE. 37. CONSTRUCT CURES, PAVENENT STRUCTURE, SIDENALIAS.

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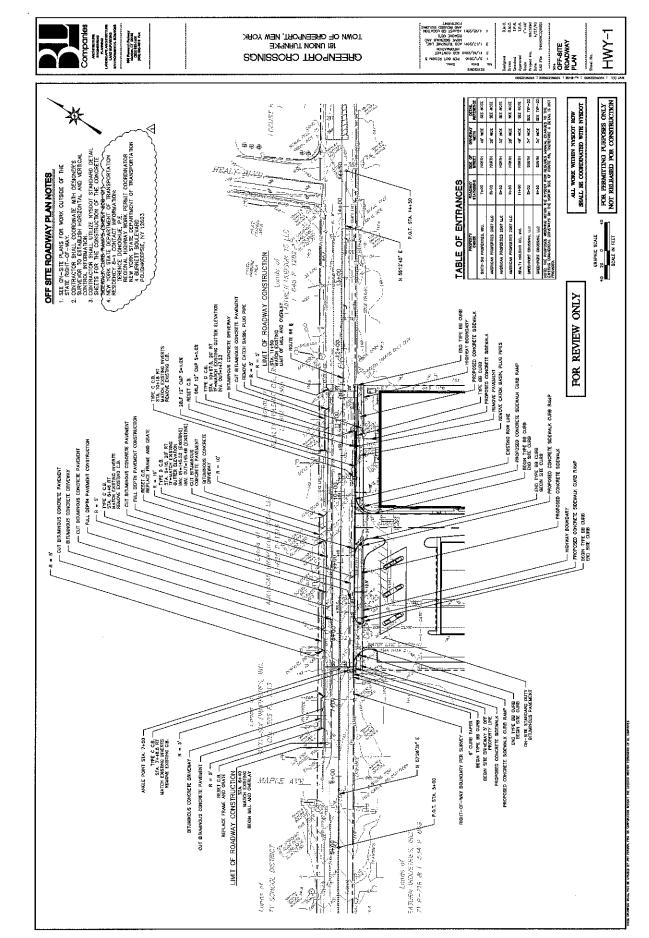
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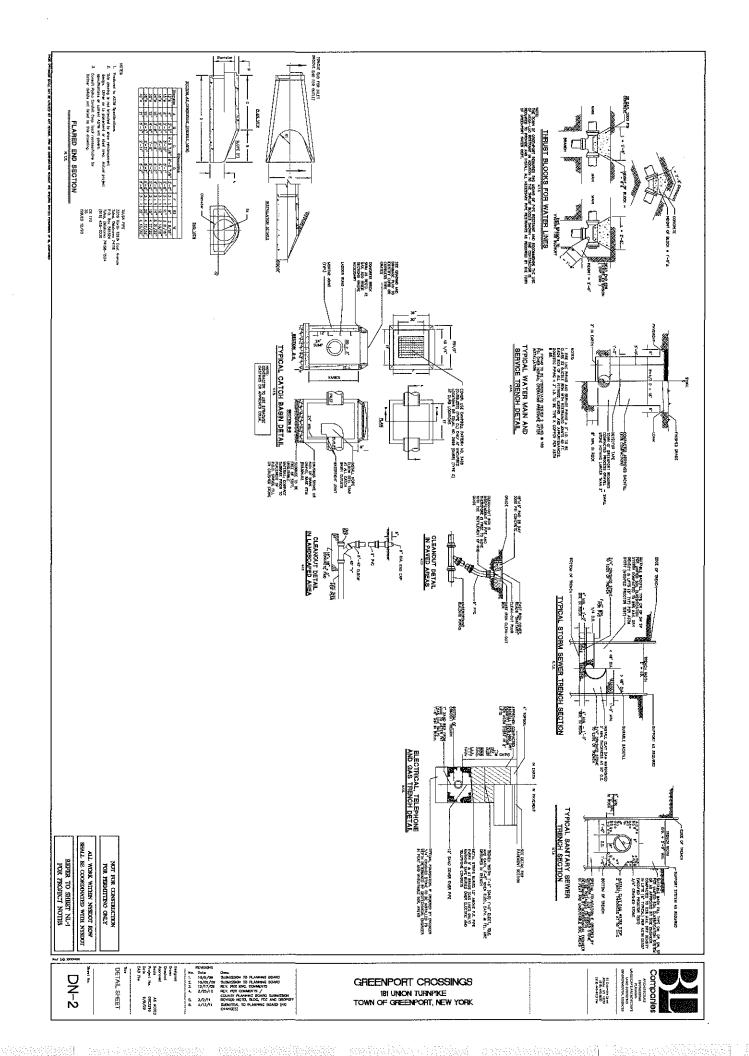
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REFER TO SHEET NL-1 FOR PROJECT NOTES

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TOWN OF GREENPORT, NEW YORK el Columbia Stea Abury, NY 1228 (318) 445-KOD (518) 445-650

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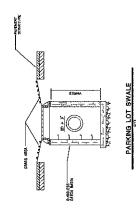
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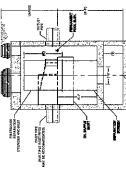
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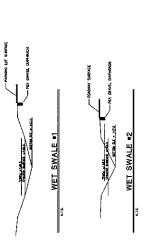
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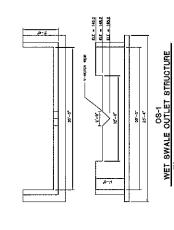
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APPENDIX C
NOTICE OF INTENT (NOI) AND CONFIRMATION
OF NOI DELIVERY

NOTICE OF INTENT



New York State Department of Environmental Conservation

Division of Water 5 Broadway 4th Floor

625 Broadway, 4th Floor

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Albany, New York 12233-3505

Stormwater Discharges Associated with Construction Activity Under State Pollutant Discharge Elimination System (SPDES) General Permit # GP-0-10-001 All sections must be completed unless otherwise noted. Failure to complete all items may result in this form being returned to you, thereby delaying your coverage under this General Permit. Applicants must read and understand the conditions of the permit and prepare a Stormwater Pollution Prevention Plan prior to submitting this NOI. Applicants are responsible for identifying and obtaining other DEC permits that may be required.

-IMPORTANT-RETURN THIS FORM TO THE ADDRESS ABOVE

OWNER/OPERATOR MUST SIGN FORM

	Owner/Operator			
Greenport Cro		/Municipality Name		
Owner/Operator Contact Person Harbalwant	Last Name (NOT CO	esultant)		
Owner/Operator Contact Person Singh	First Name		Particular of Control	
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Street Address (NGT P.O. BOX)	pike		
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City/Town/Village (THAT ISSUES I	OTT		
State Zip	County Columbia	DEC	Region
	Columbia	DEC	Region
Name of Nearest Cross Street	Columbia (Feet)	Poject In Relation to	Cross Street

tid - Britishin 1988 - Illing aller and de British and and a language and and selections a transmission of the

I. Provide the Geographic Coordinates for the project site in NYTM Units. To do this you must go to the NYSDEC Stormwater Interactive Map on the DEC website at:

www.dec.ny.gov/imsmaps/stormwater/viewer.htm

Scom into your Project Location such that you can accurately click on the centroid of your site. Once you have located your project site, go to the tool boxes on the top and choose "i*(identify). Then click on the center of your site and a new window containing the X, Y coordinates in UTM will pop up. Transcribe these coordinates into the boxes below. For problems with the interactive map use the help function.

X Coordinates (Easting) 6 0 2 0 3 5 Y Coordinates (Northing)
4 6 7 8 2 9 1

2. What is the nature of this construction project?

O New Construction

O Redevelopment with increase in imperviousness

C Redevelopment with no increase in imperviousness

in pri	6953	273	03	8

3. Select the predominant land use for both pre and post development conditions. SELECT ONLY ONE CHOICE FOR EACH

Pre-Development Existing Land Use	Post-Development Future Land Use
GFOREST	O SINGLE FAMILY HOME Number of Lots
O Pasture/Open Land	O SINGLE FAMILY SUBDIVISION
O CULTIVATED LAND	O TOWN HOME RESIDENTIAL
O SINGLE FAMILY HOME	O MULTIFAMILY RESIDENTIAL
O SINGLE PAMILY SUBDIVISION	⊙ institutional/school
O TOWN HOME RESIDENTIAL	O INDUSTRIAL
O MULTIFAMILY RESIDENTIAL	● COMMERCIAL
O institutional/school	O MUNICIPAL
• INDUSTRIAL	O ROAD/HIGHWAY
O COMMERCIAL	O RECHEATIONAL/SPORTS FIELD
□ ROAD/HIGHWAY	OBIKE FATH/TRAIL
O RECREATIONAL/SPORTS FIELD	OLINEAR UTILITY (water, sewer, gas, etc.)
O BIKE PATH/TRAIL	O PARKING LOT
@LINEAR UTILITY	C CLEARING/GRADING ONLY
O PARKING LOT	O DEMOLITION, NO REDEVELOPMENT
OOTHER	OOTHER
4. Will future use of this site be an agricul	tural property as defined
by the NYS Agriculture and Markets Law?	
 Is this a project which does not require (Permit (e.g. Project done under an Individual department approved remediation)? 	coverage under the General I SPDES Permit, or O Yes PNO
6. Is this property owned by a state authorit government?	y, state agency or local Ores ONo
7. In accordance with the larger common plan project site acreage, the acreage to be dista (acreage) within the disturbed area. Round to	urbed and the future impervious area
	ing Impervious Future Impervious Within Disturbed Area Within Disturbed 6 0 5 0
8. Do you plan to disturb more than b acres of	of soil st, any one time? The O'Yes Description
9. Indicate the percentage of each Hydrologic	Control 17 1 August Aug
1 3	1 1 2

10. Is this a phased project?	And the second s
11. Enter the planned start and end dates of the disturbance activities.	ate 3 0 / 2 0 1 1 - 0 6 / 1 0 / 2 0 1 3
12. Identify the nearest, <u>natural</u> , surface w runoff will discharge. Name	aterbody(les) to which construction site
Federal Wetland	
12a. Type of waterbody identified in Question 122 O'Wetland V State Jurisdiction Cn Site (Ans	continued to the second
O Wetland / State Jurisdiction Off Site • Wetland / Federal Jurisdiction On Site (A • Wetland / Federal Jurisdiction Off Site • Stream / Creek On Site	insver 12b)
O Stream / Creek Off Site O River on Site	
O River Off Sice O Lake On Site O Lake Off Site	12h. How was the wetland identified? O Regulatory Map O Delineated by Consultant
O Other Type On Site O Other Type Off Site	O Delineated by Army Corps of Engineers Other (Identify) Crawford Associ
13. Has the surface waterbody(les) in quest1. 303(d) segment in Appendix E of GP-0-10-001?	
14, Is this project located in one of the Wa Appendix C of GP-0-10-0012	ersheds identified in Oxes Suc
15. Is the project located in one of the wat associated with AA and AA-S classified water skip question 16.	ershed areas e? If no, OYes Wo

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16. Does this comstruction activity disturb land with no existing impervious cover and where the Soil Slope Phase 🥯 Yes 🜘 No is identified as an E or F on the USDA Soil Survey? If Yes, what is the acreage to be disturbed? 17. Will the project disturb soils within a State regulated • Yes ONo wetland or the protected 100 foot adjacent area? 18. Does the site runoff enter a separate storm sewer system (including roadside drains, svales, ditches, culverts, etc)? 9 Yes ONo CUnknown (If No, skip question 19) 19. What is the name of the municipality/entity that owns the separate storm sewer system? own eenp Ö 20. Does any runoff from the site enter a sewer classified as O Yes No Cunknown a Combined Sewer? 21. Has the required Erosion and Sediment Control component of the •Yes ONo SWPPP been developed in conformance with the current NYS Standards. and Specifications for Erosion and Sediment Control (aka blue Book) ? 22. Does this construction activity require the development of a

23. Have the Water Quality and Quantity Control components of the SWPPP been developed in comformance with the current NYS Stormwater Management *Yes O No Design Manual ?

Yea

Wo No

SWPPP that includes Water Quality and Quantity Control components

(Post-Construction Stormwater Management Practices)

(If No, skip questions 23 and 27-35)

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24: The Stormwater Poll	ntion Frevention Flan	((SWPPP) was prepared by: (
• Professional Engine	er (P:E:)		
O Soil and Water Cons			
O Registered Landsdap Certified Profession		ediment Control (CPESC)	nga 15 km haya dayada Silili da XII Ali Madala Nagalay Ni Kilila
Omer/Operator			
Other			
SWPP Preparer			
BL Companie	S		
Contact Name (Last Space			
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3 5 5 Researc	h Parkway		
Meriden State Zio			
CT 06450-	1. The second se		
Phone		Eox Plans Plans	
2 0 3 - 6 3 0 - 1 4 0 Brief I		203-630-261	
snovak@blco	mpanies, c		

SWPPP Preparer Certification

I hereby certify that the Stormwater Pollution Prevention Plan (SWPPP) for this project has been prepared in accordance with the terms and conditions of the GP-0-10-001. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of this permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.

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Signature	
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25. Has a construction sequence schedule for the planned management practices been prepared?

🖣 Yes

() No

26. Select all of the erosion and sediment control practices that will be employed on the project site:

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Dust Control											○ Grassed Waterway																							
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Perimeter Dike/Swale													C	F u	ac)	. 02	tı	on	Aı	83	Ţ	ub)	COV	740	81	t								
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Water Quality and Quantity Control

Completion of Questions 27-35 is not required Important: if response to Question 22 is No.

Post-Construction Stormwater Management Fractices 27. Indicate all Stormwater Management Practice(s) that will be installed/constructed on this site: Wetlands Ponda Micropool Extended Detention (P-1) Shallow Wetland (W-1) O Wet Pond (P-2) © Extended Detention Wetland (W-2) (Wet Extended Detention (P-3) O Pond/Wetland System (W-3) O Multiple Fond System (P-4) © Pocket Wetland (W-4) @ Pocket Pond (P-5) Infiltration Filtering @ Infiltration Trench (I-1) (Surface Sand Filter (F-1) C Infiltration Basin (I-2) O Underground Sand Filter (F-2) O Dry Well (I-3) © Perimeter Sand Filter (P-3) Onderground Infiltration System Organic Filter (F-4) Open Channels OBjoretention (F-5) Dry Swale (0-1) ocher CDS O Wet Swale (0-2) U n i t Alternative Fractice Verified Proprietary Practice 🖯 Rain Gardon # Hydrodynamic : () Cistorn O Wet Vault O Green Roof Media Filter Stormwater Planters (Permeable Paving (Modular Block) 28. Describe other stormwater management practices not listed above or explain any deviations from the technical standards.

Catch basin sumps and hooded outlets

		2 p). 25	I t	la: -c	s on	a :	Lon	g tı	te: on	n st	Op or	e E i	iti ite	on E	a: mai	nd hac	Ma em	in en	ter t r	na. Gra	ce	P. 101	Lar s (s	í Í	DE Dee	t:	e de	Ve.	op	ed	7			•	Ye	3	Ċ	No	
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storm sewer systems)

30. Provide the total water quality volume re	squired and the total provided for the site.
WOV Required	WQv Frowided
0 1 2 0 acre-feet	0 2 2 0 scre-feet
31. Provide the following Unified Stormwater	Sizing Criteria for the site.
Total Channel Protection Storage Volume (C	
post-developed 1 year, 24 hour storm event	
CPV Required	CPV Provided
0,00 agre-feet	0 0 0 acre-feet
31a. The need to provide for channel protect	ion has been waived because: fourth order stream or larger
Total Operbank Flood Control Criteria (Cp)	- Peak discharge rate for the 10 year storm
Pre-Development	Post-development
0 0 0 crs	0 0 0 crs
Total Extreme Flood Control Criteria (Qf) -	Peak discharge rate for the 100 year storm
Pre-Development	
0.00 crs	Post-development 0 0 0 css
31b. The need to provide for flood control has Osite discharges directly to	as been waived because: o fourth order stream or larger
	s that flood control is not required:
electronic de la	
INPORTANT: Por questions 31 and 32, impervious project site and all offsite areas that drain management practice(s). (Total Drainage Area	to the post-construction stormwater
32. Pre-Construction Impervious Area - As a p Drainage Area enter the percentage of the exi before construction begins.	
33. Post-Construction Impervious Area - As a	
Drainage Area, enter the percentage of the fu will be created/remain on the site after comp	uture impervious areas that 4.8.0 of Dietion of Construction:
34. Indicate the total number of post-constru	in stormings
management practices to be installed/constructions	
35. Provide the total number of stormwater di	scharge to inte from the
site. (include discharges to either surface w	

	2514273037		5-1
: 3	6. Identify other DEC permits th	hat are required for this project.	
	OAir Pollution Control	DBC Permits Onavigable Waters Protection / Article 15	
	C Coastal Erosion	O Water Quality Certificate	
	⊙ Hazardous Waste	O Dam Safety	
	O Long Island Wells	C Water Supply	
	○ Mined Land Reclamation	n O Freshwater Wetlands/Article 24	
	Oother SPDES	O'Tidai Wetlands	
	() Sollid Waste ● None	O Wild, Scenic and Recreational Rivers O Stream Bed or Bank Protection / Article 15	
		A STEER DELIVER DATE FOR THE TOTAL TO	
	.7. Does this project require a C	US Army Corps of Engineers Wetland	
	f Yes, Indicate Size of Impact.		
	98. Is this project subject to U		
	If No, skip question 39)	The Committee of the Co	
	xecutive officer or ranking elec-	e form been signed by the principal cted official and submitted along with Yes S No.	
	his NOI?		
		ed for the purpose of continuing coverage under a most from construction activities, please indicate	
	he former SPDES number assigned		
.iià	Симинали по при		
	I have read or been advised of the perm	ner/Operator Certification mit conditions and believe that I understand them. I also	
	that this document and the corresponding	e pormit, there may be reporting requirements. I hereby certify any decuments were prepared under my direction or supervision. I am	
	time and imprisonment for knowing viola	ties for submitting raise information, including the possibility of sticks. I further understand that coverage under the general permit out that I will receive as a result of submitting this NOI and can	
	he as long as sixty (\$0) hunsiness days	as provided for in the general permit. I also understand that, by any that the SWPPV has been developed and will be implemented as the	
	first element of construction, and agra permit for which this NGI is being subm	soing to comply with all the terms and conditions of the general mitted.	
	Print Piret Name		
	Harbalwant		
	Sinch has t Name		
	Owner/Operator Signature		
1600			

APPENDIX D COPY OF THE LETTER FROM THE NOI PROCESSING CENTER AUTHORIZING PERMIT COVERAGE

(To be inserted upon receipt)

APPENDIX E NYSDEC SPDES CONSTRUCTION GENERAL PERMIT

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NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SPDES GENERAL PERMIT FOR STORMWATER DISCHARGES

from

CONSTRUCTION ACTIVITY

Permit No. GP-0-10-001

Issued Pursuant to Article 17, Titles 7, 8 and Article 70 of the Environmental Conservation Law

Effective Date: January 29, 2010 Expiration Date: January 28, 2015

William R. Adriance Chief Permit Administrator

Authorized Signature

Address:

NYS DEC

Div. Environmental Permits 625 Broadway, 4th Floor Albany, N.Y. 12233-1750

PREFACE

Pursuant to Section 402 of the Clean Water Act ("CWA"), stormwater discharges from certain construction activities are unlawful unless they are authorized by a National Pollutant Discharge Elimination System ("NPDES") permit or by a state permit program. New York's State Pollutant Discharge Elimination System ("SPDES") is a NPDES-approved program with permits issued in accordance with the Environmental Conservation Law ("ECL").

This general permit ("permit") is issued pursuant to Article 17, Titles 7, 8 and Article 70 of the ECL. An *owner or operator* may obtain coverage under this permit by submitting a Notice of Intent ("NOI") to the Department. Copies of this permit and the NOI for New York are available by calling (518) 402-8109 or at any New York State Department of Environmental Conservation ("the Department") regional office (see Appendix G). They are also available on the Department's website at:

http://www.dec.ny.gov/

An owner or operator of a construction activity that is eligible for coverage under this permit must obtain coverage prior to the commencement of construction activity. Activities that fit the definition of "construction activity", as defined under 40 CFR 122.26(b)(14)(x), (15)(i), and (15)(ii), constitute construction of a point source and therefore, pursuant to Article 17-0505 of the ECL, the owner or operator must have coverage under a SPDES permit prior to commencing construction activity. They cannot wait until there is an actual discharge from the construction site to obtain permit coverage.

*Note: The italicized words/phrases within this permit are defined in Appendix A.

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION SPDES GENERAL PERMIT FOR STORMWATER DISCHARGES

FROM CONSTRUCTION ACTIVITIES

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Part I. PERMIT COVERAGE AND LIMITATIONS

- A. <u>Permit Application</u> This permit authorizes stormwater discharges to surface waters of the State from the following construction activities identified within 40 CFR Parts 122.26(b)(14)(x), 122.26(b)(15)(i) and 122.26(b)(15)(ii), provided all of the eligibility provisions of this permit are met:
 - 1. Construction activities involving soil disturbances of one (1) or more acres; including disturbances of less than one acre that are part of a larger common plan of development or sale that will ultimately disturb one or more acres of land; excluding routine maintenance activity that is performed to maintain the original line and grade, hydraulic capacity or original purpose of a facility;
 - 2. Construction activities involving soil disturbances of less than one (1) acre where the Department has determined that a SPDES permit is required for stormwater discharges based on the potential for contribution to a violation of a water quality standard or for significant contribution of pollutants to surface waters of the State.
 - 3. Construction activities located in the watershed(s) identified in Appendix D that involve soil disturbances between five thousand (5000) square feet and one (1) acre of land.
- **B.** <u>Maintaining Water Quality</u> It shall be a violation of this permit and the *ECL* for any *discharge* to either cause or contribute to a violation of *water quality standards* as contained in Parts 700 through 705 of Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York, such as:
 - 1. There shall be no increase in turbidity that will cause a substantial visible contrast to natural conditions;
 - 2. There shall be no increase in suspended, colloidal or settleable solids that will cause deposition or impair the waters for their best usages; and
 - 3. There shall be no residue from oil and floating substances, nor visible oil film, nor globules of grease.

C. Eligibility Under This General Permit

- 1. This permit may authorize all discharges of stormwater from construction activity to surface waters of the State and groundwaters except for ineligible discharges identified under subparagraph D. of this Part.
- 2. Except for non-stormwater *discharges* explicitly listed in the next paragraph, this permit only authorizes stormwater discharges from *construction activities*.

(Part I. C)

3. Notwithstanding paragraphs C.1 and C.2 above, the following non-stormwater discharges may be authorized by this permit: discharges from fire fighting activities; fire hydrant flushings; waters to which cleansers or other components have not been added that are used to wash vehicles or control dust in accordance with the SWPPP, routine external building washdown which does not use detergents; pavement washwaters where spills or leaks of toxic or hazardous materials have not occurred (unless all spilled material has been removed) and where detergents are not used; air conditioning condensate; uncontaminated groundwater or spring water; uncontaminated discharges from construction site de-watering operations; and foundation or footing drains where flows are not contaminated with process materials such as solvents. For those entities required to obtain coverage under this permit, and who discharge as noted in this paragraph, and with the exception of flows from fire fighting activities, these discharges must be identified in the SWPPP. Under all circumstances, the owner or operator must still comply with water quality standards in Part I.B.

D. <u>Activities Which Are Ineligible for Coverage Under This General Permit</u> - All of the following are <u>not</u> authorized by this permit:

- 1. *Discharges* after *construction activities* have been completed and the site has undergone *final stabilization*;
- 2. *Discharges* that are mixed with sources of non-stormwater other than those expressly authorized under subsection C.3. of this Part and identified in the SWPPP required by this permit;
- 3. *Discharges* that are required to obtain an individual SPDES permit or another SPDES general permit pursuant to Part VII, subparagraph K of this permit;
- 4. *Discharges* from *construction activities* that adversely affect a listed, or proposed to be listed, endangered or threatened species, or its critical habitat;
- 5. *Discharges* which either cause or contribute to a violation of *water quality standards* adopted pursuant to the *ECL* and its accompanying regulations;
- 6. Construction activities for residential, commercial and institutional projects that:
 - a. are tributary to waters of the state classified as AA or AA-s; and

(Part I. D. 6)

- b. disturb one or more acres of land with no existing impervious cover and where the Soil Slope Phase is identified as an E or F on the USDA Soil Survey for the County in which the disturbance will occur.
- 7. Construction activities for linear transportation projects and linear utility projects that:
 - a. are tributary to waters of the state classified as AA or AA-s; and
 - b. disturb two or more acres of land with no existing impervious cover and where the Soil Slope Phase is identified as an E or F on the USDA Soil Survey for the County in which the disturbance will occur.
- 8. Construction activities that adversely affect a property that is listed or is eligible for listing on the State or National Register of Historic Places (Note: includes Archeological sites), unless there are written agreements in place with the NYS Office of Parks, Recreation and Historic Preservation (OPRHP) or other governmental agencies to mitigate the effects, or there are local land use approvals evidencing the same.

Part II. OBTAINING PERMIT COVERAGE

A. Notice of Intent (NOI) Submittal

1. An owner or operator of a construction activity that is <u>not</u> subject to the requirements of a regulated, traditional land use control MS4 must first develop a SWPPP in accordance with all applicable requirements of this permit and then submit a completed NOI form to the address below in order to be authorized to discharge under this permit. The NOI form shall be one which is associated with this permit, signed in accordance with Part VII.H. of this permit.

NOTICE OF INTENT NYS DEC, Bureau of Water Permits 625 Broadway, 4th Floor Albany, New York 12233-3505

2. An owner or operator of a construction activity that is subject to the requirements of a regulated, traditional land use control MS4 must first develop a SWPPP in accordance with all applicable requirements of this permit and then have its SWPPP reviewed and accepted by the MS4 prior to submitting the NOI to the Department. The owner or operator shall have the "MS4 SWPPP Acceptance" form signed by the principal executive officer or ranking elected official from the regulated, traditional land use control MS4, or by a duly authorized representative of that person, and then submit that form along with the NOI to the address referenced under "Notice of Intent (NOI) Submittal".

(Part II. A.2)

This requirement does not apply to an *owner or operator* that is obtaining permit coverage in accordance with the requirements in Part II.E. (Change of Owner or Operator).

- 3. The *owner or operator* shall have the SWPPP preparer sign the "SWPPP Preparer Certification" statement on the NOI prior to submitting the form to the Department.
- 4. As of the date the NOI is submitted to the Department, the *owner or operator* shall make the NOI and SWPPP available for review and copying in accordance with the requirements in Part VII.F. of this permit.

B. Permit Authorization

- 1. An owner or operator shall not commence construction activity until their authorization to discharge under this permit goes into effect.
- 2. Authorization to *discharge* under this permit will be effective when the *owner* or operator has satisfied <u>all</u> of the following criteria:
 - a. project review pursuant to the State Environmental Quality Review Act (SEQRA) have been satisfied, when SEQRA is applicable,
 - b. where required, all necessary Department permits subject to the *Uniform Procedures Act (UPA)* (see 6 NYCRR Part 621) have been obtained, unless otherwise notified by the Department pursuant to 6 NYCRR 621.3(a)(4). *Owners or operators* of *construction activities* that are required to obtain *UPA* permits must submit a preliminary SWPPP to the appropriate DEC Regional Office in Appendix F at the time all other necessary *UPA* permit applications are submitted. The preliminary SWPPP must include sufficient information to demonstrate that the *construction activity* qualifies for authorization under this permit,
 - c. the final SWPPP has been prepared, and
 - d. an NOI has been submitted to the Department in accordance with the requirements of this permit.
- 3. An *owner or operator* that has satisfied the requirements of Part II.B.2 above will be authorized to *discharge* stormwater from their *construction activity* in accordance with the following schedule:

(Part II. B. 3)

- a. For *construction activities* that are <u>not</u> subject to the requirements of a *regulated, traditional land use control MS4*:
 - i. Five (5) business days from the date the Department receives a complete NOI for *construction activities* with a SWPPP that has been prepared in conformance with the technical standards referenced in Parts III.B.1, 2 and/or 3, or
 - ii. Sixty (60) business days from the date the Department receives a complete NOI for *construction activities* with a SWPPP that has <u>not</u> been prepared in conformance with the technical standards referenced in Parts III.B.1, 2 or 3.
- b. For construction activities that are subject to the requirements of a regulated, traditional land use control MS4:
 - i. Five (5) business days from the date the Department receives a complete NOI and signed "MS4 SWPPP Acceptance" form,
- 4. The Department may suspend or deny an *owner's or operator's* coverage under this permit if the Department determines that the SWPPP does not meet the permit requirements.
- 5. Coverage under this permit authorizes stormwater *discharges* from only those areas of disturbance that are identified in the NOI. If an *owner or operator* wishes to have stormwater *discharges* from future or additional areas of disturbance authorized, they must submit a new NOI that addresses that phase of the development, unless otherwise notified by the Department.

C. General Requirements For Owners or Operators With Permit Coverage

- 1. The *owner or operator* shall ensure that the provisions of the SWPPP are implemented from the *commencement of construction activity* until all areas of disturbance have achieved *final stabilization* and the Notice of Termination (NOT) has been submitted to the Department in accordance with Part V. of this permit. This includes any changes made to the SWPPP pursuant to Part III.A.4.
- 2. The owner or operator shall maintain a copy of the General Permit (GP-0-10-001), NOI, NOI Acknowledgment Letter, SWPPP, MS4 SWPPP Acceptance form and inspection reports at the construction site until all disturbed areas have achieved *final stabilization* and the NOT has been submitted to the Department.

(Part II. C. 2)

The documents must be maintained in a secure location, such as a job trailer, on-site construction office, or mailbox with lock. The secure location must be accessible during normal business hours to an individual performing a compliance inspection.

- 3. The owner or operator of a construction activity shall not disturb greater than five (5) acres of soil at any one time without prior written authorization from the Department or, in areas under the jurisdiction of a regulated, traditional land use control MS4, the MS4 (provided the MS4 is not the owner or operator of the construction activity). At a minimum, the owner or operator must comply with the following requirements in order to be authorized to disturb greater than five (5) acres of soil at any one time:
 - a. The owner or operator shall have a qualified inspector conduct at least two (2) site inspections in accordance with Part IV.C. every seven (7) calendar days, for as long as greater than five (5) acres of soil remain disturbed. The two (2) inspections shall be separated by a minimum of two (2) full calendar days.
 - b. In areas where soil disturbance activity has been temporarily or permanently ceased, temporary and/or permanent soil stabilization measures shall be installed and/or implemented within seven (7) days from the date the soil disturbance activity ceased. The soil stabilization measures selected shall be in conformance with the most current version of the technical standard, New York State Standards and Specifications for Erosion and Sediment Control.
 - c. The *owner or operator* shall prepare a phasing plan that defines maximum disturbed area per phase and shows required cuts and fills.
 - d. The *owner or operator* shall install any additional site specific practices needed to protect water quality.
 - e. The *owner or operator* shall include the requirements above in their SWPPP.
- 4. The Department may suspend or revoke an *owner's or operator's* coverage under this permit at any time if the Department determines that the SWPPP does not meet the permit requirements.

(Part II. C)

5. For construction activities that are subject to the requirements of a regulated, traditional land use control MS4, the owner or operator shall notify the MS4 in writing of any planned amendments or modifications to the post-construction stormwater management practice component of the SWPPP required by Part III.A. 4. and 5. of this permit. Unless otherwise notified by the MS4, the owner or operator shall have the SWPPP amendments or modifications reviewed and accepted by the MS4 prior to commencing construction of the post-construction stormwater management practice.

D. Permit Coverage for Discharges Authorized Under GP-0-08-001

1. Upon renewal of SPDES General Permit for Stormwater Discharges from Construction Activity (Permit No. GP-0-08-001), an owner or operator of construction activity with coverage under GP-0-08-001, as of the effective date of GP-0-10-001, shall be authorized to discharge in accordance with GP-0-10-001 unless otherwise notified by the Department.

E. Change of Owner or Operator

1. When property ownership changes or when there is a change in operational control over the construction plans and specifications, the original *owner or operator* must notify the new *owner or operator*, in writing, of the requirement to obtain permit coverage by submitting a NOI with the Department. Once the new *owner or operator* obtains permit coverage, the original *owner or operator* shall then submit a completed NOT with the name and permit identification number of the new *owner or operator* to the Department at the address in Part II.A.1.. If the original *owner or operator* maintains ownership of a portion of the *construction activity* and will disturb soil, they must maintain their coverage under the permit.

Permit coverage for the new *owner or operator* will be effective as of the date the Department receives a complete NOI, provided the original *owner or operator* was not subject to a sixty (60) business day authorization period that has not expired as of the date the Department receives the NOI from the new *owner or operator*.

Part III. STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

A. General SWPPP Requirements

1. The SWPPP shall be prepared prior to the submittal of the NOI. The NOI shall be submitted to the Department prior to the *commencement of construction activity*.

(Part III. A)

- 2. The SWPPP shall describe the erosion and sediment control practices and where required, post-construction stormwater management practices that will be used and/or constructed to reduce the pollutants in stormwater discharges and to assure compliance with the terms and conditions of this permit. In addition, the SWPPP shall identify potential sources of pollution which may reasonably be expected to affect the quality of stormwater *discharges*.
- 3. All SWPPs that require the post-construction stormwater management practice component shall be prepared by a *qualified professional* that is knowledgeable in the principles and practices of stormwater management and treatment.
- 4. The *owner or operator* must keep the SWPPP current so that it at all times accurately documents the erosion and sediment controls practices that are being used or will be used during construction, and all post-construction stormwater management practices that will be constructed on the site. At a minimum, the *owner or operator* shall amend the SWPPP:
 - a. whenever the current provisions prove to be ineffective in minimizing pollutants in stormwater *discharges* from the site;
 - b. whenever there is a change in design, construction, or operation at the construction site that has or could have an effect on the discharge of pollutants; and
 - c. to address issues or deficiencies identified during an inspection by the *qualified inspector*, the Department or other regulatory authority.
- 5. The Department may notify the *owner or operator* at any time that the SWPPP does not meet one or more of the minimum requirements of this permit. The notification shall be in writing and identify the provisions of the SWPPP that require modification. Within fourteen (14) calendar days of such notification, or as otherwise indicated by the Department, the *owner or operator* shall make the required changes to the SWPPP and submit written notification to the Department that the changes have been made. If the *owner or operator* does not respond to the Department's comments in the specified time frame, the Department may suspend the *owner's or operator's* coverage under this permit.
- 6. Prior to the commencement of construction activity, the owner or operator must identify the contractor(s) and subcontractor(s) that will be responsible for installing, constructing, repairing, replacing, inspecting and maintaining the erosion and sediment control practices included in the SWPPP; and the contractor(s) and subcontractor(s) that will be responsible for constructing the post-construction stormwater management practices included in the SWPPP.

(Part III. A. 6)

The owner or operator shall have each of the contractors and subcontractors identify at least one person from their company that will be responsible for implementation of the SWPPP. This person shall be known as the *trained contractor*. The owner or operator shall ensure that at least one *trained contractor* is on site on a daily basis when soil disturbance activities are being performed.

The *owner or operator* shall have each of the contractors and subcontractors identified above sign a copy of the following certification statement below before they commence any *construction activity*:

"I hereby certify that I understand and agree to comply with the terms and conditions of the SWPPP and agree to implement any corrective actions identified by the *qualified inspector* during a site inspection. I also understand that the *owner or operator* must comply with the terms and conditions of the most current version of the New York State Pollutant Discharge Elimination System ("SPDES") general permit for stormwater discharges from construction activities and that it is unlawful for any person to cause or contribute to a violation of water quality standards. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of the referenced permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings."

In addition to providing the certification statement above, the certification page must also identify the specific elements of the SWPPP that each contractor and subcontractor will be responsible for and include the name and title of the person providing the signature; the name and title of the *trained contractor* responsible for SWPPP implementation; the name, address and telephone number of the contracting firm; the address (or other identifying description) of the site; and the date the certification statement is signed. The *owner or operator* shall attach the certification statement(s) to the copy of the SWPPP that is maintained at the construction site. If new or additional contractors are hired to implement measures identified in the SWPPP after construction has commenced, they must also sign the certification statement and provide the information listed above.

- 7. For projects where the Department requests a copy of the SWPPP or inspection reports, the *owner or operator* shall submit the documents in both electronic (PDF only) and paper format within five (5) business days, unless otherwise notified by the Department.
- 8. The SWPPP must include documentation supporting the determination of permit eligibility with regard to Part I.D.8. (Historic Places or Archeological Resource). At a minimum, the supporting documentation shall include the following:

(Part III. A. 8)

- a. Information on whether the stormwater discharge or construction activities would have an effect on a property (historic or archeological resource) that is listed or eligible for listing on the State or National Register of Historic Places;
- b. Results of historic resources screening determinations conducted. Information regarding the location of historic places listed, or eligible for listing, on the State or National Registers of Historic Places and areas of archeological sensitivity that may indicate the need for a survey can be obtained online by viewing the New York State Office of Parks, Recreation and Historic Places (OPRHP) online resources located on their web site at: http://nysparks.state.ny.us/shpo/online-tools/ (using The Geographic Information System for Archeology and National Register). OPRHP can also be contacted at: NYS OPRHP, State Historic Preservation Office, Peebles Island Resources Center, P.O. Box 189, Waterford, NY 12188-0189, phone: 518-237-8643;
- c. A description of measures necessary to avoid or minimize adverse impacts on places listed, or eligible for listing, on the State or National Register of Historic Places. If the *owner or operator* fails to describe and implement such measures, the stormwater *discharge* is ineligible for coverage under this permit; and
- d. Where adverse effects may occur, any written agreements in place with OPRHP or other governmental agency to mitigate those effects, or local land use approvals evidencing the same.

B. Required SWPPP Contents

- 1. Erosion and sediment control component All SWPPPs prepared pursuant to this permit shall include erosion and sediment control practices designed in conformance with the most current version of the technical standard, New York State Standards and Specifications for Erosion and Sediment Control. Where erosion and sediment control practices are not designed in conformance with this technical standard, the *owner or operator* must demonstrate equivalence to the technical standard. At a minimum, the erosion and sediment control component of the SWPPP shall include the following:
 - a. Background information about the scope of the project, including the location, type and size of project;

(Part III. B. 1)

- b. A site map/construction drawing(s) for the project, including a general location map. At a minimum, the site map shall show the total site area; all improvements; areas of disturbance; areas that will not be disturbed; existing vegetation; on-site and adjacent off-site surface water(s), wetlands and drainage patterns that could be affected by the construction activity; existing and final slopes; locations of different soil types with boundaries; material, waste, borrow or equipment storage areas located on adjacent properties; and location(s) of the stormwater discharge(s);
- c. A description of the soil(s) present at the site, including an identification of the Hydrologic Soil Group (HSG);
- d. A construction phasing plan and sequence of operations describing the intended order of construction activities, including clearing and grubbing, excavation and grading, utility and infrastructure installation and any other activity at the site that results in soil disturbance;
- e. A description of the minimum erosion and sediment control practices to be installed or implemented for each construction activity that will result in soil disturbance. Include a schedule that identifies the timing of initial placement or implementation of each erosion and sediment control practice and the minimum time frames that each practice should remain in place or be implemented;
- f. A temporary and permanent soil stabilization plan that meets the requirements of the most current version of the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, for each stage of the project, including initial land clearing and grubbing to project completion and achievement of final stabilization;
- g. A site map/construction drawing(s) showing the specific location(s), size(s), and length(s) of each erosion and sediment control practice;
- h. The dimensions, material specifications, installation details, and operation and maintenance requirements for all erosion and sediment control practices. Include the location and sizing of any temporary sediment basins and structural practices that will be used to divert flows from exposed soils;

(Part III. B. 1)

- i. A maintenance inspection schedule for the contractor(s) identified in Part III.A.6., to ensure continuous and effective operation of the erosion and sediment control practices. The maintenance inspection schedule shall be in accordance with the requirements in the most current version of the technical standard, New York State Standards and Specifications for Erosion and Sediment Control;
- j. A description of the pollution prevention measures that will be used to control litter, construction chemicals and construction debris from becoming a pollutant source in the stormwater *discharges*;
- k. A description and location of any stormwater *discharges* associated with industrial activity other than construction at the site, including, but not limited to, stormwater *discharges* from asphalt plants and concrete plants located on the construction site; and
- Identification of any elements of the design that are not in conformance
 with the requirements in the most current version of the technical
 standard, New York State Standards and Specifications for Erosion and
 Sediment Control. Include the reason for the deviation or alternative
 design and provide information which demonstrates that the deviation or
 alternative design is equivalent to the technical standards.
- 2. Post-construction stormwater management practice component All construction projects identified in Table 2 of Appendix B as needing post-construction stormwater management practices shall prepare a SWPPP that includes practices designed in conformance with the most current version of the technical standard, New York State Stormwater Management Design Manual ("Design Manual"). If the Design Manual is revised during the term of this permit, an *owner or operator* must begin using the revised version of the Design Manual to prepare their SWPPP six (6) months from the final revision date of the Design Manual.

Where post-construction stormwater management practices are not designed in conformance with this technical standard, the *owner or operator* must demonstrate equivalence to the technical standard.

At a minimum, the post-construction stormwater management practice component of the SWPPP shall include the following:

a. Identification of all post-construction stormwater management practices to be constructed as part of the project;

(Part III. B. 2)

- b. A site map/construction drawing(s) showing the specific location and size of each post-construction stormwater management practice;
- c. The dimensions, material specifications and installation details for each post-construction stormwater management practice;
- d. Identification of any elements of the design that are not in conformance with the Design Manual. Include the reason for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is equivalent to the technical standards;
- e. A hydrologic and hydraulic analysis for all structural components of the stormwater management control system;
- f. A detailed summary (including calculations) of the sizing criteria that was used to design all post-construction stormwater management practices. At a minimum, the summary shall address the required design criteria from the applicable chapter of the Design Manual; including the identification of and justification for any deviations from the Design Manual, and identification of any design criteria that are not required based on the design criteria or waiver criteria included in the Design Manual; and
- g. An operations and maintenance plan that includes inspection and maintenance schedules and actions to ensure continuous and effective operation of each post-construction stormwater management practice. The plan shall identify the entity that will be responsible for the long term operation and maintenance of each practice.
- 3. Enhanced Phosphorus Removal Standards All construction projects identified in Table 2 of Appendix B that are located in the watersheds identified in Appendix C shall prepare a SWPPP that includes post-construction stormwater management practices designed in conformance with the Enhanced Phosphorus Removal Standards included in the Design Manual. At a minimum, the post-construction stormwater management practice component of the SWPPP shall include items 2.a 2.g. above.

(Part III. C)

C. Required SWPPP Components by Project Type - Unless otherwise notified by the Department, owners or operators of construction activities identified in Table 1 of Appendix B are required to prepare a SWPPP that only includes erosion and sediment control practices designed in conformance with Part III.B.1. Owners or operators of the construction activities identified in Table 2 of Appendix B shall prepare a SWPPP that also includes post-construction stormwater management practices designed in conformance with Part III.B.2 or 3.

Part IV. <u>INSPECTION AND MAINTENANCE REQUIREMENTS</u>

A. General Construction Site Inspection and Maintenance Requirements

- 1. The *owner or operator* must ensure that all erosion and sediment control practices and all post-construction stormwater management practices identified in the SWPPP are maintained in effective operating condition at all times.
- 2. The terms of this permit shall not be construed to prohibit the State of New York from exercising any authority pursuant to the ECL, common law or federal law, or prohibit New York State from taking any measures, whether civil or criminal, to prevent violations of the laws of the State of New York, or protect the public health and safety and/or the environment.

B. Owner or Operator Maintenance Inspection Requirements

- 1. The *owner or operator* shall inspect, in accordance with the requirements in the most current version of the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, the erosion and sediment controls identified in the SWPPP to ensure that they are being maintained in effective operating condition at all times.
- 2. For construction sites where soil disturbance activities have been temporarily suspended (e.g. winter shutdown) and temporary stabilization measures have been applied to all disturbed areas, the *owner or operator* can stop conducting the maintenance inspections. The *owner or operator* shall begin conducting the maintenance inspections in accordance with Part IV.B.1. as soon as soil disturbance activities resume.
- 3. For construction sites where soil disturbance activities have been shut down with partial project completion, the *owner or operator* can stop conducting the maintenance inspections if all areas disturbed as of the project shutdown date have achieved *final stabilization* and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational.

(Part IV. C)

C. <u>Qualified Inspector Inspection Requirements</u> - The *owner or operator* shall have a *qualified inspector* conduct site inspections in conformance with the following requirements:

[Note: The trained contractor identified in Part III.A.6. cannot conduct the qualified inspector site inspections unless they meet the qualified inspector qualifications included in Appendix A. In order to perform these inspections, the trained contractor would have to be a:

- Licensed Professional Engineer,
- Certified Professional in Erosion and Sediment Control (CPESC),
- Registered Landscape Architect, or
- Someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided they have received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity].
- 1. A qualified inspector shall conduct site inspections for all construction activities identified in Tables 1 and 2 of Appendix B, with the exception of:
 - a. the construction of a single family residential subdivision with 25% or less impervious cover at total site build-out that involves a soil disturbance of one (1) or more acres of land but less than five (5) acres and is <u>not</u> located in one of the watersheds listed in Appendix C and <u>not</u> directly discharging to one of the 303(d) segments listed in Appendix E;
 - b. the construction of a single family home that involves a soil disturbance of one (1) or more acres of land but less than five (5) acres and is <u>not</u> located in one of the watersheds listed in Appendix C and <u>not</u> directly discharging to one of the 303(d) segments listed in Appendix E;
 - c. construction on agricultural property that involves a soil disturbance of one (1) or more acres of land but less than five (5) acres; and
 - d. construction activities located in the watersheds identified in Appendix D that involve soil disturbances between five thousand (5000) square feet and one (1) acre of land.
- 2. Unless otherwise notified by the Department, the *qualified inspector* shall conduct site inspections in accordance with the following timetable:
 - a. For construction sites where soil disturbance activities are on-going, the *qualified inspector* shall conduct a site inspection at least once every seven (7) calendar days.

(Part IV. C. 2)

- b. For construction sites where soil disturbance activities are on-going and the *owner or operator* has received authorization in accordance with Part II.C.3 to disturb greater than five (5) acres of soil at any one time, the *qualified inspector* shall conduct at least two (2) site inspections every seven (7) calendar days. The two (2) inspections shall be separated by a minimum of two (2) full calendar days.
- c. For construction sites where soil disturbance activities have been temporarily suspended (e.g. winter shutdown) and temporary stabilization measures have been applied to all disturbed areas, the *qualified inspector* shall conduct a site inspection at least once every thirty (30) calendar days. The *owner or operator* shall notify the Regional Office stormwater contact person (see contact information in Appendix F) or, in areas under the jurisdiction of a *regulated*, *traditional land use control MS4*, the MS4 (provided the MS4 is not the *owner or operator* of the construction activity) in writing prior to reducing the frequency of inspections.
- d. For construction sites where soil disturbance activities have been shut down with partial project completion, the qualified inspector can stop conducting inspections if all areas disturbed as of the project shutdown date have achieved *final stabilization* and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational. The owner or operator shall notify the Regional Office stormwater contact person (see contact information in Appendix F) or, in areas under the jurisdiction of a regulated, traditional land use control MS4, the MS4 (provided the MS4 is not the owner or operator of the construction activity). in writing prior to the shutdown. If soil disturbance activities are not resumed within 2 years from the date of shutdown, the owner or operator shall have the qualified inspector perform a final inspection and certify that all disturbed areas have achieved final stabilization, and all temporary, structural erosion and sediment control measures have been removed; and that all postconstruction stormwater management practices have been constructed in conformance with the SWPPP by signing the "Final Stabilization" and "Post-Construction Stormwater Management Practice" certification statements on the NOT. The owner or operator shall then submit the completed NOT form to the address in Part II.A.1..

(Part IV. C. 3)

- 3. At a minimum, the *qualified inspector* shall inspect all erosion and sediment control practices to ensure integrity and effectiveness, all post-construction stormwater management practices under construction to ensure that they are constructed in conformance with the SWPPP, all areas of disturbance that have not achieved *final stabilization*, all points of discharge to natural surface waterbodies located within, or immediately adjacent to, the property boundaries of the construction site, and all points of discharge from the construction site.
- 4. The *qualified inspector* shall prepare an inspection report subsequent to each and every inspection. At a minimum, the inspection report shall include and/or address the following:
 - a. Date and time of inspection;
 - b. Name and title of person(s) performing inspection;
 - c. A description of the weather and soil conditions (e.g. dry, wet, saturated) at the time of the inspection;
 - d. A description of the condition of the runoff at all points of discharge from the construction site. This shall include identification of any discharges of sediment from the construction site. Include discharges from conveyance systems (i.e. pipes, culverts, ditches, etc.) and overland flow;
 - e. A description of the condition of all natural surface waterbodies located within, or immediately adjacent to, the property boundaries of the construction site which receive runoff from disturbed areas. This shall include identification of any *discharges* of sediment to the surface waterbody;
 - f. Identification of all erosion and sediment control practices that need repair or maintenance;
 - g. Identification of all erosion and sediment control practices that were not installed properly or are not functioning as designed and need to be reinstalled or replaced;
 - h. Description and sketch of areas that are disturbed at the time of the inspection and areas that have been stabilized (temporary and/or final) since the last inspection;

(Part IV. C 4)

- i. Current phase of construction of all post-construction stormwater management practices and identification of all construction that is not in conformance with the SWPPP and technical standards;
- j. Corrective action(s) that must be taken to install, repair, replace or maintain erosion and sediment control practices; and to correct deficiencies identified with the construction of the post-construction stormwater management practice(s); and
- k. Digital photographs, with date stamp, that clearly show the condition of all practices that have been identified as needing corrective actions. The *qualified inspector* shall attach paper color copies of the digital photographs to the inspection report being maintained onsite within seven (7) calendar days of the date of the inspection. The *qualified inspector* shall also take digital photographs, with date stamp, that clearly show the condition of the practice(s) after the corrective action has been completed. The *qualified inspector* shall attach paper color copies of the digital photographs to the inspection report that documents the completion of the corrective action work within seven (7) calendar days of that inspection.
- 5. Within one business day of the completion of an inspection, the *qualified* inspector shall notify the owner or operator and appropriate contractor or subcontractor identified in Part III.A.6. of any corrective actions that need to be taken. The contractor or subcontractor shall begin implementing the corrective actions within one business day of this notification and shall complete the corrective actions in a reasonable time frame.
- 6. All inspection reports shall be signed by the *qualified inspector*. Pursuant to Part II.C.2., the inspection reports shall be maintained on site with the SWPPP.

Part V. TERMINATION OF PERMIT COVERAGE

A. Termination of Permit Coverage

- 1. An *owner or operator* that is eligible to terminate coverage under this permit must submit a completed NOT form to the address in Part Π.Α.1. The NOT form shall be one which is associated with this general permit, signed in accordance with Part VII.H.
- 2. An *owner or operator* may terminate coverage when one or more the following conditions have been met:

(Part V. A. 2)

- a. Total project completion All construction activity identified in the SWPPP has been completed; <u>and</u> all areas of disturbance have achieved *final stabilization*; <u>and</u> all temporary, structural erosion and sediment control measures have been removed; <u>and</u> all post-construction stormwater management practices have been constructed in conformance with the SWPPP and are operational;
- b. Planned shutdown with partial project completion All soil disturbance activities have ceased; <u>and</u> all areas disturbed as of the project shutdown date have achieved *final stabilization*; <u>and</u> all temporary, structural erosion and sediment control measures have been removed; <u>and</u> all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational;
- c. A new *owner or operator* has obtained coverage under this permit in accordance with Part II.E.
- 3. For construction activities meeting subdivision 2a. or 2b. of this Part, the owner or operator shall have the qualified inspector perform a final site inspection prior to submitting the NOT. The qualified inspector shall, by signing the "Final Stabilization" and "Post-Construction Stormwater Management Practice" certification statements on the NOT, certify that all disturbed areas have achieved final stabilization; and all temporary, structural erosion and sediment control measures have been removed; and that all post-construction stormwater management practices have been constructed in conformance with the SWPPP.
- 4. For construction activities that are subject to the requirements of a regulated, traditional land use control MS4 and meet subdivision 2a. or 2b. of this Part, the owner or operator shall also have the MS4 sign the "MS4 Acceptance" statement on the NOT. The owner or operator shall have the principal executive officer, ranking elected official, or duly authorized representative from the regulated, traditional land use control MS4, sign the "MS4 Acceptance" statement. The MS4 official, by signing this statement, has determined that it is acceptable for the owner or operator to submit the NOT in accordance with the requirements of this Part. The MS4 can make this determination by performing a final site inspection themselves or by accepting the qualified inspector's final site inspection certification(s) required in Part V.3.
- 5. For *construction activities* that require post-construction stormwater management practices and meet subdivision 2a. of this Part, the *owner or operator* must, prior to submitting the NOT, ensure one of the following:

(Part V. A. 5)

- a. the post-construction stormwater management practice(s) and any right-of-way(s) needed to maintain such practice(s) have been deeded to the municipality in which the practice(s) is located,
- b. an executed maintenance agreement is in place with the municipality that will maintain the post-construction stormwater management practice(s),
- c. for post-construction stormwater management practices that are privately owned, the *owner or operator* has modified their deed of record to include a deed covenant that requires operation and maintenance of the practice(s) in accordance with the operation and maintenance plan,
- d. for post-construction stormwater management practices that are owned by a public or private institution (e.g. school, college, university), or government agency or authority, the *owner or operator* has policy and procedures in place that ensures operation and maintenance of the practices in accordance with the operation and maintenance plan.

Part VI. REPORTING AND RETENTION OF RECORDS

- A. Record Retention The owner or operator shall retain a copy of the NOI, NOI Acknowledgment Letter, SWPPP, MS4 SWPPP Acceptance form and any inspection reports that were prepared in conjunction with this permit for a period of at least five (5) years from the date that the site achieves *final stabilization*. This period may be extended by the Department, in its sole discretion, at any time upon written notification.
- **B.** <u>Addresses</u> With the exception of the NOI, NOT, and MS4 SWPPP Acceptance form (which must be submitted to the address referenced in Part II.A.1), all written correspondence requested by the Department, including individual permit applications, shall be sent to the address of the appropriate Department Regional Office listed in Appendix F.

Part VII. STANDARD PERMIT CONDITIONS

A. <u>Duty to Comply</u> - The *owner or operator* must comply with all conditions of this permit. All contractors and subcontractors associated with the project must comply with the terms of the SWPPP. Any non-compliance with this permit constitutes a violation of the Clean Water Act (CWA) and the ECL and is grounds for an enforcement action against the *owner or operator* and/or the contractor/subcontractor; permit revocation, suspension or modification; or denial of a permit renewal application. Upon a finding of significant non-compliance with this permit or the applicable SWPPP, the Department may order an immediate stop to all *construction activity* at the site until the non-compliance is remedied.

(Part VII. A)

The stop work order shall be in writing, shall describe the non-compliance in detail, and shall be sent to the *owner or operator*.

- **B.** <u>Continuation of the Expired General Permit</u> This permit expires five (5) years from the effective date. However, coverage may be obtained under the expired general permit, which will continue in force and effect, until a new general permit is issued. Unless otherwise notified by the Department in writing, an *owner or operator* seeking authorization under the new general permit must submit a new NOI in accordance with the terms of such new general permit.
- C. <u>Enforcement</u> Failure of the *owner or operator*, its contractors, subcontractors, agents and/or assigns to strictly adhere to any of the permit requirements contained herein shall constitute a violation of this permit. There are substantial criminal, civil, and administrative penalties associated with violating the provisions of this permit. Fines of up to \$37,500 per day for each violation and imprisonment for up to fifteen (15) years may be assessed depending upon the nature and degree of the offense.
- **D.** Need to Halt or Reduce Activity Not a Defense It shall not be a defense for an *owner* or operator in an enforcement action that it would have been necessary to halt or reduce the *construction activity* in order to maintain compliance with the conditions of this permit.
- **E.** <u>Duty to Mitigate</u> The *owner or operator* and its contractors and subcontractors shall take all reasonable steps to minimize or prevent any *discharge* in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.
- **F.** <u>Duty to Provide Information</u> The *owner or operator* shall make available to the Department for review and copying or furnish to the Department within five (5) business days of receipt of a Department request for such information, any information requested for the purpose of determining compliance with this permit. This can include, but is not limited to, the NOI, NOI Acknowledgment Letter, SWPPP, MS4 SWPPP Acceptance form, executed maintenance agreement, and inspection reports. Failure to provide information requested by the Department within the request timeframe shall be a violation of this permit.
- The NOI, SWPPP and inspection reports required by this permit are public documents that the *owner or operator* must make available for review and copying by any person within five (5) business days of the *owner or operator* receiving a written request by any such person to review the NOI, SWPPP or inspection reports. Copying of documents will be done at the requester's expense.
- **G.** Other Information When the *owner or operator* becomes aware that they failed to submit any relevant facts, or submitted incorrect information in the NOI or in any other report, or have made substantive revisions to the SWPPP (e.g. the scope of the project changes significantly, the type of post-construction stormwater management practice(s)

(Part VII. G)

changes, there is a reduction in the sizing of the post-construction stormwater management practice, or there is an increase in the disturbance area or impervious area), which were not reflected in the original NOI submitted to the Department, they shall promptly submit such facts or information to the Department. Failure of the *owner or operator* to correct or supplement any relevant facts within five (5) business days of becoming aware of the deficiency shall constitute a violation of this permit.

H. Signatory Requirements

- 1. All NOIs and NOTs shall be signed as follows:
 - a. For a corporation these forms shall be signed by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:
 - a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation; or
 - ii. the manager of one or more manufacturing, production or operating facilities, provided the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;
 - b. For a partnership or sole proprietorship these forms shall be signed by a general partner or the proprietor, respectively; or
 - c. For a municipality, State, Federal, or other public agency these forms shall be signed by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes:
 - i. the chief executive officer of the agency, or

(Part VII. H. 1. c)

- ii. a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of EPA).
- 2. The SWPPP and other information requested by the Department shall be signed by a person described in Part VII.H.1. or by a duly authorized representative of that person. A person is a duly authorized representative only if:
 - a. The authorization is made in writing by a person described in Part VII.H.1.;
 - b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position) and,
 - c. The written authorization shall include the name, title and signature of the authorized representative and be attached to the SWPPP.
- 3. All inspection reports shall be signed by the *qualified inspector* that performs the inspection.
- 4. The MS4 SWPPP Acceptance form shall be signed by the principal executive officer or ranking elected official from the *regulated*, *traditional land use control MS4*, or by a duly authorized representative of that person.
 - It shall constitute a permit violation if an incorrect and/or improper signatory authorizes any required forms, SWPPP and/or inspection reports.
- I. <u>Property Rights</u> The issuance of this permit does not convey any property rights of any sort, nor any exclusive privileges, nor does it authorize any injury to private property nor any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations. *Owners or operators* must obtain any applicable conveyances, easements, licenses and/or access to real property prior to *commencing construction activity*.
- J. <u>Severability</u> The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit shall not be affected thereby.

(Part VII. K)

K. Denial of Coverage Under This Permit

- 1. At its sole discretion, the Department may require any owner or operator authorized by this permit to apply for and/or obtain either an individual SPDES permit or another SPDES general permit. When the Department requires any discharger authorized by a general permit to apply for an individual SPDES permit, it shall notify the discharger in writing that a permit application is required. This notice shall include a brief statement of the reasons for this decision, an application form, a statement setting a time frame for the owner or operator to file the application for an individual SPDES permit, and a deadline, not sooner than 180 days from owner or operator receipt of the notification letter, whereby the authorization to discharge under this general permit shall be terminated. Applications must be submitted to the appropriate Regional Office. The Department may grant additional time upon demonstration, to the satisfaction of the Regional Water Engineer, that additional time to apply for an alternative authorization is necessary or where the Department has not provided a permit determination in accordance with Part 621 of this Title.
- 2. Any owner or operator authorized by this permit may request to be excluded from the coverage under this permit by applying for an individual permit or another general permit. In such cases, the owner or operator shall submit an individual application or an alternative general permit application in accordance with the requirements of this general permit, 40 CFR 122.26(c)(1)(ii) and 6 NYCRR Part 621, with reasons supporting the request, to the Department at the address for the appropriate Department Office (see addresses in Appendix F). The request may be granted by issuance of an individual permit or another general permit at the discretion of the Department.
- 3. When an individual SPDES permit is issued to a discharger authorized to discharge under a general SPDES permit for the same discharge(s), the general permit authorization for outfalls authorized under the individual SPDES permit is automatically terminated on the effective date of the individual permit unless termination is earlier in accordance with 6 NYCRR Part 750.
- **L.** <u>Proper Operation and Maintenance</u> The *owner or operator* shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the *owner or operator* to achieve compliance with the conditions of this permit and with the requirements of the SWPPP.
- M. <u>Inspection and Entry</u> The *owner or operator* shall allow the Department or an authorized representative of EPA, the State, or, in the case of a construction site which discharges through an *MS4*, an authorized representative of the *MS4* receiving the discharge, upon the presentation of credentials and other documents as may be required by law, to:

(Part VII. M)

- 1. Enter upon the *owner's or operator's* premises where a regulated facility or activity is located or conducted or where records must be kept under the conditions of this permit;
- 2. Have access to and copy at reasonable times, any records that must be kept under the conditions of this permit; and
- 3. Inspect at reasonable times any facilities or equipment (including monitoring and control equipment).
- N. <u>Permit Actions</u> At the Department's sole discretion, this permit may, at any time, be modified, suspended, revoked, or renewed. The filing of a request by the *owner or operator* for a permit modification, revocation and reissuance, termination, a notification of planned changes or anticipated noncompliance does not limit, diminish and/or stay compliance with any terms of this permit.
- O. <u>Definitions</u> Definitions of key terms are included in Appendix A of this permit.

P. Re-Opener Clause

- 1. If there is evidence indicating potential or realized impacts on water quality due to any stormwater discharge associated with *construction activity* covered by this permit, the *owner or operator* of such discharge may be required to obtain an individual permit or alternative general permit in accordance with Part VII.K. of this permit or the permit may be modified to include different limitations and/or requirements.
- 2. Permit modification, suspension or revocation will be conducted in accordance with 6 NYCRR Part 621, 6 NYCRR 750-1.18, and 6 NYCRR 750-1.20.
- Q. <u>Penalties for Falsification of Forms and Reports</u> Article 17 of the ECL provides for a civil penalty of \$37,500 per day per violation of this permit. Articles 175 and 210 of the New York State Penal Law provide for a criminal penalty of a fine and/or imprisonment for falsifying forms and reports required by this permit.
- R. Other Permits Nothing in this permit relieves the owner or operator from a requirement to obtain any other permits required by law.

APPENDIX A

Definitions

Alter Hydrology from Pre to Post-Development Conditions - means the post-development peak flow rate(s) has increased by more than 5% of the pre-developed condition for the design storm of interest (e.g. 10 yr and 100 yr).

Combined Sewer - means a sewer that is designed to collect and convey both "sewage" and "stormwater".

Commence (Commencement of) Construction Activities - means the initial disturbance of soils associated with clearing, grading or excavation activities; or other construction related activities that disturb or expose soils such as demolition, stockpiling of fill material, and the initial installation of erosion and sediment control practices required in the SWPPP. See definition for "Construction Activity(ies)" also.

Construction Activity(ies) - means any clearing, grading, excavation, filling, demolition or stockpiling activities that result in soil disturbance. Clearing activities can include, but are not limited to, logging equipment operation, the cutting and skidding of trees, stump removal and/or brush root removal. Construction activity does not include routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of a facility.

Direct Discharge (to a specific surface waterbody) - means that runoff flows from a construction site by overland flow and the first point of discharge is the specific surface waterbody, or runoff flows from a construction site to a separate storm sewer system and the first point of discharge from the separate storm sewer system is the specific surface waterbody.

Discharge(s) - means any addition of any pollutant to waters of the State through an outlet or point source.

Environmental Conservation Law (ECL) - means chapter 43-B of the Consolidated Laws of the State of New York, entitled the Environmental Conservation Law.

Final Stabilization - means that all soil disturbance activities have ceased and a uniform, perennial vegetative cover with a density of eighty (80) percent over the entire pervious surface has been established; or other equivalent stabilization measures, such as permanent landscape mulches, rock rip-rap or washed/crushed stone have been applied on all disturbed areas that are not covered by permanent structures, concrete or pavement.

General SPDES permit - means a SPDES permit issued pursuant to 6 NYCRR Part 750-1.21 authorizing a category of discharges.

Groundwater - means waters in the saturated zone. The saturated zone is a subsurface zone in

which all the interstices are filled with water under pressure greater than that of the atmosphere. Although the zone may contain gas-filled interstices or interstices filled with fluids other than water, it is still considered saturated.

Impervious Area (Cover) - means all impermeable surfaces that cannot effectively infiltrate rainfall. This includes paved, concrete and gravel surfaces (i.e. parking lots, driveways, roads, runways and sidewalks); building rooftops and miscellaneous impermeable structures such as patios, pools, and sheds.

Larger Common Plan of Development or Sale - means a contiguous area where multiple separate and distinct construction activities are occurring, or will occur, under one plan. The term "plan" in "larger common plan of development or sale" is broadly defined as any announcement or piece of documentation (including a sign, public notice or hearing, marketing plan, advertisement, drawing, permit application, State Environmental Quality Review Act (SEQRA) application, zoning request, computer design, etc.) or physical demarcation (including boundary signs, lot stakes, surveyor markings, etc.) indicating that construction activities may occur on a specific plot.

For discrete construction projects that are located within a larger common plan of development or sale that are at least 1/4 mile apart, each project can be treated as a separate plan of development or sale provided any interconnecting road, pipeline or utility project that is part of the same "common plan" is not concurrently being disturbed.

Municipal Separate Storm Sewer (MS4) - a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains):

- i. Owned or operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to surface waters of the State;
- ii. Designed or used for collecting or conveying stormwater;
- iii. Which is not a combined sewer; and
- iv. Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2.

National Pollutant Discharge Elimination System (NPDES) - means the national system for the issuance of wastewater and stormwater permits under the Federal Water Pollution Control Act (Clean Water Act).

NOI Acknowledgment Letter - means the letter that the Department sends to an owner or operator to acknowledge the Department's receipt and acceptance of a complete Notice of Intent. This letter documents the owner's or operator's authorization to discharge in accordance with the general permit for stormwater discharges from construction activity.

Owner or Operator - means the person, persons or legal entity which owns or leases the property on which the construction activity is occurring; and/or an entity that has operational control over the construction plans and specifications, including the ability to make modifications to the plans and specifications.

Pollutant - means dredged spoil, filter backwash, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand and industrial, municipal, agricultural waste and ballast discharged into water; which may cause or might reasonably be expected to cause pollution of the waters of the state in contravention of the standards or guidance values adopted as provided in Parts 700 et seq of this Title.

Qualified Inspector - means a person that is knowledgeable in the principles and practices of erosion and sediment control, such as a licensed Professional Engineer, Certified Professional in Erosion and Sediment Control (CPESC), Registered Landscape Architect, or other Department endorsed individual(s).

It can also mean someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided that person has training in the principles and practices of erosion and sediment control. Training in the principles and practices of erosion and sediment control means that the individual working under the direct supervision of the licensed Professional Engineer or Registered Landscape Architect has received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity. After receiving the initial training, the individual working under the direct supervision of the licensed Professional Engineer or Registered Landscape Architect shall receive four (4) hours of training every three (3) years.

It can also mean a person that meets the *Qualified Professional* qualifications in addition to the *Qualified Inspector* qualifications.

Note: Inspections of any post-construction stormwater management practices that include structural components, such as a dam for an impoundment, shall be performed by a licensed Professional Engineer.

Qualified Professional - means a person that is knowledgeable in the principles and practices of stormwater management and treatment, such as a licensed Professional Engineer, Registered Landscape Architect or other Department endorsed individual(s). Individuals preparing SWPPPs that require the post-construction stormwater management practice component must have an understanding of the principles of hydrology, water quality management practice design, water quantity control design, and, in many cases, the principles of hydraulics in order to prepare a SWPPP that conforms to the Department's technical standard. All components of the SWPPP that involve the practice of engineering, as defined by the NYS Education Law (see Article 145), shall be prepared by, or under the direct supervision of, a professional engineer licensed to practice in the State of New York.

Regulated, Traditional Land Use Control MS4 - means a city, town or village with land use control authority that is required to gain coverage under New York State DEC's SPDES General Permit For Stormwater Discharges from Municipal Separate Stormwater Sewer Systems (MS4s).

Routine Maintenance Activity - means construction activity that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of a facility, including, but not limited to:

- Re-grading of gravel roads or parking lots,
- Stream bank restoration projects (does not include the placement of spoil material),
- Cleaning and shaping of existing roadside ditches and culverts that maintains the approximate original line and grade, and hydraulic capacity of the ditch,
- Cleaning and shaping of existing roadside ditches that does not maintain the approximate original grade, hydraulic capacity and purpose of the ditch if the changes to the line and grade, hydraulic capacity or purpose of the ditch are installed to improve water quality and quantity controls (e.g. installing grass lined ditch),
- Placement of aggregate shoulder backing that makes the transition between the road shoulder and the ditch or embankment,
- Full depth milling and filling of existing asphalt pavements, replacement of concrete pavement slabs, and similar work that does not expose soil or disturb the bottom six (6) inches of subbase material,
- Long-term use of equipment storage areas at or near highway maintenance facilities,
- Removal of sediment from the edge of the highway to restore a previously existing sheet-flow drainage connection from the highway surface to the highway ditch or embankment,
- Existing use of Canal Corp owned upland disposal sites for the canal, and
- Replacement of curbs, gutters, sidewalks and guide rail posts.

State Pollutant Discharge Elimination System (SPDES) - means the system established pursuant to Article 17 of the ECL and 6 NYCRR Part 750 for issuance of permits authorizing discharges to the waters of the state.

Surface Waters of the State - shall be construed to include lakes, bays, sounds, ponds, impounding reservoirs, springs, rivers, streams, creeks, estuaries, marshes, inlets, canals, the Atlantic ocean within the territorial seas of the state of New York and all other bodies of surface water, natural or artificial, inland or coastal, fresh or salt, public or private (except those private waters that do not combine or effect a junction with natural surface or underground waters), which are wholly or partially within or bordering the state or within its jurisdiction. Waters of the state are further defined in 6 NYCRR Parts 800 to 941.

Temporary Stabilization - means that exposed soil has been covered with material(s) as set forth in the technical standard, New York Standards and Specifications for Erosion and Sediment Control, to prevent the exposed soil from eroding. The materials can include, but are not limited to, mulch, seed and mulch, and erosion control mats (e.g. jute twisted yarn, excelsior wood fiber mats).

Total Maximum Daily Loads (TMDLs) - A TMDL is the sum of the allowable loads of a single pollutant from all contributing point and nonpoint sources. It is a calculation of the maximum amount of a pollutant that a waterbody can receive on a daily basis and still meet water quality standards, and an allocation of that amount to the pollutant's sources. A TMDL stipulates wasteload allocations (WLAs) for point source discharges, load allocations (LAs) for nonpoint sources, and a margin of safety (MOS).

Trained Contractor - means an employee from the contracting (construction) company, identified in Part III.A.6., that has received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity. After receiving the initial training, the *trained contractor* shall receive four (4) hours of training every three (3) years.

It can also mean an employee from the contracting (construction) company, identified in Part III.A.6., that meets the *qualified inspector* qualifications (e.g. licensed Professional Engineer, Certified Professional in Erosion and Sediment Control (CPESC), Registered Landscape Architect, or someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided they have received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity).

The trained contractor will be responsible for the day to day implementation of the SWPPP.

Uniform Procedures Act (UPA) Permit - means a permit required under 6 NYCRR Part 621 of the Environmental Conservation Law (ECL), Article 70.

Water Quality Standard - means such measures of purity or quality for any waters in relation to their reasonable and necessary use as promulgated in 6 NYCRR Part 700 et seq.

APPENDIX B

Required SWPPP Components by Project Type

Table 1

CONSTRUCTION ACTIVITIES THAT REQUIRE THE PREPARATION OF A SWPPP THAT ONLY INCLUDES EROSION AND SEDIMENT CONTROLS

The following construction activities that involve soil disturbances of one (1) or more acres of land, but less than five (5) acres:

- Single family home <u>not</u> located in one of the watersheds listed in Appendix C and <u>not</u> <u>directly</u> <u>discharging</u> to one of the 303(d) segments listed in Appendix E
- Single family residential subdivisions with 25% or less impervious cover at total site build-out and <u>not</u> located in one of the watersheds listed in Appendix C and <u>not</u> directly discharging to one of the 303(d) segments listed in Appendix E
- Construction of a barn or other agricultural building, silo, stock yard or pen.

The following construction activities that involve soil disturbances of one (1) or more acres of land:

- Installation of underground, linear utilities; such as gas lines, fiber-optic cable, cable TV, electric, telephone, sewer mains, and water mains
- Environmental enhancement projects, such as wetland mitigation projects, stormwater retrofits and stream restoration projects
- · Bike paths and trails
- Sidewalk construction projects that are not part of a road/ highway construction or reconstruction project
- Slope stabilization projects
- Slope flattening that changes the grade of the site, but does not significantly change the runoff characteristics
- Spoil areas that will be covered with vegetation
- Land clearing and grading for the purposes of creating vegetated open space (i.e. recreational
 parks, lawns, meadows, fields), excluding projects that alter hydrology from pre to post
 development conditions
- Athletic fields (natural grass) that do not include the construction or reconstruction of impervious area and do not alter hydrology from pre to post development conditions
- Demolition project where vegetation will be established and no redevelopment is planned
- Overhead electric transmission line project that does not include the construction of permanent access roads or parking areas surfaced with *impervious cover*
- Structural practices as identified in Table II in the "Agricultural Management Practices Catalog
 for Nonpoint Source Pollution in New York State", excluding projects that involve soil
 disturbances of less than five acres and construction activities that include the construction or
 reconstruction of impervious area

The following construction activities that involve soil disturbances between five thousand (5000) square feet and one (1) acre of land:

 All construction activities located in the watersheds identified in Appendix D that involve soil disturbances between five thousand (5000) square feet and one (1) acre of land.

Table 2

CONSTRUCTION ACTIVITIES THAT REQUIRE THE PREPARATION OF A SWPPP THAT INCLUDES POST-CONSTRUCTION STORMWATER MANAGEMENT PRACTICES

The following construction activities that involve soil disturbances of one (1) or more acres of land:

- Single family home located in one of the watersheds listed in Appendix C or directly discharging to one of the 303(d) segments listed in Appendix E
- Single family residential subdivisions located in one of the watersheds listed in Appendix C or directly discharging to one of the 303(d) segments listed in Appendix E
- Single family residential subdivisions that involve soil disturbances of between one (1) and five (5) acres of land with greater than 25% impervious cover at total site build-out
- Single family residential subdivisions that involve soil disturbances of five (5) or more acres of land, and single family residential subdivisions that involve soil disturbances of less than five (5) acres that are part of a larger common plan of development or sale that will ultimately disturb five or more acres of land
- Multi-family residential developments; includes townhomes, condominiums, senior housing complexes, apartment complexes, and mobile home parks
- Airports
- Amusement parks
- Campgrounds
- Cemeteries that include the construction or reconstruction of impervious area (>5% of disturbed area) or alter the hydrology from pre to post development conditions
- Commercial developments
- Churches and other places of worship
- Construction of a barn or other agricultural building(e.g. silo) and structural practices as identified in Table II in the "Agricultural Management Practices Catalog for Nonpoint Source Pollution in New York State" that include the construction or reconstruction of *impervious area*, excluding projects that involve soil disturbances of less than five acres.
- Golf courses
- Institutional, includes hospitals, prisons, schools and colleges
- Industrial facilities, includes industrial parks
- Landfills
- Municipal facilities; includes highway garages, transfer stations, office buildings, POTW's and water treatment plants
- Office complexes
- Sports complexes
- Racetracks, includes racetracks with earthen (dirt) surface
- Road construction or reconstruction
- Parking lot construction or reconstruction
- Athletic fields (natural grass) that include the construction or reconstruction of impervious area (>5% of disturbed area) or alter the hydrology from pre to post development conditions
- Athletic fields with artificial turf
- Permanent access roads, parking areas, substations, compressor stations and well drilling pads, surfaced with *impervious cover*, and constructed as part of an over-head electric transmission line project, wind-power project, cell tower project, oil or gas well drilling project or other linear utility project
- All other construction activities that include the construction or reconstruction of *impervious area*and alter the hydrology from pre to post development conditions, and are not listed in Table 1

APPENDIX C

Watersheds Where Enhanced Phosphorus Removal Standards Are Required

- twister in a community and in this appropriate instruction of the contract of the original interesting of the

Watersheds where owners or operators of construction activities identified in Table 2 of Appendix B must prepare a SWPPP that includes post-construction stormwater management practices designed in conformance with the Enhanced Phosphorus Removal Standards included in the technical standard, New York State Stormwater Management Design Manual ("Design Manual").

- Entire New York City Watershed located east of the Hudson River Figure 1
- Onondaga Lake Watershed Figure 2
- Greenwood Lake Watershed -Figure 3
- Oscawana Lake Watershed Figure 4

Figure 1 - New York City Watershed East of the Hudson

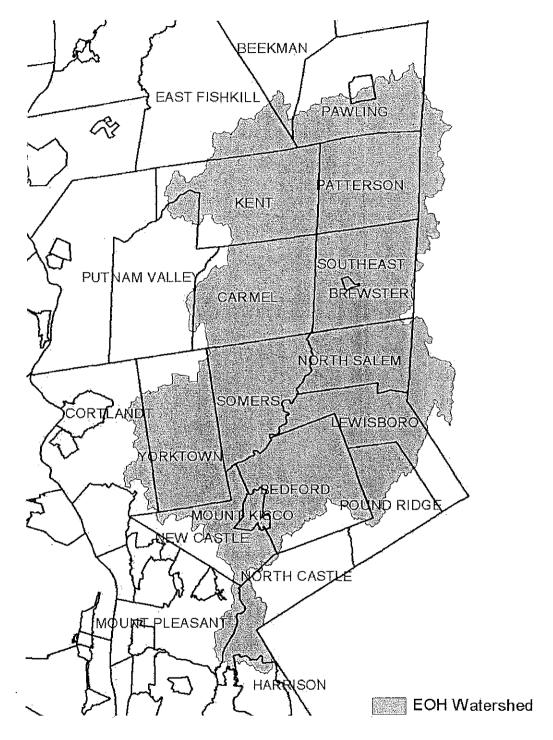


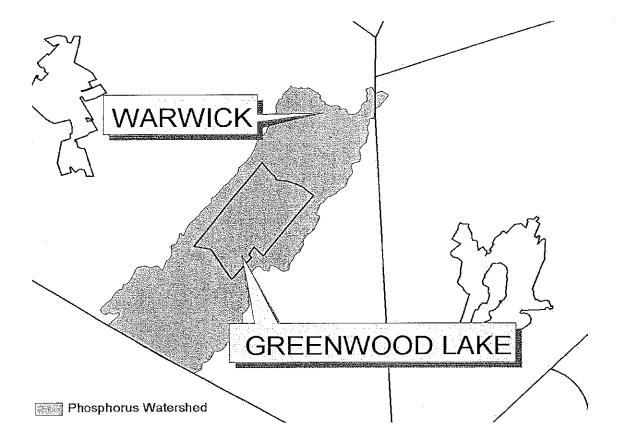
Figure 2 - Onondaga Lake Watershed CLAY CICERO NORTH SYRAGUSE VAN BUREN LIVERPOOL SALINA MANDUS EAST SYRACUSE ¢AMโล้ใบร ELBRIDGE SYRACUŞE DEWITT MARGELLUS SKANEATELES ONONDAGA LAFAYET)E OTISCO SPAFFORD. TULLY Phosphorus Watershed

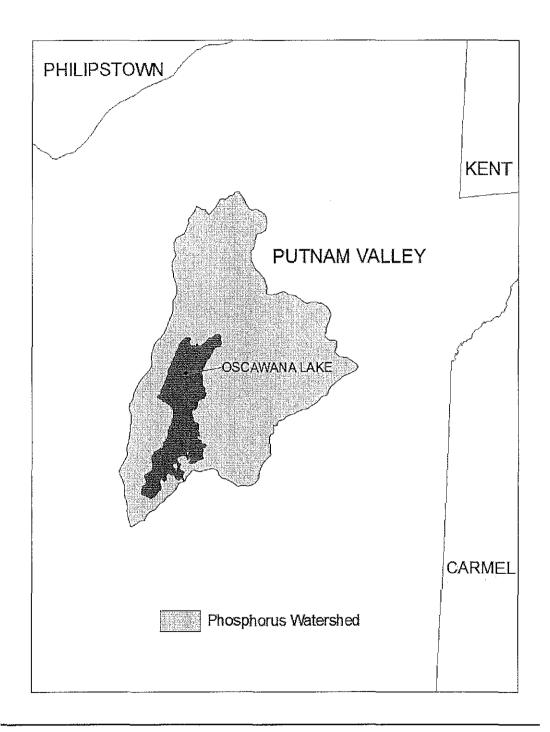
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Figure 3 - Greenwood Lake Watershed





APPENDIX D

Watersheds where owners or operators of construction activities that involve soil disturbances between five thousand (5000) square feet and one (1) acre of land must obtain coverage under this permit.

Entire New York City Watershed that is located east of the Hudson River - See Figure 1 in Appendix C

APPENDIX E

List of 303(d) segments impaired by pollutants related to construction activity (e.g. silt, sediment or nutrients). Owners or operators of single family home and single family residential subdivision construction activities that involve soil disturbances of one or more acres of land, but less than 5 acres, and directly discharge to one of the listed segments below shall prepare a SWPPP that includes post-construction stormwater management practices designed in conformance with the most current version of the technical standard, New York State Stormwater Management Design Manual ("Design Manual").

Transferration of the state of

COUNTY	WATERBODY	COUNTY	WATERBODY
Albany	Ann Lee (Shakers) Pond, Stump Pond	Monroe	Genesee River, Lower, Main Stem
Albany	Basic Creek Reservoir	Monroe	Genesee River, Middle, Main Stem
Bronx	Van Cortlandt Lake	Monroe	Black Creek, Lower, and minor tribs
Broome	Whitney Point Lake/Reservoir	Monroe	Buck Pond
Broome	Beaver Lake	Monroe	Long Pond
Broome	White Birch Lake	Monroe	Cranberry Pond
Chautaugua	Chautauqua Lake, North	Monroe ·	Mill Creek and tribs
Chautauqua	Chautauqua Lake, South	Monroe	Shipbuilders Creek and tribs
Chautaugua	Bear Lake	Monroe	Minor tribs to Irondequoit Bay
Chautauqua	Chadakoin River and tribs	Monroe	Thomas Creek/White Brook and tribs
Chautauqua	Lower Cassadaga Lake	Nassau	Glen Cove Creek, Lower, and tribs
Chautauqua	Middle Cassadaga Lake	Nassau	LI Tribs (fresh) to East Bay
Chautauqua Chautauqua	Findley Lake	Nassau	East Meadow Brook, Upper, and tribs
Clinton	Great Chazy River, Lower, Main Stem	Nassau	Hempstead Bay
Columbia	Kinderhook Lake	Nassau	Hempstead Lake
Columbia	Robinson Pond	Nassau	Grant Park Pond
Dutchess	Hillside Lake	Niagara	Bergholtz Creek and tribs
Dutchess	Wappinger Lakes	Oneida	Ballou, Nail Creeks
Dutchess	Fall Kill and tribs	Onondaga	Ley Creek and tribs
Dutchess	Rudd Pond	Onondaga	Onondaga Creek, Lower and tribs
Erie	Rush Creek and tribs	Onondaga	Onondaga creek, Middle and tribs
Erie	Ellicott Creek, Lower, and tribs	Onondaga	Onondaga Creek, Upper, and minor tribs
Erie	Beeman Creek and tribs	Onondaga	Harbor Brook, Lower, and tribs
Erie	Murder Creek, Lower, and tribs	Onondaga	Ninemile Creek, Lower, and tribs
Erie	South Branch Smoke Cr, Lower, and tribs	Onondaga	Minor tribs to Onondaga Lake
Erie	Little Sister Creek, Lower, and tribs	Ontario	Honeoye Lake
Essex	Lake George (primary county listed as Warren)	Ontario	Hemlock Lake Outlet and minor tribs
Genesee	Black Creek, Upper, and minor tribs	Ontario	Great Brook and minor tribs
Genesee	Tonawanda Creek, Middle, Main Stem	Oswego	Lake Neatahwanta
Genesee	Tonawanda Creek, Upper, and minor tribs	Putnam	Oscawana Lake
Genesee	Little Tonawanda Creek, Lower, and tribs	Putnam	Lake Carmel
Genesee	Oak Orchard Creek, Upper, and tribs	Queens	Jamaica Bay, Eastern, and tribs (Queens)
Genesee	Bowen Brook and tribs	Queens	Bergen Basin
Genesee	Bigelow Creek and tribs	Queens	Shellbank Basin
Greene	Schoharie Reservoir	Rensselaer	Snyders Lake
Greene	Sleepy Hollow Lake	Richmond	Grasmere, Arbutus and Wolfes Lakes
Herkimer	Steele Creek tribs	Saratoga	Dwaas Kill and tribs
Kings	Hendrix Creek	Saratoga	Tribs to Lake Lonely
Lewis	Mill Creek/South Branch and tribs	Saratoga	Lake Lonely
Livingston	Conesus Lake	Saratoga	Schuyler Creek and tribs
Livingston	Jay cox Creek and tribs	Schenectady	Collins Lake
Livingston	Mill Creek and minor tribs		

List of 303(d) segments impaired by pollutants related to construction activity, cont'd.

APPENDIX E

COUNTY	WATERBODY	COUNTY	WATERBODY
Schoharie	Engleville Pond		
Schoharie	Summit Lake		
St. Lawrence	Black Lake Outlet/Black Lake		
Steuben	Lake Salubria		
Steuben	Smith Pond		,
Suffolk	Millers Pond		
Suffolk	Mattituck (Marratooka) Pond		
Suffolk	Tidal tribs to West Moriches Bay		
Suffolk	Canaan Lake		
Suffolk	Lake Ronkonkoma		
Tompkins	Cayuga Lake, Southern End		
Tompkins	Owasco Inlet, Upper, and tribs		
Ulster	Ashokan Reservoir		
Ulster	Esopus Creek, Upper, and minor tribs		•
Warren	Lake George		
Warren	Tribs to L.George, Village of L George		
Warren	Huddle/Finkle Brooks and tribs	,	
Warren	Indian Brook and tribs		
Warren	Hague Brook and tribs		
Washington	Tribs to L.George, East Shore of Lake George		
Washington	Cossayuna Lake		
Wayne	Port Bay		
Wayne	Marbletown Creek and tribs		
Westchester	Peach Lake	İ	
Westchester	Mamaroneck River, Lower		
Westchester	Mamaroneck River, Upper, and minor tribs	•	
Westchester	Sheldrake River and tribs		
Westchester	Blind Brook, Lower		
Westchester	Blind Brook, Upper, and tribs		
Westchester	Lake Lincolndale		
Westchester	Lake Meahaugh		
Wyoming	Java Lake	ļ	
Wyoming	Silver Lake		

Note: The list above identifies those waters from the final New York State "2008 Section 303(d) List of Impaired Waters Requiring a TMDL/Other Strategy", dated May 26, 2008, that are impaired by silt, sediment or nutrients.

APPENDIX F

LIST OF NYS DEC REGIONAL OFFICES

THE COURSE OF THE PROPERTY OF

Region	COVERING THE FOLLOWING COUNTIES:	DIVISION OF ENVIRONMENTAL PERMITS (DEP) PERMIT ADMINISTRATORS	DIVISION OF WATER (DOW) WATER (SPDES) PROGRAM
1	NASSAU AND SUFFOLK	50 CIRCLE ROAD STONY BROOK, NY 11790 TEL. (631) 444-0365	50 CIRCLE ROAD STONY BROOK, NY 11790-3409 TEL. (631) 444-0405
2	BRONX, KINGS, NEW YORK, QUEENS AND RICHMOND	1 Hunters Point Plaza, 47-40 21st St. Long Island City, Ny 11101-5407 Tel. (718) 482-4997	1 HUNTERS POINT PLAZA, 47-40 21st St. LONG ISLAND CITY, NY 11101-5407 TEL. (718) 482-4933
3	DUTCHESS, ORANGE, PUTNAM, ROCKLAND, SULLIVAN, ULSTER AND WESTCHESTER	21 SOUTH PUTT CORNERS ROAD NEW PALITZ, NY 12561-1696 TEL. (845) 256-3059	100 HILLSIDE AVENUE, SUITE 1W WHITE PLAINS, NY 10603 TEL. (914) 428 - 2505
4	ALBANY, COLUMBIA, DELAWARE, GREENE, MONTGOMERY, OTSEGO, RENSSELAER, SCHENECTADY AND SCHOHARIE	1150 NORTH WESTCOTT ROAD SCHENECTADY, NY 12306-2014 Tel. (518) 357-2069	1130 NORTH WESTCOTT ROAD SCHENECTADY, NY 12306-2014 TEL. (518) 357-2045
5	CLINTON, ESSEX, FRANKLIN, FULTON, HAMILTON, SARATOGA, WARREN AND WASHINGTON	1115 STATE ROUTE 86, PO BOX 296 RAY BROOK, NY 12977-0296 TEL. (518) 897-1234	232 GOLF COURSE ROAD, PO BOX 220 WARRENSBURG, NY 12885-0220 TEL. (518) 623-1200
6	HERKIMER, JEFFERSON, LEWIS, ONEIDA AND ST. LAWRENCE	STATE OFFICE BUILDING 317 WASHINGTON STREET WATERTOWN, NY 13601-3787 TEL. (315) 785-2245	STATE OFFICE BUILDING 207 GENESEE STREET UTICA, NY 13501-2885 TEL. (315) 793-2554
7	BROOME, CAYUGA, CHENANGO, CORTLAND, MADISON, ONONDAGA, OSWEGO, TIOGA AND TOMPKINS	615 ERIE BLVD. WEST SYRACUSE, NY 13204-2400 TEL. (315) 426-7438	615 ERIE BLVD. WEST SYRACUSE, NY 13204-2400 TEL. (315) 426-7500
8	CHEMUNG, GENESEE, LIVINGSTON, MONROE, ONTARIO, ORLEANS, SCHUYLER, SENECA, STEUBEN, WAYNE AND YATES	6274 EAST AVON-LIMA ROAD AVON, NY 14414-9519 TEL. (585) 226-2466	6274 EAST AVON-LIMA RD. AVON, NY 14414-9519 TEL. (585) 226-2466
9	ALLEGANY, CATTARAUGUS, CHAUTAUQUA, ERIE, NIAGARA AND WYOMING	270 MICHIGAN AVENUE BUFFALO, NY 14203-2999 TEL. (716) 851-7165	270 MICHIGAN AVE. BUFFALO, NY 14203-2999 TEL. (716) 851-7070

APPENDIX F TERMINATION OF PERMIT COVERAGE BLANK NOTICE OF TERMINATION (NOT) FORM

SECTION OF THE CONTROL OF THE PROPERTY OF THE

THE FOLLOWING CHECK LIST SHALL BE COMPLETED BY THE OPERATOR AT THE TIME OF TERMINATION OF PERMIT COVERAGE, AND RECORDS MAINTAINED WITHIN APPENDIX M OF THIS SWPPP.

- 1. SUBMIT COMPLETED NOT TO DEC (INSERT UPON TERMINATION OF PERMIT COVERAGE)
- 2. NOTICE OF TERMINATION REQUIREMENT (INSERT UPON TERMINATION OF PERMIT COVERAGE)
 - a. PLANNED SHUTDOWN WITH PARTIAL PROJECT COMPLETION
 - b. NEW OWNER OR OPERATOR
- 3. INSPECTOR PERFORMS FINAL SITE INSPECTION FOR COMPLETED POST-CONSTRUCTION STORMWATER PRACTICES AND FINAL STABILIZATION. (INSERT FINAL INSPECTION FORMS APON TERMINATION OF PERMIT COVERAGE)
- 4.OWNER OPPERATOR ENSURES THE FOLLOWING:
 - a. POST CONSTRUCTION RIGHTS OF WAY NEEDED FOR O&M HAVE BEEN DEEDED TO MUNICIPALITY OR HOME OWNERS ASSOCIATION.
 (INSERT DEED INFORMATION UPON RECIPT)
 - b. EXECUTED MAINTENANCE AGREEMENT WITH MUNICIPALITY OR HOME OWNERS ASSOCIATION IN PLACE.

 (INSERT COPY OF AGREEMENT UPON RECIPT)
 - c. OWNER HAS DEED RESTRICTION FOR O&M OF PRIVATELY OWNED STORMWATER MANAGEMENT PRACTICES (INSERT DEED INFORMATION UPON RECIPT)
 - d. O&M PROCEDURES IN PLACE FOR STORMWATER MANAGEMENT PRACTICES OWNED BY PUBLIC /PRIVATE INSTITUTION



New York State Department of Environmental Conservation Division of Water 625 Broadway, 4th Floor Albany, New York 12233-3505

Albany, New York 12233-3505
(NOTE: Submit completed form to address above)

NOTICE OF TERMINATION for Storm Water Discharges Authorized under the SPDES General Permit for Construction Activity

Please indicate your permit identification number: NYR					
I. Owner or Operator Information					
1. Owner/Operator Name:					
2. Street Address:					
3. City/State/Zip:					
4. Contact Person:	4a.Telephone:				
5. Contact Person E-Mail:	· · · · · · · · · · · · · · · · · · ·				
II. Project Site Information					
5. Project/Site Name:					
6. Street Address:					
7. City/Zip:					
8. County:					
III. Reason for Termination					
9a. ☐ All disturbed areas have achieved final stabilization in accordanc *Date final stabilization completed (month/year):	e with the general permit and SWPPP.				
9b. Permit coverage has been transferred to new owner/operator. Indicate new owner/operator's permit identification number: NYR (Note: Permit coverage can not be terminated by owner identified in I.1. above until new owner/operator obtains coverage under the general permit)					
9c. □ Other (Explain on Page 2)					
IV. Final Site Information:					
10a. Did this construction activity require the development of a SWPPP that includes post-construction stormwater management practices? □ yes □ no (If no, go to question 10f.)					
10b. Have all post-construction stormwater management practices included in the final SWPPP been constructed? ☐ yes ☐ no (If no, explain on Page 2)					
10c. Identify the entity responsible for long-term operation and mainten	ance of practice(s)?				

NOTICE OF TERMINATION for Storm Water Discharges Authorized under the SPDES General Permit for Construction Activity - continued 10d. Has the entity responsible for long-term operation and maintenance been given a copy of the operation and maintenance plan required by the general permit? \square yes \square no 10e. Indicate the method used to ensure long-term operation and maintenance of the post-construction stormwater management practice(s): ☐ Post-construction stormwater management practice(s) and any right-of-way(s) needed to maintain practice(s) have been deeded to the municipality. ☐ Executed maintenance agreement is in place with the municipality that will maintain the post-construction stormwater management practice(s). ☐ For post-construction stormwater management practices that are privately owned, the deed of record has been modified to include a deed covenant that requires operation and maintenance of the practice(s) in accordance with the operation and maintenance plan. ☐ For post-construction stormwater management practices that are owned by a public or private institution (e.g. school, college, university), or government agency or authority, policy and procedures are in place that ensures operation and maintenance of the practice(s) in accordance with the operation and maintenance plan. 10f. Provide the total area of impervious surface (i.e. roof, pavement, concrete, gravel, etc.) constructed within the disturbance area? (acres) 11. Is this project subject to the requirements of a regulated, traditional land use control MS4? \Box yes \Box no (If Yes, complete section VI - "MS4 Acceptance" statement V. Additional Information/Explanation: (Use this section to answer questions 9c. and 10b., if applicable) VI. MS4 Acceptance - MS4 Official (principal executive officer or ranking elected official) or Duly Authorized Representative (Note: Not required when 9b. is checked -transfer of coverage) I have determined that it is acceptable for the owner or operator of the construction project identified in question 5 to submit the Notice of Termination at this time. Printed Name: Title/Position: Signature: Date:

현실 통통통하는 아이들이 되는 사람들은 바로 하는 것이 되는 사람들이 되었다. 그 그 사람들은 사람들이 되었다는 사람들이 되었다. 그 그 사람들은 사람들이 되었다. 그 그 사람들은 사람들이 되었다.

NOTICE OF TERMINATION for Storm Water Discharges Authorized under the SPDES General Permit for Construction Activity - continued VII. Qualified Inspector Certification - Final Stabilization: I hereby certify that all disturbed areas have achieved final stabilization as defined in the current version of the general permit, and that all temporary, structural erosion and sediment control measures have been removed. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of the referenced permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings. Printed Name: Title/Position: Signature: Date: VIII. Qualified Inspector Certification - Post-construction Stormwater Management Practice(s): I hereby certify that all post-construction stormwater management practices have been constructed in conformance with the SWPPP. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of the referenced permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings. Printed Name: Title/Position: Date: Signature: IX. Owner or Operator Certification I hereby certify that this document was prepared by me or under my direction or supervision. My determination, based upon my inquiry of the person(s) who managed the construction activity, or those persons directly responsible for gathering the information, is that the information provided in this document is true, accurate and complete. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of the referenced permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings. Printed Name: Title/Position:

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Date:

(NYS DEC Notice of Termination - January 2010)

Signature:

APPENDIX G

- All the All the Control of the Con

OPERATORS CERTIFICATION

STORM WATER POLLUTION PREVENTION PLAN OPERATORS CERTIFICATION

Construction Site: Greenport Crossings, Greenport New York

STORMWATER POLLUTION PREVENTION PLAN DATED April 13, 2011

Operators Certification

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. Further, I hereby certify that the SWPPP meets all Federal, State, and local erosion and sediment control requirements. I am aware that false statements made herein are punishable as a class A misdemeanor pursuant to Section 210.45 of the Penal Law."

Signature:	
Name:	
Title:	
Date:	
Company:	
Address:	
Phone:	· · · · · · · · · · · · · · · · · · ·
Email:	

This form must be signed by a responsible corporate officer or other party meeting the "Signatory Requirements" per NYSPDES GP Part VII H 1 a-c or other applicable state permit.

APPENDIX H

CONTRACTOR / SUBCONTRACTOR CERTIFICATION FORMS

GENERAL CONTRACTOR'S CERTIFICATION

PRESENDATE POR LE PARTICO, CONTRACTO PRINCIPALITATION DE L'ARRESTATION DE LA CONTRACTOR DE L'ARRESTANT DE L'AR

Construction Site: Greenport Crossings, Greenport New York

STORM WATER POLLUTION PREVENTION PROGRAM DATED <u>04/13/11</u>

GENERAL CONTRACTOR'S CERTIFICATION:

"I certify under penalty of law that I understand and agree to comply with the terms and conditions of the SWPPP for the construction site identified in such SWPPP as a condition of authorization to discharge stormwater. I also understand that the operator must comply with the terms and conditions of the New York State Pollutant Discharge Elimination System (SPDES) general permit for stormwater discharges from construction activities and that it is unlawful for any person to cause or contribute to a violation of water quality standards."

Name:	
(Print)	
Signature:	
Title:	
Company Name:	
Address:	
Telephone Number:	
Date :	
Scope of Services:	
Operators Project Manager Signature	***************************************
This form must be signed by a responsible corpora	te officer or other party meeting the "Signatory

Requirements" per NY SPDES GP Part VII H 1 a-c or other applicable state permit.

SUBCONTRACTOR'S CERTIFICATION

Construction Site: Greenport Crossings, Greenport New York

STORM WATER POLLUTION PREVENTION PROGRAM DATED <u>04/13/11</u>

SUBCONTRACTOR'S CERTIFICATION:

"I certify under penalty of law that I understand and agree to comply with the terms and conditions of the SWPPP for the construction site identified in such SWPPP as a condition of authorization to discharge stormwater. I also understand that the operator must comply with the terms and conditions of the New York State Pollutant Discharge Elimination System (SPDES) general permit for stormwater discharges from construction activities and that it is unlawful for any person to cause or contribute to a violation of water quality standards."

Name:		
(Print)		
Signature:		
Title:		
Company Name:		
Address:	<u></u>	
Telephone Number:		
Date:	_	
Scope of Services:		
Operators Project Manager Signature		

This form must be signed by a responsible corporate officer or other party meeting the "Signatory Requirements" per NY SPDES GP Part VII H 1 a-c or other applicable state permit.

APPENDIX I
CONSTRUCTION SITE NOTICE

CONSTRUCTION SITE NOTICE

The following information is posted in compliance with the Environmental Protection Agency (EPA) National Pollutant Discharge Elimination System (NPDES) Construction General Permit (CGP) and the State of New York SPDES Permit

Contact Name and Phone Number:	Harbalwant Singh 845-430-1688
Brief Project Description:	The project involves the redevelopment of an unoccupied industrial parcel into a Hotel, Family Entertainment Center and a retail pad that will include a gas station. Associated site improvements include utilities, a storm water management system and a permanent landscaping.
Location of Storm Water Pollution Prevention Plan (SWPPP):	In construction Trailer on site

APPENDIX JPERMIT ELIGIBILITY DOCUMENTATION

- NEW AND - LEADING TO A SECURE OF THE PROPERTY OF THE PROPERT

(To be inserted upon receipt)

APPENDIX K
STORMWATER MANAGEMENT REPORT

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Engineering and Storm Water Management Report GREENPORT CROSSINGS

LESSENTATION CONTROL CONTROL TO THE CONTROL OF THE

181 Union Turnpike (NYS Route 66)

Town of Greenport,

Columbia County, New York

Prepared for Submission to:

Town of Greenport

Submission Date: October 10, 2009 Revised: December 17, 2009

Prepared by:

BL Companies

355 Research Parkway Meriden, Connecticut 06450 Phone: (203) 630-1406 Fax (203) 630-2615

> Prepared for: Greenport Crossings, LLC 40 Corbett Road Montgomery, New York

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Columbia County Rainfall Data	
Existing 1,10 & 100-year Type III peak runoff flow and runoff volume Proposed 1, 10 & 100-year Type III peak runoff flow and volume	ıe

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Overview

The purpose of this report is to present reviewing agencies with sufficient information regarding technical aspects of the proposed project and to review the potential impacts associated with the project. All work is intended to be in full compliance with the New York State Department of Environmental Conservation and Town of Greenport regulations while prevailing site conditions and practical needs have been taken into account.

Existing Site Conditions

General Site Information

The site is located in the Town of Greenport, Columbia County, New York, on the southern side of Union Turnpike (NYS Route 66). The existing site consists of an assemblage of 3 parcels totaling approximately 10.31 acres. The existing site has an unoccupied industrial building. The remainder of the site consists of an overgrown asphalt-covered parking lot and driveways and grass/meadow and wetlands / wooded areas. Site access is from both Union Turnpike (NYS Route 66).

Existing Drainage Patterns

The subject parcel gently slopes from the center of the site in both an northern and southern direction with a relief of approximately 4-feet towards the north and 1-foot towards the southern. Currently the site drains via overland sheet flow across the site from the center of the site northerly towards the southern Union Turnpike right of way line where it then becomes shallow concentrated flow and enters an existing catch basin. Additionally, the site has a second drainage area that sheet flows from the center of the site in a southern direction where it then becomes shallow concentrated flow and enters a low area on the southern side of the property This low area drains via a 12" CMP pipe flowing east under Industrial Tract Road. Approximately 58% of the site is impervious while the balance exists as pervious wooded areas, and landscaped areas with grass and meadows.

According to the Soil Survey of Columbia County, New York, issued March 1971, prepared by the United States Department of Agriculture Soil Conservation Service, the soil in the vicinity of the site is classified as Udorthents, smoothed (UE), which is classified as a deep, nearly level, and excessively drained to moderately well drained soil. Permeability can range from rapid to very slow, depth to seasonable high water table is generally more than three feet. Bedrock depth was not listed. Udorthents soils are also classified as class "A/D" hydrologic soil.

Developed Conditions

General Site Information

This project involves the construction of a 6,500 square foot retail building and associated gas pump islands, a 100-room hotel with a restaurant, a 20-lane bowling alley and a family entertainment facility. Associated site improvements are to include the construction of two new access drives to NYS Route 66 and a single lane drive to Industrial Tract Road.

To facilitate the proposed construction, a portion of the existing building will be demolished. All of the remaining existing pavement structures and any concrete slabs will also be demolished and crushed for reuse within the proposed pavement areas.

The site will be owned and developed by Greenport Crossings, L.L.C. for which erosion and sediment controls have been proposed and shown in the Stormwater Pollution Prevention Plan (SWPPP) and the Sediment and Erosion Control Plans. The total acreage of this project is 10.31 acres, of which 7.03 acres will be disturbed (no more than 5 acres at a time).

Proposed Utilities

Electric, Cable and Telephone Service

The proposed structures will obtain electric, cable and telephone service from an existing CH Energy Group utility pole located on the site and south of the NYS Route 66 frontage. From this point, conduits will be installed underground per the individual utility company requirements and specifications. The transformer will be mounted on a concrete pad. Cable and telephone conduits will be run underground from the same utility pole. All work shall be coordinated with and per the requirements and specifications of the local utility providers.

Gas Service

Gas service for the proposed building will be obtained from the existing main located in NYS Route 66. All work and actual meter locations shall be coordinated with and per the requirements and specifications of Central Hudson Energy Group.

Sanitary Service

The sanitary sewage generated by the proposed buildings will be conveyed by PVC laterals to a proposed sanitary main located in NYS Route 66. All work shall be coordinated with and per the requirements and specifications of the Town of Greenport Water and Wastewater Treatment Department.

Water Service

Water service to the proposed buildings will be obtained from water services, which will be connected to an existing 12" water main that is located within an existing watermain easements along the NYS Route 66 street frontage. All work shall be coordinated with and per the requirements and specifications of the Town of Greenport Water and Wastewater Treatment Department.

Proposed Drainage Design

Post-construction drainage patterns will be similar to pre-construction patterns in that stormwater runoff will discharged into the Route 66 drainage system and to the existing onsite wetlands. As a result of the proposed development there will be a 15% reduction in impervious area over the disturbed project area. The following table illustrates a breakdown of coverage types in the drainage areas.

0 1 0/

Pre-construction:

EDA-l Pervious Area =	0.49 acres	= 9.1 %
Impervious Area =	4.88 acres	= 90.9 %
EDA-2Pervious Area =	4.18 acres	= 78.6 %
Impervious Area =	1.14 acres	= 21.4 %
Post-construction:		
PDA-1 Pervious Area =	1.01 acres	= 18.0 %

1.01 acres	= 18.0 %
4.55 acres	= 82.0 %
4.48 acres	= 87.3 %
0.65 acres	= 12.7 %
	4.48 acres

HydroCAD version 7.00 stormwater modeling software, which calculates runoff flow and volumes using the SCS TR-20 method, was utilized in conjunction with the areas listed above and the tabulated county rainfall data located in Appendix B of this report to determine the storm water flows as well as stormwater volumes generated for the respective storms. This information was then modeled using the calculations provided in the New York State Stormwater Management Design Manual. Calculations for routing, associated CN values, peak runoff and runoff volumes are located in Appendix B.

In the Pre-developed condition about half of the site drains to the wetland located in the south portion of the property and the remainder drains to the Route 66 drainage system to the north, as depicted on sheet ED-1. In the Post-development condition the site drainage patterns will remain consistent with the pre-development conditions. Stormwater from the northern portion of the site will be directed to a CDS Hydrodynamic Separator where the runoff will be treated for Quality control and then released into the Route 66 drainage system in the northwesterly portion of the property, as depicted on sheet PD-1. Two wet swales will be added adjacent to the wetlands for Quality control to the rear of the site. The overall post construction peak flows will match or be less than pre construction peak flow rates due to a 15% reduction in the sites impervious coverage. The peak flow rates are as shown in Table 1 below.

Table 1 Overall Pre-Development vs. Overall Post-Development Peak Flows					
Storm Event	Pre-Development	Post Development	Net Change		
	EDA-1 =15.97 cfs	PDA-1 = 15.60 cfs	-0.37 cfs		
1-yr	EDA-2 = 4.83 cfs	PDA-2 = 3.50 cfs	-1.33 cfs.		
	Total =20.80 cfs	Total = 19.10 cfs	-1.70 cfs		
	EDA-1 = 30.03 cfs	PDA-1 = 29.90 cfs	0.13 cfs		
10-yr	EDA-2 = 13.13 cfs	PDA-2 = 10.24 cfs	-2.89 cfs.		
	Total =43.16 cfs	Total = 40.14 cfs	-3.02 cfs		
	EDA-1 =46.78 cfs	PDA-1 = 46.68 cfs	0.10 cfs		
100	EDA-2=23.81 cfs	PDA-2 = 19.13 cfs	-4.86 cfs.		
100-yr	Total =70.59 cfs	Total = 65.81 cfs	-4.96 cfs		

Storm Water Management System

The proposed development will have catch basins with deep sumps and trap hoods on all outlets connected to a storm sewer collection system within the parking areas. Stormwater runoff will be collected in catch basins positioned at various locations throughout the parcel, routed through a CDS Hydrodynamic Separator, meeting the NYSDEC's requirements for alternate practices for redevelopment sites.

Design Storms

The storm water systems were analyzed for the following storm events in Columbia County, NY. All figures referenced refer to figures included in the NYSDEC Stormwater Management Design Manual unless noted otherwise:

- Water Quality Volumes (WQ_v) are based on a 1.0" rainfall that was taken from Fig. 4.1 90% Rainfall in NY State.
- Channel Protection Volume is based on a 1 Year storm of 2.5" of rain that was taken from table 8.5 of the NYS Highway Drainage Manual.
- Storm Sewer Design is based on a 10 Year rainfall.
- Overbank Flood Protection is based on a 10 Year storm of 4.5" of rain that was taken from table 8.5 of the NYS Highway Drainage Manual.
- Flood Control Criteria is based on a 100 Yr. storm of 6.9" of rain that was taken from table 8.5 of the NYS Highway Drainage Manual.

Hydrology Methods

The required Water Quality Volumes (WQv) were calculated as outlined in Chapter 4 of the NYSDEC Stormwater Management Design Manual for the 90% Rainfall with the area requiring Water Quality Treatment reduced as described above based on Chapter 9 — Redevelopment Projects.

The peak discharge flows and volumes for existing and proposed conditions were then checked using the HydroCAD computer program ver. 7.00 by Applied Computer Microsystems. The program uses a version of the NRCS's TR-20 computer program to generate and route hydrographs. Refer to Appendix B for additional information.

Storm Water Quality

The CDS unit is sized to provide the Water Quality Volume listed by the NYSDEC for the 90% Storm of 1.0" rainfall. See Appendix A for calculations.

Conclusion

Through the implementation of the proposed stormwater management system described in this report, the requirements of both the Town of Greenport and the New York State Department of Environmental Conservation will be fully met with regard to regulating both the quantity and quality of the stormwater runoff generated as a result of the proposed redevelopment of the subject parcel.

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Appendix A
Figure 4.1 – NYSDEC Stormwater Management Design Manual
Water Quality Volume (WQv) calculations

NY DEC Preliminary Stormwater Treatment Calculations

From NYS Stormwater Management Design Manual

Greeport Crossings

Loc: Area: 181 Union Turnpike, Greenport NY

PDA-2

Com, No.: Date:

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Peak Discharge Summary

Cover Description	Soil	Hydrologic				
Area 2	Туре	Soil Group	Cover Type	CN	A (Ac)	AXCN
Grass (Proposed)	Ue	D	Grass	80,00	0.00	0.00
Brush (Proposed)	Ue	D	Brush	77.00	4.48	344.96
Gravel (Proposed)	Ue	D	Gravel	80,00	0.00	0.00
Impervious (Proposed)	Ue	D	Pavement	98.00	0.65	63.70

Weighted CN:	80
Total Area (Ac):	5.13
A x Cn:	408.66

Time of Concentration P (2 yr)

0.54 Hrs

3.0

1a. Water Quality Volume (WQv)

WQv = [(P)(Rv)(a)]/12

impervious Cover: 12.67% Impervious Cover Reduction

0.164

Rv = 0.05 + (1)(.009) =P 90% rainfall (fig. 4.1):

1.0

WQv = [(P)(Rv)(a)]/12 =

0.070 ac-ft 3,054.65 cu-ft

WQv Provided = Wet Swal #1 + Wet Swale #2

0.1197 ac-ft

1b. Channel Protection Storage Volume (Cpv)

Per NYDEC Stormwater Management Design Manual Chapter 9, the 1-yr (Cpv) criteria does not applie to sites with a reduction in impervious coverage, discharge rate, and velocity

1e. Overbank Flood Protection (Qp)

qi (post-development) =

10.24 cfs

go (pre-development) =

13.13 cfs

Per NYDEC Stormwater Management Design Manual Chapter 9, the 10-yr (Qp) criteria does not applie to sites with a reduction in impervious coverage due to post development

flows result in a zero net increase.

1f. Extreme Flood Protection (Qf)

qi (post-development 100yr) =

19.13 cfs

qo (pre-development 100yr) =

23.81 cfs

Per NYDEC Stormwater Management Design Manual Chapter 9, the 100-yr (Qf) criteria does not applie to sites with a reduction in impervious coverage due to post development flows result in a zero net increase.

NY DEC Preliminary Stormwater Treatment Calculations

From NYS Stormwater Management Design Manual

Project:

Greeport Crossings

Loc: Area:

PDA-1

181 Union Turnpike, Greenport NY

Com. No.; Date:

09c3290 12/17/09

By:

E.C.P

Peak Discharge Summary

Cover Description	Soil	Hydrologic				
Area 2	Type	Soil Group	Cover Type	CN	A (Ac)	AxCN
Grass (Proposed)	Ue	D	Grass	80.00	0.85	68.00
Brush (Proposed)	Ue	D	Brush	77.00	0.00	0.00
Gravel (Proposed)	Ue	D	Gravel	80.00	0.16	12.80
Impervious (Proposed)	Ue	Ď	Pavement	98.00	4.55	445.90

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L	
Weighted CN:	95
Total Area (Ac):	5.56
A x Cn:	526.70

Time of Concentration P (2 yr)

0.14 Hrs

3.0

1a. Water Quality Volume (WQv)

WQv = [(P)(Rv)(a)]/12Impervious Cover: 81.83% Impervious Cover reduction 8%

0.787

Rv = 0.05 + (l)(.009) =P 90% rainfall (fig. 4.1):

1.0

WQv = [(P)(Rv)(a)]/12 =

0.364 ac-ft 15,873.99 cu-ft

WQv Alt=(25-(%IC reduction+WQv standard))x3

0.186 ac-ft 8,095.73 cu-ft

1f. Extreme Flood Protection (Qf)

1e. Overbank Flood Protection (Qp)

Per NYDEC Stormwater Management Design Manual

Chapter 9, the 10-yr (Qp) criteria does not applie to sites with a reduction in impervious coverage due to post development

qi (post-development 100yr) =

flows result in a zero net increase.

46.68 cfs

29.90 cfs

30.03 cfs

go (pre-development 100yr) =

qi (post-development) =

qo (pre-development) =

46.78 cfs

Per NYDEC Stormwater Management Design Manual Chapter 9, the 100-yr (Qf) criteria does not applie to sites with a reduction in impervious coverage due to post development flows result in a zero net increase.

1b. Channel Protection Storage Volume (Cpv)

Per NYDEC Stormwater Management Design Manual Chapter 9, the 1-yr (Cpv) criteria does not applie to sites with a reduction in impervious coverage, discharge rate, and velocity

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Project Information Worksheet

for sizing and cost information:

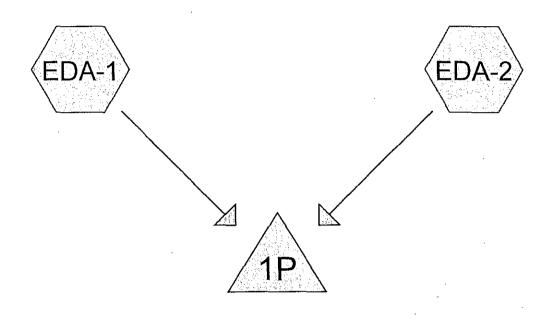
J	R	tegion		Fax	Fax E-				Call				
ME,MA, NH CT, RI – He NY – Don L	ather Mc	son Greenleaf Call		207.885.98 207.885.98 207.885.98	i.9825 mccallh@contech-cpi.com			oi.com	877.907.8676 ext. 222 877.907.8676 ext. 215 877.907.8676 ext. 293				
Project II	nformat	ion		· · · · · · · · · · · · · · · · · · ·	·	·				,			
Date:		12/17/2009			Resp	onse Requir	ed By:	12/18/09					
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Project Locat	ion:	Greenport, Colu	mbia Cou	nty, New York				·		· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·		
Project Bid Date: Copy of Project Site Plan:		Date:											
Permitting/Re Agency Stan	eviewing	NYS DEC			Projec 	t Description Land Use	n/ e: <u>Com</u> i	mercial					
Treatme	nt Requ	irements - Ta	arget P	ollutants			Storag	je Regu	irements	3			
X TSS	emilenes escaperas	Oíl & Gr	Management of the second		ner:	pareser (600 court		Detention None					
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NYDEC A		· —	(0.5.						if know	n)			
	velopment	; K-21	eiopment	Pre	e-Treatment		Met		•	Солст	ete		
							Plas		me Required	: cf			
Design S	pecific	ations							V				
Structure		ributing Drainage	4rea	WQ Design	Peak C	ondition	Inlet size	t size/	E	Elevations (ft)			
ID	Area (ac or hec)	Runoff C/ % Impervious	T _o (min)	Flow (cfs) OR Volume (cf)	Flow (cfs)	Return Period (yr)		Size (in)	Rim	Inlet Invert	Outlet Invert		
CDS-1	5.56	C/82%	10.00	/8095	29.00 ·	10	18.0	0/18.00	146.00	140.39	140.39		
		C/ %		/			E.	1					
		C/ %		1				1					
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Name:	Emile Pi	ierides		THE PROPERTY OF THE PROPERTY O			E-mail:	epierides	@blcompan	es.com			
Сотрапу:	BL Com	panies				· · · · · · · · · · · · · · · · · · ·	Phone: 203-630-1406						
Address:	355 Res	earch Parkway, M	eriden, C	Т 06450	450				Fax: 203-630-2615				

Appendix B

Columbia County Rainfall Data

Existing 1, 10, 100-year Type II peak runoff flow and runoff volume

Proposed 1, 10, 100-year Type II peak runoff flow and runoff volume



total site runoff

Militarian programment in the control of the contro









Type II 24-hr 1 YR Rainfall=2.50"

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Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment EDA-1:

Runoff Area=5.370 ac Runoff Depth>1.93"

Flow Length=573' Tc=9.3 min CN=96 Runoff=15.97 cfs 0.864 af

Subcatchment EDA-2:

Runoff Area=5.320 ac Runoff Depth>0.90"

Flow Length=719' Tc=26.5 min CN=82 Runoff=4.83 cfs 0.400 af

Pond 1P: total site runoff

Inflow=18.26 cfs 1.264 af

Primary=18.26 cfs 1.264 af

Total Runoff Area = 10.690 ac Runoff Volume = 1.264 af Average Runoff Depth = 1.42"

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Subcatchment EDA-1:

Runoff = 15.97 cfs @ 12.00 hrs, Volume=

0.864 af, Depth> 1.93"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type II 24-hr 1 YR Rainfall=2.50"

Area	(ac) (ON Des	cription		
4.	880				
Area (ac) CN Description 4.880 98 Paved parking & roofs 0.490 80 >75% Grass cover, Good, HSG D 5.370 96 Weighted Average Tc Length Slope Velocity Capacity Description (min) (feet) (ft/ft) (ft/sec) (cfs) 6.3 150 0.0007 0.4 Sheet Flow, AB Smooth surfaces n= 0.011 P2= 3.30" Shallow Concentrated Flow, BC Paved Kv= 20.3 fps 9.3 573 Total					
5.	370	96 We	ighted Aver	age	
		•	•		Description
6.3	150	0.0007	0.4		Sheet Flow, AB
3.0	423	0.0137	2.4		Shallow Concentrated Flow, BC
9.3	573	Total			

Subcatchment EDA-2:

Runoff = 4.83 cfs @ 12.21 hrs, Volume=

0.400 af, Depth> 0.90"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type II 24-hr 1 YR Rainfall=2.50"

Area	(ac) C	N Desc	cription		
	2.6 150 0.0063 1.0 Sheet Flow, AB Smooth surfaces n= 0.011 P2= 3.30" Shallow Concentrated Flow, BC Short Grass Pasture Kv= 7.0 fps				
4.	.180	77 Brus	h, Fair, HS	SG D	
5.	.320	82 Wei	ghted Aver	age	
Tc (min)	_	•	•		Description
2.6	150	0.0063	1.0		Sheet Flow, AB
23.9	569	0.0032	0.4		Smooth surfaces n= 0.011 P2= 3.30" Shallow Concentrated Flow, BC
26.5	719	Total			

Pond 1P: total site runoff

Inflow Area = 10.690 ac, Inflow Depth > 1.42" for 1 YR event Inflow = 18.26 cfs @ 12.01 hrs, Volume= 1.264 af

Primary = 18.26 cfs @ 12.01 hrs, Volume= 1.264 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Type II 24-hr 10 YR Rainfall=4.50"

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Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Taribarang Bangarang
Subcatchment EDA-1:

Runoff Area=5.370 ac Runoff Depth>3.76"

Flow Length=573' Tc=9.3 min CN=96 Runoff=30.03 cfs 1.681 af

Subcatchment EDA-2:

Runoff Area=5.320 ac Runoff Depth>2.43"

Flow Length=719' Tc=26.5 min CN=82 Runoff=13.13 cfs 1.076 af

Pond 1P: total site runoff

Inflow=37.21 cfs 2.757 af

Primary=37.21 cfs 2.757 af

Total Runoff Area = 10.690 ac Runoff Volume = 2.757 af Average Runoff Depth = 3.09"

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Subcatchment EDA-1:

Runoff = 30.03 cfs @ 12.00 hrs, Volume=

1.681 af, Depth> 3.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type II 24-hr 10 YR Rainfall=4.50"

_	Area	(ac) C	N Des	cription						
Area (ac) CN Description 4.880 98 Paved parking & roofs 0.490 80 >75% Grass cover, Good, HSG D 5.370 96 Weighted Average Tc Length Slope Velocity Capacity Description (min) (feet) (ft/ft) (ft/sec) (cfs) 6.3 150 0.0007 0.4 Sheet Flow, AB Smooth surfaces n= 0.011 P2= 3.30" 3.0 423 0.0137 2.4 Shallow Concentrated Flow, BC										
4.880 98 Paved parking & roofs 0.490 80 >75% Grass cover, Good, HSG D 5.370 96 Weighted Average Tc Length Slope Velocity Capacity Description (min) (feet) (ft/ft) (ft/sec) (cfs) 6.3 150 0.0007 0.4 Sheet Flow, AB Smooth surfaces n= 0.011 P2= 3.30"										
	4.880 98 Paved parking & roofs 0.490 80 >75% Grass cover, Good, HSG D 5.370 96 Weighted Average Tc Length Slope Velocity Capacity Description (min) (feet) (ft/ft) (ft/sec) (cfs) 6.3 150 0.0007 0.4 Sheet Flow, AB Smooth surfaces n= 0.011 P2= 3.30" 3.0 423 0.0137 2.4 Shallow Concentrated Flow, BC Paved Kv= 20.3 fps									
				•		Description				
_	6.3	150	0.0007	0.4		Sheet Flow, AB				
	3.0	423	0.0137	2.4		Shallow Concentrated Flow, BC				
_	9.3	573	Total							

Subcatchment EDA-2:

Runoff = 13.13 cfs @ 12.20 hrs, Volume=

1.076 af, Depth> 2.43"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type II 24-hr 10 YR Rainfall=4.50"

Area	(ac) C	N Des	cription		•
Area (ac) CN Description 1.140 98 Paved parking & roofs 4.180 77 Brush, Fair, HSG D 5.320 82 Weighted Average Tc Length Slope Velocity Capacity Description (min) (feet) (ft/ft) (ft/sec) (cfs) 2.6 150 0.0063 1.0 Sheet Flow, AB Smooth surfaces n= 0.011 P2= 3.30" 23.9 569 0.0032 0.4 Shallow Concentrated Flow, BC Short Grass Pasture Kv= 7.0 fps					
4.	1.140 98 Paved parking & roofs 4.180 77 Brush, Fair, HSG D 5.320 82 Weighted Average To Length Slope Velocity Capacity Description (feet) (ft/ft) (ft/sec) (cfs) .6 150 0.0063 1.0 Sheet Flow, AB Smooth surfaces n= 0.011 P2= 3.30" .9 569 0.0032 0.4 Shallow Concentrated Flow, BC Short Grass Pasture Kv= 7.0 fps	•			
5.	320 8	32 Wei	ghted Aver	age	
	_	•	•		Description
2.6	150	0.0063	1.0		Sheet Flow, AB
23.9	569	0.0032	0.4		Shallow Concentrated Flow, BC
26.5	719	Total			

Pond 1P: total site runoff

Inflow Area = 10.690 ac, Inflow Depth > 3.09" for 10 YR event Inflow = 37.21 cfs @ 12.01 hrs, Volume= 2.757 af

Primary = 37.21 cfs @ 12.01 hrs, Volume= 2.757 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Type II 24-hr 100 YR Rainfall=6.90"

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Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

inaningaji njarageurangaji ngaligangananga Daganahan kun ngaji angamanangan pagasi pagasangaangan

Subcatchment EDA-1:

Runoff Area=5.370 ac Runoff Depth>5.94"

Flow Length=573' Tc=9.3 min CN=96 Runoff=46.68 cfs 2.656 af

Subcatchment EDA-2:

Runoff Area=5.320 ac Runoff Depth>4.48"

Flow Length=719' Tc=26.5 min CN=82 Runoff=23.81 cfs 1.986 af

Pond 1P: total site runoff

Inflow=60.45 cfs 4.642 af

Primary=60.45 cfs 4.642 af

Total Runoff Area = 10.690 ac Runoff Volume = 4.642 af Average Runoff Depth = 5.21"

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Subcatchment EDA-1:

46.68 cfs @ 12.00 hrs. Volume= Runoff

2.656 af, Depth> 5.94"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type II 24-hr 100 YR Rainfall=6.90"

	Ar <u>ea</u>	(ac) (CN Des	cription					
Area (ac) CN Description 4.880 98 Paved parking & roofs 0.490 80 >75% Grass cover, Good, HSG D 5.370 96 Weighted Average Tc Length Slope Velocity Capacity Capacity (ft/ft) Description (min) (feet) (ft/ft) (ft/sec) (cfs) (cfs) 6.3 150 0.0007 0.4 Sheet Flow, AB Smooth surfaces n= 0.011 P2= 3.30" 3.0 423 0.0137 2.4 Shallow Concentrated Flow, BC									
	4.880 98 Paved parking & roofs 0.490 80 >75% Grass cover, Good, F 5.370 96 Weighted Average To Length Slope Velocity Capacity (min) (feet) (ft/ft) (ft/sec) (cfs) 6.3 150 0.0007 0.4 \$3 3.0 423 0.0137 2.4	, HSG D							
	5.	370	96 We	ighted Ave	rage				
		_				Description			
_	6.3	150	0.0007	0.4		Sheet Flow, AB			
	3.0	423	0.0137	2.4					
_	9.3	573	Total						

Subcatchment EDA-2:

23.81 cfs @ 12.20 hrs, Volume= Runoff

1.986 af, Depth> 4.48"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type II 24-hr 100 YR Rainfall=6.90"

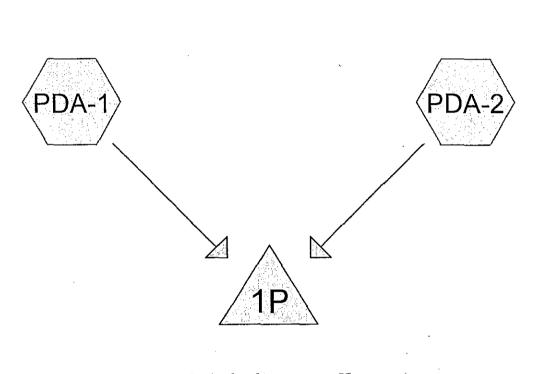
Area	(ac) C	N Desc	cription		
Area (ac) CN Description 1.140 98 Paved parking & roofs 4.180 77 Brush, Fair, HSG D 5.320 82 Weighted Average Tc Length Slope Velocity Capacity (min) (feet) (ft/ft) (ft/sec) (cfs) 2.6 150 0.0063 1.0 Sheet Flow, AB Smooth surfaces n= 0.011 P2= 3.30" Shallow Concentrated Flow, BC Short Grass Pasture Kv= 7.0 fps 26.5 719 Total					
4.	180 7	7 Brus	h, Fair, H	SG D	
5.	.320 8	32 Wei	ghted Aver	age	·
	_			, -	Description
2.6	150	0.0063	1.0		Sheet Flow, AB
23.9	569	0.0032	0.4		Shallow Concentrated Flow, BC
26.5	719	Total			

Pond 1P: total site runoff

10.690 ac, Inflow Depth > 5.21" for 100 YR event Inflow Area = 60.45 cfs @ 12.02 hrs, Volume= 4.642 af Inflow

60.45 cfs @ 12.02 hrs, Volume= 4.642 af, Atten= 0%, Lag= 0.0 min Primary

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs













Type II 24-hr 1 YR Rainfall=2.50"

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Time span=5.00-20.00 hrs, dt=0.06 hrs, 251 points
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

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Subcatchment PDA-1:

Runoff Area=5.560 ac Runoff Depth>1.84"

Flow Length=702' Tc=10.0 min CN=95 Runoff=15.60 cfs 0.852 af

Subcatchment PDA-2:

Runoff Area=5.130 ac Runoff Depth>0.80"

Flow Length=585' Tc=33.1 min CN=80 Runoff=3.50 cfs 0.340 af

Pond 1P: total site runoff

Inflow=16.82 cfs 1.193 af Primary=16.82 cfs 1.193 af

Total Runoff Area = 10.690 ac Runoff Volume = 1.193 af Average Runoff Depth = 1.34"

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Subcatchment PDA-1:

BEEREEREEP PRODUCTION OF THE PROPERTY OF THE P

15.60 cfs @ 12.01 hrs, Volume= Runoff

0.852 af, Depth> 1.84"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.06 hrs Type II 24-hr 1 YR Rainfall=2.50"

Aı	ea	(ac) C	N Desc	cription		
	4	550 9	98 Pave	ed parking	& roofs	
	0.	850 8	30 >759	% Grass co	over, Good,	, HSG D
	0.	160 8	30 Grav	<u>rel roads, l</u>	HSG A	
	5.	560 9	95 Weig	ghted Aver	age	
	Тс	Length	Slope	Velocity	Capacity	Description
<u>(m</u>	in)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
7	'.3	39	0.0070	0.1		Sheet Flow,
						Grass: Short n= 0.150 P2= 3.00"
C).7	80	0.0100	2.0		Shallow Concentrated Flow, BC
						Paved Kv= 20.3 fps
2	2.0	583	0.0050	5.0	8.78	Circular Channel (pipe),
						Diam= 18.0" Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.011
10	0.0	702	Total			

Subcatchment PDA-2:

Runoff

Area (ac)

CN

3.50 cfs @ 12.30 hrs, Volume=

0.340 af, Depth> 0.80"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.06 hrs Type II 24-hr 1 YR Rainfall=2.50"

7 17 00	100		211011411			
			, –			
4.	480 7	77 Brus	h, Fair, HS	SG D		
0.650 98 Paved parking & roofs 4.480 77 Brush, Fair, HSG D 5.130 80 Weighted Average Tc Length Slope Velocity Capacity Description (min) (feet) (ft/ft) (ft/sec) (cfs) 12.3 90 0.0100 0.1 Sheet Flow, AB Grass: Short n= 0.150 P2= 3.00" 20.8 495 0.0032 0.4 Shallow Concentrated Flow, BC Short Grass Pasture Kv= 7.0 fps						
٠.	-		J	3-		
Тс	Length	Slope	Velocity	Capacity	Description	
(min)	. •	(ft/ft)	(ft/sec)	(cfs)	·	
12.3	90	0.0100	0.1		Sheet Flow, AB	
					Grass: Short n= 0.150 P2= 3.00"	
20.8	495	0.0032	0.4			
33.1	585	Total				

Pond 1P: total site runoff

Inflow Area = 10.690 ac, Inflow Depth > 1.34" for 1 YR event nflow

Description

16.82 cfs @ 12.02 hrs, Volume= 1.193 af

16.82 cfs @ 12.02 hrs, Volume= 1.193 af, Atten= 0%, Lag= 0.0 min Primary

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.06 hrs

Type II 24-hr 10 YR Rainfall=4.50"

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Time span=5.00-20.00 hrs, dt=0.06 hrs, 251 points
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Interest Contractions - Interest Annie (Contraction of the Contraction of Contrac

Subcatchment PDA-1:

Runoff Area=5.560 ac Runoff Depth>3.66"

Flow Length=702' Tc=10.0 min CN=95 Runoff=29.90 cfs 1.698 af

Subcatchment PDA-2:

Runoff Area=5.130 ac Runoff Depth>2.25"

Flow Length=585' Tc=33.1 min CN=80 Runoff=10.24 cfs 0.963 af

Pond 1P: total site runoff

Inflow=34.30 cfs 2.661 af

Primary=34.30 cfs 2.661 af

Total Runoff Area = 10.690 ac Runoff Volume = 2.661 af Average Runoff Depth = 2.99"

Type II 24-hr 10 YR Rainfall=4.50"

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Subcatchment PDA-1:

- ENGLISHED - TOTAL TOTAL - ENGLISHED - ENGLISHED - PROPERTY - ENGLISHED - ENGLISHED - FRANCE
29.90 cfs @ 12.01 hrs, Volume= Runoff

1.698 af, Depth> 3.66"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.06 hrs Type II 24-hr 10 YR Rainfall=4.50"

Area	(ac) C	N Des	cription		<u> </u>
4.	550 9	8 Pave	ed parking	& roofs	
0.	850 8	30 >759	% Grass co	over, Good,	, HSG D
0.	160 8	30 Grav	vel roads, I	HSG A	
5.	560 9	95 Wei	ghted Aver	age	
			-		
Тс	Length	Slope	Velocity	Capacity	Description
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
7.3	39	0.0070	0.1		Sheet Flow,
					Grass: Short n= 0.150 P2= 3.00"
0.7	80	0.0100	2.0		Shallow Concentrated Flow, BC
				-	Paved Kv= 20.3 fps
2.0	583	0.0050	5.0	8.78	Circular Channel (pipe),
					Diam= 18.0" Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.011
10.0	702	Total			

Subcatchment PDA-2:

Runoff 10.24 cfs @ 12.28 hrs, Volume= 0.963 af, Depth> 2.25"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.06 hrs Type II 24-hr 10 YR Rainfall=4.50"

_	Area	(ac) C	N Desc	cription -			_
Area (ac) CN Description 0.650 98 Paved parking & roofs 4.480 77 Brush, Fair, HSG D 5.130 80 Weighted Average Tc Length Slope Velocity Capacity Description (min) (feet) (ft/ft) (ft/sec) (cfs) 12.3 90 0.0100 0.1 Sheet Flow, AB Grass: Short n= 0.150 P2= 3.00" 20.8 495 0.0032 0.4 Shallow Concentrated Flow, BC Short Grass Pasture Kv= 7.0 fps							
_	0.650 98 Paved parking & roofs 4.480 77 Brush, Fair, HSG D 5.130 80 Weighted Average Tc Length Slope Velocity Capacity (min) (feet) (ft/ft) (ft/sec) (cfs) 12.3 90 0.0100 0.1						
		age					
		. •	•			Description	
_	12.3	90	0.0100	0.1		Sheet Flow, AB	
	20.8	495	0.0032	0.4		Shallow Concentrated Flow, BC	
_	33.1	585	Total				

Pond 1P: total site runoff

Inflow Area = 10.690 ac, Inflow Depth > 2.99" for 10 YR event 34.30 cfs @ 12.02 hrs, Volume= Inflow 2.661 af

2.661 af, Atten= 0%, Lag= 0.0 min 34.30 cfs @ 12.02 hrs, Volume= Primary

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.06 hrs

Type II 24-hr 100 YR Rainfall=6.90"

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Time span=5.00-20.00 hrs, dt=0.06 hrs, 251 points
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

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Subcatchment PDA-1:

Runoff Area=5.560 ac Runoff Depth>5.85"

Flow Length=702' Tc=10.0 min CN=95 Runoff=46.78 cfs 2.711 af

Subcatchment PDA-2:

Runoff Area=5.130 ac Runoff Depth>4.26"

Flow Length=585' Tc=33.1 min CN=80 Runoff=19.13 cfs 1.820 af

Pond 1P: total site runoff

Inflow=55.67 cfs 4.531 af

Primary=55.67 cfs 4.531 af

Total Runoff Area = 10.690 ac Runoff Volume = 4.531 af Average Runoff Depth = 5.09"

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Subcatchment PDA-1:

AND THE PERSONAL PROPERTY OF THE PERSON OF T

Runoff = 46.78 cfs @ 12.01 hrs, Volume=

2.711 af, Depth> 5.85"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.06 hrs Type II 24-hr 100 YR Rainfall=6.90"

Area	(ac) C	N Des	cription						
4.	.550 9	8 Pave	ed parking	& roofs					
0.	.850 8	30 >759	% Grass co	over, Good,	HSG D				
0	.160 8	30 Grav	/el roads, l	HSG A					
5.560 95 Weighted Average									
Tc	Length	Slope	Velocity	Capacity	Description				
<u>(min)</u>	(feet)	(ft/ft)_	(ft/sec)	(cfs)					
7.3	39	0.0070	0.1		Sheet Flow,				
					Grass: Short n= 0.150 P2= 3.00"				
0.7	80	0.0100	2.0		Shallow Concentrated Flow, BC				
					Paved Kv= 20.3 fps				
2.0	583	0.0050	5.0	8.78	Circular Channel (pipe),				
					Diam= 18.0" Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.011				
10.0	702	Total							

Subcatchment PDA-2:

Runoff = 19.13 cfs @ 12.28 hrs, Volume=

1.820 af, Depth> 4.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.06 hrs Type II 24-hr 100 YR Rainfall=6.90"

	Area	(ac) C	N Des	cription			
				ed parking			
_	<u>4.480</u> 77		77 Brus	h, Fair, HS	SG D		
5.130 80 Weighted Average					age		
	Tc (min)_	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description	
	12.3	90	0.0100	0.1		Sheet Flow, AB	
	20.8	495	0.0032	0.4		Grass: Short n= 0.150 P2= 3.00" Shallow Concentrated Flow, BC Short Grass Pasture Kv= 7.0 fps	
_	33.1	585	Total				

Pond 1P: total site runoff

Inflow Area = 10.690 ac, Inflow Depth > 5.09" for 100 YR event Inflow = 55.67 cfs @ 12.02 hrs, Volume= 4.531 af

Primary = 55.67 cfs @ 12.02 hrs, Volume= 4.531 af, Atten= 0%, Lag= 0.0 min



Sizing Estimate

Provided by Don LeBlanc on December 21, 2009

Greenport Crossings

Information provided by Emile Pierides of BL Companies:

Structure	Area	% Impervious	Water Quality Flow
Identification	(acres)		(cfs)
CDS-1	5.56	82	3.70

Assumptions:

NYSDEC has adopted the NJCAT/NJDEP verified flow rates for the CDS system. NYSDEC has
effectively created three categories of treatment, new development (standalone), redevelopment and
pretreatment. Specific approval and sizing criteria are applied to each category. Per the specifying
engineer, this project falls under <u>Redevelopment</u>. The CDS will be sized to treat the required Water
Quality criteria of 75%WQv which is attained in the calculations within the drainage are quantity (0.75 x
5.56 AC = 4.17AC).

Sizing Summary:

The CDS Stormwater Treatment System is a high-performance hydrodynamic separator. Using patented continuous deflective separation technology, the CDS system screens, separates and traps debris, sediment, and oil and grease from stormwater runoff. The indirect screening capability of the system allows for 100% removal of floatables and neutrally buoyant material without blinding. Flow and screening controls physically separate captured solids, preventing re-suspension and release of previously trapped pollutants.

CONTECH Stormwater Solutions typically selects the CDS model that based on the NJCAT/NJDEP verified flow rates meets or exceeds the Water Quality Flow generated by the Water Quality Volume. 74% TSS removal is the removal percentage verified by NJCAT/NJDEP (and adopted by NYSDEC) in laboratory testing for the CDS unit corresponding to these flows. It exceeds the 50% requirement that was laid out by NYSDEC on page 9-46 of the New York State Stormwater Management Design Manual for redevelopment projects. No such specification exists for pretreatment projects, but in the best interest of the environment Contech holds to those flows for pretreatment projects as well. The following hydrographs show the Water Quality flow generated by the Water Quality Volume for this project. Based on these flows, Contech recommends:

Structure Identification	Treatment Device
CDS-1	CDS3035-6W = 3.80 cfs

Maintenance:

Like any stormwater best management practice, the CDS system requires regular inspection and maintenance to ensure optimal performance. Maintenance frequency will be driven by site conditions. Quarterly visual inspections are recommended, at which time the accumulation of pollutants can be determined. On average, the CDS systems require annual removal of accumulated pollutants.

Project:

Greenport Crossings

Location:

Greenport, NY

Prepared For:

Emile Pierides, BL Companies

Purpose:

To calculate the first flush runoff flow rate (WQF) over a given site area. In this situation the

WQV to be analyzed is the runoff produced by the first 1.2" of rainfall.

Reference:

United States Department of Agriculture Natural Resources Conservation Service TR-55

Manual

Given:

Structure	Α	Α	Runoff	Percent Imp.	t _c	t _c
Name	(acres)	(miles²)	Coefficient	(%)*	(min)	(hr)
CDS-1	4.17	0.00652	0.79	82.00	10.0	0.167

^{*} Assumes runoff coefficient of 0.3 for pervious areas and 0.9 for impervious areas.

Procedure:

The Water Quality Flow (WQF) is calculated using the Water Quality Volume (WQV). This WQV, converted to watershed inches, is substituted for the runoff depth (Q) in the Natural Resources Conservation Service (formerly Soil Conservation Service), TR-55 Graphical Peak Discharge Method.

1. Compute WQV in watershed inches using the following equation:

$$WQV = P * R$$

where:

WQV = water quality volume (watershed inches)

P = design precipitation (inches) = (1.2" for water quality storm)

R = volumetric runoff coefficient = 0.05 + 0.009(I)

I = percent impervious cover

Structure	Percent		P	WQV	wov -
Name	Imp. (%)	R	(in)	(in)	(ac-ft)
CDS-1	82.00	0.788	1.2	0.946	0.3286

2. Compute the NRCS Runoff Curve Number (CN) using the following equation, or graphically using Figure 2-1 from TR-55 (USDA, 1986):

$$CN = 1000 / [10+5P+10Q-10(Q^2+1.25QP)^{1/2}]$$

where:

CN = Runoff Curve Number

P = design precipitation (inches) = (1.2" for water quality storm)

Q = runoff depth (watershed inches)

Structure	G	
Name	(in)	CN
CDS-1	0.946	97.57

3. Using computed CN, read initial abstraction (l_a) from Table 4-1 in Chapter 4 of TR-55; compute l_a/P, interpolating when appropriate.

Structure Name	l _a (in)	l _a /P
CDS-1	0.042	0.035

4. Compute the time of concentration (t_c) in hours and the drainage area in square miles. A minimum t_c of 0.167 hours (10 minutes) should be used.

Structure	t _c	Α
Name	(hr)	(miles²)
CDS-1	0.167	0.00652

5. Read the unit peak discharge (q_u) from Exhibit 4-III in Chapter 4 of TR-55 for appropriate t_c for type III rainfall distribution.

	Structure Name	t _c (hr)	I _s /P	q _u (csm/in)
Ì	CDS-1	0.167	0.035	600

6. Substituting WQV (watershed inches) for runoff depth (Q), compute the water quality flow (WQF) from the following equation:

$$\mathsf{WQF} = (\mathsf{q}_\mathsf{u})^*(\mathsf{A})^*(\mathsf{Q})$$

where: WQF = water quality flow (cfs)

q_u = unit peak discharge (cfs/mi²/inch)

A = drainage area (mi²)

Q = runoff depth (watershed inches)

Structure	զս	A	Q	WQF
Name	(csm/in)	(miles²)	(in)	(cfs)
CDS-1	600	0.00652	0.946	3.70

APPENDIX K2

THE REPORT OF THE PROPERTY OF

OPERATIONS AND MAINTANANCE PLAN

Site Engineering Report Appendix K2: Operations and Maintenance Plan Greenport Crossings

181 Union Turnpike (NYS Rte. 66)

Town of Greenport

Columbia County, New York

Prepared for Submission to:

Town of Greenport, Columbia County and New York Department of Environmental Conservation

Submission Date: October 9, 2009

Prepared by:
BL Companies
355 Research Parkway
Meriden, Connecticut 06450

Phone: (203) 630-1406 Fax (203) 630-2615

Prepared for:

Greenport Crossings LLC 40 Corbett Road Montgomery, New York

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DRAINAGE AND PARKING LOTS. LANDSCAPING TRASH COLLECTION SNOW REMOVAL & STORAGE.	7 7
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Appendix: A Maintenance Inspection Checlists

General Overview

The subject property consists of 10.31 acres located off Union Turnpike in the Town of Greenport, Columbia County, New York. The site contains urban land, grass, and wetland areas with mild slopes throughout the site.

William the transfer of the control
The subject property has a total relief of approximately 5 feet, sloping towards the northwest and southeast. The front northern 75 percent of the site is developed with multiple industrial buildings and pavement area. There are no catch basins or water quality structures onsite resulting in water drainings via overland flow to the Route 66 drainage system to the north and to the wetland area to the southon the property. Because the site is currently developed, there will be an impervious coverage reduction with the new development.

The project involves the construction of a hotel and entertainment facility, a 6,500 s.f. retail building with a gas station. A portion of one of the existing building structures will be reused as a portion of the hotel / family entertainment facility.

The site will be graded to provide a relatively flat area for the proposed parking lot and driveways. Stormwater runoff will be collected in catch basins located at various locations throughout the developed portion of the parcel, then piped through a system of underground piping to a CDS hydrodynamic separator meeting NYSDEC requirements for total suspended solid removal. Overall site post-construction peak flows will remain consistent with overall site preconstruction peak flows. Runoff from the northern portion of the site will then be conveyed through existing drainage pipes located in the Route 66 Right of Way runoff from the southern portion of the site will sheet flow towards the wetlands area at the south portion of the site.

The demolition required on site consists of removing portions of one of the existing structures and complete removal of another structure and all pavement structures. Soil disturbing activities will include:

- Construction of temporary construction ingress / egress points and construction laydown areas
- Construction of temporary sediment traps
- Demolition of the buildings and pavement
- Final grading and seeding
- Any off-site improvements shall be made concurrently with items above.

The site will be owned and developed by Greenport Crossings, LLC for which erosion and sediment controls have been developed and fully addressed in this written plan and the Sediment and Erosion Control Plan(s). See Sediment and Erosion Control Plans Detail Sheets for additional details. The total acreage of this development is 10.31 acres of which 7.03 acres will be disturbed.

Purpose & Goals

The purpose of this Manual is to ensure that the development is operated in accordance with NYSDEC requirements for a SWPPP and accordance with all approvals and permits. The primary goal is to inform all the property managers how the system operates and what maintenance items are necessary to protect downstream stormwater systems and receiving waters. The secondary goal is to provide a practical, efficient means of maintenance planning and record keeping to ensure permit compliance.

DESCRIPTION OF SEC. DESCRIPTION OF SECURITY SECTION OF THE SECURITY OF THE SEC

Responsible Parties

Greenport Crossings, LLC will be responsible for implementing the Plan on the entire subject property. The party may retain a management company to oversee the maintenance of the subject property. It will be Greenport Crossings, LLC responsibility to ensure that the management company is qualified and familiar with the SWPPP.

Some utilities located on the site will be owned and maintained by the various utility providers in accordance with their standards. Greenport Crossings, LLC will maintain the service connections during construction. After completion of construction the maintenance duties will be allocated to the property manager.

List of Permits & Special Conditions

The project is seeking several land development permits, which may contain special conditions (monitoring requirements, record keeping, etc.) that need to be complied with by the owners, tenants, and maintenance contractors. These permits may include the following:

- Town of Greenport / Site Plan Approval
- New York State Department of Conservation SPDES General Permit for Stormwater Discharges from Construction Activity
- New York State Department of Conservation Stormwater Pollution Prevention Plan (SWPPP)

Maintenance Logs and Checklists

The Responsible Party will keep a record of all maintenance procedures performed, date of inspection/ cleanings, etc. Copies of inspection reports and maintenance records shall be kept on site in the tenants manager's office once they are established.

Forms

The following forms will be developed for annual maintenance. Copies of the forms will be kept on-site as part of the Storm Water Management Plan. A draft of the SWPPP is included in this SWPPP report where sample forms can be found.

- Quarterly Checklist
- Monthly Checklist
- Stormwater Construction Inspection Checklist

Employee Training

The Responsible Party will have an employee-training program, with annual up-dates, to ensure that the employees charged with maintaining this development do so in accordance with the approved permit conditions and SWPPP. All sub-contractors (Vactor, landscaping, snowplowing, etc.) will be informed of special requirements and responsibilities.

Spill Control

Greenport Crossings LLC will have a spill control program. That program will be updated annually and incorporated into the employee-training program. The reporting and clean-up of all spills shall comply with all local, State, and Federal requirements.

Storm Water Management

System Components

The storm water management system has several components and they perform various functions in treating storm water runoff:

Catch Basins are inlets, which trap road sand and floatable debris prior to draining through the storm sewer system. The catch basins (CB's) are equipped with 2' deep sumps.

Operations & Maintenance Plan Proposed Commercial Development, 09c3290 OperMaint.DOC Greenport, New York

An inspection report shall be completed and the findings and any corrective action taken shall be noted. The report shall be kept with the SWPPP.

CDS Hydrodynamic Separator units are water quality devices, which catch and store sediments, oils and floatable debris prior to draining into a detention system. The CDS Hydrodynamic separator units are equipped to induce a vortex to separate solid and floatable contaminants from stormwater.

Catch Basins and Manholes

Greenport Crossings, LLC is responsible for cleaning the catch basins and manholes on the properties. The sumps shall be pumped by a New York-Licensed hauler, and the sand and other debris disposed of legally. The road sand may be reused for winter sanding, but may not be stored on-site. As part of the hauling contract, the hauler shall notify the property owner in writing where the material is being disposed.

Each catch basin shall be inspected every four months, with one inspection occurring during the month of April. Any debris occurring within one foot from the bottom of each sump shall be removed by Vacuum "Vactor" type of maintenance equipment.

During the inspection of each of the catch basin sumps, the hoods (where provided) on each of the outlet pipes shall also be observed. If the hood is damaged or off it's hanger, it shall be reset or repaired. Any floatables on the water surface shall be removed and disposed of.

An inspection report shall be completed and the findings and any corrective action taken shall be noted. The report shall be kept with the SWPPP.

CDS Hydrodynamic Separator

Greenport Crossings, LLC is responsible for cleaning the CDS Hydrodynamic separator unit after construction. The CDS Hydrodynamic separator bottom, outlet, and inlet pipes shall be cleared of any debris and sediment that may have collected and shall be removed by Vacuum "Vactor" type of maintenance equipment to be trucked off by a New York-Licensed hauler, and disposed of legally. The CDS Hydrodynamic separator shall be inspected for damage and repaired by a contractor licensed by the manufacturer to repair such units.

An inspection report shall be completed and the findings, and any corrective action taken shall be so noted. The report shall be kept on file with the SWPPP.

Operations & Maintenance Plan Proposed Commercial Development, 09c3290 OperMaint.DOC Greenport, New York 10/09/09

Site Maintenance

Driveways and Parking Lots

Driveways and parking lots shall be swept during the month of April to remove winter accumulations of road sand and monthly to clean trash and debris. Road sand may be reused for winter sanding, but may not be stored on-site. As part of the hauling contract, the hauler shall notify the property owner in writing where the material is being disposed.

Landscaping

Landscaped areas will be maintained by the tenants. Normally the landscaping maintenance will consist of pruning, mulching, planting, mowing lawns, raking leaves, etc,. Use of fertilizers and pesticides will be controlled and limited to minimal amounts necessary for healthy landscape maintenance.

Soil tests will be performed prior to fertilization. Trees will be fertilized no more than once in the fall season with an organic fertilizer. Shrubs will be fertilized with an organic slow-release fertilizer each spring. Lawns shall receive a minimum of one application of fertilizer in the Fall. Liming of lawn areas to control pH will be done in the spring if testing indicates that it is necessary.

The lawn areas, once established, will be maintained at a typical height of 3 ½". This will allow the grass to be maintained with minimal impact from weeds and/or pests.

Pesticides will only be used as a control method when a problem has been clearly identified and other natural control methods are not successful. All pesticide applications shall be by licensed applicators, where necessary.

Topsoil, brush, leaves, clippings, woodchips, mulch, equipment, and other material shall be stored off site.

Trash Collection

All trash will be collected on a regular basis and disposed of legally off-site.

Snow Removal & Storage

Snow shall be plowed from the driveways, parking lots and sidewalks as soon as practical during and after winter storms. Snow shall be piled within the right of way snow shelf, or the perimeter of the parking lots or hauled off site and legally disposed of.

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Utilities

Sanitary Sewer System

The land owner will be responsible for maintaining the sewer laterals from the property line to the building. Annual inspections of the cleanouts within the laterals will be conducted

Water System

The property owner will be responsible for maintaining the water system from the property line to the building.

Electric\Telephone\Cable TV System

The electric system will be owned and maintained up to the transformers by the electric company. The property owner will maintain the secondary lines from the transformer to the buildings. The telephone system will be owned and maintained by phone company up to the buildings. The cable TV system will be owned and maintained by the cable company.

Site Lighting System

The tenants will be responsible for maintaining the site lighting from the property line to the building

10/09/09

Operations & Maintenance Plan Proposed Commercial Development, 09c3290 OperMaint.DOC Greenport, New York 10/09/09

Appendix A

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Maintenance Inspection Checklists

Project: Location: Site Status:

Date:

4. Dewatering (Monthly)

Dewaters between storms

Open Channel Operation, Maintenance, and Management Inspection Checklist

- PERSONAL PROPERTY - PROPERTY OF THE PROPERTY

Time:			
Inspector:			
Maintenance Item	SATISFACTORY/ UNSATISFACTORY	COMMENTS	
1. Debris Cleanout (Monthly)			
Contributing areas clean of debris			
2. Check Dams or Energy Dissipator	s (Annual, After N	lajor Storms)	
No evidence of flow going around structures		·	
No evidence of erosion at downstream toe			
Soil permeability			
Groundwater / bedrock	,		
3. Vegetation (Monthly)			
Mowing done when needed			
Minimum mowing depth not exceeded			
No evidence of erosion			
Fertilized per specification			

Maintenance Item	SATISFACTORY/ Unsatisfactory	COMMENTS	
5. Sediment deposition (Annual)			1
Clean of sediment			
6. Outlet/Overflow Spillway (Annua	l)		
Good condition, no need for repairs			
No evidence of erosion			
Comments:			
		<u> </u>	
Actions to be Taken:			
·			
	·		
		·	

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APPENDIX L

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CONSTRUCTION SITE LOG BOOK

APPENDIX H

STATE POLLUTANT DISCHARGE ELIMINATION SYSTEM FOR CONSTRUCTION ACTIVITIES CONSTRUCTION SITE LOG BOOK

Table of Contents

- I. Pre-Construction Meeting Documents
 - a. Preamble to Site Assessment and Inspections
 - b. Operator's Certification
 - c. Qualified Professional's Credentials & Certification
 - d. Pre-Construction Site Assessment Checklist
- II. Construction Duration Inspections
 - a. Directions
 - b. Modification to the SWPPP
- III. Monthly Summary Reports
- IV. Monitoring, Reporting, and Three-Month Status Reports
 - a. Operator's Compliance Response Form

Properly completing forms such as those contained in Appendix H meet the inspection requirement of NYS-DEC SPDES GP for Construction Activities. Completed forms shall be kept on site at all times and made available to authorities upon request.

I. PRE-CONSTRUCTION MEETING DOCUMENTS Project Name Permit No. Date of Authorization Name of Operator Prime Contractor

a. Preamble to Site Assessment and Inspections

The Following Information To Be Read By All Person's Involved in The Construction of Stormwater Related Activities:

The Operator agrees to have a qualified professional¹ conduct an assessment of the site prior to the commencement of construction² and certify in this inspection report that the appropriate erosion and sediment controls described in the SWPPP have been adequately installed or implemented to ensure overall preparedness of the site for the commencement of construction.

Prior to the commencement of construction, the Operator shall certify in this site logbook that the SWPPP has been prepared in accordance with the State's standards and meets all Federal, State and local erosion and sediment control requirements.

When construction starts, site inspections shall be conducted by the qualified professional at least every 7 calendar days and within 24 hours of the end of a storm event of 0.5 inches or greater (Construction Duration Inspections). The Operator shall maintain a record of all inspection reports in this site logbook. The site logbook shall be maintained on site and be made available to the permitting authorities upon request. The Operator shall post at the site, in a publicly accessible location, a summary of the site inspection activities on a monthly basis (Monthly Summary Report).

The operator shall also prepare a written summary of compliance with this general permit at a minimum frequency of every three months (Operator's Compliance Response Form), while coverage exists. The summary should address the status of achieving each component of the SWPPP.

Prior to filing the Notice of Termination or the end of permit term, the Operator shall have a qualified professional perform a final site inspection. The qualified professional shall certify that the site has undergone final stabilization³ using either vegetative or structural stabilization methods and that all temporary erosion and sediment controls (such as silt fencing) not needed for long-term erosion control have been removed. In addition, the Operator must identify and certify that all permanent structures described in the SWPPP have been constructed and provide the owner(s) with an operation and maintenance plan that ensures the structure(s) continuously functions as designed.

^{1 &}quot;Qualified Professional means a person knowledgeable in the principles and practice of erosion and sediment controls, such as a Certified Professional in Erosion and Sediment Control (CPESC), soil scientist, licensed engineer or someone working under the direction and supervision of a licensed engineer (person must have experience in the principles and practices of erosion and sediment control).

^{2 &}quot;Commencement of construction" means the initial removal of vegetation and disturbance of soils associated with clearing, grading or excavating activities or other construction activities.

^{3 &}quot;Final stabilization" means that all soil-disturbing activities at the site have been completed and a uniform, perennial vegetative cover with a density of eighty (80) percent has been established or equivalent stabilization measures (such as the use of mulches or geotextiles) have been employed on all unpaved areas and areas not covered by permanent structures.

b. Operators Certification

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. Further, I hereby certify that the SWPPP meets all Federal, State, and local erosion and sediment control requirements. I am aware that false statements made herein are punishable as a class A misdemeanor pursuant to Section 210.45 of the Penal Law.

Name (please print):	
Title	Date:
Address:	
Phone:	Email:
Signature:	-
"I hereby certify that I mee project and that the approp the following Pre-construc	the criteria set forth in the General Permit to conduct site inspections for this late erosion and sediment controls described in the SWPPP and as described in on Site Assessment Checklist have been adequately installed or implemented, dness of this site for the commencement of construction."
Name (please print):	
Title	Date:
Address:	
	ail:
Signature:	

d. Pre-construction Site Assessment Checklist (NOTE: Provide comments below as necessary)

1.1	Notio	ce of Intent, SWPPP, and Contractors Certification:
Ye	s No	
[]	[]	[] Has a Notice of Intent been filed with the NYS Department of Conservation? [] Is the SWPPP on-site? Where?
[]	[]	[] Is the Plan current? What is the latest revision date?
[]		[] Is a copy of the NOI (with brief description) onsite? Where?
[]	[]	[] Have all contractors involved with stormwater related activities signed a contractor's certification?
2. I	Reso	urce Protection
Ye	s No	
		[] Are construction limits clearly flagged or fenced?
[]	[]	[] Important trees and associated rooting zones, on-site septic system absorption fields, existing vegetated areas suitable for filter strips, especially in perimeter areas, have been flagged for protection.
[]	[]	[] Creek crossings installed prior to land-disturbing activity, including clearing and blasting.
3. 5	Surfa	ace Water Protection
Yes	s No	
[]		[] Clean stormwater runoff has been diverted from areas to be disturbed.
		[] Bodies of water located either on site or in the vicinity of the site have been identified and protected.
[]		[] Appropriate practices to protect on-site or downstream surface water are installed.
		[] Are clearing and grading operations divided into areas <5 acres?
		lized Construction Entrance
	s No	
		[] A temporary construction entrance to capture mud and debris from construction vehicles before they enter the public highway has been installed.
[]	[]	[] Other access areas (entrances, construction routes, equipment parking areas) are stabilized immediately as work takes place with gravel or other cover.
[]	[]	[] Sediment tracked onto public streets is removed or cleaned on a regular basis.
		neter Sediment Controls
Yes	No	
		[] Silt fence material and installation comply with the standard drawing and specifications.
[]	[]	[] Silt fences are installed at appropriate spacing intervals
[]	[]	[] Sediment/detention basin was installed as first land disturbing activity.
[]	[]	[] Sediment traps and barriers are installed.
6. I	Polli	ntion Prevention for Waste and Hazardous Materials
Yes	No	NA
[]	[]	[] The Operator or designated representative has been assigned to implement the spill prevention avoidance and response plan.
[]	[]	[] The plan is contained in the SWPPP on page
		Appropriate materials to control spills are onsite. Where?

- Principal Principal Marketham de Carlo de Car

II. CONSTRUCTION DURATION INSPECTIONS

a. Directions:

Inspection Forms will be filled out during the entire construction phase of the project. Required Elements:

- (1) On a site map, indicate the extent of all disturbed site areas and drainage pathways. Indicate site areas that are expected to undergo initial disturbance or significant site work within the next 14-day period;
- (2) Indicate on a site map all areas of the site that have undergone temporary or permanent stabilization;
- (3) Indicate all disturbed site areas that have not undergone active site work during the previous 14-day period;
- (4) Inspect all sediment control practices and record the approximate degree of sediment accumulation as a percentage of sediment storage volume (for example, 10 percent, 20 percent, 50 percent);
- (5) Inspect all erosion and sediment control practices and record all maintenance requirements such as verifying the integrity of barrier or diversion systems (earthen berms or silt fencing) and containment systems (sediment basins and sediment traps). Identify any evidence of rill or gully erosion occurring on slopes and any loss of stabilizing vegetation or seeding/mulching. Document any excessive deposition of sediment or ponding water along barrier or diversion systems. Record the depth of sediment within containment structures, any erosion near outlet and overflow structures, and verify the ability of rock filters around perforated riser pipes to pass water; and
- (6) Immediately report to the Operator any deficiencies that are identified with the implementation of the SWPPP.

CONSTRUCTION DURATION INSPECTIONS Page 1 of _____ SITE PLAN/SKETCH Date of Inspection Inspector (print name)

forms is accurate and complete.

Qualified Professional (print name)

The above signed acknowledges that, to the best of his/her knowledge, all information provided on the

Qualified Professional Signature

CONSTRUCTION DURATION INSPECTIONS

Page 2 of _____

\cdot
Yes No NA
[] [] Is there an increase in turbidity causing a substantial visible contrast to natural conditions? [] [] Is there residue from oil and floating substances, visible oil film, or globules or grease? [] [] All disturbance is within the limits of the approved plans. [] [] Have receiving lake/bay, stream, and/or wetland been impacted by silt from project?
Housekeeping
1. General Site Conditions
Yes No NA
 [] [] Is construction site litter and debris appropriately managed? [] [] Are facilities and equipment necessary for implementation of erosion and sediment control in working order and/or properly maintained?
[] [] Is construction impacting the adjacent property? [] [] Is dust adequately controlled?
2. Temporary Stream Crossing
Yes No NA
[] [] Maximum diameter pipes necessary to span creek without dredging are installed. [] [] Installed non-woven geotextile fabric beneath approaches.
[] [] Is fill composed of aggregate (no earth or soil)?
[] [] Rock on approaches is clean enough to remove mud from vehicles & prevent sediment from entering stream during high flow.
Runoff Control Practices
1. Excavation Dewatering
Yes No NA
[] [] Upstream and downstream berms (sandbags, inflatable dams, etc.) are installed per plan. [] [] Clean water from upstream pool is being pumped to the downstream pool. [] [] Sediment laden water from work area is being discharged to a silt-trapping device. [] [] Constructed upstream berm with one-foot minimum freeboard.
2. Level Spreader
Yes No NA
[] [] Installed per plan.
[] [] Constructed on undisturbed soil, not on fill, receiving only clear, non-sediment laden flow. [] [] Flow sheets out of level spreader without erosion on downstream edge.
3. Interceptor Dikes and Swales
Yes No NA
[] [] Installed per plan with minimum side slopes 2H:1V or flatter. [] [] Stabilized by geotextile fabric, seed, or mulch with no erosion occurring. [] [] Sediment-laden runoff directed to sediment trapping structure
- "

THE CONTROL OF THE PROPERTY OF

CONSTRUCTION DURATION INSPECTIONS Page 3 of **Runoff Control Practices (continued)** 4. Stone Check Dam Yes No NA [] [] Is channel stable? (flow is not eroding soil underneath or around the structure). [] [] Check is in good condition (rocks in place and no permanent pools behind the structure). [] [] Has accumulated sediment been removed?. 5. Rock Outlet Protection Yes No NA [] [] Installed per plan. [] [] [] Installed concurrently with pipe installation. Soil Stabilization 1. Topsoil and Spoil Stockpiles Yes No NA [] [] Stockpiles are stabilized with vegetation and/or mulch. [] [] Sediment control is installed at the toe of the slope. 2. Revegetation Yes No NA [] [] Temporary seedings and mulch have been applied to idle areas. [] [] 4 inches minimum of topsoil has been applied under permanent seedings **Sediment Control Practices** 1. Stabilized Construction Entrance Yes No NA [] [] Stone is clean enough to effectively remove mud from vehicles. [] [] Installed per standards and specifications? [] [] Does all traffic use the stabilized entrance to enter and leave site? [] [] Is adequate drainage provided to prevent ponding at entrance? 2. Silt Fence Yes No NA [] [] Installed on Contour, 10 feet from toe of slope (not across conveyance channels). [] [] Joints constructed by wrapping the two ends together for continuous support. [] [] Fabric buried 6 inches minimum. [] [] Posts are stable, fabric is tight and without rips or frayed areas. Sediment accumulation is ____% of design capacity.

CONSTRUCTION DURATION INSPECTIONS

Page	4	of	

Sediment Control Practices (continued)

3. Storm Dr	ain Inlet Protection (Use for Stone & Block; Filter Fabric; Curb; or, Excavated practices)
Yes No NA	
[] [] []]	installed concrete blocks lengthwise so open ends face outward, not upward.
נוֹז וֹז וֹז	Placed wire screen between No. 3 crushed stone and concrete blocks.
נוֹז וֹז וֹז	Drainage area is 1acre or less.
נוֹז וֹז וֹז	Excavated area is 900 cubic feet.
	Excavated side slopes should be 2:1.
ří ří říz	2" x 4" frame is constructed and structurally sound.
נוֹ וֹוֹ וֹוֹ	Posts 3-foot maximum spacing between posts.
נוֹז וֹז וֹז	Fabric is embedded 1 to 1.5 feet below ground and secured to frame/posts with staples at max 8-
	inch spacing.
	Posts are stable, fabric is tight and without rips or frayed areas.
	cumulation% of design capacity.
4. Temporar	ry Sediment Trap
Yes No NA	
[] [] [](Outlet structure is constructed per the approved plan or drawing.
	Geotextile fabric has been placed beneath rock fill.
	cumulation is % of design capacity.
5. Temporai	ry Sediment Basin
Yes No NA	
[] [] [] []	Basin and outlet structure constructed per the approved plan.
	Basin side slopes are stabilized with seed/mulch.
ון] [] []ו	Drainage structure flushed and basin surface restored upon removal of sediment basin facility.
	cumulation is% of design capacity.
Note:	Not all erosion and sediment control practices are included in this listing. Add additional pages
1	to this list as required by site specific design.
	Construction inspection checklists for post-development stormwater management practices can
1	be found in Appendix F of the New York Stormwater Management Design Manual.

CONSTRUCTION DURATION INSPECTIONS

b. Modifications to the SWPPP (To be completed as described below)

The Operator shall amend the SWPPP whenever:

- 1. There is a significant change in design, construction, operation, or maintenance which may have a significant effect on the potential for the discharge of pollutants to the waters of the United States and which has not otherwise been addressed in the SWPPP; or
- 2. The SWPPP proves to be ineffective in:
 - a. Eliminating or significantly minimizing pollutants from sources identified in the SWPPP and as required by this permit; or
 - b. Achieving the general objectives of controlling pollutants in stormwater discharges from permitted construction activity; and
- 3. Additionally, the SWPPP shall be amended to identify any new contractor or subcontractor that will implement any measure of the SWPPP.

Modification & Reason:
·

III. Monthly Summary of Site Inspection Activities

Name of Permit	ted Facility:	Today's Date:	Reporting Month:		
Location:			Permit Identification #:		
Name and Telep	hone Number of Site Inspec	etor:			
Data	Danielou / Dain & III				
Date of Inspection	Regular / Rainfall based Inspection	Name of Inspector	· Iten	ns of Concern	
				7444	
<u>. </u>					
"I certify under p accordance with submitted. Based gathering the info	tor Certification: enalty of law that this docume a system designed to assure the lon my inquiry of the person formation, the information subsware that false statements made."	nat qualified personnel prope or persons who manage the mitted is, to the best of my le	erly gathered and evalus system, or those person mowledge and belief,	nated the information ns directly responsible for true, accurate, and	
	ttee or Duly Authorized Represer representatives <u>must</u> have		mittee or Duly Authorize	·	

APPENDIX M

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REPORTING AND RETENTION OF RECORDS

UPON TERMINATION OF PERMIT COVERAGE THE OPERATOR IS TO MAINTAIN THE FOLLOWING:

- A. MAINTAIN COPIES OF THE FOLLOWING FOR 5 YEARS AFTER FINAL STABILIZATION OF THE SITE.
 - 1. NOTICE OF INTENT
 - 2. NOTICE OF INTENT ACKNOWLEDGMENT LETTER
 - 3. STORMWATER POLLUTION PREVENTION PLAN
 - 4. SWPPP ACCEPTANCE FORM
 - 5. ALL INSPECTION REPORTS
 - 6. NOTICE OF TERMINATION
- B. ALL CORRESPONDANCE TO BE SENT TO NYSDEC REGION #3
 - 1. PERMITS: 21 SO PUTT CORNERS RD, NEW PLATZ, NY 12561
 - 2. SPDES 100 HILLSIDE AVE, # 1W, WHITE PLAINS NY 10603



Appendix 6

Stormwater Pollution Prevention Plan/Erosion Control Plan

GREENPORT CROSSINGS

General Description and Sequence of Work for SWPPP Additional Information

- Project is to be a phased project.
- No more than 5 acres are to be disturbed at one time without stabilization.
- Site has been subdivided into 3 parcels all under same ownership.
 - -Retail Parcel 0.92 Acres +/-
 - -Family Entertainment Parcel 1.15 Acres +/
 - -Hotel Parcel $(4.70 \pm 4.70 \pm$
- Total Site Area = 10.31 Acres
 Total Site Area to be disturbed = 7.03 Acres (No more than 5 acres at a time).

Total Offsite Area = 0.19 Acres

Total Offsite Area to be disturbed on Route 66 = 0.16 Acres (for sidewalks, curbs, pavement, driveways)

- Project Sequence
 - 1. Perform abatement of hazardous building materials on existing building- <u>0 acres</u> disturbed.
 - 2. Perform environmental hot spots excavation/remediation per BCP Remedial Plan <0.5 acres disturbed and stabilized.

Location: Portion of EDA-1.

Erosion Controls used – silt fence, inlet protection, anti-tracking pad.

3. Partial Building Demolition $-\frac{1.75 \text{ acres}}{1.00 \text{ acres}}$ disturbed and stabilized.

Location: Portion of EDA-1, Portion of EDA-2

Erosion Controls used – silt fence, inlet protection, anti-tracking pad

4. Pavement scarification, crushing and stabilization - <u>3.30 acres</u> disturbed and stabilized in place.

Location: Portion of EDA-1, Portion of EDA-2.

Erosion Controls used – silt fence, inlet protection, anti-tracking pad, sediment trap, diversion ditch.

5. Retail building and Retail Site Construction and Partial Main Site Drive Construction (Work area extends beyond parcel property line)

1.34 acres disturbed and stabilized.

Location: Portion of EDA-1.

Erosion Controls used – sediment trap, diversion ditch, silt fence, inlet protection, anti-tracking pad.

END OF PHASE 1 WORK

6. Offsite Roadwork Improvements

0.16 acres disturbed and stabilized.

(Sidewalks, curbs, pavements, driveways)

Location: EDA-3

Erosion Controls used – inlet protection, silt fence.

7. Family Entertainment Center Building Renovation and Partial Parking Area

Construction

2.11 acres disturbed and stabilized.

Location: Portion of EDA-1.

Erosion Controls Used – inlet protection, silt fence, anti-tracking pad.

END OF PHASE 2 WORK

8. Hotel Construction and Partial Parking Area Construction

3.57 acres disturbed and stabilized

Location: Portion of EDA-1, Portion of EDA-2

Erosion Controls Used – inlet protection, silt fence, anti-tracking pad.

END OF PHASE 3 WORK

• No more than 5 acres will be disturbed at any one time per project sequence 1 through 8 above.

K:Jobs09/09C3290/Docs/Gen Descript & Sequence of Work.docx



Division of Water

Date of Training: 12/17/08

GP-0-08-001 Erosion & Sediment **Control Card Certificate** Name: Roman B Woronewych

SWT #545

Instructor/Training Location

Name: Donald W Lake Location: Greene County SWCD Trainer SWT #0001-T

Signature: Drold w Lake 1.

STORMWATER POLLUTION PREVENTION PLAN For CONSTRUCTION ACTIVITIES

Greenport Crossings Town of Greenport, NY

PREPARED FOR:

Greenport Crossings, LLC 40 Corbett Road Montgomery, NY

SITE CONTRACTOR:

EMERGENCY 24-HOUR CONTACT:

Harbalwant Singh

Ph. 845-430-1688

Prepared by



BL Companies 355 Research Parkway Meriden, Ct 06450 Tel. (203) 630-1406 Fax (203) 630-1406

October 10, 2009 Revised: June 9, 2010 Revised: April 13, 2011

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that false statements made herein are punishable as a Class A misdemeanor pursuant to Section 210.45 of the Penal Law.

Signature of Greenport Crossing, LLC Responsible Corporate Officer

Printed Name and Title

Signature of Engineer and Sea

Printed Name

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- SEDIMENT AND EROSION CONTROL NOTES AND DETAILS (EC-2)
- OFF-SITE ROADWAY PLAN (HWY-1)
- Detail Sheets (DN-2 DN-3)
- C. Notice of Intent (NOI) and Confirmation of NOI Delivery (to be inserted upon submittal)
- D. Copy of the Letter from the NOI Processing Center Authorizing Permit Coverage (to be inserted upon receipt)
- E. New York State Department of Environmental Conservation SPDES Construction General Permit
- F. Blank Notice of Termination (NOT) Form
- G. Operators Certification (operator to sign and insert into site SWPPP copy)
- H. Contractor / Subcontractor Certification Forms
- I. Construction Site Notice
- J. Permit Eligibility Documentation (to be inserted upon receipt)
- K. Stormwater Management Report
- K2. Operations and Maintenance Plan
- L. Construction Site Log Book
- M. Reporting and Retention of Records

Introduction and Definitions

The Stormwater Pollution Prevention Plan (SWPPP) purpose is to summarize and provide general requirements under environmental standards governing stormwater discharges from construction sites, so that construction activities associated with the site development will be in compliance with those requirements. The SWPPP discusses the responsibilities of the Operator and the Contractor, Erosion and Sediment Control Methods, Compliance Requirements, Inspection and Maintenance Procedures, and Record Keeping Requirements.

SWPPP Definitions

<u>Operator</u> shall be any party that have either has operational control over construction plans and specifications, including the ability to make modification to those plans and specifications or day-to-day operational control of those activities at a project which are necessary to ensure compliance with the SWPPP for the site or other permit conditions.

<u>Contractor</u> shall be that person or entity identified as such in the construction contract with the Operator. The term "Contractor" shall also include the Contractor's authorized representative, as well as any and all subcontractors retained by the Contractor.

<u>General Permit</u> shall mean the general stormwater permit for construction activities issued by the New York State Department of Environmental Conservation.

<u>Operator's Engineer</u> the person or entity retained by an Operator to design and oversee the implementation of the SWPPP.

<u>Qualified Inspector</u> is defined as a person knowledgeable in the principles and practices of erosion and sediment controls who possesses the skills to assess conditions at the construction site that could impact stormwater quality and to assess the effectiveness of any sediment and erosion control measures selected to control the quality of stormwater discharges from the construction activity.

Section 1.0 Responsibilities for Compliance with Storm Water Discharge Permit Regulations

Operator's Responsibilities:

- 1. An authorized corporate officer must sign the NOI and the SWPPP Certification Statement located on the cover page of the SWPPP.
- 2. Require the Contractor to fully implement the SWPPP.
- 3. Forward a copy of the original permit certificate received from the NYSDEC to the Contractor for inclusion in the SWPPP and display at the job site.
- 4. Ensure, through periodic inspections by Operator's Project Manager, and document that the Contractor is implementing the controls, inspections, maintenance, record keeping, and all other requirements of the SWPPP.
- 5. File an appropriately signed Notice of Termination (NOT) form when site work construction is completed and stabilization is achieved.
- 6. Request and receive all SWPPP records from the Contractor and archive those records for a minimum of five (5) years after the NOT is filed.
- 7. Provide and document certification and training of the Contractor's Project Manager and Superintendent, which shall be performed at a pre-construction meeting and administered by the Operator's Project Manager.
- 8. If an off-site borrow or fill location or material storage site is to be used by the contractor or their subcontractor, the contractor shall be responsible to ensure that all appropriate permits have been obtained for such use. These permits may include local, state and federal permits. Copies of these permits are to be forward to the Operator for verification.
- 9. Provide qualified inspectors, and documentation of qualifications, for the controls implemented at the job site.

Contractor's Responsibilities:

- 1. Sign the SWPPP General Contractor's Certification Form in the SWPPP prepared for the job site
- 2. Provide subcontractor training and require all subcontractors to sign the Subcontractor's Certification Form in the SWPPP prepared for the job site.
- 3. Implement the erosion control, stabilization and other requirements of the SWPPP.
- 4. Provide qualified inspectors, and documentation of qualifications, for the controls implemented at the job site.
- 5. Conduct all necessary inspections at the required intervals and prepare and retain written documentation of those inspections required by the NYSDEC General Permit.
- 6. Keep a copy of the SWPPP, the NOI, permit certificates, permit language; Materials Management Plan (MMP), and inspection records on the job site.
- 7. Post any documents required to be posted under the terms of the General Permit in a prominent place near the job site entrance.
- 8. Contractor shall provide monthly training sessions for all subcontractors involved with the SWPPP.
- 9. Update and make changes to the SWPPP and supporting documents (such as the BMPs and/or MMP) as needed and with the approval of the Operator and the Operator's Engineer

10. Prepare and sign a NOT (Notice of Termination) form when site work construction is completed and stabilization is achieved.

大学的复数形式 电影戏音 医多种性皮肤 "我就是我们的时候我们也会说话,我们就是这些时间的时候,我也没有一个女人的人,我们就是这个人的人,我们就是这个人的人,我

- 11. Transfer the SWPPP documents, along with all NOI, permit certificates, NOT, and written records required by the General Permit to the Operator for archiving in both paper and optically scanned format on a CD.
- 12. If an off-site borrow or fill location or material storage site is to be used by the contractor or their subcontractor, the contractor shall be responsible to ensure that all appropriate permits have been obtained for such use. These permits may include local, state and federal permits. Copies of these permits are to be forward to the Operator for verification.

Section 2.0 Written Stormwater Pollution Prevention Plan

Section 2.1 SCOPE AND PROCEDURES

Significant care has been taken on the development of the Stormwater Pollution Prevention Plan in order to properly implement the requirements of the National Storm Water Pollution Prevention Program, in addition to the New York State Department of Environmental Conservation State Pollutant Discharge Elimination System (SPDES) Construction General Permit which governs the stormwater discharges during construction in accordance with erosion control practices. The Contractor's participation in this program is mandatory and its non-compliance is subject to various remedies, including without limitation, fines and civil penalties incurred by the Operator.

The Contractor shall manage the discharge of stormwater from the site in accordance with the New York State Department of Environmental Conservation Construction General Permit for Construction Activities Conditions. The Contractor shall be responsible for conducting the stormwater management practices in accordance with the permit. Potential pollutant sources for this project include exposed soil, vehicle fuels and lubricants, chemicals associated with building construction, and building materials. The Contractor shall be responsible for providing qualified inspectors to conduct the inspections required by the SWPPP. The Contractor shall be responsible for any enforcement action taken or imposed by federal, state, or local agencies, including the cost of fines, construction delays, and remedial actions resulting from the Contractor's failure to comply with the permit provisions. It shall be the responsibility of the Contractor to make any changes to the SWPPP necessary when the Contractor or any of his subcontractors elects to use borrow or fill or material storage sites, either contiguous to or remote from the construction site, when such sites are used solely for this construction site. Such sites are considered to be part of the construction site covered by the permit and this SWPPP. Off-site borrow, fill, or material storage sites, which are used for multiple construction projects, are not subject to this requirement, unless specifically required by state or local jurisdictional entity regulations. The Contractor should consider this requirement in negotiating with earthwork subcontractors, since the choice of an off-site borrow, fill, or material storage site may impact their duty to implement, make changes to, and perform inspections required by the SWPPP for the site.

The Operator (prior to the start of construction) will petition the New York State Department of Environmental Conservation for the stormwater discharges during construction at the site, which will be covered by the New York State Department of Environmental Conservation SPDES General Permit for Construction Activity for the State of New York. A Notice of Intent (NOI) to be covered under this permit will be filed by the Operator. The NOI must be submitted at least five (5), or sixty (60) business days, as appropriately determined in Part II of the New York State Department of Environmental Conservation SPDES General Permit for Stormwater Discharges from Construction Activity prior to any earth disturbing activities. Confirmation of delivery of the NOI to the NYSDEC must be included in the SWPPP. The signatory on the NOI must sign all documents (i.e., inspection reports) associated with the SWPPP. If the signatory chooses not to sign all documents, he/she must designate a duly authorized representative to sign all relevant documents. This designation must be made in writing and be included in the SWPPP. The duly authorized representative may be either a named individual or any individual occupying a named position. All stormwater measures, as outlined in this report, shall be in place and functioning before the start of any construction activities. Once all stormwater control measures are in place, the contractor shall notify the operator so that the operator's engineer will perform an assessment of the site and verify that the appropriate erosion and sediment controls have been installed and implemented.

Certification and training of the Contractor's Project Manager and Superintendent will be performed at the pre-construction meeting and administered by the Operator's Project Manager and Operator's Engineer. This certification and training shall stress the importance of the erosion and sediment control for water quality protection, the implementation of the erosion and sediment control plan, the importance to proper installation of erosion and sediment control measures, regular inspection by Qualified Personnel of erosion and sediment control measures, maintenance of erosion and sediment control measures, and record-keeping for inspections and maintenance activities. Upon completion of the certification and training, the project will receive a copy of the SWPPP for use by the Contractor's Project Manager and Superintendent with all required certifications and record keeping forms involved with the installation and/or maintenance of erosion and sediment control measures. The Operator's certification and training shall be in addition to any federal, state or local certifications or training required or available to comply with NPDES stormwater permit requirements by the Contractor. A completed form must be included in the SWPPP to provide documentation that the Pre-Construction Meeting has been conducted in compliance with these requirements.

The SWPPP provides forms for both the General Contractor and Subcontractor(s) identifying the business name, address and telephone number along with the responsible representative for the Contractor and all subcontractors' who will implement the measures identified in the SWPPP. The general contractor shall sign the, general contractor's certification and all subcontractors shall sign the, subcontractor's certification, verifying they have been instructed on how to comply with and fully understand the requirements of the New York State Department of Environmental Conservation and SWPPP. These certifications must be signed, by a responsible corporate officer or other party meeting the signatory requirements of the Federal NPDES Permit and New York State Department of Environmental Conservation SPDES General Permit for Stormwater Discharges from Construction Activity Part VII. Section H, on behalf of each entity, prior to the Beginning of any Construction Activities and shall be filed in the project's SWPPP.

One copy of the SWPPP will be provided to the Operator and one copy will be provided for the site superintendent who shall update and maintain it on site at all times throughout the construction of the project. In addition, the site superintendent shall make the sites copy of the SWPPP readily available upon request by the Operator or New York State Department of Environmental Conservation or any other agency with regulatory authority over stormwater issues, and shall be kept on-site until the site complies with the final stabilization requirements. A notice must be posted near the main entrance of the construction site which contains a completed NOI, the location of the SWPPP and the name and phone number of a contact person responsible for scheduling SWPPP viewing times, and any other state specific requirements. The Notice of Coverage (NOC) or other form notifying the applicant that coverage under the applicable permit has been obtained must also be posted, once it is received.

Site Inspections are required at least once every seven (7) calendar days and within 24 hours after a rainfall event, and shall continue until the site complies with the final stabilization section of this document. A "Qualified" Inspector must conduct inspections. "Qualified" is defined as a person knowledgeable in the principles and practices of erosion and sediment controls who possesses the skills to assess conditions at the construction site that could impact stormwater quality and to assess the effectiveness of any sediment and erosion control measures selected to control the quality of stormwater discharges from the construction site. Each site inspection must document the inspector's findings and any required maintenance and/or repair for the erosion and sedimentation control measures. These documents are used to prove that the required inspection and maintenance were performed and shall be placed in the SWPPP. In addition to inspection and maintenance reports, records should be kept of the Construction Activities that occur on the site.

The inspection reports should also identify if any revisions to the SWPPP are warranted due to unexpected conditions. The SWPPP shall be amended whenever there is a change in contractors, offsite borrow site location, site design, construction phasing, spill or discharge of a hazardous material, or maintenance at the construction site that could have a significant effect on the discharge of pollutants to

surface waters that has not been previously addressed in the SWPPP. In addition to modifying the SWPPP, the site plans and reports may also require an amendment. Any changes to the SWPPP must be made in writing within 7 days of the date such modification. The Contractor's failure to modify the SWPPP to include off-site borrow or fill areas used solely for the project or to monitor or report deficiencies to the Operator will result in the Contractor being liable for fines resulting from any federal, state, or local agency enforcement action.

The Contractor shall provide monthly training sessions for all personnel and subcontractors involved with installing, applying, performing, maintaining and inspection of the SWPPP. Logs of each monthly training session shall be kept in the SWPPP. Training shall include construction requirements and maintenance for site-specific erosion control measures Maintenance Procedures for each of the Control Measures, spill prevention methods and cleanup procedures, and record keeping requirements.

The site will be considered finally stabilized when all soil disturbing activities have been completed and a uniform vegetative cover with a density of 85% for the unpaved areas and areas not covered by permanent structures has been established or equivalent permanent stabilization measures have been established and the site no longer discharges storm water associated with construction activities and a Notice of Termination (NOT) form has been filed by the Operator with the New York State Department of Environmental Conservation. The Operator's Project Manager must complete the NOT. The NOT must be signed by the signatory (or equivalent position) on the NOI. The Operator's Project Manager must provide a completed copy of the NOT to the Contractor for inclusion in the final SWPPP, which will then be scanned into the final SWPPP document as required. This filing terminates coverage under the General Permit and terminates the Contractor's responsibility to implement the SWPPP, but the requirements of the SWPPP, including periodic inspections, must be continued until the NOT is filed. Upon achieving this milestone, the Contractor shall also submit "Final Stabilization Certification/Termination Checklist".

Note: Prior to submitting the NOT, the permittee must identify all permanent stormwater management structures that have been constructed and provide the owners of such structures with a manual describing the operation and maintenance practices that will be necessary in order for the structure to function as designed after the site has been stabilized. The permittee must also certify that the permanent structures have been constructed as described in the SWPPP.

Section 2.2 PROJECT NAME AND SITE LOCATION

Greenport Crossings Town of Greenport Columbia County, New York

Total site area = 10.31 acres. Total site area to be disturbed = 7.03 acres (no more than 5 ac at a time). Total offsite area = 0.19 acres in Route 66. Total offsite area to be disturbed = 0.16 acres.

Section 2.3 OPERATORS NAME AND ADDRESS

Greenport Crossing, LLC 40 Corbett Road Montgomery, New York Phone: 845-430-1688

Contact person: Harbalwant Singh

Section 2.4.1 EXISTING CONDITIONS

The subject property consists of relatively flat unoccupied industrial site. The subject parcel is 10.31 acres located at 181 Union Turnpike, Town of Greenport, New York, Columbia County, New York. The site contains an unoccupied industrial building with associated improvements, grass, wooded, and wetland areas.

The subject property has a total relief of approximately 4-feet, sloping from the center of the site towards the north and towards the south. The area proposed for redevelopment is in the northern portion of the site and is developed. Part of the stormwater runoff currently drains north via overland flow to catch basins located in the NYSDOT right-of-way and the remainder flows to the on-site wetlands at the south end of the site. Because the site is currently developed, there are impervious areas and other improved features.

Section 2.4.2 PROPOSED CONDITIONS

The project involves the redevelopment of the unoccupied industrial parcel into a Hotel, Family Entertainment Center and a retail pad that include a gas station. A portion of the existing industrial building will be reused as part of the Hotel / Entertainment center.

The site is also enrolled in the NYSDEC Brownfield Cleanup Program (BCP). Management of Impacted Soil and Groundwater will comply with Best Management Practices and requirements of NYSDEC for the various material classifications of impacted soils.

The site will be graded to provide a relatively flat area for each of the proposed uses along with proposed driveways. Stormwater runoff will be collected in catch basins located at various locations throughout the parcel, then piped through a system of underground piping to a stormwater quality structure meeting NYSDEC requirements for total suspended solid removal. Peak post-construction flows will be less than preconstruction peak flows, for each watershed on site. Runoff will then discharge through existing drainage pipes located within the NYSDOT right of way.

Portions of the existing industrial building will be demolished and the remaining portions are to be redeveloped. Soil disturbing activities will include:

- A. Construction of temporary construction ingress / egress points and construction laydown areas
- B. Environmental remediation of building and site hotspots
- C. Partial demolition of existing building and removal of existing pavement.
- D. Construction of a temporary sediment trap
- E. Final grading and seeding
- F. Off-site improvements shall be made concurrently with items A through E above.

The site will be owned and developed by Greenport Crossing, LLC for which erosion and sediment controls have been developed and fully addressed in this written plan and the Erosion and Sediment Control Plan(s). See Sediment and Erosion Control Plans and associated Detail Sheets for additional details. The total acreage of this development is 10.31 acres of which 7.03 acres will be disturbed (5 ac max at any given time). Additionally, minor road improvements including new curbs, driveways and replacement of existing catch basins in Route 66 will disturb an additional 0.16 acres in the Route 66 highway limits.

Section 2.5 RUNOFF COEFFICIENT, SOILS AND RAINFALL INFORMATION

The initial coefficient of runoff for the pre-construction drainage area is "CN" = 89. The post-construction coefficient of runoff for the drainage area will be "CN" = 87.2 (calculation of weighted "CN" is shown below). The site drainage area is 10.69 acres of which 7.03 acres will be disturbed by construction activities.

The Route 66 drainage area is 0.19 acres of which 0.16 acres will be disturbed by construction activities. "CN" in the Route 66 drainage area is 98.

Calculation of "CN" value for post-construction site:

	CN	Area	AxCN
Impervious	98	5.02	492
Grass	80	1.03	82
Brush	77	4.48	345
Gravel	80	0.16	13
Total		10.69	932
Weighted CN	= 932/1	10.6 = 87.2	2

The site and Route 66 have soils, which are described by the USDA Soil Conservation Service as:

Ue - Udorthents, Smoothed

The site is in Columbia County, which receives an average of 47.9 inches rainfall annually with the highest amounts of rainfall received in the months of May (4.9 inches), July (4.8 inches), and August (5.1 inches).

Section 2.5.1 STORMWATER MANAGEMENT FACILITY

SPDES Phase II requirements for stormwater discharge are to provide attenuation of the post development run-off at the 1-yr, 10-yr and 100-yr events to that of existing and to provide for water quality treatment of the collected stormwater, so that 80% Total Suspended Solids (TSS) and 40% phosphorus removal is achieved. To meet the SPDES Phase II requirements, the 1-yr post-development run-off volume should be detained and released over a 24-hour period to provide channel protection to the downstream receiving waters. Overbank Flood Protection is based on 10-yr storm and Flood Control Criteria is based on a 100-yr storm.

Based on NYSDEC Stormwater Management Design Manual, Chapter 9 (Redevelopment Projects) the 1-yr, 10-yr and 100-yr criteria does not apply to redevelopment sites that have a reduction in the total impervious coverage from that of pre-development conditions. The Proposed development falls into this classification.

The proposed development does include a DEC approved alternative practice for Water Quality Treatment (WQv) as the redevelopment criteria for a 25% reduction in impervious coverage is not met (the proposed development will result in a 16% impervious coverage reduction).

Section 2.6 RECEIVING WATERS

The site will discharge to two locations, the first is to the north, which discharges into an existing Stormwater Collection System in the NYSDOT right-of-way that discharges to an unnamed tributary to the Claverack Creek. The other discharge is to an Army Corp of Engineers Wetland in the south portion of the site

A review of the protected TMDL waterways in New York, found at http://oaspub.epa.gov/waters/state_rept.control?p_state=NY did not identify Claverack Creek as being a waterway for which there is a total maximum daily load (TMDL) allocation. Four waters within Columbia County are listed in Appendix E of the New York State Department of Environmental Conservation SPDES General Permit for Stormwater Discharges from Construction Activity

Section 2.7 WETLANDS AND/OR OTHER SURFACE WATERS

There are 3.12 acres of wetlands on the property.

Section 2.8 EROSION AND SEDIMENT CONTROLS

Stabilization Practices (Permanent)

Permanent stabilization practices for this site include:

Land clearing activities shall be done only in areas where earthwork will be performed and shall progress, as earthwork is needed.

- A. Use of stabilization fabric for all slopes having a slope of 1V:3H or greater.
- B. Permanent seeding and planting of all unpaved areas using the hydromulching grass seeding technique.
- C. Installation of Rolled Erosion Control Products
- D. Mulching exposed areas.
- E. Vegetation preservation.

Stabilization Practices (Temporary)

Temporary stabilization practices for this site include:

Temporary seeding and planting of all unpaved areas using the hydromulching grass seeding technique.

- A. Mulching exposed areas.
- B. Soil Roughening.
- C. Frequent watering to minimize wind erosion during construction.

Structural Practices (Permanent)

Permanent structural practices for this site include:

- A. Drainage swales/ catch basins
- B. CDS Hydrodynamic Separator
- C. Catch Basins Sumps
- D. Wet Swales

Structural Practices (Temporary)

Structural practices for this site include:

- A. Inlet protection at catch basins using temporary sediment traps and silt fence
- B. Perimeter protection using silt fence and temporary drainage swales
- C. Stabilized construction ingress/egress
- D. Drainage swales

Sequence of Major Activities

The Contractor will be responsible for implementing the following erosion control and stormwater management control measures. The Contractor may designate these tasks to certain subcontractors as he sees fit, but the ultimate responsibility for implementing these controls and ensuring their proper functioning remains with the Contractor. The order of activities will be as follows (refer to the <u>Sediment and Control Plan and Detail Sheets</u> for details):

- A. Construct temporary construction entrances and exits at locations shown on the Erosion and Sediment Control Plan Sheets.
- B. Install perimeter silt fences
- C. Begin clearing and grubbing operations. Clearing and grubbing shall be done only in areas where earthwork will be performed and only in areas where building is planned to commence within 14 days after clearing and grubbing.
- D. Environmental remediation of building and remediation of site soil "hot spots".
- E. Commence building demolition as shown on the demolition plan in accordance with Local, State, and Federal regulations
- F. Commence pavement removal
- G. Install sediment trap and diversion ditches
- H. Commence site grading and begin storm system installation
- I. Disturbed areas of the site where construction activity has ceased for more than 14 days shall be temporarily seeded and watered.
- J. Install inlet/outlet protection at the locations of all grate inlets, curb inlets, and at the ends of all exposed storm sewer pipes. Finalize pavement subgrade preparation.
- **K.** Construct all curb, inlets, area inlets, and storm sewer manholes, as shown on the plans. Inlet protection may be removed temporarily for this construction.
- L. Remove inlet protection around inlets and manholes no more than 48 hours prior to placing stabilized base course.
- M. Offsite road improvements.
- N. Install base material as required for pavement.
- O. Final grading and seeding and planting
- P. Remove silt fencing after all exposed surfaces are stabilized.
- **Q.** Remove temporary construction exits only prior to pavement construction in these areas (These areas are to be paved last).

The project will be constructed with less than 5 acres disturbed at once. The site contractor shall prepare a detailed construction schedule for the construction activities. The Site contractor shall adhere to the provided phasing plans at all times during construction.

Storm Water Management

The site will drain at a point at the northwest corner of the property and to wetlands on the south end of the property. The following stormwater management measures shall be incorporated on the site to treat stormwater discharges after construction is completed: Catch Basins with sumps, grassed swales, and a CDS unit.

Operation and maintenance of the installed structures shall be the responsibility of the contractor until the site is deemed stable and turned over to the Operator.

Operation and maintenance schedule of installed stormwater management system:

- The site will be inspected every seven (7) calendar days
- All structures will be maintained in good working order; if repairs or other measures are found to be necessary, they will be made within 24 hours of report.
- Seeded areas shall be inspected for bare spots, washouts, and healthy growth.
- A maintenance inspection report will be made after each inspection and maintained onsite by the Operators Site Manager.

Off-Site Vehicle Tracking

A stabilized construction exit will be provided to help reduce vehicle tracking of sediments. The paved streets adjacent to the site entrance will be inspected daily and swept as necessary to remove any excess mud, dirt, or rock tracked from the site. Dump trucks hauling material from the construction site will be covered with a tarpaulin. The job site superintendent will be responsible for seeing that these procedures are followed.

Excavation Spoil Materials

Excavation spoil materials are generated during the excavation of the building footings and utilities installation. These materials must be properly managed to prevent them from contributing to storm water discharges. The materials generated from the development of this project will be managed by the following method: if suitable, spoils will be used for onsite fill otherwise the contractor will truck spoil material off site and a copy of the receiving site's permit will be added to this SWPPP.

Dust Control

One or more of the following methods will control wind erosion and dust:

- A. Covering 30% or more of the soil surface with a non-erodible material.
- B. Roughening the soil to produce ridges perpendicular to the prevailing wind. Ridges should be about six (6) inches in height.
- C. Frequent watering of excavation and fill areas.
- D. Providing gravel or paving at entrance/exit drives, parking areas and transit paths.

Construction Housekeeping Practices

A. All material resulting from clearing and grubbing will be stockpiled upslope from sedimentation controls.

- B. The Contractor will designate specific areas for equipment cleaning, maintenance, and repair. These areas will be protected by a temporary perimeter berm.
- C. The use of detergents for large-scale washing is prohibited.
- D. The contractor will develop a Spill Prevention and Response Plan for the site. This plan will outline the procedure to follow in case of an accidental spill. Appropriate contact names and phone numbers will be included.
- E. All material stockpile areas will be located in an area that minimizes the impacts of the materials affecting the stormwater quality. All toxic materials must be kept in waterproof containers.

Material Storage and Stockpiling

All material shall be stored per manufactures requirements, Stockpiling of material shall be monitored daily and in conformance with NYSDEC requirements for erosion control.

Sanitary Waste Disposal

Portable toilets may be permitted on-site and all sanitary waste shall be a hauled by NYS licensed hauler permitted to transport sanitary waste.

Collection of Waste Material

The site contractor shall provide an onsite trash-bin or dumpster for the collection of waste material which shall be disposed of at least once a week or more as required.

Concrete Waste From Trucks

The site contractor shall provide a designated place for an onsite concrete truck delivery washout. Said areas shall be protected with erosion control measures to prevent the runoff and pollution of downstream areas.

Contaminated Soils

Should contaminated soil be discovered during the course of construction, the Contractor shall be responsible for notifying the Owner/Operator and NYSDEC in accordance with NYSDEC requirements. The Contractor shall protect the area from further disturbance until a mitigation plan can be implemented.

Should a spill occur onsite during the course of construction activities, the Contractor shall notify the Owner/Operator and NYSDEC in accordance with NYSDEC requirements. The Contractor shall be responsible for the removal of all contaminated soils and associated cost.

Mitigation of Contaminated Soils

The removal of all contaminated soils shall be in the accordance with NYSDEC requirements and Remedial Action Plan for this site, and removed by a NYS Licensed Hauler and disposed of at a facility permitted to accept such waste.

Handling of Hazardous Substances and Hazardous Waste.

Hazardous Substances shall be handled in accordance with manufacturer requirements; and all local, state and federal requirements. Hazardous Waste shall be disposed of in accordance with

all local, state and federal requirements and shall be removed from the site by a NYS Licensed Hauler and disposed of at a facility permitted to accept such waste, and in accordance with the Remedial Action Plan for this site.

Snow Removal

The Contractor shall designate an area on site to stockpile snow. The snow stockpile area shall have erosion control measures installed around its perimeter to prevent the runoff and pollution of downstream areas.

Spill Prevention and Control Measures

The Contractor shall be responsible for the training of all workers in the proper handling of all hazardous materials and control measures that will be necessary should a spill occur on-site. In the case that a spill does occur onsite, the Contractor shall store and maintain the proper equipment onsite necessary to control the further spread of any hazardous material.

Section 2.9 COMPLIANCE WITH REGULATIONS

The Contractor will obtain copies of any and all local, state and federal regulations which are applicable to storm water management, erosion control, and pollution minimization at the job site and will comply fully with such regulations. The Contractor will comply with all conditions of the New York State Department of Environmental Conservation Construction General Permit, including the conditions related to maintaining the SWPPP and evidence of compliance with the SWPPP at the job site and allowing regulatory personnel access to the job site and to records in order to determine compliance.

Section 2.10 INSPECTION AND MAINTENANCE PROCEDURES

The following inspection and maintenance practices will be used to maintain erosion and sediment controls and measures as required by the New York State Department of Environmental Conservation.

- 1. All control measures will be inspected at least every seven (7) calendar days.
- 2. All measures will be maintained in good working order; if repairs or other measures are found to be necessary, they will be initiated within 24 hours of report.
- 3. Built up sediment will be removed from silt fence when it has reached one-third the height of the fence.
- 4. Silt fences will be inspected for depth of sediment, tears, etc., to see if the fabric is securely attached to the fence posts, and to see that the fence posts are securely in the ground.
- 5. The sediment basins, if present, will be inspected for depth of sediment, and built up sediment will be removed when it reaches 25 percent of the design capacity.
- 6. Temporary and permanent seeding and all other areas will be inspected for bare spots, washouts, and healthy growth.
- 7. A maintenance inspection report will be made after each inspection. Copies of the report forms to be completed by the inspector will need to be added to the SWPPP.

- 8. The job site superintendent or construction manager will be responsible for selecting and training the individuals who will be responsible for these inspections, maintenance and repair activities, and filling out inspection and maintenance reports.
- 9. Personnel selected for the inspection and maintenance responsibilities will receive training from the job site superintendent or construction manager. They will be trained in all the inspection and maintenance practices necessary for keeping the erosion and sediment controls that are used onsite in good working order. They will also be trained in the completion of, initiation of actions required by, and the filing of the inspection forms. Documentation of this personnel training will be kept on site with the SWPPP.
- 10. Disturbed areas and materials storage areas will be inspected for evidence of or potential for pollutants entering stormwater systems.
- 11. Report to New York State Department of Environmental Conservation within 24 hours any noncompliance with the SWPPP that will endanger public health or the environment. Follow up with a written report within 5 days of the noncompliance event. The following events require 24 hour reporting: a) any unanticipated bypass which exceeds any effluent limitation in the permit, b) any upset which exceeds any effluent limitation in the permit, and c) a violation of a maximum daily discharge limitation for any of the pollutants listed by the EPA in the permit to be reported within 24 hours. The written submission must contain a description of the non-compliance and its cause; the period of non-compliance, including exact dates and times, and if the non-compliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the non-compliance.
- 12. Releases of hazardous substances or oil in excess of reportable quantities (as established under 40 CFR 110, 40 CFR 117 or 40 CFR 302) must be reported.
- 13. Note: The following is taken directly from the SPDES General Permit Parts IV.C.2 thru 4 and is required to be implemented prior to the commencement of construction.

Unless otherwise notified by the Department, the qualified inspector shall conduct site inspections in accordance with the following time table:

- a. For construction sites where soil disturbance activities are on going, the qualified inspector shall conduct a site inspection at least once every seven calendar days.
- 3. At a minimum, the qualified inspector shall inspect all erosion and sediment control practices to ensure integrity and effectiveness, all post construction stormwater management practices under construction to ensure that they are constructed in conformance with the SWPPP, all areas of disturbance that have not achieved final stabilization, all points of discharge to natural surface water bodies located within, or immediately adjacent to, the property boundaries of the construction site and all points of discharge from the construction site.
- 4. The qualified inspector shall prepare an inspection report subsequent to each and every inspection. At a minimum, the inspection report shall include and/or address the Following:
 - a. Date and Time of the Inspection;
 - b. Name and title of person(s) performing inspection;

- c. A description of the weather and soil conditions (e.g. dry, wet, saturated,) at the time of the inspection;
- d. A description of the condition of the runoff at all points of discharge from the construction site. This shall include identification of any discharges of sediment from the construction site. Include discharges from conveyance systems (i.e. pipes, culverts, ditches, etc.) and overland flow;
- e. A description of the condition of all natural surface water bodies located within, or immediately adjacent to the property boundaries of the construction site which receive runoff from disturbed areas. This shall include identification of any discharges of sediment to the surface water body;
- f. Identification of all erosion and sediment control practices that need repair or maintenance;
- g. Identification of all erosion control and sediment control practices that were not installed properly or are not functioning as designed and need to be reinstalled or replaced;
- h. Description and sketch of areas that are disturbed at the time of the inspection and areas that have been stabilized (temporary and/or final) since the last inspection;
- Current phase of construction of all post-construction stormwater management practices and identification of all construction that is not in conformance with the SWPPP and technical standards;
- j. Corrective action(s) that must be taken to install, repair, replace, or maintain erosion and sediment control practices; and to correct deficiencies identified with the construction of the post construction stormwater management practice(s);
- k. Digital photographs, with date stamp, that clearly show the condition of all practices that have been identified as needing corrective actions. The *qualified inspector* shall attach paper color copies of the digital photographs to the inspection report being maintained onsite within seven (7) calendar days of the date of the inspection. The *qualified inspector* shall also take digital photographs, with date stamp, that clearly show the condition of the practice(s) after the corrective action has been completed. The *qualified inspector* shall attach paper color copies of the digital photographs to the inspection report that documents the completion of the corrective action work within seven (7) calendar days of that inspection.

Section 2.11 INSPECTION AND MAINTENANCE REPORT

Once installation of any required or optional erosion control device or measure has been implemented, at least every seven (7) calendar days and within 24 hours following a rainfall event of 0.5 inches or greater, inspections of each measure shall be performed by a Qualified Inspector.

All of the contractors report forms shall become an integral part of the SWPPP and shall be made readily accessible to governmental inspection officials, the Operator's Engineer, and the Operator for review upon request during visits to the project site. In addition, copies of the reports shall be provided to any of these persons, upon request, via mail or facsimile transmission. Inspection and maintenance report forms are to be maintained by the permittee for five years following the final stabilization of the site.

Section 2.12 RECORD KEEPING REQUIREMENTS

The Contractor shall keep the following records related to construction activities at the site:

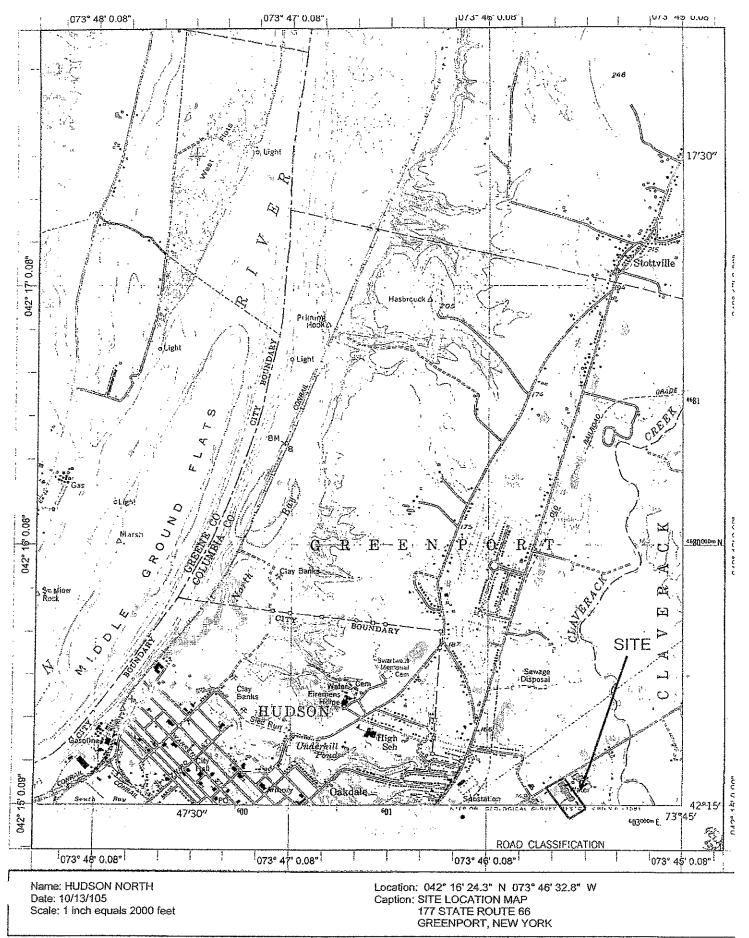
- Dates when major grading activities occur and the areas that were graded
- Dates and details concerning the installation of structural controls
- Dates when construction activities cease in an area
- Dates when an areas is stabilized, either temporarily or permanently
- Dates of rainfall and the amount of rainfall
- Dates and descriptions of the character and amount of any spills of hazardous materials
- -Records of reports filed with regulatory agencies if reportable quantities of hazardous materials spilled
- -Per SPDES Standard Permit Conditions Part VII.F the operator shall maintain a record of all inspection reports in a site logbook. The site logbook shall be maintained on site and be made available to the permitting authority upon request. Prior to the commencement of construction, the operator shall certify in the site logbook that the SWPPP, meets all Federal, State, and local erosion and sediment control requirements.
- -The operator shall post at the site, in a publicly-accessible location a summary of the site inspection activities on a monthly basis.
- -The operator shall also prepare a written summary of its status with respect to compliance with the general permit at a min. frequency of every three months during which coverage under this permit exists.

Section 2.13 CONTROL OF NON-STORM WATER DISCHARGES

Certain types of discharges are allowable under the New York State Department of Environmental Conservation General Permit for Construction Activity, and it is the intent of this SWPPP to allow such discharges. These types of discharges will be allowed under the conditions that no pollutants will be allowed to come in contact with the water prior to or after its discharge. The following non-storm water discharges are allowed by the New York State Department of Environmental Conservation and may occur at the job site: Discharge from fire fighting activities; fire hydrant flushing; waters to which cleansers or other components have not been added that are used to wash vehicles or control dust in accordance with the SWPPP, routine external building washdown which does not use detergents; pavement washwaters where spills or leaks of toxic or hazardous materials have not occurred (unless all spilled material has been removed) and where detergents are not used; air conditioning condensate; springs; and foundation or footing drains where flows are not contaminated with process materials such as solvents.

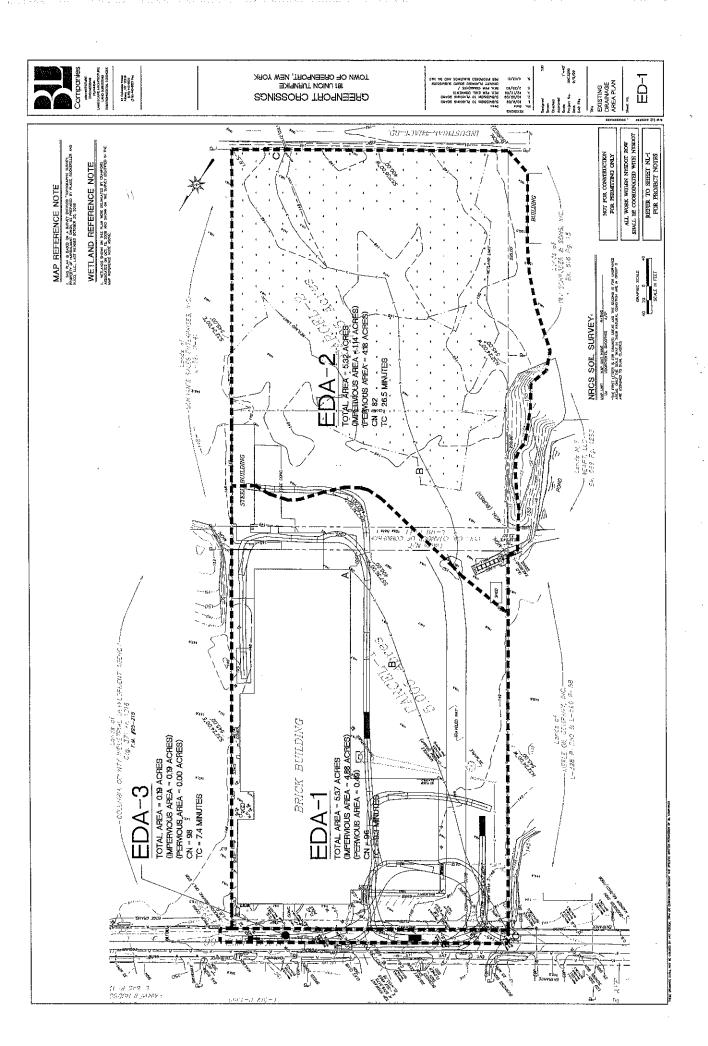
APPENDIX A

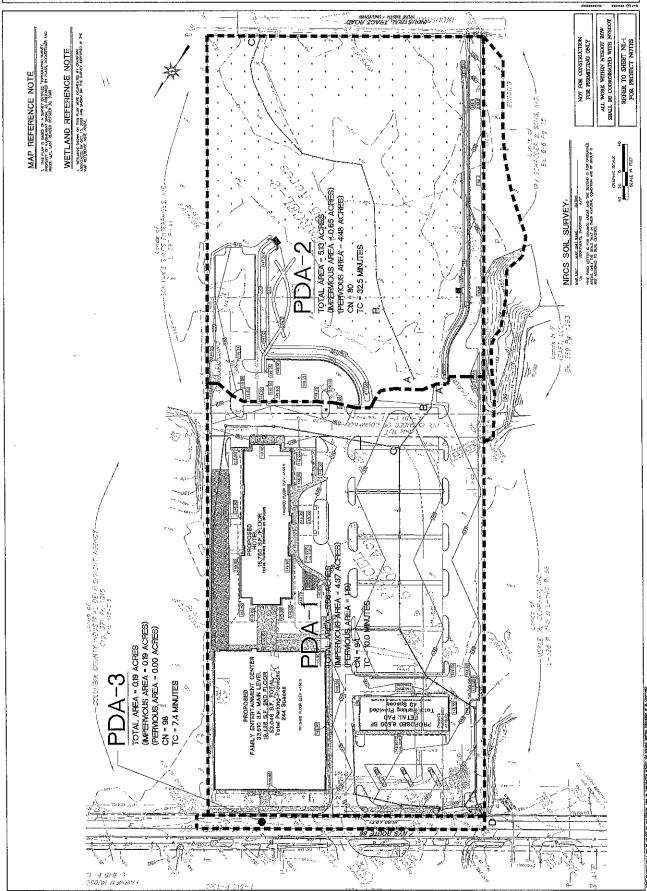
SITE LOCATION MAP

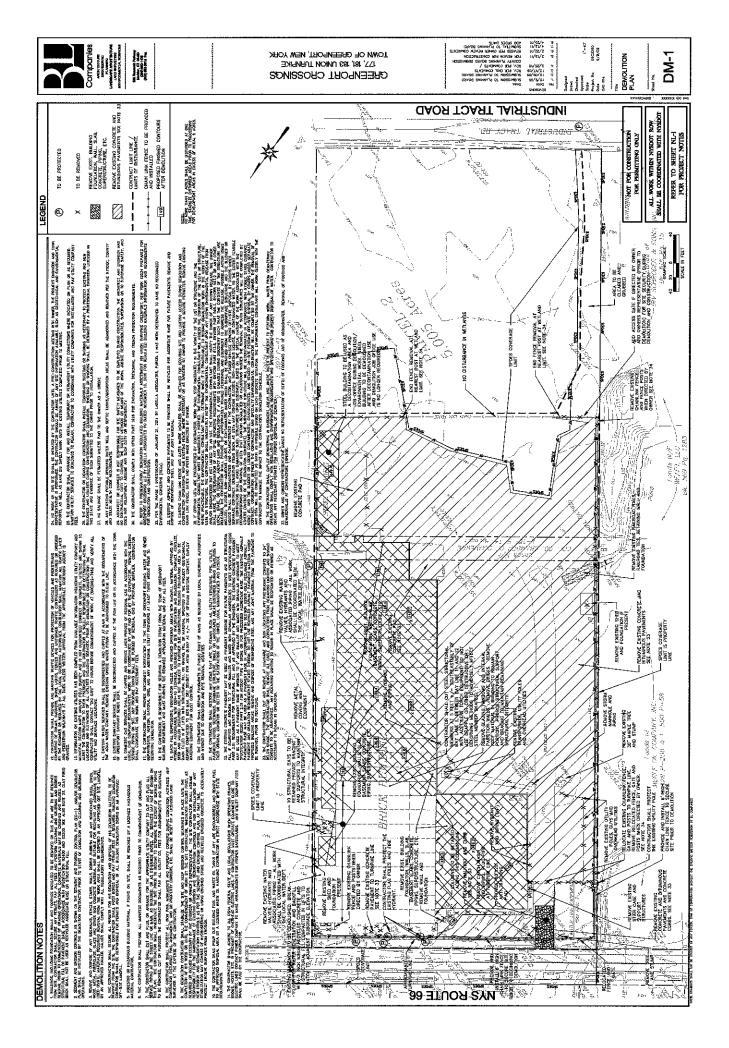


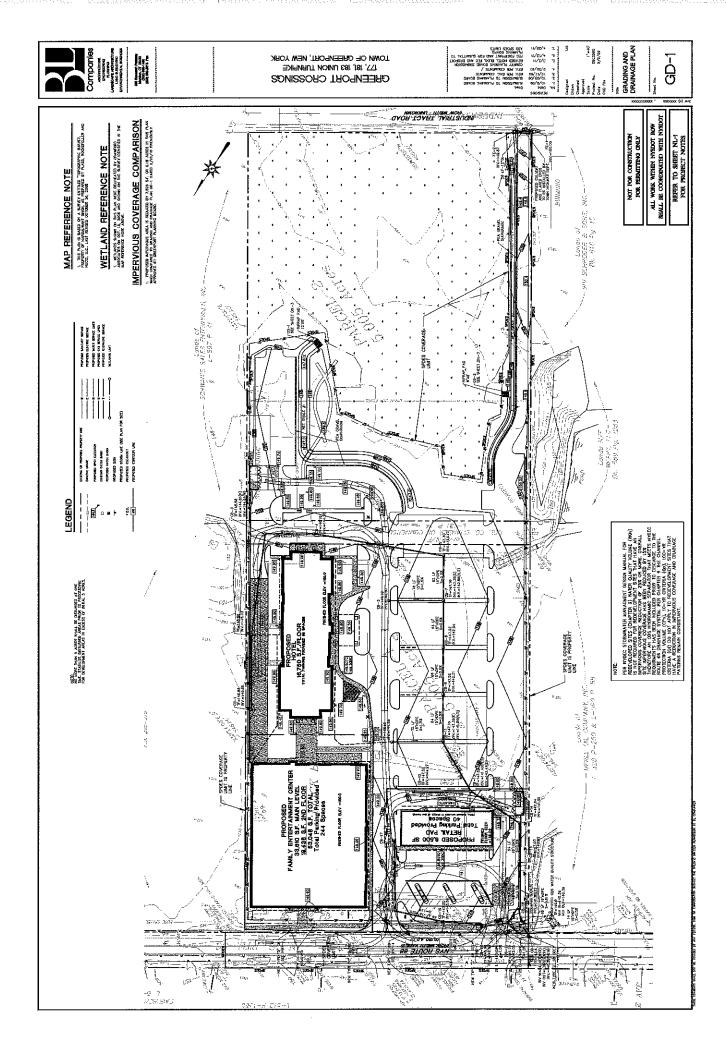
APPENDIX B

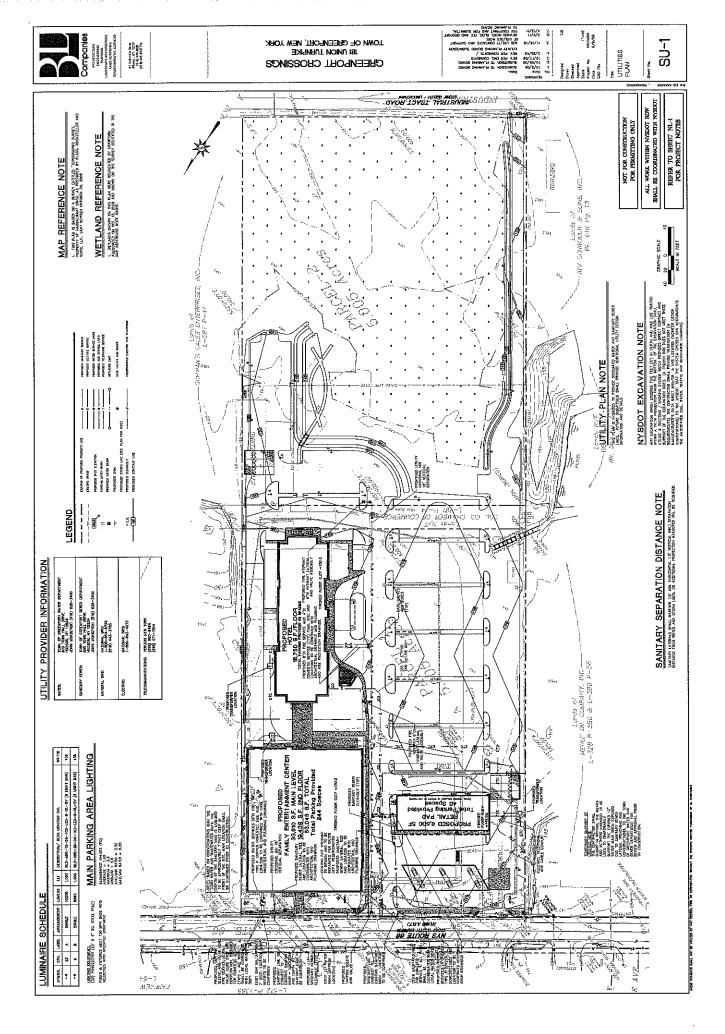
- EXISTING CONDITIONS (EX-1)
- DRAINAGE AREA PLANS (ED-1, PD-1)
- DEMOLITION PLAN (DM-1)
- GRADING AND DRAINAGE PLAN (GD-1)
- UTILITIES PLAN (SU-1)
- EROSION CONTROL PLAN (EC-1)
- SEDIMENT AND EROSION CONTROL NOTES AND DETAILS (EC-2)
- OFF-SITE ROADWAY PLAN (HWY-1)
- Detail Sheets (DN-2 DN-3)

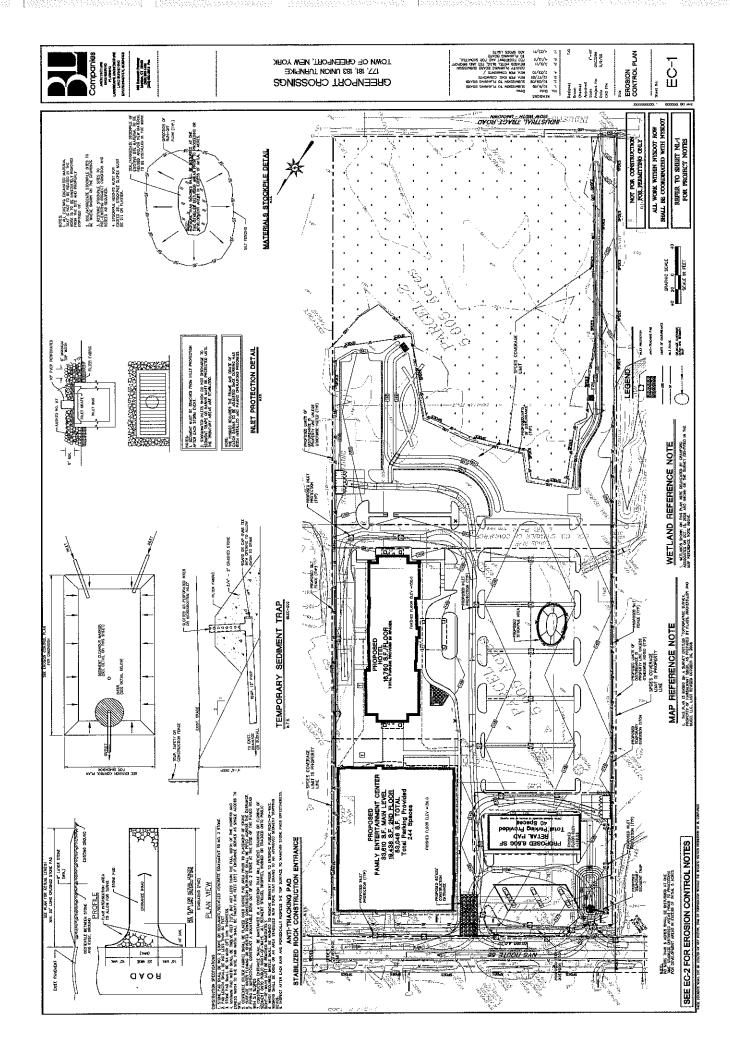












STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

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REATY HOLDING CO., WG. PROPERTY OWNER STATY—STA PROPERTIES, INC. | Profits | Prof GRAPHIC SCALE 20 0 SCALE IN FEET N 3812'45" E -LIMIT OF ROADWAY CONSTRUCTION FOR REVIEW ONLY — BITUMINOUS CONCRETE DRIVEWAY

— CAT BITUMINOUS CONCRETE PAYERINT

— FRANCE, CATCH BASSK, PLUG PIPE

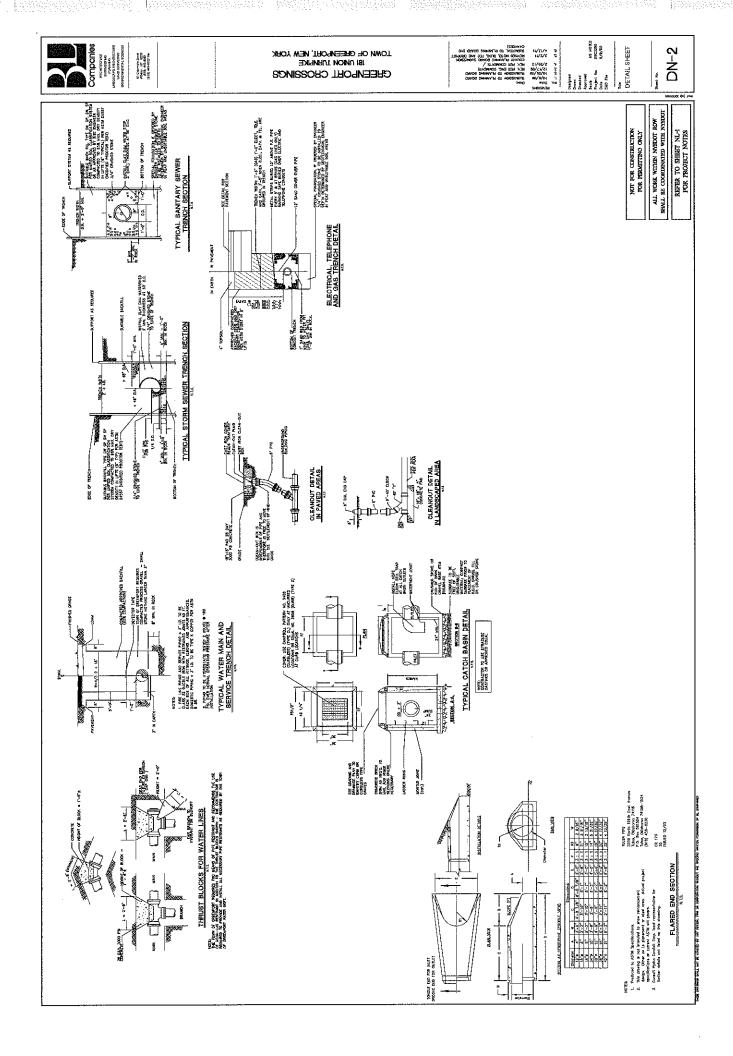
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- HIGHWAY BOUNDARY

- PROPOSED CONCRETE SIDEWALK

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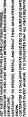


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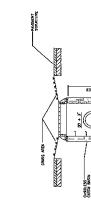


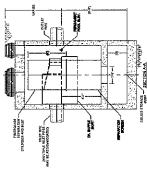


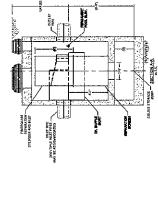


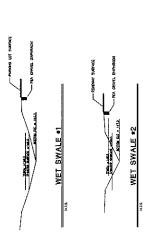


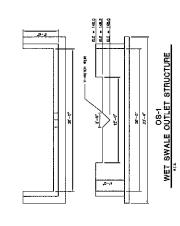


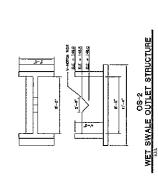












APPENDIX C NOTICE OF INTENT (NOI) AND CONFIRMATION OF NOI DELIVERY

NOTICE OF INVENIL

New York State Department of Environmental Conservation

Division of Water 625 Broadway, 4th Floor

Albany, New York 12233-3505

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Stormwater Discharges Associated with Construction Activity Under State Pollutant Discharge Elimination System (SPDES) General Permit # GP-0-10-001 All sections must be completed unless otherwise noted. Failure to complete all items may result in this form being returned to you, thereby delaying your coverage under this General Permit. Applicants must read and understand the conditions of the permit and prepare a Stormwater Pollution Prevention Plan prior to submitting this NOI. Applicants are responsible for identifying and obtaining other DEC permits that may be required.

-IMPORTANT-RETURN THIS FORM TO THE ADDRESS ABOVE

OWNER/OPERATOR MUST SIGN FORM

		or Informatio											
Owner/Operator (Company Name/Privat Greenport Cross		me/Municipal	ity Name)	4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1									
Owner/Operator Contact Rerson Last Harbalwant	Name NOT	CONSULTANT)		Water Control of the									
Owner/Operator Contact Person First	Name		Approximate the second										
Owner/Operator Mailing Address 4 0 Corbett Road			A PROPERTY OF THE PROPERTY OF										
City Montgomery			Constitution of the consti	The state of the s									
State Zip 12549 -				The late of the second party of the second par									
Phone (Owner/Operator) Fax (Owner/Operator) 8 4 5 - 4 3 0 - 1 6 8 8 8 4 5 - 7 6 9 - 7 0 5 6													
Email (Owner/Operator) bhavreet990msn.	com												
TED TAX ID (not require	ed for ind	ividuals)											
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	Project Site Information
Project/Site Name Greenport Cros	s in gs
Street Address (NCT P.O. BOX)	
Side of Street O North O South Blast O Wes	
City/Town/Village (THAT ISSUES E	
State Zip	County DEC Region
Name of Nearest Cross Street Healy Blvd	
Distance to Nearest Cross Street	t (Peet) Project In Relation to Cross Street North O South O East O West
Tax Map Numbers Section-Block Parcel 1 1 0 + 0 1 - 2	Tax Map Numbers

I. Provide the Geographic Coordinates for the project site in NYTM Units. To do this you must go to the NYSDEC Stormwater Interactive Map on the DEC website at:

www.dec.ny.gov/imsmaps/stormwater/viewer.htm

Zoom into your Project Location such that you can accurately click on the centroid of your site. Once you have located your project site, go to the tool boxes on the top and choose "i"(identify). Then click on the center of your site and a new window containing the X, Y coordinates in UTM will pop up. Transcribe these coordinates into the boxes below. For problems with the interactive map use the help function.

X Coordinates (Easting) 6 0 2 0 3 5 Y Coordinates (Northing)
4 6 7 8 2 9 1

2. What is the nature of this construction project?

O New Construction

Redevelopment with increase in imperviousness

Redevelopment with no increase in imperviousness

6953273038

3. Select the predominant land use for both pre and post development conditions. SELECT ONLY ONE CHOICE FOR EACH Post-Development Future Land Use Pre-Development Existing Land Use OSINGLE FAMILY HOME C FOREST Number of Lots OSINGLE FAMILY SUBDIVISION () PASTURE/OPEN LAND TYTOWN HOME RESIDENTIAL O CULTIVATED LAND OMULTIFAMILY RESIDENTIAL O SINGLE FAMILY HOME O SINGLE PAMILY SUBDIVISION O INSTITUTIONAL/SCHOOL O TOWN HOME RESIDENTIAL O INDUSTRIAL C MULTIFAMILY RESIDENTIAL • COMMERCIAL O INSTITUTIONAL/SCHOOL O MUNICIPAL • INDUSTRIAL O ROAD/HIGHWAY O COMMERCIAL O RECHEATIONAL/SPORTS FIELD O ROAD/HIGHWAY OBIKE PATH/TRAIL O RECREATIONAL/SPORTS FIELD () LINEAR UTILITY (water, sewer, gas, etc.) O BIKE PATH/TRAIL () PARKING LOT O LINEAR UTILITY O CLEARING/GRADING ONLY O DEMOLITION, NO REDEVELOPMENT O PARKING LOT OTHER OTHER 4. Will focure use of this site be an agricultural property as defined. Yes D No by the NYS Agriculture and Markets Law 5. Is this a project which does not require coverage under the General O Yes P No Permit (e.g. Project done under an Individual SPDES Permit, or department approved remediation)? 6. Is this property owned by a state authority, state agency or local O Yes **D** No qovernment? 7. In accordance with the larger common plan of development or sale, enter the total project site acreage, the acreage to be disturbed and the future impervious area (acreage) within the disturbed area. Round to the nearest tenth of an acre. Future Impervious Existing Impervious Total Site Acreage To Area Within Disturbed Area Within Disturbed Be Disturbed Acresce б 0 5 1 0 Ż 0 8. Do you plan to disturb more than 5 acres of soil at any one time? Yes • No

9. Indicate the	percentage of	ěach Hydrologic	Soil Group (HSG	at the site.
		∐ } □		0 1008

10. Is this a phased project?	O Yes ONo
11. Enter the planned start and end dates of the disturbance activities. Start Date 0 4 / 3 0 / 2 0 1 1 - 0 6 /	<u>, , , , , , , , , , , , , , , , , , , </u>
12. Identify the hearest, natural, surface waterbody(les) to which continuoff will discharge.	struction site
Federal Wetland	
12a. Type of waterbody identified in Question 129	
O Wetland / State Jurisdiction on Site (Answer 12b) O Wetland / State Jurisdiction Off Site	
• Wetland / Federal Jurisdiction On Site (Answer 125) • Wetland / Federal Jurisdiction Off Site	
O Stream / Ureek On Site	
O River On Site O River Off Site 12b How was the wetlan	d identified?
C Lake On Site O Regulatory Map O Lake Off Site O Delineated by Con	sultant
O Other Type On Site Other Type Off Site Other Type Off Site Other (identify)	y Corps of Engineers
Crawfor	f Associ
13. Bas the surface waterbody(ies) in question 12 been identified as a 303(d) segment in Appendix E of GP-0-10-001?	O Xes: 9 No
14, Is this project located in one of the Watersheds identified in Appendix C of GP-0-10-0012	O Kes (TND)
15. Is the project located in one of the watershed areas associated with AA and AA-S classified waters? If no, skip question 16.	O Yes We

,我就是这个大小的,我们就是一个大小的时候,我就是这个大小的,这个时候,一个就是我的话,我们就是这个人的,也是这个人的时候,我就会会会会会会会会会会会会会会会会 第二章 16. Does this construction activity disturb land with no existing impervious cover and where the Soil Slope Phase • Yes • Nois identified as an E or F on the USDA Soil Survey?

If Yes, what is the acreage to be disturbed?

17. Will the project disturb soils within a State regulated wetland or the projected 100 foot adjacent area?

● Yes ○No

18. Does the site runoff enter a separate storm sewer system (including roadside drains, system, ditches, culverts, etc.) 7 • Yes • No • Unknown (If No, skip question 19)

19. What is the name of the municipality/entity that owns the separate storm sewer system?

Town of Greenport

20. Does any runoff from the site enter a sewer classified as OYes • No OUNknown a Combined Sewer?

21. Has the required Erosion and Sediment Control component of the SWPPP been developed in conformance with the current NYS Standards and Specifications for Erosion and Sediment Control (aka Blue Book) ?

• Yes () No

22. Does this construction activity require the development of a SMPPP that includes Water Quality and Quantity Control components (Post-Construction Stormwater Management Practices)
(If No, skip questions 23 and 27-35)

🗣 Yes 🕖 No

23. Have the Water Quality and Quantity Control components of the SWPPP been developed in comformance with the current NYS Stormwater Management ** Yes O'No Design Manual ?

24. The Stormwat	er Pollution Prevention Plan (SWPPP) was prepared by:														
• Professional	● Professional Engineer (P.E.)														
	() Soil and Water Conservation District (SWCD) () Registered Landscape Architect (R.L.A)														
C Registered Familicate Artinitate (R. B. A.) C Certified Professional in Erosion and Sediment Control (CPESC)															
O Owner/Operator 1997 Proceedings of the Control of															
Other															
SMPPP Preparer															
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Contact Name Las															
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SWPPP Preparer Certification

I hereby certify that the Stormwater Pollution Prevention Plan (SWPPP) for this project has been prepared in accordance with the terms and conditions of the GP-0-10-001. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of this permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.

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25. Has a construction sequence schedule for the planned management practices been prepared?

ONe

26. Select all of the erosion and sediment control practices that will be employed on the project site:

Temporary Structural	Vegetative Measures											
O Check Dame	Brush Matting											
O Construction Road Stabilization	O Dune Stabilization											
Dust Control	○Grassed Waterway											
O Barth Dike	@ Mulching											
O Level Spreader	① Protecting Vegetation											
Rerimeter Dike/Swale	O Recreation Area Improvement											
O Pipe Slope Drain	Seeding											
[] Portable Sediment Tank	Sodding											
C Fock Dam	○ Straw/Hay Bale Dike											
Sediment Basin	OStreambank Protection											
Sediment Traps	O Temporary Swale											
Silt Pence	₱ Topsoiling											
■ Stabilized Construction Entrance	O Vegetating Waterways											
Storm Drain Inlet Protection () Straw/Hay Bale Dike	Permanent Structural (Debris Basin											
() Temporary Access Waterway Crossing												
O Temporary Stormdrain Diversion												
Temporary Swale												
O Turbidity Curtain												
@ Water bars												
	O Paved Channel (Concrete)											
Biotechnical	O Paved Flume											
O Brush Matting												
Owattling	O Riprap Slope Protection											
	Rock Outlet Protection											
<u>other</u>	Streambank Protection											
latch basin sumps and	hooded outlets											
CDSHydrodynamic Sepa	rator											

Water Quality and Quantity Control

Important: Completion of Questions 27-35 is not required if response to Question 22 is No.

Post-Construction Stormwater Management Practices 27. Indicate all Stormwater Management Practice(s) that will be installed/constructed on this site: Ponda Wetlands © Shallow Netland (W-1) Micropool Extended Detention (P-1) ○ Wet Pond (P-2) @ Extended Detention Wetland (W-2) () Wet Extended Detention (P-3) O Pond/Wetland System (W-3) O Multiple Pond System (P-4) @ Pocket Wetland (W-4) O Pocket Pond (P-5) Infiltration Filtering ☐ Infiltration Trench (I-1) (Surface Sand Filter (F-1) O Infiltration Basin (I-2) O Underground Sand Filter (F-2) O Dry Well (I-3) O Parimeter Sand Filter (F-3) O Underground Infiltration System Organic Filter (F-4) Open Channels (Bioretention (F-5) Dry Swale (O-1) Other CDS @ Wet Swale (0-2) Unit Alternative Fractice Verified Proprietary Practice C Rain Gardon # Hydrodynamic @ Wet Vault @ Cistorn O Media Filter O Green Roof Stormwater Flanters (Permeable Paving (Modular Block) 28. Describe other stormwater management practices not listed above or explain any deviations from the technical standards. Catch basin sumps and hooded outlets

• =												N.C.A.																			*****							
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WQv Required

30. Provide the total water quality volume required and the total provided for the site.

WQw Prowided

0 12 0 acre-feat	0 2 0 acre-feet	
31. Provide the following Unified Stormwater Si Total Channel Protection Storage Volume (CP)	的复数医多数多种 经营业 医多种原状	
post-developed 1 year, 24 hour storm event CPV Required	CPv Provided	
31a. The need to provide for channel protection () Site discharges directly to f	n has been waived because:	
Total Overbank Flood Control Criteria (Op)	Peak discharge rate for the li) year storm
Pre-Development 0.00 CFS	Post-development 0.00 CFS	
Total Extreme Flood Control Criteria (Qf) - P	eak discharge rate for the 100	yeat storm
Pre-Development 0.00 cps	0 0 0 crs	
31b. The need to provide for flood control has O gite discharges directly to a O nownstream analysis reveals	fourth order stream or larger	ired
IMPORTANT: Por questions 31 and 32, impervious project site and all offsite areas that drain to management practice(s). (Total Drainage Area =	o the post-construction storm	atez
32. Fre Construction Impervious Area - As a per Drainage Area enter the percentage of the exist before construction begins.	crent of the <u>Total</u> ting impervious areas	5 8 %
33. Post-Construction Impervious Area — As a pobrainage Area, enter the percentage of the future will be created/remain on the site after comple	ire impervious areas that	4.8 %
34. Indicate the total number of post-construct management practices to be installed/constructe	tion stormwater ed.	3
35. Provide the total number of stormwater disc site. (include discharges to either surface wat storm sewer systems)	Marge points from the ers or to separate	2

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36. Identify other DEC permits tha	
OAIT Pollution Control	DEC Permits O Navigable Waters Protection / Article 15
	O Water Quality Certificate
CED NEST AND ROOM AND CONTRACT OF CONTRACT	O Dan Salety
O Long Island Wells	O Water Supply
O Mined Land Reclamation	O Freshwater Wetlands/Article 24
Cother SPDES	() Tidal Wetlands
() Solid Waste	O Wild, Scenic and Recreational Rivers
• None	OStream Bed or Bank Protection / Article 15
© O'E Bear	
37. Does this project require a US Permit? If Yes, Indicate Size of Impact.	Army Corps of Engineers Wetland
A CONTRACT OF THE CONTRACT OF	
38. Is this project subject to the traditional land use control MS47 (If No, skip question 39)	requirements of a requisied.
39. Has the "MS4 SWPPP Acceptance" executive officer or manking elect this NOI?	form been signed by the principal ed official and submitted along with Tes 2 No
40. If this NOI is being submitted general permit for stormwater rund the former SPDES number assigned.	I for the purpose of continuing coverage under a if from construction activities, please indicate
THE PROPERTY OF THE PROPERTY O	
32 Nijapadaman kanan	
T have read or been advised of the termi	r/Operator Certification t conditions and believe that I understand them. I also
understand that, under the terms of the	permit, there may be reporting requirements. I hereby certify decoments were prepared under my direction or supervision. I am
award that there are significant penalti fine and imprisonment for knowing violat	as for submitting raise information, including the possibility of ions, I further understand that coverage under the general permit
be an line as wisty (60) business lines a	that I will receive as a result of submitting this XXI and can s provided for in the general permit. I also understand that, by that the SWYPP has been developed and will be implemented as the
spectring this wor, I am acknowledging first element of construction, and squee permit for which this NOI is being submit	ing to comply with all the terms and conditions of the general
Print First Name	MI
Harbalwant	
Print Last Name	
Singh	The state of the s
Owner/Operator Signature	
	Date / / / / /
A property	

APPENDIX D COPY OF THE LETTER FROM THE NOI PROCESSING CENTER AUTHORIZING PERMIT COVERAGE

(To be inserted upon receipt)

APPENDIX E NYSDEC SPDES CONSTRUCTION GENERAL PERMIT



NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SPDES GENERAL PERMIT FOR STORMWATER DISCHARGES

from

CONSTRUCTION ACTIVITY

Permit No. GP-0-10-001

Issued Pursuant to Article 17, Titles 7, 8 and Article 70 of the Environmental Conservation Law

Effective Date: January 29, 2010

Expiration Date: January 28, 2015

William R. Adriance Chief Permit Administrator

Authorized Signature

January 28, 2016

Date

Address:

NYS DEC

Div. Environmental Permits 625 Broadway, 4th Floor Albany, N.Y. 12233-1750

PREFACE

Pursuant to Section 402 of the Clean Water Act ("CWA"), stormwater discharges from certain construction activities are unlawful unless they are authorized by a National Pollutant Discharge Elimination System ("NPDES") permit or by a state permit program. New York's State Pollutant Discharge Elimination System ("SPDES") is a NPDES-approved program with permits issued in accordance with the Environmental Conservation Law ("ECL").

This general permit ("permit") is issued pursuant to Article 17, Titles 7, 8 and Article 70 of the ECL. An *owner or operator* may obtain coverage under this permit by submitting a Notice of Intent ("NOI") to the Department. Copies of this permit and the NOI for New York are available by calling (518) 402-8109 or at any New York State Department of Environmental Conservation ("the Department") regional office (see Appendix G). They are also available on the Department's website at:

http://www.dec.ny.gov/

An owner or operator of a construction activity that is eligible for coverage under this permit must obtain coverage prior to the commencement of construction activity. Activities that fit the definition of "construction activity", as defined under 40 CFR 122.26(b)(14)(x), (15)(i), and (15)(ii), constitute construction of a point source and therefore, pursuant to Article 17-0505 of the ECL, the owner or operator must have coverage under a SPDES permit prior to commencing construction activity. They cannot wait until there is an actual discharge from the construction site to obtain permit coverage.

*Note: The italicized words/phrases within this permit are defined in Appendix A.

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION SPDES GENERAL PERMIT FOR STORMWATER DISCHARGES

FROM CONSTRUCTION ACTIVITIES

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Part I. PERMIT COVERAGE AND LIMITATIONS

- A. <u>Permit Application</u> This permit authorizes stormwater discharges to surface waters of the State from the following construction activities identified within 40 CFR Parts 122.26(b)(14)(x), 122.26(b)(15)(i) and 122.26(b)(15)(ii), provided all of the eligibility provisions of this permit are met:
 - 1. Construction activities involving soil disturbances of one (1) or more acres; including disturbances of less than one acre that are part of a larger common plan of development or sale that will ultimately disturb one or more acres of land; excluding routine maintenance activity that is performed to maintain the original line and grade, hydraulic capacity or original purpose of a facility;
 - 2. Construction activities involving soil disturbances of less than one (1) acre where the Department has determined that a SPDES permit is required for stormwater discharges based on the potential for contribution to a violation of a water quality standard or for significant contribution of pollutants to surface waters of the State.
 - 3. Construction activities located in the watershed(s) identified in Appendix D that involve soil disturbances between five thousand (5000) square feet and one (1) acre of land.
- **B.** <u>Maintaining Water Quality</u> It shall be a violation of this permit and the *ECL* for any *discharge* to either cause or contribute to a violation of *water quality standards* as contained in Parts 700 through 705 of Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York, such as:
 - 1. There shall be no increase in turbidity that will cause a substantial visible contrast to natural conditions;
 - 2. There shall be no increase in suspended, colloidal or settleable solids that will cause deposition or impair the waters for their best usages; and
 - 3. There shall be no residue from oil and floating substances, nor visible oil film, nor globules of grease.

C. Eligibility Under This General Permit

- 1. This permit may authorize all *discharges* of stormwater from *construction* activity to surface waters of the State and groundwaters except for ineligible discharges identified under subparagraph D. of this Part.
- 2. Except for non-stormwater *discharges* explicitly listed in the next paragraph, this permit only authorizes stormwater discharges from *construction activities*.

(Part I. C)

3. Notwithstanding paragraphs C.1 and C.2 above, the following non-stormwater discharges may be authorized by this permit: discharges from fire fighting activities; fire hydrant flushings; waters to which cleansers or other components have not been added that are used to wash vehicles or control dust in accordance with the SWPPP, routine external building washdown which does not use detergents; pavement washwaters where spills or leaks of toxic or hazardous materials have not occurred (unless all spilled material has been removed) and where detergents are not used; air conditioning condensate; uncontaminated groundwater or spring water; uncontaminated discharges from construction site de-watering operations; and foundation or footing drains where flows are not contaminated with process materials such as solvents. For those entities required to obtain coverage under this permit, and who discharge as noted in this paragraph, and with the exception of flows from fire fighting activities, these discharges must be identified in the SWPPP. Under all circumstances, the owner or operator must still comply with water quality standards in Part I.B.

D. <u>Activities Which Are Ineligible for Coverage Under This General Permit</u> - All of the following are <u>not</u> authorized by this permit:

- 1. *Discharges* after *construction activities* have been completed and the site has undergone *final stabilization*;
- 2. *Discharges* that are mixed with sources of non-stormwater other than those expressly authorized under subsection C.3. of this Part and identified in the SWPPP required by this permit;
- 3. *Discharges* that are required to obtain an individual SPDES permit or another SPDES general permit pursuant to Part VII, subparagraph K of this permit;
- 4. *Discharges* from *construction activities* that adversely affect a listed, or proposed to be listed, endangered or threatened species, or its critical habitat;
- 5. *Discharges* which either cause or contribute to a violation of *water quality standards* adopted pursuant to the *ECL* and its accompanying regulations;
- 6. Construction activities for residential, commercial and institutional projects that:
 - a. are tributary to waters of the state classified as AA or AA-s; and

(Part I. D. 6)

- b. disturb one or more acres of land with no existing impervious cover and where the Soil Slope Phase is identified as an E or F on the USDA Soil Survey for the County in which the disturbance will occur.
- 7. Construction activities for linear transportation projects and linear utility projects that:
 - a. are tributary to waters of the state classified as AA or AA-s; and
 - b. disturb two or more acres of land with no existing impervious cover and where the Soil Slope Phase is identified as an E or F on the USDA Soil Survey for the County in which the disturbance will occur.
- 8. Construction activities that adversely affect a property that is listed or is eligible for listing on the State or National Register of Historic Places (Note: includes Archeological sites), unless there are written agreements in place with the NYS Office of Parks, Recreation and Historic Preservation (OPRHP) or other governmental agencies to mitigate the effects, or there are local land use approvals evidencing the same.

Part II. OBTAINING PERMIT COVERAGE

A. Notice of Intent (NOI) Submittal

An owner or operator of a construction activity that is not subject to the
requirements of a regulated, traditional land use control MS4 must first develop
a SWPPP in accordance with all applicable requirements of this permit and then
submit a completed NOI form to the address below in order to be authorized to
discharge under this permit. The NOI form shall be one which is associated
with this permit, signed in accordance with Part VII.H. of this permit.

NOTICE OF INTENT NYS DEC, Bureau of Water Permits 625 Broadway, 4th Floor Albany, New York 12233-3505

2. An owner or operator of a construction activity that is subject to the requirements of a regulated, traditional land use control MS4 must first develop a SWPPP in accordance with all applicable requirements of this permit and then have its SWPPP reviewed and accepted by the MS4 prior to submitting the NOI to the Department. The owner or operator shall have the "MS4 SWPPP Acceptance" form signed by the principal executive officer or ranking elected official from the regulated, traditional land use control MS4, or by a duly authorized representative of that person, and then submit that form along with the NOI to the address referenced under "Notice of Intent (NOI) Submittal".

(Part II. A.2)

This requirement does not apply to an *owner or operator* that is obtaining permit coverage in accordance with the requirements in Part II.E. (Change of Owner or Operator).

- 3. The *owner or operator* shall have the SWPPP preparer sign the "SWPPP Preparer Certification" statement on the NOI prior to submitting the form to the Department.
- 4. As of the date the NOI is submitted to the Department, the *owner or operator* shall make the NOI and SWPPP available for review and copying in accordance with the requirements in Part VII.F. of this permit.

B. Permit Authorization

- 1. An owner or operator shall not commence construction activity until their authorization to discharge under this permit goes into effect.
- 2. Authorization to *discharge* under this permit will be effective when the *owner* or operator has satisfied <u>all</u> of the following criteria:
 - a. project review pursuant to the State Environmental Quality Review Act (SEQRA) have been satisfied, when SEQRA is applicable,
 - b. where required, all necessary Department permits subject to the *Uniform Procedures Act (UPA)* (see 6 NYCRR Part 621) have been obtained, unless otherwise notified by the Department pursuant to 6 NYCRR 621.3(a)(4). Owners or operators of construction activities that are required to obtain *UPA* permits must submit a preliminary SWPPP to the appropriate DEC Regional Office in Appendix F at the time all other necessary *UPA* permit applications are submitted. The preliminary SWPPP must include sufficient information to demonstrate that the construction activity qualifies for authorization under this permit,
 - c. the final SWPPP has been prepared, and
 - d. an NOI has been submitted to the Department in accordance with the requirements of this permit.
- 3. An *owner or operator* that has satisfied the requirements of Part II.B.2 above will be authorized to *discharge* stormwater from their *construction activity* in accordance with the following schedule:

(Part II. B. 3)

- a. For *construction activities* that are <u>not</u> subject to the requirements of a regulated, traditional land use control MS4:
 - i. Five (5) business days from the date the Department receives a complete NOI for *construction activities* with a SWPPP that has been prepared in conformance with the technical standards referenced in Parts III.B.1, 2 and/or 3, or
 - ii. Sixty (60) business days from the date the Department receives a complete NOI for *construction activities* with a SWPPP that has <u>not</u> been prepared in conformance with the technical standards referenced in Parts III.B.1, 2 or 3.
- b. For construction activities that are subject to the requirements of a regulated, traditional land use control MS4:
 - i. Five (5) business days from the date the Department receives a complete NOI and signed "MS4 SWPPP Acceptance" form,
- 4. The Department may suspend or deny an *owner's or operator's* coverage under this permit if the Department determines that the SWPPP does not meet the permit requirements.
- 5. Coverage under this permit authorizes stormwater *discharges* from only those areas of disturbance that are identified in the NOI. If an *owner or operator* wishes to have stormwater *discharges* from future or additional areas of disturbance authorized, they must submit a new NOI that addresses that phase of the development, unless otherwise notified by the Department.

C. General Requirements For Owners or Operators With Permit Coverage

- The owner or operator shall ensure that the provisions of the SWPPP are implemented from the commencement of construction activity until all areas of disturbance have achieved final stabilization and the Notice of Termination (NOT) has been submitted to the Department in accordance with Part V. of this permit. This includes any changes made to the SWPPP pursuant to Part III.A.4.
- 2. The owner or operator shall maintain a copy of the General Permit (GP-0-10-001), NOI, NOI Acknowledgment Letter, SWPPP, MS4 SWPPP Acceptance form and inspection reports at the construction site until all disturbed areas have achieved *final stabilization* and the NOT has been submitted to the Department.

(Part II. C. 2)

The documents must be maintained in a secure location, such as a job trailer, on-site construction office, or mailbox with lock. The secure location must be accessible during normal business hours to an individual performing a compliance inspection.

- 3. The owner or operator of a construction activity shall not disturb greater than five (5) acres of soil at any one time without prior written authorization from the Department or, in areas under the jurisdiction of a regulated, traditional land use control MS4, the MS4 (provided the MS4 is not the owner or operator of the construction activity). At a minimum, the owner or operator must comply with the following requirements in order to be authorized to disturb greater than five (5) acres of soil at any one time:
 - a. The owner or operator shall have a qualified inspector conduct at least two (2) site inspections in accordance with Part IV.C. every seven (7) calendar days, for as long as greater than five (5) acres of soil remain disturbed. The two (2) inspections shall be separated by a minimum of two (2) full calendar days.
 - b. In areas where soil disturbance activity has been temporarily or permanently ceased, temporary and/or permanent soil stabilization measures shall be installed and/or implemented within seven (7) days from the date the soil disturbance activity ceased. The soil stabilization measures selected shall be in conformance with the most current version of the technical standard, New York State Standards and Specifications for Erosion and Sediment Control.
 - c. The *owner or operator* shall prepare a phasing plan that defines maximum disturbed area per phase and shows required cuts and fills.
 - d. The *owner or operator* shall install any additional site specific practices needed to protect water quality.
 - e. The *owner or operator* shall include the requirements above in their SWPPP.
- 4. The Department may suspend or revoke an *owner's or operator's* coverage under this permit at any time if the Department determines that the SWPPP does not meet the permit requirements.

(Part II. C)

5. For construction activities that are subject to the requirements of a regulated, traditional land use control MS4, the owner or operator shall notify the MS4 in writing of any planned amendments or modifications to the post-construction stormwater management practice component of the SWPPP required by Part III.A. 4. and 5. of this permit. Unless otherwise notified by the MS4, the owner or operator shall have the SWPPP amendments or modifications reviewed and accepted by the MS4 prior to commencing construction of the post-construction stormwater management practice.

D. Permit Coverage for Discharges Authorized Under GP-0-08-001

1. Upon renewal of SPDES General Permit for Stormwater Discharges from Construction Activity (Permit No. GP-0-08-001), an owner or operator of construction activity with coverage under GP-0-08-001, as of the effective date of GP-0-10-001, shall be authorized to discharge in accordance with GP-0-10-001 unless otherwise notified by the Department.

E. Change of Owner or Operator

1. When property ownership changes or when there is a change in operational control over the construction plans and specifications, the original owner or operator must notify the new owner or operator, in writing, of the requirement to obtain permit coverage by submitting a NOI with the Department. Once the new owner or operator obtains permit coverage, the original owner or operator shall then submit a completed NOT with the name and permit identification number of the new owner or operator to the Department at the address in Part II.A.1.. If the original owner or operator maintains ownership of a portion of the construction activity and will disturb soil, they must maintain their coverage under the permit.

Permit coverage for the new *owner or operator* will be effective as of the date the Department receives a complete NOI, provided the original *owner or operator* was not subject to a sixty (60) business day authorization period that has not expired as of the date the Department receives the NOI from the new *owner or operator*.

Part III. STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

A. General SWPPP Requirements

1. The SWPPP shall be prepared prior to the submittal of the NOI. The NOI shall be submitted to the Department prior to the *commencement of construction activity*.

(Part III. A)

- 2. The SWPPP shall describe the erosion and sediment control practices and where required, post-construction stormwater management practices that will be used and/or constructed to reduce the pollutants in stormwater discharges and to assure compliance with the terms and conditions of this permit. In addition, the SWPPP shall identify potential sources of pollution which may reasonably be expected to affect the quality of stormwater *discharges*.
- 3. All SWPPPs that require the post-construction stormwater management practice component shall be prepared by a *qualified professional* that is knowledgeable in the principles and practices of stormwater management and treatment.
- 4. The *owner or operator* must keep the SWPPP current so that it at all times accurately documents the erosion and sediment controls practices that are being used or will be used during construction, and all post-construction stormwater management practices that will be constructed on the site. At a minimum, the *owner or operator* shall amend the SWPPP:
 - a. whenever the current provisions prove to be ineffective in minimizing pollutants in stormwater *discharges* from the site;
 - b. whenever there is a change in design, construction, or operation at the construction site that has or could have an effect on the discharge of pollutants; and
 - c. to address issues or deficiencies identified during an inspection by the *qualified inspector*, the Department or other regulatory authority.
- 5. The Department may notify the *owner or operator* at any time that the SWPPP does not meet one or more of the minimum requirements of this permit. The notification shall be in writing and identify the provisions of the SWPPP that require modification. Within fourteen (14) calendar days of such notification, or as otherwise indicated by the Department, the *owner or operator* shall make the required changes to the SWPPP and submit written notification to the Department that the changes have been made. If the *owner or operator* does not respond to the Department's comments in the specified time frame, the Department may suspend the *owner's or operator's* coverage under this permit.
- 6. Prior to the *commencement of construction activity*, the *owner or operator* must identify the contractor(s) and subcontractor(s) that will be responsible for installing, constructing, repairing, replacing, inspecting and maintaining the erosion and sediment control practices included in the SWPPP; and the contractor(s) and subcontractor(s) that will be responsible for constructing the post-construction stormwater management practices included in the SWPPP.

(Part III. A. 6)

The owner or operator shall have each of the contractors and subcontractors identify at least one person from their company that will be responsible for implementation of the SWPPP. This person shall be known as the *trained contractor*. The owner or operator shall ensure that at least one *trained contractor* is on site on a daily basis when soil disturbance activities are being performed.

The *owner or operator* shall have each of the contractors and subcontractors identified above sign a copy of the following certification statement below before they commence any *construction activity*:

"I hereby certify that I understand and agree to comply with the terms and conditions of the SWPPP and agree to implement any corrective actions identified by the *qualified inspector* during a site inspection. I also understand that the *owner or operator* must comply with the terms and conditions of the most current version of the New York State Pollutant Discharge Elimination System ("SPDES") general permit for stormwater discharges from construction activities and that it is unlawful for any person to cause or contribute to a violation of water quality standards. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of the referenced permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings."

In addition to providing the certification statement above, the certification page must also identify the specific elements of the SWPPP that each contractor and subcontractor will be responsible for and include the name and title of the person providing the signature; the name and title of the *trained contractor* responsible for SWPPP implementation; the name, address and telephone number of the contracting firm; the address (or other identifying description) of the site; and the date the certification statement is signed. The *owner or operator* shall attach the certification statement(s) to the copy of the SWPPP that is maintained at the construction site. If new or additional contractors are hired to implement measures identified in the SWPPP after construction has commenced, they must also sign the certification statement and provide the information listed above.

- 7. For projects where the Department requests a copy of the SWPPP or inspection reports, the *owner or operator* shall submit the documents in both electronic (PDF only) and paper format within five (5) business days, unless otherwise notified by the Department.
- 8. The SWPPP must include documentation supporting the determination of permit eligibility with regard to Part I.D.8. (Historic Places or Archeological Resource). At a minimum, the supporting documentation shall include the following:

(Part III. A. 8)

- a. Information on whether the stormwater discharge or construction activities would have an effect on a property (historic or archeological resource) that is listed or eligible for listing on the State or National Register of Historic Places;
- b. Results of historic resources screening determinations conducted. Information regarding the location of historic places listed, or eligible for listing, on the State or National Registers of Historic Places and areas of archeological sensitivity that may indicate the need for a survey can be obtained online by viewing the New York State Office of Parks, Recreation and Historic Places (OPRHP) online resources located on their web site at: http://nysparks.state.ny.us/shpo/online-toois/ (using The Geographic Information System for Archeology and National Register). OPRHP can also be contacted at: NYS OPRHP, State Historic Preservation Office, Peebles Island Resources Center, P.O. Box 189, Waterford, NY 12188-0189, phone: 518-237-8643;
- c. A description of measures necessary to avoid or minimize adverse impacts on places listed, or eligible for listing, on the State or National Register of Historic Places. If the *owner or operator* fails to describe and implement such measures, the stormwater *discharge* is ineligible for coverage under this permit; and
- d. Where adverse effects may occur, any written agreements in place with OPRHP or other governmental agency to mitigate those effects, or local land use approvals evidencing the same.

B. Required SWPPP Contents

- Erosion and sediment control component All SWPPs prepared pursuant to
 this permit shall include erosion and sediment control practices designed in
 conformance with the most current version of the technical standard, New York
 State Standards and Specifications for Erosion and Sediment Control. Where
 erosion and sediment control practices are not designed in conformance with
 this technical standard, the *owner or operator* must demonstrate equivalence to
 the technical standard. At a minimum, the erosion and sediment control
 component of the SWPPP shall include the following:
 - a. Background information about the scope of the project, including the location, type and size of project;

(Part III. B. 1)

- b. A site map/construction drawing(s) for the project, including a general location map. At a minimum, the site map shall show the total site area; all improvements; areas of disturbance; areas that will not be disturbed; existing vegetation; on-site and adjacent off-site surface water(s), wetlands and drainage patterns that could be affected by the construction activity; existing and final slopes; locations of different soil types with boundaries; material, waste, borrow or equipment storage areas located on adjacent properties; and location(s) of the stormwater discharge(s);
- c. A description of the soil(s) present at the site, including an identification of the Hydrologic Soil Group (HSG);
- d. A construction phasing plan and sequence of operations describing the intended order of construction activities, including clearing and grubbing, excavation and grading, utility and infrastructure installation and any other activity at the site that results in soil disturbance;
- e. A description of the minimum erosion and sediment control practices to be installed or implemented for each construction activity that will result in soil disturbance. Include a schedule that identifies the timing of initial placement or implementation of each erosion and sediment control practice and the minimum time frames that each practice should remain in place or be implemented;
- f. A temporary and permanent soil stabilization plan that meets the requirements of the most current version of the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, for each stage of the project, including initial land clearing and grubbing to project completion and achievement of final stabilization;
- g. A site map/construction drawing(s) showing the specific location(s), size(s), and length(s) of each erosion and sediment control practice;
- h. The dimensions, material specifications, installation details, and operation and maintenance requirements for all erosion and sediment control practices. Include the location and sizing of any temporary sediment basins and structural practices that will be used to divert flows from exposed soils;

(Part III. B. 1)

- i. A maintenance inspection schedule for the contractor(s) identified in Part III.A.6., to ensure continuous and effective operation of the erosion and sediment control practices. The maintenance inspection schedule shall be in accordance with the requirements in the most current version of the technical standard, New York State Standards and Specifications for Erosion and Sediment Control;
- j. A description of the pollution prevention measures that will be used to control litter, construction chemicals and construction debris from becoming a pollutant source in the stormwater *discharges*;
- k. A description and location of any stormwater *discharges* associated with industrial activity other than construction at the site, including, but not limited to, stormwater *discharges* from asphalt plants and concrete plants located on the construction site; and
- Identification of any elements of the design that are not in conformance
 with the requirements in the most current version of the technical
 standard, New York State Standards and Specifications for Erosion and
 Sediment Control. Include the reason for the deviation or alternative
 design and provide information which demonstrates that the deviation or
 alternative design is equivalent to the technical standards.
- 2. Post-construction stormwater management practice component All construction projects identified in Table 2 of Appendix B as needing post-construction stormwater management practices shall prepare a SWPPP that includes practices designed in conformance with the most current version of the technical standard, New York State Stormwater Management Design Manual ("Design Manual"). If the Design Manual is revised during the term of this permit, an *owner or operator* must begin using the revised version of the Design Manual to prepare their SWPPP six (6) months from the final revision date of the Design Manual.

Where post-construction stormwater management practices are not designed in conformance with this technical standard, the *owner or operator* must demonstrate equivalence to the technical standard.

At a minimum, the post-construction stormwater management practice component of the SWPPP shall include the following:

a. Identification of all post-construction stormwater management practices to be constructed as part of the project;

(Part III. B. 2)

- b. A site map/construction drawing(s) showing the specific location and size of each post-construction stormwater management practice;
- c. The dimensions, material specifications and installation details for each post-construction stormwater management practice;
- d. Identification of any elements of the design that are not in conformance with the Design Manual. Include the reason for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is equivalent to the technical standards;
- e. A hydrologic and hydraulic analysis for all structural components of the stormwater management control system;
- f. A detailed summary (including calculations) of the sizing criteria that was used to design all post-construction stormwater management practices. At a minimum, the summary shall address the required design criteria from the applicable chapter of the Design Manual; including the identification of and justification for any deviations from the Design Manual, and identification of any design criteria that are not required based on the design criteria or waiver criteria included in the Design Manual; and
- g. An operations and maintenance plan that includes inspection and maintenance schedules and actions to ensure continuous and effective operation of each post-construction stormwater management practice. The plan shall identify the entity that will be responsible for the long term operation and maintenance of each practice.
- 3. Enhanced Phosphorus Removal Standards All construction projects identified in Table 2 of Appendix B that are located in the watersheds identified in Appendix C shall prepare a SWPPP that includes post-construction stormwater management practices designed in conformance with the Enhanced Phosphorus Removal Standards included in the Design Manual. At a minimum, the post-construction stormwater management practice component of the SWPPP shall include items 2.a 2.g. above.

(Part III. C)

C. Required SWPPP Components by Project Type - Unless otherwise notified by the Department, owners or operators of construction activities identified in Table 1 of Appendix B are required to prepare a SWPPP that only includes erosion and sediment control practices designed in conformance with Part III.B.1. Owners or operators of the construction activities identified in Table 2 of Appendix B shall prepare a SWPPP that also includes post-construction stormwater management practices designed in conformance with Part III.B.2 or 3.

Part IV. INSPECTION AND MAINTENANCE REQUIREMENTS

A. General Construction Site Inspection and Maintenance Requirements

- 1. The *owner or operator* must ensure that all erosion and sediment control practices and all post-construction stormwater management practices identified in the SWPPP are maintained in effective operating condition at all times.
- 2. The terms of this permit shall not be construed to prohibit the State of New York from exercising any authority pursuant to the ECL, common law or federal law, or prohibit New York State from taking any measures, whether civil or criminal, to prevent violations of the laws of the State of New York, or protect the public health and safety and/or the environment.

B. Owner or Operator Maintenance Inspection Requirements

- 1. The *owner or operator* shall inspect, in accordance with the requirements in the most current version of the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, the erosion and sediment controls identified in the SWPPP to ensure that they are being maintained in effective operating condition at all times.
- 2. For construction sites where soil disturbance activities have been temporarily suspended (e.g. winter shutdown) and temporary stabilization measures have been applied to all disturbed areas, the *owner or operator* can stop conducting the maintenance inspections. The *owner or operator* shall begin conducting the maintenance inspections in accordance with Part IV.B.1. as soon as soil disturbance activities resume.
- 3. For construction sites where soil disturbance activities have been shut down with partial project completion, the *owner or operator* can stop conducting the maintenance inspections if all areas disturbed as of the project shutdown date have achieved *final stabilization* and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational.

(Part IV. C)

C. <u>Qualified Inspector Inspection Requirements</u> - The *owner or operator* shall have a *qualified inspector* conduct site inspections in conformance with the following requirements:

[Note: The trained contractor identified in Part III.A.6. cannot conduct the qualified inspector site inspections unless they meet the qualified inspector qualifications included in Appendix A. In order to perform these inspections, the trained contractor would have to be a:

- Licensed Professional Engineer,
- Certified Professional in Erosion and Sediment Control (CPESC),
- Registered Landscape Architect, or
- Someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided they have received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity].
- 1. A qualified inspector shall conduct site inspections for all construction activities identified in Tables 1 and 2 of Appendix B, with the exception of:
 - a. the construction of a single family residential subdivision with 25% or less impervious cover at total site build-out that involves a soil disturbance of one (1) or more acres of land but less than five (5) acres and is <u>not</u> located in one of the watersheds listed in Appendix C and <u>not</u> directly discharging to one of the 303(d) segments listed in Appendix E;
 - b. the construction of a single family home that involves a soil disturbance of one (1) or more acres of land but less than five (5) acres and is <u>not</u> located in one of the watersheds listed in Appendix C and <u>not</u> directly discharging to one of the 303(d) segments listed in Appendix E;
 - c. construction on agricultural property that involves a soil disturbance of one (1) or more acres of land but less than five (5) acres; and
 - d. construction activities located in the watersheds identified in Appendix
 D that involve soil disturbances between five thousand (5000) square
 feet and one (1) acre of land.
- 2. Unless otherwise notified by the Department, the *qualified inspector* shall conduct site inspections in accordance with the following timetable:
 - a. For construction sites where soil disturbance activities are on-going, the *qualified inspector* shall conduct a site inspection at least once every seven (7) calendar days.

(Part IV. C. 2)

- b. For construction sites where soil disturbance activities are on-going and the *owner or operator* has received authorization in accordance with Part II.C.3 to disturb greater than five (5) acres of soil at any one time, the *qualified inspector* shall conduct at least two (2) site inspections every seven (7) calendar days. The two (2) inspections shall be separated by a minimum of two (2) full calendar days.
- c. For construction sites where soil disturbance activities have been temporarily suspended (e.g. winter shutdown) and temporary stabilization measures have been applied to all disturbed areas, the *qualified inspector* shall conduct a site inspection at least once every thirty (30) calendar days. The *owner or operator* shall notify the Regional Office stormwater contact person (see contact information in Appendix F) or, in areas under the jurisdiction of a *regulated*, *traditional land use control MS4*, the MS4 (provided the MS4 is not the *owner or operator* of the construction activity) in writing prior to reducing the frequency of inspections.
- d. For construction sites where soil disturbance activities have been shut down with partial project completion, the qualified inspector can stop conducting inspections if all areas disturbed as of the project shutdown date have achieved final stabilization and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational. The owner or operator shall notify the Regional Office stormwater contact person (see contact information in Appendix F) or, in areas under the jurisdiction of a regulated, traditional land use control MS4, the MS4 (provided the MS4 is not the owner or operator of the construction activity), in writing prior to the shutdown. If soil disturbance activities are not resumed within 2 years from the date of shutdown, the owner or operator shall have the qualified inspector perform a final inspection and certify that all disturbed areas have achieved final stabilization, and all temporary, structural erosion and sediment control measures have been removed; and that all postconstruction stormwater management practices have been constructed in conformance with the SWPPP by signing the "Final Stabilization" and "Post-Construction Stormwater Management Practice" certification statements on the NOT. The owner or operator shall then submit the completed NOT form to the address in Part II.A.1..

(Part IV. C. 3)

- 3. At a minimum, the *qualified inspector* shall inspect all erosion and sediment control practices to ensure integrity and effectiveness, all post-construction stormwater management practices under construction to ensure that they are constructed in conformance with the SWPPP, all areas of disturbance that have not achieved *final stabilization*, all points of discharge to natural surface waterbodies located within, or immediately adjacent to, the property boundaries of the construction site, and all points of discharge from the construction site.
- 4. The *qualified inspector* shall prepare an inspection report subsequent to each and every inspection. At a minimum, the inspection report shall include and/or address the following:
 - a. Date and time of inspection;
 - b. Name and title of person(s) performing inspection;
 - c. A description of the weather and soil conditions (e.g. dry, wet, saturated) at the time of the inspection;
 - d. A description of the condition of the runoff at all points of discharge from the construction site. This shall include identification of any discharges of sediment from the construction site. Include discharges from conveyance systems (i.e. pipes, culverts, ditches, etc.) and overland flow;
 - e. A description of the condition of all natural surface waterbodies located within, or immediately adjacent to, the property boundaries of the construction site which receive runoff from disturbed areas. This shall include identification of any *discharges* of sediment to the surface waterbody;
 - f. Identification of all erosion and sediment control practices that need repair or maintenance;
 - g. Identification of all erosion and sediment control practices that were not installed properly or are not functioning as designed and need to be reinstalled or replaced;
 - h. Description and sketch of areas that are disturbed at the time of the inspection and areas that have been stabilized (temporary and/or final) since the last inspection;

(Part IV. C 4)

- i. Current phase of construction of all post-construction stormwater management practices and identification of all construction that is not in conformance with the SWPPP and technical standards;
- j. Corrective action(s) that must be taken to install, repair, replace or maintain erosion and sediment control practices; and to correct deficiencies identified with the construction of the post-construction stormwater management practice(s); and
- k. Digital photographs, with date stamp, that clearly show the condition of all practices that have been identified as needing corrective actions. The *qualified inspector* shall attach paper color copies of the digital photographs to the inspection report being maintained onsite within seven (7) calendar days of the date of the inspection. The *qualified inspector* shall also take digital photographs, with date stamp, that clearly show the condition of the practice(s) after the corrective action has been completed. The *qualified inspector* shall attach paper color copies of the digital photographs to the inspection report that documents the completion of the corrective action work within seven (7) calendar days of that inspection.
- 5. Within one business day of the completion of an inspection, the *qualified* inspector shall notify the owner or operator and appropriate contractor or subcontractor identified in Part III.A.6. of any corrective actions that need to be taken. The contractor or subcontractor shall begin implementing the corrective actions within one business day of this notification and shall complete the corrective actions in a reasonable time frame.
- 6. All inspection reports shall be signed by the *qualified inspector*. Pursuant to Part II.C.2., the inspection reports shall be maintained on site with the SWPPP.

Part V. TERMINATION OF PERMIT COVERAGE

A. Termination of Permit Coverage

- 1. An owner or operator that is eligible to terminate coverage under this permit must submit a completed NOT form to the address in Part Π.Α.1. The NOT form shall be one which is associated with this general permit, signed in accordance with Part VII.H.
- 2. An *owner or operator* may terminate coverage when one or more the following conditions have been met:

(Part V. A. 2)

- a. Total project completion All construction activity identified in the SWPPP has been completed; <u>and</u> all areas of disturbance have achieved final stabilization; <u>and</u> all temporary, structural erosion and sediment control measures have been removed; <u>and</u> all post-construction stormwater management practices have been constructed in conformance with the SWPPP and are operational;
- b. Planned shutdown with partial project completion All soil disturbance activities have ceased; <u>and</u> all areas disturbed as of the project shutdown date have achieved *final stabilization*; <u>and</u> all temporary, structural erosion and sediment control measures have been removed; <u>and</u> all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational;
- c. A new *owner or operator* has obtained coverage under this permit in accordance with Part II.E.
- 3. For construction activities meeting subdivision 2a. or 2b. of this Part, the owner or operator shall have the qualified inspector perform a final site inspection prior to submitting the NOT. The qualified inspector shall, by signing the "Final Stabilization" and "Post-Construction Stormwater Management Practice" certification statements on the NOT, certify that all disturbed areas have achieved final stabilization; and all temporary, structural erosion and sediment control measures have been removed; and that all post-construction stormwater management practices have been constructed in conformance with the SWPPP.
- 4. For construction activities that are subject to the requirements of a regulated, traditional land use control MS4 and meet subdivision 2a. or 2b. of this Part, the owner or operator shall also have the MS4 sign the "MS4 Acceptance" statement on the NOT. The owner or operator shall have the principal executive officer, ranking elected official, or duly authorized representative from the regulated, traditional land use control MS4, sign the "MS4 Acceptance" statement. The MS4 official, by signing this statement, has determined that it is acceptable for the owner or operator to submit the NOT in accordance with the requirements of this Part. The MS4 can make this determination by performing a final site inspection themselves or by accepting the qualified inspector's final site inspection certification(s) required in Part V.3.
- 5. For *construction activities* that require post-construction stormwater management practices and meet subdivision 2a. of this Part, the *owner or operator* must, prior to submitting the NOT, ensure one of the following:

(Part V. A. 5)

- a. the post-construction stormwater management practice(s) and any rightof-way(s) needed to maintain such practice(s) have been deeded to the municipality in which the practice(s) is located,
- b. an executed maintenance agreement is in place with the municipality that will maintain the post-construction stormwater management practice(s),
- c. for post-construction stormwater management practices that are privately owned, the *owner or operator* has modified their deed of record to include a deed covenant that requires operation and maintenance of the practice(s) in accordance with the operation and maintenance plan,
- d. for post-construction stormwater management practices that are owned by a public or private institution (e.g. school, college, university), or government agency or authority, the *owner or operator* has policy and procedures in place that ensures operation and maintenance of the practices in accordance with the operation and maintenance plan.

Part VI. REPORTING AND RETENTION OF RECORDS

A. Record Retention - The owner or operator shall retain a copy of the NOI, NOI Acknowledgment Letter, SWPPP, MS4 SWPPP Acceptance form and any inspection reports that were prepared in conjunction with this permit for a period of at least five (5) years from the date that the site achieves *final stabilization*. This period may be extended by the Department, in its sole discretion, at any time upon written notification.

B. <u>Addresses</u> - With the exception of the NOI, NOT, and MS4 SWPPP Acceptance form (which must be submitted to the address referenced in Part II.A.1), all written correspondence requested by the Department, including individual permit applications, shall be sent to the address of the appropriate Department Regional Office listed in Appendix F.

Part VII. STANDARD PERMIT CONDITIONS

A. <u>Duty to Comply</u> - The *owner or operator* must comply with all conditions of this permit. All contractors and subcontractors associated with the project must comply with the terms of the SWPPP. Any non-compliance with this permit constitutes a violation of the Clean Water Act (CWA) and the ECL and is grounds for an enforcement action against the *owner or operator* and/or the contractor/subcontractor; permit revocation, suspension or modification; or denial of a permit renewal application. Upon a finding of significant non-compliance with this permit or the applicable SWPPP, the Department may order an immediate stop to all *construction activity* at the site until the non-compliance is remedied.

(Part VII. A)

The stop work order shall be in writing, shall describe the non-compliance in detail, and shall be sent to the *owner or operator*.

- **B.** Continuation of the Expired General Permit This permit expires five (5) years from the effective date. However, coverage may be obtained under the expired general permit, which will continue in force and effect, until a new general permit is issued. Unless otherwise notified by the Department in writing, an *owner or operator* seeking authorization under the new general permit must submit a new NOI in accordance with the terms of such new general permit.
- C. <u>Enforcement</u> Failure of the *owner or operator*, its contractors, subcontractors, agents and/or assigns to strictly adhere to any of the permit requirements contained herein shall constitute a violation of this permit. There are substantial criminal, civil, and administrative penalties associated with violating the provisions of this permit. Fines of up to \$37,500 per day for each violation and imprisonment for up to fifteen (15) years may be assessed depending upon the nature and degree of the offense.
- **D.** Need to Halt or Reduce Activity Not a Defense It shall not be a defense for an owner or operator in an enforcement action that it would have been necessary to halt or reduce the construction activity in order to maintain compliance with the conditions of this permit.
- **E.** <u>Duty to Mitigate</u> The *owner or operator* and its contractors and subcontractors shall take all reasonable steps to minimize or prevent any *discharge* in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.
- **F.** Duty to Provide Information The owner or operator shall make available to the Department for review and copying or furnish to the Department within five (5) business days of receipt of a Department request for such information, any information requested for the purpose of determining compliance with this permit. This can include, but is not limited to, the NOI, NOI Acknowledgment Letter, SWPPP, MS4 SWPPP Acceptance form, executed maintenance agreement, and inspection reports. Failure to provide information requested by the Department within the request timeframe shall be a violation of this permit.
- The NOI, SWPPP and inspection reports required by this permit are public documents that the *owner or operator* must make available for review and copying by any person within five (5) business days of the *owner or operator* receiving a written request by any such person to review the NOI, SWPPP or inspection reports. Copying of documents will be done at the requester's expense.
- **G.** Other Information When the *owner or operator* becomes aware that they failed to submit any relevant facts, or submitted incorrect information in the NOI or in any other report, or have made substantive revisions to the SWPPP (e.g. the scope of the project changes significantly, the type of post-construction stormwater management practice(s)

(Part VII. G)

changes, there is a reduction in the sizing of the post-construction stormwater management practice, or there is an increase in the disturbance area or impervious area), which were not reflected in the original NOI submitted to the Department, they shall promptly submit such facts or information to the Department. Failure of the *owner or operator* to correct or supplement any relevant facts within five (5) business days of becoming aware of the deficiency shall constitute a violation of this permit.

H. Signatory Requirements

- 1. All NOIs and NOTs shall be signed as follows:
 - a. For a corporation these forms shall be signed by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:
 - a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation; or
 - ii. the manager of one or more manufacturing, production or operating facilities, provided the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;
 - b. For a partnership or sole proprietorship these forms shall be signed by a general partner or the proprietor, respectively; or
 - c. For a municipality, State, Federal, or other public agency these forms shall be signed by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes:
 - i. the chief executive officer of the agency, or

(Part VII. H. 1. c)

- ii. a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of EPA).
- 2. The SWPPP and other information requested by the Department shall be signed by a person described in Part VII.H.1. or by a duly authorized representative of that person. A person is a duly authorized representative only if:
 - a. The authorization is made in writing by a person described in Part VII.H.1.;
 - b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position) and,
 - c. The written authorization shall include the name, title and signature of the authorized representative and be attached to the SWPPP.
- 3. All inspection reports shall be signed by the *qualified inspector* that performs the inspection.
- 4. The MS4 SWPPP Acceptance form shall be signed by the principal executive officer or ranking elected official from the *regulated*, *traditional land use control MS4*, or by a duly authorized representative of that person.
 - It shall constitute a permit violation if an incorrect and/or improper signatory authorizes any required forms, SWPPP and/or inspection reports.
- I. <u>Property Rights</u> The issuance of this permit does not convey any property rights of any sort, nor any exclusive privileges, nor does it authorize any injury to private property nor any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations. *Owners or operators* must obtain any applicable conveyances, easements, licenses and/or access to real property prior to *commencing construction activity*.
- J. <u>Severability</u> The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit shall not be affected thereby.

(Part VII. K)

K. Denial of Coverage Under This Permit

- 1. At its sole discretion, the Department may require any owner or operator authorized by this permit to apply for and/or obtain either an individual SPDES permit or another SPDES general permit. When the Department requires any discharger authorized by a general permit to apply for an individual SPDES permit, it shall notify the discharger in writing that a permit application is required. This notice shall include a brief statement of the reasons for this decision, an application form, a statement setting a time frame for the owner or operator to file the application for an individual SPDES permit, and a deadline, not sooner than 180 days from owner or operator receipt of the notification letter, whereby the authorization to discharge under this general permit shall be terminated. Applications must be submitted to the appropriate Regional Office. The Department may grant additional time upon demonstration, to the satisfaction of the Regional Water Engineer, that additional time to apply for an alternative authorization is necessary or where the Department has not provided a permit determination in accordance with Part 621 of this Title.
- 2. Any owner or operator authorized by this permit may request to be excluded from the coverage under this permit by applying for an individual permit or another general permit. In such cases, the owner or operator shall submit an individual application or an alternative general permit application in accordance with the requirements of this general permit, 40 CFR 122.26(c)(1)(ii) and 6 NYCRR Part 621, with reasons supporting the request, to the Department at the address for the appropriate Department Office (see addresses in Appendix F). The request may be granted by issuance of an individual permit or another general permit at the discretion of the Department.
- 3. When an individual SPDES permit is issued to a discharger authorized to discharge under a general SPDES permit for the same discharge(s), the general permit authorization for outfalls authorized under the individual SPDES permit is automatically terminated on the effective date of the individual permit unless termination is earlier in accordance with 6 NYCRR Part 750.
- **L.** <u>Proper Operation and Maintenance</u> The *owner or operator* shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the *owner or operator* to achieve compliance with the conditions of this permit and with the requirements of the SWPPP.
- M. <u>Inspection and Entry</u> The owner or operator shall allow the Department or an authorized representative of EPA, the State, or, in the case of a construction site which discharges through an MS4, an authorized representative of the MS4 receiving the discharge, upon the presentation of credentials and other documents as may be required by law, to:

(Part VII. M)

- 1. Enter upon the *owner's or operator's* premises where a regulated facility or activity is located or conducted or where records must be kept under the conditions of this permit;
- 2. Have access to and copy at reasonable times, any records that must be kept under the conditions of this permit; and
- 3. Inspect at reasonable times any facilities or equipment (including monitoring and control equipment).
- N. <u>Permit Actions</u> At the Department's sole discretion, this permit may, at any time, be modified, suspended, revoked, or renewed. The filing of a request by the *owner or operator* for a permit modification, revocation and reissuance, termination, a notification of planned changes or anticipated noncompliance does not limit, diminish and/or stay compliance with any terms of this permit.
- O. <u>Definitions</u> Definitions of key terms are included in Appendix A of this permit.

P. Re-Opener Clause

- 1. If there is evidence indicating potential or realized impacts on water quality due to any stormwater discharge associated with construction activity covered by this permit, the owner or operator of such discharge may be required to obtain an individual permit or alternative general permit in accordance with Part VII.K. of this permit or the permit may be modified to include different limitations and/or requirements.
- 2. Permit modification, suspension or revocation will be conducted in accordance with 6 NYCRR Part 621, 6 NYCRR 750-1.18, and 6 NYCRR 750-1.20.
- Q. <u>Penalties for Falsification of Forms and Reports</u> Article 17 of the ECL provides for a civil penalty of \$37,500 per day per violation of this permit. Articles 175 and 210 of the New York State Penal Law provide for a criminal penalty of a fine and/or imprisonment for falsifying forms and reports required by this permit.
- R. Other Permits Nothing in this permit relieves the owner or operator from a requirement to obtain any other permits required by law.

APPENDIX A

Definitions

Alter Hydrology from Pre to Post-Development Conditions - means the post-development peak flow rate(s) has increased by more than 5% of the pre-developed condition for the design storm of interest (e.g. 10 yr and 100 yr).

Combined Sewer - means a sewer that is designed to collect and convey both "sewage" and "stormwater".

Commence (Commencement of) Construction Activities - means the initial disturbance of soils associated with clearing, grading or excavation activities; or other construction related activities that disturb or expose soils such as demolition, stockpiling of fill material, and the initial installation of erosion and sediment control practices required in the SWPPP. See definition for "Construction Activity(ies)" also.

Construction Activity(ies) - means any clearing, grading, excavation, filling, demolition or stockpiling activities that result in soil disturbance. Clearing activities can include, but are not limited to, logging equipment operation, the cutting and skidding of trees, stump removal and/or brush root removal. Construction activity does not include routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of a facility.

Direct Discharge (to a specific surface waterbody) - means that runoff flows from a construction site by overland flow and the first point of discharge is the specific surface waterbody, or runoff flows from a construction site to a separate storm sewer system and the first point of discharge from the separate storm sewer system is the specific surface waterbody.

Discharge(s) - means any addition of any pollutant to waters of the State through an outlet or point source.

Environmental Conservation Law (ECL) - means chapter 43-B of the Consolidated Laws of the State of New York, entitled the Environmental Conservation Law.

Final Stabilization - means that all soil disturbance activities have ceased and a uniform, perennial vegetative cover with a density of eighty (80) percent over the entire pervious surface has been established; or other equivalent stabilization measures, such as permanent landscape mulches, rock rip-rap or washed/crushed stone have been applied on all disturbed areas that are not covered by permanent structures, concrete or pavement.

General SPDES permit - means a SPDES permit issued pursuant to 6 NYCRR Part 750-1.21 authorizing a category of discharges.

Groundwater - means waters in the saturated zone. The saturated zone is a subsurface zone in

which all the interstices are filled with water under pressure greater than that of the atmosphere. Although the zone may contain gas-filled interstices or interstices filled with fluids other than water, it is still considered saturated.

Impervious Area (Cover) - means all impermeable surfaces that cannot effectively infiltrate rainfall. This includes paved, concrete and gravel surfaces (i.e. parking lots, driveways, roads, runways and sidewalks); building rooftops and miscellaneous impermeable structures such as patios, pools, and sheds.

Larger Common Plan of Development or Sale - means a contiguous area where multiple separate and distinct construction activities are occurring, or will occur, under one plan. The term "plan" in "larger common plan of development or sale" is broadly defined as any announcement or piece of documentation (including a sign, public notice or hearing, marketing plan, advertisement, drawing, permit application, State Environmental Quality Review Act (SEQRA) application, zoning request, computer design, etc.) or physical demarcation (including boundary signs, lot stakes, surveyor markings, etc.) indicating that construction activities may occur on a specific plot.

For discrete construction projects that are located within a larger common plan of development or sale that are at least 1/4 mile apart, each project can be treated as a separate plan of development or sale provided any interconnecting road, pipeline or utility project that is part of the same "common plan" is not concurrently being disturbed.

Municipal Separate Storm Sewer (MS4) - a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains):

- i. Owned or operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to surface waters of the State;
- ii. Designed or used for collecting or conveying stormwater;
- iii. Which is not a combined sewer; and
- iv. Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2.

National Pollutant Discharge Elimination System (NPDES) - means the national system for the issuance of wastewater and stormwater permits under the Federal Water Pollution Control Act (Clean Water Act).

NOI Acknowledgment Letter - means the letter that the Department sends to an owner or operator to acknowledge the Department's receipt and acceptance of a complete Notice of Intent. This letter documents the owner's or operator's authorization to discharge in accordance with the general permit for stormwater discharges from construction activity.

Owner or Operator - means the person, persons or legal entity which owns or leases the property on which the construction activity is occurring; and/or an entity that has operational control over the construction plans and specifications, including the ability to make modifications to the plans and specifications.

Pollutant - means dredged spoil, filter backwash, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand and industrial, municipal, agricultural waste and ballast discharged into water; which may cause or might reasonably be expected to cause pollution of the waters of the state in contravention of the standards or guidance values adopted as provided in Parts 700 et seq of this Title.

Qualified Inspector - means a person that is knowledgeable in the principles and practices of erosion and sediment control, such as a licensed Professional Engineer, Certified Professional in Erosion and Sediment Control (CPESC), Registered Landscape Architect, or other Department endorsed individual(s).

It can also mean someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided that person has training in the principles and practices of erosion and sediment control. Training in the principles and practices of erosion and sediment control means that the individual working under the direct supervision of the licensed Professional Engineer or Registered Landscape Architect has received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity. After receiving the initial training, the individual working under the direct supervision of the licensed Professional Engineer or Registered Landscape Architect shall receive four (4) hours of training every three (3) years.

It can also mean a person that meets the *Qualified Professional* qualifications in addition to the *Qualified Inspector* qualifications.

Note: Inspections of any post-construction stormwater management practices that include structural components, such as a dam for an impoundment, shall be performed by a licensed Professional Engineer.

Qualified Professional - means a person that is knowledgeable in the principles and practices of stormwater management and treatment, such as a licensed Professional Engineer, Registered Landscape Architect or other Department endorsed individual(s). Individuals preparing SWPPPs that require the post-construction stormwater management practice component must have an understanding of the principles of hydrology, water quality management practice design, water quantity control design, and, in many cases, the principles of hydraulics in order to prepare a SWPPP that conforms to the Department's technical standard. All components of the SWPPP that involve the practice of engineering, as defined by the NYS Education Law (see Article 145), shall be prepared by, or under the direct supervision of, a professional engineer licensed to practice in the State of New York.

Regulated, Traditional Land Use Control MS4 - means a city, town or village with land use control authority that is required to gain coverage under New York State DEC's SPDES General Permit For Stormwater Discharges from Municipal Separate Stormwater Sewer Systems (MS4s).

Routine Maintenance Activity - means construction activity that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of a facility, including, but not limited to:

- Re-grading of gravel roads or parking lots,
- Stream bank restoration projects (does not include the placement of spoil material),
- Cleaning and shaping of existing roadside ditches and culverts that maintains the approximate original line and grade, and hydraulic capacity of the ditch,
- Cleaning and shaping of existing roadside ditches that does not maintain the approximate original grade, hydraulic capacity and purpose of the ditch if the changes to the line and grade, hydraulic capacity or purpose of the ditch are installed to improve water quality and quantity controls (e.g. installing grass lined ditch),
- Placement of aggregate shoulder backing that makes the transition between the road shoulder and the ditch or embankment,
- Full depth milling and filling of existing asphalt pavements, replacement of concrete pavement slabs, and similar work that does not expose soil or disturb the bottom six (6) inches of subbase material,
- Long-term use of equipment storage areas at or near highway maintenance facilities,
- Removal of sediment from the edge of the highway to restore a previously existing sheet-flow drainage connection from the highway surface to the highway ditch or embankment,
- Existing use of Canal Corp owned upland disposal sites for the canal, and
- Replacement of curbs, gutters, sidewalks and guide rail posts.

State Pollutant Discharge Elimination System (SPDES) - means the system established pursuant to Article 17 of the ECL and 6 NYCRR Part 750 for issuance of permits authorizing discharges to the waters of the state.

Surface Waters of the State - shall be construed to include lakes, bays, sounds, ponds, impounding reservoirs, springs, rivers, streams, creeks, estuaries, marshes, inlets, canals, the Atlantic ocean within the territorial seas of the state of New York and all other bodies of surface water, natural or artificial, inland or coastal, fresh or salt, public or private (except those private waters that do not combine or effect a junction with natural surface or underground waters), which are wholly or partially within or bordering the state or within its jurisdiction. Waters of the state are further defined in 6 NYCRR Parts 800 to 941.

Temporary Stabilization - means that exposed soil has been covered with material(s) as set forth in the technical standard, New York Standards and Specifications for Erosion and Sediment Control, to prevent the exposed soil from eroding. The materials can include, but are not limited to, mulch, seed and mulch, and erosion control mats (e.g. jute twisted yarn, excelsior wood fiber mats).

Total Maximum Daily Loads (TMDLs) - A TMDL is the sum of the allowable loads of a single pollutant from all contributing point and nonpoint sources. It is a calculation of the maximum amount of a pollutant that a waterbody can receive on a daily basis and still meet water quality standards, and an allocation of that amount to the pollutant's sources. A TMDL stipulates wasteload allocations (WLAs) for point source discharges, load allocations (LAs) for nonpoint sources, and a margin of safety (MOS).

Trained Contractor - means an employee from the contracting (construction) company, identified in Part III.A.6., that has received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity. After receiving the initial training, the *trained contractor* shall receive four (4) hours of training every three (3) years.

It can also mean an employee from the contracting (construction) company, identified in Part III.A.6., that meets the *qualified inspector* qualifications (e.g. licensed Professional Engineer, Certified Professional in Erosion and Sediment Control (CPESC), Registered Landscape Architect, or someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided they have received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity).

The trained contractor will be responsible for the day to day implementation of the SWPPP.

Uniform Procedures Act (UPA) Permit - means a permit required under 6 NYCRR Part 621 of the Environmental Conservation Law (ECL), Article 70.

Water Quality Standard - means such measures of purity or quality for any waters in relation to their reasonable and necessary use as promulgated in 6 NYCRR Part 700 et seq.

APPENDIX B

Required SWPPP Components by Project Type

Table 1

CONSTRUCTION ACTIVITIES THAT REQUIRE THE PREPARATION OF A SWPPP THAT ONLY INCLUDES EROSION AND SEDIMENT CONTROLS

The following construction activities that involve soil disturbances of one (1) or more acres of land, but less than five (5) acres:

- Single family home <u>not</u> located in one of the watersheds listed in Appendix C and <u>not</u> directly discharging to one of the 303(d) segments listed in Appendix E
- Single family residential subdivisions with 25% or less impervious cover at total site build-out and <u>not</u> located in one of the watersheds listed in Appendix C and <u>not</u> directly discharging to one of the 303(d) segments listed in Appendix E
- Construction of a barn or other agricultural building, silo, stock yard or pen.

The following construction activities that involve soil disturbances of one (1) or more acres of land:

- Installation of underground, linear utilities; such as gas lines, fiber-optic cable, cable TV, electric, telephone, sewer mains, and water mains
- Environmental enhancement projects, such as wetland mitigation projects, stormwater retrofits and stream restoration projects
- Bike paths and trails
- Sidewalk construction projects that are not part of a road/ highway construction or reconstruction project
- Slope stabilization projects
- Slope flattening that changes the grade of the site, but does not significantly change the runoff characteristics
- Spoil areas that will be covered with vegetation
- Land clearing and grading for the purposes of creating vegetated open space (i.e. recreational
 parks, lawns, meadows, fields), excluding projects that alter hydrology from pre to post
 development conditions
- Athletic fields (natural grass) that do not include the construction or reconstruction of impervious area and do not alter hydrology from pre to post development conditions
- Demolition project where vegetation will be established and no redevelopment is planned
- Overhead electric transmission line project that does not include the construction of permanent access roads or parking areas surfaced with impervious cover
- Structural practices as identified in Table II in the "Agricultural Management Practices Catalog
 for Nonpoint Source Pollution in New York State", excluding projects that involve soil
 disturbances of less than five acres and construction activities that include the construction or
 reconstruction of impervious area

The following construction activities that involve soil disturbances between five thousand (5000) square feet and one (1) acre of land:

• All construction activities located in the watersheds identified in Appendix D that involve soil disturbances between five thousand (5000) square feet and one (1) acre of land.

Table 2

CONSTRUCTION ACTIVITIES THAT REQUIRE THE PREPARATION OF A SWPPP THAT INCLUDES POST-CONSTRUCTION STORMWATER MANAGEMENT PRACTICES

The following construction activities that involve soil disturbances of one (1) or more acres of land:

- Single family home located in one of the watersheds listed in Appendix C or *directly discharging* to one of the 303(d) segments listed in Appendix E
- Single family residential subdivisions located in one of the watersheds listed in Appendix C or directly discharging to one of the 303(d) segments listed in Appendix E
- Single family residential subdivisions that involve soil disturbances of between one (1) and five (5) acres of land with greater than 25% impervious cover at total site build-out
- Single family residential subdivisions that involve soil disturbances of five (5) or more acres of land, and single family residential subdivisions that involve soil disturbances of less than five (5) acres that are part of a larger common plan of development or sale that will ultimately disturb five or more acres of land
- Multi-family residential developments; includes townhomes, condominiums, senior housing complexes, apartment complexes, and mobile home parks
- Airports
- Amusement parks
- Campgrounds
- Cemeteries that include the construction or reconstruction of impervious area (>5% of disturbed area) or alter the hydrology from pre to post development conditions
- Commercial developments
- Churches and other places of worship
- Construction of a barn or other agricultural building(e.g. silo) and structural practices as
 identified in Table II in the "Agricultural Management Practices Catalog for Nonpoint Source
 Pollution in New York State" that include the construction or reconstruction of impervious area,
 excluding projects that involve soil disturbances of less than five acres.
- Golf courses
- Institutional, includes hospitals, prisons, schools and colleges
- Industrial facilities, includes industrial parks
- Landfills
- Municipal facilities; includes highway garages, transfer stations, office buildings, POTW's and water treatment plants
- Office complexes
- Sports complexes
- Racetracks, includes racetracks with earthen (dirt) surface
- Road construction or reconstruction
- Parking lot construction or reconstruction
- Athletic fields (natural grass) that include the construction or reconstruction of impervious area (>5% of disturbed area) or alter the hydrology from pre to post development conditions
- Athletic fields with artificial turf
- Permanent access roads, parking areas, substations, compressor stations and well drilling pads, surfaced with *impervious cover*, and constructed as part of an over-head electric transmission line project, wind-power project, cell tower project, oil or gas well drilling project or other linear utility project
- All other construction activities that include the construction or reconstruction of impervious area and alter the hydrology from pre to post development conditions, and are not listed in Table 1

APPENDIX C

Watersheds Where Enhanced Phosphorus Removal Standards Are Required

Watersheds where owners or operators of construction activities identified in Table 2 of Appendix B must prepare a SWPPP that includes post-construction stormwater management practices designed in conformance with the Enhanced Phosphorus Removal Standards included in the technical standard, New York State Stormwater Management Design Manual ("Design Manual").

- Entire New York City Watershed located east of the Hudson River Figure 1
- Onondaga Lake Watershed Figure 2
- Greenwood Lake Watershed -Figure 3
- Oscawana Lake Watershed Figure 4

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BEEKMAN EAST FISHKILL PAWLING Q? PATTERSON KENT SOUTHEAST PUT NAM VALLE BREWSTER CARMEL NORTH SALEM SOMERS CORTICAND EWISBORÓ PRKTOWN BEDFORD POUND RIDGE MOUNT KIGGO NEW CASTLE NORTH CAST MOUNT PLEASANT **EOH Watershed**

Figure 1 - New York City Watershed East of the Hudson

Figure 2 - Onondaga Lake Watershed

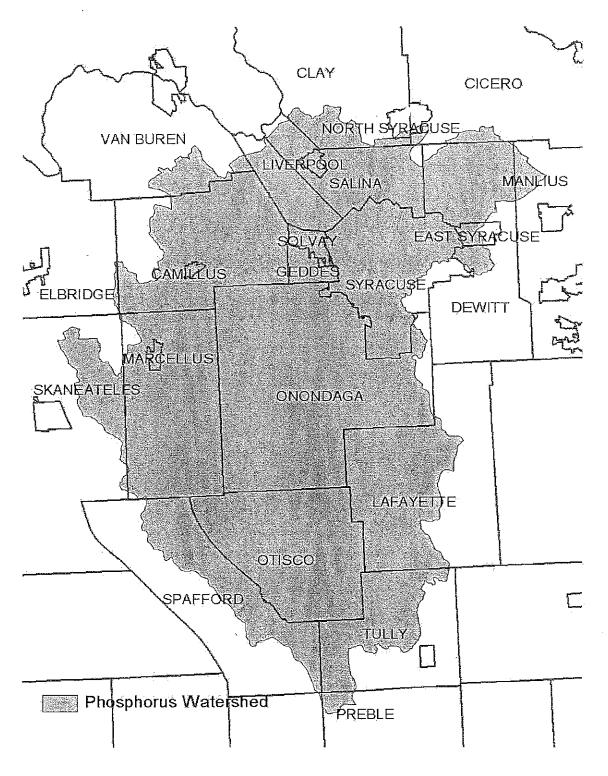
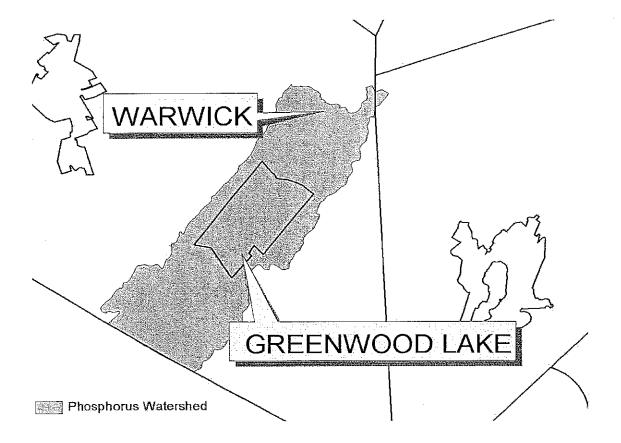
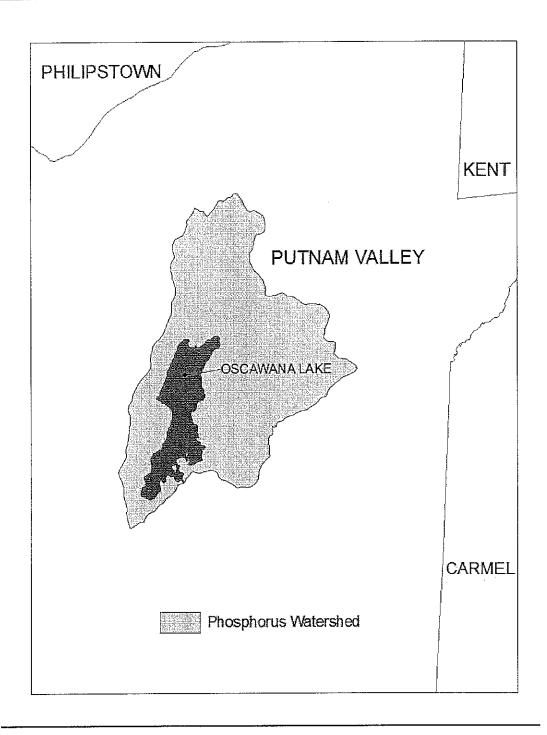


Figure 3 - Greenwood Lake Watershed





APPENDIX D

Watersheds where owners or operators of construction activities that involve soil disturbances between five thousand (5000) square feet and one (1) acre of land must obtain coverage under this permit.

Entire New York City Watershed that is located east of the Hudson River - See Figure 1 in Appendix C

APPENDIX E

List of 303(d) segments impaired by pollutants related to construction activity (e.g. silt, sediment or nutrients). Owners or operators of single family home and single family residential subdivision construction activities that involve soil disturbances of one or more acres of land, but less than 5 acres, and directly discharge to one of the listed segments below shall prepare a SWPPP that includes post-construction stormwater management practices designed in conformance with the most current version of the technical standard, New York State Stormwater Management Design Manual ("Design Manual").

COUNTY	WATERBODY	COUNTY	WATERBODY
Albany	Ann Lee (Shakers) Pond, Stump Pond	Monroe	Genesee River, Lower, Main Stem
Albany	Basic Creek Reservoir	Monroe	Genesee River, Middle, Main Stem
Bronx	Van Cortlandt Lake	Monroe	Black Creek, Lower, and minor tribs
Broome	Whitney Point Lake/Reservoir	Monroe	Buck Pond
Broome	Beaver Lake	Monroe	Long Pond
Broome	White Birch Lake	Monroe	Cranberry Pond
Chautauqua	Chautauqua Lake, North	Monroe	Mill Creek and tribs
Chautauqua	Chautauqua Lake, South	Monroe	Shipbuilders Creek and tribs
Chautauqua	Bear Lake	Monroe	Minor tribs to Irondequoit Bay
Chautauqua	Chadakoin River and tribs	Monroe	Thomas Creek/White Brook and tribs
Chautauqua	Lower Cassadaga Lake	Nassau	Glen Cove Creek, Lower, and tribs
Chautauqua	Middle Cassadaga Lake	Nassau	LI Tribs (fresh) to East Bay
Chautauqua	Findley Lake	Nassau	East Meadow Brook, Upper, and tribs
Clinton	Great Chazy River, Lower, Main Stem	Nassau	Hempstead Bay
Columbia	Kinderhook Lake	Nassau	Hempstead Lake
Columbia	Robinson Pond	Nassau	Grant Park Pond
Dutchess	Hillside Lake	Niagara	Bergholtz Creek and tribs
Dutchess	Wappinger Lakes	Oneida	Ballou, Nail Creeks
Dutchess	Fall Kill and tribs	Onondaga	Ley Creek and tribs
Dutchess	Rudd Pond	Onondaga	Onondaga Creek, Lower and tribs
Erie	Rush Creek and tribs	Onondaga	Onondaga creek, Middle and tribs
Erie	Ellicott Creek, Lower, and tribs	Onondaga	Onondaga Creek, Upper, and minor tribs
Erie	Beeman Creek and tribs	Onondaga	Harbor Brook, Lower, and tribs
Erie	Murder Creek, Lower, and tribs	Onondaga	Ninemile Creek, Lower, and tribs
Erie	South Branch Smoke Cr, Lower, and tribs	Onondaga	Minor tribs to Onondaga Lake
Erie	Little Sister Creek, Lower, and tribs	Ontario	Honeoye Lake
1	Lake George (primary county listed as Warren)	Ontario	Hemlock Lake Outlet and minor tribs
Essex Genesee	Black Creek, Upper, and minor tribs	Ontario	Great Brook and minor tribs
Genesee	Tonawanda Creek, Middle, Main Stem	Oswego	Lake Neatahwanta
Genesee	Tonawanda Creek, Upper, and minor tribs	Putnam	Oscawana Lake
Genesee	Little Tonawanda Creek, Lower, and tribs	Putnam	Lake Carmel
Genesee	Oak Orchard Creek, Upper, and tribs	Queens	Jamaica Bay, Eastern, and tribs (Queens)
Genesee	Bowen Brook and tribs	Queens	Bergen Basin
Genesee	Bigelow Creek and tribs	Queens	Shellbank Basin
Greene	Schoharie Reservoir	Rensselaer	Snyders Lake
Greene	Sleepy Hollow Lake	Richmond	Grasmere, Arbutus and Wolfes Lakes
Herkimer	Steele Creek tribs	Saratoga	Dwaas Kill and tribs
Kings	Hendrix Creek	Saratoga	Tribs to Lake Lonely
Lewis	Mill Creek/South Branch and tribs	Saratoga	Lake Lonely
Livingston	Conesus Lake	Saratoga	Schuyler Creek and tribs
Livingston	Jaycox Creek and tribs	Schenectady	Collins Lake
Livingston	Mill Creek and minor tribs		
TYAMESTON	WITH CACCE and HITHOU LITES		

List of 303(d) segments impaired by pollutants related to construction activity, cont'd.

APPENDIX E

COUNTY	WATERBODY	COUNTY	WATERBODY
Schoharie	Engleville Pond		
Schoharie	Summit Lake		
St. Lawrence	Black Lake Outlet/Black Lake		
Steuben	Lake Salubria		
Steuben	Smith Pond		
Suffolk	Millers Pond		
Suffolk	Mattituck (Marratooka) Pond		
Suffolk	Tidal tribs to West Moriches Bay		
Suffolk	Canaan Lake		
Suffolk	Lake Ronkonkoma		
Tompkins	Cayuga Lake, Southern End		
Tompkins	Owasco Inlet, Upper, and tribs		
Ulster	Ashokan Reservoir		
Ulster	Esopus Creek, Upper, and minor tribs		•
Warren	Lake George		
Warren	Tribs to L.George, Village of L George		
Warren	Huddle/Finkle Brooks and tribs		
Warren	Indian Brook and tribs		
Warren	Hague Brook and tribs		
Washington	Tribs to L.George, East Shore of Lake George		
Washington	Cossayuna Lake		
Wayne	Port Bay		
Wayne	Marbletown Creek and tribs		
Westchester	Peach Lake		
Westchester	Mamaroneck River, Lower		
Westchester	Mamaroneck River, Upper, and minor tribs		
Westchester	Sheldrake River and tribs		
Westchester	Blind Brook, Lower		
Westchester	Blind Brook, Upper, and tribs		
Westchester	Lake Lincolndale		
Westchester	Lake Meahaugh		
Wyoming	Java Lake		
Wyoming	Silver Lake		

Note: The list above identifies those waters from the final New York State "2008 Section 303(d) List of Impaired Waters Requiring a TMDL/Other Strategy", dated May 26, 2008, that are impaired by silt, sediment or nutrients.

APPENDIX F

LIST OF NYS DEC REGIONAL OFFICES

Region	COVERING THE FOLLOWING COUNTIES:	DIVISION OF ENVIRONMENTAL PERMITS (DEP) PERMIT ADMINISTRATORS	DIVISION OF WATER (DOW) WATER (SPDES) PROGRAM
1	NASSAU AND SUFFOLK	50 CIRCLE ROAD STONY BROOK, NY 11790 TEL. (631) 444-0365	50 CIRCLE ROAD STONY BROOK, NY 11790-3409 TEL. (631) 444-0405
2	BRONX, KINGS, NEW YORK, QUEENS AND RICHMOND	1 HUNTERS POINT PLAZA, 47-40 21ST ST. LONG ISLAND CITY, NY 11101-5407 TEL. (718) 482-4997	1 HUNTERS POINT PLAZA, 47-40 21st St. Long Island City, Ny 11101-5407 Tel. (718) 482-4933
3	DUTCHESS, ORANGE, PUTNAM, ROCKLAND, SULLIVAN, ULSTER AND WESTCHESTER	21 SOUTH PUTT CORNERS ROAD NEW PALIZ, NY 12561-1696 TEL. (845) 256-3059	100 Hillside Avenue, Suite 1w White Plains, Ny 10603 Tel. (914) 428 - 2505
4	Albany, Columbia, Delaware, Greene, Montgomery, Otsego, Rensselaer, Schenectady and Schoharie	1150 NORTH WESTCOTT ROAD SCHENECTADY, NY 12306-2014 TEL. (518) 357-2069	1130 NORTH WESTCOTT ROAD SCHENECTADY, NY 12306-2014 TEL. (518) 357-2045
5	CLINTON, ESSEX, FRANKLIN, FULTON, HAMILTON, SARATOGA, WARREN AND WASHINGTON	1115 STATE ROUTE 86, PO BOX 296 RAY BROOK, NY 12977-0296 TEL. (518) 897-1234	232 GOLF COURSE ROAD, PO BOX 220 WARRENSBURG, NY 12885-0220 TEL. (518) 623-1200
6	HERKIMER, JEFFERSON, LEWIS, ONEIDA AND ST. LAWRENCE	STATE OFFICE BUILDING 317 WASHINGTON STREET WATERTOWN, NY 13601-3787 TEL. (315) 785-2245	STATE OFFICE BUILDING 207 GENESEE STREET UTICA, NY 13501-2885 TEL. (315) 793-2554
7	BROOME, CAYUGA, CHENANGO, CORTLAND, MADISON, ONONDAGA, OSWEGO, TIOGA AND TOMPKINS	615 ERIE BLVD. WEST SYRACUSE, NY 13204-2400 TEL. (315) 426-7438	615 ERIE BLVD. WEST SYRACUSE, NY 13204-2400 TEL. (315) 426-7500
8	CHEMUNG, GENESEE, LIVINGSTON, MONROE, ONTARIO, ORLEANS, SCHUYLER, SENECA, STEUBEN, WAYNE AND YATES	6274 EAST AVON-LIMA ROAD AVON, NY 14414-9519 TEL. (585) 226-2466	6274 EAST AVON-LIMA RD. AVON, NY 14414-9519 TEL. (585) 226-2466
9	ALLEGANY, CATTARAUGUS, CHAUTAUQUA, ERIE, NIAGARA AND WYOMING	270 MICHIGAN AVENUE BUFFALO, NY 14203-2999 TEL. (716) 851-7165	270 MICHIGAN AVE. BUFFALO, NY 14203-2999 TEL. (716) 851-7070

APPENDIX F TERMINATION OF PERMIT COVERAGE BLANK NOTICE OF TERMINATION (NOT) FORM

THE FOLLOWING CHECK LIST SHALL BE COMPLETED BY THE OPERATOR AT THE TIME OF TERMINATION OF PERMIT COVERAGE, AND RECORDS MAINTAINED WITHIN APPENDIX M OF THIS SWPPP.

- 1. SUBMIT COMPLETED NOT TO DEC (INSERT UPON TERMINATION OF PERMIT COVERAGE)
- 2. NOTICE OF TERMINATION REQUIREMENT (INSERT UPON TERMINATION OF PERMIT COVERAGE)
 - a. PLANNED SHUTDOWN WITH PARTIAL PROJECT COMPLETION
 - b. NEW OWNER OR OPERATOR
- 3. INSPECTOR PERFORMS FINAL SITE INSPECTION FOR COMPLETED POST-CONSTRUCTION STORMWATER PRACTICES AND FINAL STABILIZATION. (INSERT FINAL INSPECTION FORMS APON TERMINATION OF PERMIT COVERAGE)

4.OWNER OPPERATOR ENSURES THE FOLLOWING:

- a. POST CONSTRUCTION RIGHTS OF WAY NEEDED FOR O&M HAVE BEEN DEEDED TO MUNICIPALITY OR HOME OWNERS ASSOCIATION.
 (INSERT DEED INFORMATION UPON RECIPT)
- EXECUTED MAINTENANCE AGREEMENT WITH MUNICIPALITY OR HOME OWNERS ASSOCIATION IN PLACE.
 (INSERT COPY OF AGREEMENT UPON RECIPT)
- c. OWNER HAS DEED RESTRICTION FOR O&M OF PRIVATELY OWNED STORMWATER MANAGEMENT PRACTICES (INSERT DEED INFORMATION UPON RECIPT)
- d. O&M PROCEDURES IN PLACE FOR STORMWATER MANAGEMENT PRACTICES OWNED BY PUBLIC /PRIVATE INSTITUTION



New York State Department of Environmental Conservation Division of Water 625 Broadway, 4th Floor

Albany, New York 12233-3505
(NOTE: Submit completed form to address above)

NOTICE OF TERMINATION for Storm Water Discharges Authorized under the SPDES General Permit for Construction Activity

Please indicate your permit identification number: NYR			
I. Owner or Operator Information			
1. Owner/Operator Name:			
2. Street Address:			
3. City/State/Zip:			
4. Contact Person:	4a.Telephone:		
5. Contact Person E-Mail:	·		
II. Project Site Information			
5. Project/Site Name:			
6. Street Address:			
7. City/Zip:			
8. County:			
III. Reason for Termination			
9a. ☐ All disturbed areas have achieved final stabilization in accordance *Date final stabilization completed (month/year):	ce with the general permit and SWPPP.		
9b. Permit coverage has been transferred to new owner/operator. In identification number: NYR			
9c. □ Other (Explain on Page 2)			
IV. Final Site Information:			
10a. Did this construction activity require the development of a SWPF stormwater management practices? ☐ yes ☐ no (If no, go to the construction of the construction	PP that includes post-construction to question 10f.)		
10b. Have all post-construction stormwater management practices included in the final SWPPP been constructed? □ yes □ no (If no, explain on Page 2)			
10c. Identify the entity responsible for long-term operation and maintenance of practice(s)?			

NOTICE OF TERMINATION for Storm Water Discharges Authorized under the SPDES General Permit for Construction Activity - continued 10d. Has the entity responsible for long-term operation and maintenance been given a copy of the operation and maintenance plan required by the general permit? \square yes \square no 10e. Indicate the method used to ensure long-term operation and maintenance of the post-construction stormwater management practice(s): ☐ Post-construction stormwater management practice(s) and any right-of-way(s) needed to maintain practice(s) have been deeded to the municipality. ☐ Executed maintenance agreement is in place with the municipality that will maintain the post-construction stormwater management practice(s). ☐ For post-construction stormwater management practices that are privately owned, the deed of record has been modified to include a deed covenant that requires operation and maintenance of the practice(s) in accordance with the operation and maintenance plan. ☐ For post-construction stormwater management practices that are owned by a public or private institution (e.g. school, college, university), or government agency or authority, policy and procedures are in place that ensures operation and maintenance of the practice(s) in accordance with the operation and maintenance plan. 10f. Provide the total area of impervious surface (i.e. roof, pavement, concrete, gravel, etc.) constructed within the disturbance area? 11. Is this project subject to the requirements of a regulated, traditional land use control MS4? \Box yes \Box no (If Yes, complete section VI - "MS4 Acceptance" statement V. Additional Information/Explanation: (Use this section to answer questions 9c. and 10b., if applicable) VI. MS4 Acceptance - MS4 Official (principal executive officer or ranking elected official) or Duly Authorized Representative (Note: Not required when 9b. is checked -transfer of coverage) I have determined that it is acceptable for the owner or operator of the construction project identified in question 5 to submit the Notice of Termination at this time. Printed Name: Title/Position: Date: Signature:

NOTICE OF TERMINATION for Storm Water Discharges Authorized under the SPDES General Permit for Construction Activity - continued VII. Qualified Inspector Certification - Final Stabilization: I hereby certify that all disturbed areas have achieved final stabilization as defined in the current version of the general permit, and that all temporary, structural erosion and sediment control measures have been removed. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of the referenced permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings. Printed Name: Title/Position: Date: Signature: VIII. Qualified Inspector Certification - Post-construction Stormwater Management Practice(s): I hereby certify that all post-construction stormwater management practices have been constructed in conformance with the SWPPP. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of the referenced permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings. Printed Name: Title/Position: Date: Signature: IX. Owner or Operator Certification I hereby certify that this document was prepared by me or under my direction or supervision. My determination, based upon my inquiry of the person(s) who managed the construction activity, or those persons directly responsible for gathering the information, is that the information provided in this document is true, accurate and complete. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of the referenced permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings. Printed Name: Title/Position:

(NYS DEC Notice of Termination - January 2010)

Signature:

Date:

APPENDIX G

- Principal Caracter - International Commission - State Caracter - Caracter - Caracter - International - Inter

OPERATORS CERTIFICATION

STORM WATER POLLUTION PREVENTION PLAN OPERATORS CERTIFICATION

Construction Site: Greenport Crossings, Greenport New York

STORMWATER POLLUTION PREVENTION PLAN DATED April 13, 2011

Operators Certification

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. Further, I hereby certify that the SWPPP meets all Federal, State, and local erosion and sediment control requirements. I am aware that false statements made herein are punishable as a class A misdemeanor pursuant to Section 210.45 of the Penal Law."

Signature:	
Name:	
Title:	
Date:	
Company:	
Address:	·
Phone:	
Email:	

This form must be signed by a responsible corporate officer or other party meeting the "Signatory Requirements" per NYSPDES GP Part VII H 1 a-c or other applicable state permit.

APPENDIX H

CONTRACTOR / SUBCONTRACTOR CERTIFICATION FORMS

GENERAL CONTRACTOR'S CERTIFICATION

Construction Site: Greenport Crossings, Greenport New York

STORM WATER POLLUTION PREVENTION PROGRAM DATED 04/13/11

GENERAL CONTRACTOR'S CERTIFICATION:

"I certify under penalty of law that I understand and agree to comply with the terms and conditions of the SWPPP for the construction site identified in such SWPPP as a condition of authorization to discharge stormwater. I also understand that the operator must comply with the terms and conditions of the New York State Pollutant Discharge Elimination System (SPDES) general permit for stormwater discharges from construction activities and that it is unlawful for any person to cause or contribute to a violation of water quality standards."

Name:	_
(Print)	
Signature:	_
Title:	_
Company Name:	
Address:	
Telephone Number:	_
Date:	
Scope of Services:	
Operators Project Manager Signature	

This form must be signed by a responsible corporate officer or other party meeting the "Signatory Requirements" per NY SPDES GP Part VII H 1 a-c or other applicable state permit.

SUBCONTRACTOR'S CERTIFICATION

Construction Site: Greenport Crossings, Greenport New York

STORM WATER POLLUTION PREVENTION PROGRAM DATED 04/13/11

SUBCONTRACTOR'S CERTIFICATION:

"I certify under penalty of law that I understand and agree to comply with the terms and conditions of the SWPPP for the construction site identified in such SWPPP as a condition of authorization to discharge stormwater. I also understand that the operator must comply with the terms and conditions of the New York State Pollutant Discharge Elimination System (SPDES) general permit for stormwater discharges from construction activities and that it is unlawful for any person to cause or contribute to a violation of water quality standards."

Name:	
(Print)	
Signature:	
Title:	
Company Name:	
Address:	
Telephone Number:	
Date:	_
Scope of Services:	
Operators Project Manager Signature	

This form must be signed by a responsible corporate officer or other party meeting the "Signatory Requirements" per NY SPDES GP Part VII H 1 a-c or other applicable state permit.

APPENDIX I
CONSTRUCTION SITE NOTICE

CONSTRUCTION SITE NOTICE

The following information is posted in compliance with the Environmental Protection Agency (EPA) National Pollutant Discharge Elimination System (NPDES) Construction General Permit (CGP) and the State of New York SPDES Permit

Contact Name and Phone Number:	Harbalwant Singh 845-430-1688
Brief Project Description:	The project involves the redevelopment of an unoccupied industrial parcel into a Hotel, Family Entertainment Center and a retail pad that will include a gas station. Associated site improvements include utilities, a storm water management system and a permanent landscaping.
Location of Storm Water Pollution Prevention Plan (SWPPP):	In construction Trailer on site

APPENDIX JPERMIT ELIGIBILITY DOCUMENTATION

一点的时间,我们的最后,我们的现在分词,可以是不是有一个人的人的人的人,我们的人的人的人的人的人,我们们的人的人的人的人的人的人的人,也是有一个人的人的人的人的

(To be inserted upon receipt)

APPENDIX K
STORMWATER MANAGEMENT REPORT

一种特殊的技术,但是是是一个人的,我们就是一个人的,我们就是一个人的,我们就是一个人的,我们就是一个人的,我们就是一个人的,我们就是一个人的,我们就是一个人的,

Engineering and Storm Water Management Report GREENPORT CROSSINGS

181 Union Turnpike (NYS Route 66) Town of Greenport, Columbia County, New York

Prepared for Submission to:

Town of Greenport

Submission Date: October 10, 2009 Revised: December 17, 2009

Prepared by:

BL Companies

355 Research Parkway Meriden, Connecticut 06450 Phone: (203) 630-1406 Fax (203) 630-2615

> Prepared for: Greenport Crossings, LLC 40 Corbett Road Montgomery, New York

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Overview

The purpose of this report is to present reviewing agencies with sufficient information regarding technical aspects of the proposed project and to review the potential impacts associated with the project. All work is intended to be in full compliance with the New York State Department of Environmental Conservation and Town of Greenport regulations while prevailing site conditions and practical needs have been taken into account.

Existing Site Conditions

General Site Information

The site is located in the Town of Greenport, Columbia County, New York, on the southern side of Union Turnpike (NYS Route 66). The existing site consists of an assemblage of 3 parcels totaling approximately 10.31 acres. The existing site has an unoccupied industrial building. The remainder of the site consists of an overgrown asphalt-covered parking lot and driveways and grass/meadow and wetlands / wooded areas. Site access is from both Union Turnpike (NYS Route 66).

Existing Drainage Patterns

The subject parcel gently slopes from the center of the site in both an northern and southern direction with a relief of approximately 4-feet towards the north and 1-foot towards the southern. Currently the site drains via overland sheet flow across the site from the center of the site northerly towards the southern Union Turnpike right of way line where it then becomes shallow concentrated flow and enters an existing catch basin. Additionally, the site has a second drainage area that sheet flows from the center of the site in a southern direction where it then becomes shallow concentrated flow and enters a low area on the southern side of the property This low area drains via a 12" CMP pipe flowing east under Industrial Tract Road. Approximately 58% of the site is impervious while the balance exists as pervious wooded areas, and landscaped areas with grass and meadows.

According to the Soil Survey of Columbia County, New York, issued March 1971, prepared by the United States Department of Agriculture Soil Conservation Service, the soil in the vicinity of the site is classified as Udorthents, smoothed (UE), which is classified as a deep, nearly level, and excessively drained to moderately well drained soil. Permeability can range from rapid to very slow, depth to seasonable high water table is generally more than three feet. Bedrock depth was not listed. Udorthents soils are also classified as class "A/D" hydrologic soil.

Developed Conditions

General Site Information

This project involves the construction of a 6,500 square foot retail building and associated gas pump islands, a 100-room hotel with a restaurant, a 20-lane bowling alley and a family entertainment facility. Associated site improvements are to include the construction of two new access drives to NYS Route 66 and a single lane drive to Industrial Tract Road.

To facilitate the proposed construction, a portion of the existing building will be demolished. All of the remaining existing pavement structures and any concrete slabs will also be demolished and crushed for reuse within the proposed pavement areas.

The site will be owned and developed by Greenport Crossings, L.L.C. for which erosion and sediment controls have been proposed and shown in the Stormwater Pollution Prevention Plan (SWPPP) and the Sediment and Erosion Control Plans. The total acreage of this project is 10.31 acres, of which 7.03 acres will be disturbed (no more than 5 acres at a time).

Proposed Utilities

Electric, Cable and Telephone Service

The proposed structures will obtain electric, cable and telephone service from an existing CH Energy Group utility pole located on the site and south of the NYS Route 66 frontage. From this point, conduits will be installed underground per the individual utility company requirements and specifications. The transformer will be mounted on a concrete pad. Cable and telephone conduits will be run underground from the same utility pole. All work shall be coordinated with and per the requirements and specifications of the local utility providers.

Gas Service

Gas service for the proposed building will be obtained from the existing main located in NYS Route 66. All work and actual meter locations shall be coordinated with and per the requirements and specifications of Central Hudson Energy Group.

Sanitary Service

The sanitary sewage generated by the proposed buildings will be conveyed by PVC laterals to a proposed sanitary main located in NYS Route 66. All work shall be coordinated with and per the requirements and specifications of the Town of Greenport Water and Wastewater Treatment Department.

Water Service

Water service to the proposed buildings will be obtained from water services, which will be connected to an existing 12" water main that is located within an existing watermain easements along the NYS Route 66 street frontage. All work shall be coordinated with and per the requirements and specifications of the Town of Greenport Water and Wastewater Treatment Department.

Proposed Drainage Design

Post-construction drainage patterns will be similar to pre-construction patterns in that stormwater runoff will discharged into the Route 66 drainage system and to the existing onsite wetlands. As a result of the proposed development there will be a 15% reduction in impervious area over the disturbed project area. The following table illustrates a breakdown of coverage types in the drainage areas.

Pre-construction:

0.49 acres 4.88 acres	= 9.1 % = 90.9 %
4.18 acres	= 78.6 %
1.14 acres	= 21.4 %
1.01 acres	= 18.0 %
4.55 acres	= 82.0 %
4.48 acres	= 87.3 %
	4.88 acres 4.18 acres 1.14 acres 1.01 acres 4.55 acres

Impervious Area =

0.65 acres

HydroCAD version 7.00 stormwater modeling software, which calculates runoff flow and volumes using the SCS TR-20 method, was utilized in conjunction with the areas listed above and the tabulated county rainfall data located in Appendix B of this report to determine the storm water flows as well as stormwater volumes generated for the respective storms. This information was then modeled using the calculations provided in the New York State Stormwater Management Design Manual. Calculations for routing, associated CN values, peak runoff and runoff volumes are located in Appendix B.

= 12.7 %

In the Pre-developed condition about half of the site drains to the wetland located in the south portion of the property and the remainder drains to the Route 66 drainage system to the north, as depicted on sheet ED-1. In the Post-development condition the site drainage patterns will remain consistent with the pre-development conditions. Stormwater from the northern portion of the site will be directed to a CDS Hydrodynamic Separator where the runoff will be treated for Quality control and then released into the Route 66 drainage system in the northwesterly portion of the property, as depicted on sheet PD-1. Two wet swales will be added adjacent to the wetlands for Quality control to the rear of the site. The overall post construction peak flows will match or be less than pre construction peak flow rates due to a 15% reduction in the sites impervious coverage. The peak flow rates are as shown in Table 1 below.

Table 1 Overall Pre-Development vs. Overall Post-Development Peak Flows				
Storm Event	Pre-Development	Post Development	Net Change	
	EDA-1 =15.97 cfs	PDA-1 = 15.60 cfs	-0.37 cfs	
1-yr	EDA-2 = 4.83 cfs	PDA-2 = 3.50 cfs	-1.33 cfs.	
	Total =20.80 cfs	Total = 19.10 cfs	-1.70 cfs	
	EDA-1 =30.03 cfs	PDA-1 = 29.90 cfs	0.13 cfs	
10-yr	EDA-2 = 13.13 cfs	PDA-2 = 10.24 cfs	-2.89 cfs.	
	Total =43.16 cfs	Total = 40.14 cfs	-3.02 cfs	
	EDA-1 =46.78 cfs	PDA-1 = 46.68 cfs	0.10 cfs	
100	EDA-2=23.81 cfs	PDA-2 = 19.13 cfs	-4.86 cfs.	
100-yr	Total =70.59 cfs	Total = 65.81 cfs	-4.96 cfs	

Storm Water Management System

The proposed development will have catch basins with deep sumps and trap hoods on all outlets connected to a storm sewer collection system within the parking areas. Stormwater runoff will be collected in catch basins positioned at various locations throughout the parcel, routed through a CDS Hydrodynamic Separator, meeting the NYSDEC's requirements for alternate practices for redevelopment sites.

Design Storms

The storm water systems were analyzed for the following storm events in Columbia County, NY. All figures referenced refer to figures included in the NYSDEC Stormwater Management Design Manual unless noted otherwise:

- Water Quality Volumes (WQ_v) are based on a 1.0" rainfall that was taken from Fig. 4.1 90% Rainfall in NY State.
- Channel Protection Volume is based on a 1 Year storm of 2.5" of rain that was taken from table 8.5 of the NYS Highway Drainage Manual.
- Storm Sewer Design is based on a 10 Year rainfall.
- Overbank Flood Protection is based on a 10 Year storm of 4.5" of rain that was taken from table 8.5 of the NYS Highway Drainage Manual.
- Flood Control Criteria is based on a 100 Yr. storm of 6.9" of rain that was taken from table 8.5 of the NYS Highway Drainage Manual.

Hydrology Methods

The required Water Quality Volumes (WQv) were calculated as outlined in Chapter 4 of the NYSDEC Stormwater Management Design Manual for the 90% Rainfall with the area requiring Water Quality Treatment reduced as described above based on Chapter 9—Redevelopment Projects.

The peak discharge flows and volumes for existing and proposed conditions were then checked using the HydroCAD computer program ver. 7.00 by Applied Computer Microsystems. The program uses a version of the NRCS's TR-20 computer program to generate and route hydrographs. Refer to Appendix B for additional information.

Storm Water Quality

The CDS unit is sized to provide the Water Quality Volume listed by the NYSDEC for the 90% Storm of 1.0" rainfall. See Appendix A for calculations.

Conclusion

Through the implementation of the proposed stormwater management system described in this report, the requirements of both the Town of Greenport and the New York State Department of Environmental Conservation will be fully met with regard to regulating both the quantity and quality of the stormwater runoff generated as a result of the proposed redevelopment of the subject parcel.

Appendix A

Figure 4.1 – NYSDEC Stormwater Management Design Manual
Water Quality Volume (WQv) calculations

NY DEC Preliminary Stormwater Treatment Calculations

From NYS Stormwater Management Design Manual

Project:

Area:

Greeport Crossings

Loc:

181 Union Turnpike, Greenport NY

PDA-2

Com. No.: Date:

09c3290 12/17/09

By:

E.C.P

Peak Discharge Summary

Soil -	Hydrologic				
Гуре	Soil Group	Cover Type	CN	A (Ac)	AxCN
	D 1	Grass	80.00	0.00	0.00
Ue	D	Brush	77.00	4.48	344.96
Ue	D	Gravel	80.00	0.00	0.00
Ue	D	Pavement	98.00	0.65	63.70
	Úe Úe Úe	Ue D Ue D Ue D	Ue D Grass Ue D Brush Ue D Gravel	Ue D Grass 80.00 Ue D Brush 77.00 Ue D Gravel 80.00 0 0 0 0	Ue D Grass 80.00 0.00 Ue D Brush 77.00 4.48 Ue D Gravel 80.00 0.00 Ue D Gravel 80.00 0.06

Weighted CN:	80
Total Area (Ac):	5.13
A x Cn:	408.66

Time of Concentration

WQv = [(P)(Rv)(a)]/12 =

0.54 Hrs

P (2 yr)

3.0

1a. Water Quality Volume (WQv)

WQv = [(P)(Rv)(a)] /12 Impervious Cover: Impervious Cover Reduction	12.67% 8%
Rv = 0.05 + (I)(.009) =	0.164
P 90% rainfall (fig. 4.1):	1.0

WQv Provided = Wet Swal #1 + Wet Swale #2

0.1197 ac-ft

3,054.65 cu-ft

0.070 ac-ft

1b. Channel Protection Storage Volume (Cpv)

Per NYDEC Stormwater Management Design Manual Chapter 9, the 1-yr (Cpv) criteria does not applie to sites with a reduction in impervious coverage, discharge rate, and velocity

1e. Overbank Flood Protection (Qp)

qi (post-development) = 10.24 cfs go (pre-development) = 13.13 cfs

Per NYDEC Stormwater Management Design Manual Chapter 9, the 10-yr (Qp) criteria does not applie to sites with a reduction in impervious coverage due to post development flows result in a zero net increase.

1f. Extreme Flood Protection (Qf)

qi (post-development 100yr) = 19.13 cfs 23.81 cfs qo (pre-development 100уг) =

Per NYDEC Stormwater Management Design Manual Chapter 9, the 100-yr (Qf) criteria does not applie to sites with a reduction in impervious coverage due to post development flows result in a zero net increase.

NY DEC Preliminary Stormwater Treatment Calculations

From NYS Stormwater Management Design Manual

Project:

Greeport Crossings

Loc: Area: 181 Union Turnpike, Greenport NY

PDA-1

Com. No.: Date:

09c3290 12/17/09

By:

E.C.P

Peak Discharge Summary

Cover Description	Soil	Hydrologic				
/ Area 2	Type	Soil Group	Cover Type	CN	A (Ac)	AxCN
Grass (Proposed)	Ue	D	Grass	80.00	0.85	68.00
Brush (Proposed)	Ue	D	Brush	77.00	0.00	0.00
Gravel (Proposed)	Ue	<u> </u>	Gravel	80.00	0.16	12.80
		 	Pavement	98.00	4.55	445.90
Impervious (Proposed)	Ue		Lavement	55.66		

1	
Weighted CN:	95
Total Area (Ac):	5.56
A x Cn:	526.70

Time of Concentration

0.14 Hrs

P (2 yr)

3.0

1a. Water Quality Volume (WQv)

WQv = [(P)(Rv)(a)] /12 Impervious Cover: Impervious Cover reduction	81.83% 8%
Rv = 0.05 + (I)(.009) =	0.787

WQv = [(P)(Rv)(a)]/12 =

P 90% rainfall (fig. 4.1):

0.364 ac-ft 15,873.99 cu-ft

1.0

WQv Alt=(25-(%IC reduction+WQv standard))x3

0.186 ac-ft 8,095.73 cu-ft

1b. Channel Protection Storage Volume (Cpv)

Per NYDEC Stormwater Management Design Manual Chapter 9, the 1-yr (Cpv) criteria does not applie to sites with a reduction in impervious coverage, discharge rate, and velocity

1e. Overbank Flood Protection (Qp)

qi (post-development) = qo (pre-development) =

Per NYDEC Stormwater Management Design Manual Chapter 9, the 10-yr (Qp) criteria does not applie to sites with a reduction in impervious coverage due to post development flows result in a zero net increase.

29.90 cfs

30.03 cfs

1f. Extreme Flood Protection (Qf)

46.68 cfs qi (post-development 100yr) = 46.78 cfs go (pre-development 100yr) =

Per NYDEC Stormwater Management Design Manual Chapter 9, the 100-yr (Qf) criteria does not applie to sites with a reduction in impervious coverage due to post development flows result in a zero net increase.

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Project Information Worksheet

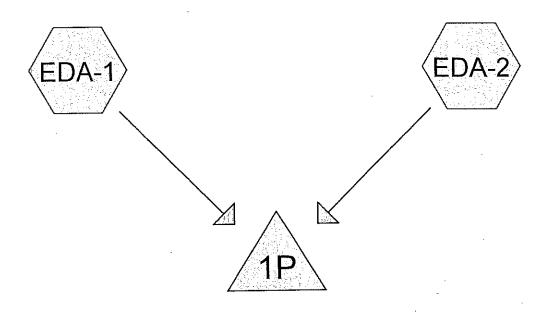
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X TSS		Oíl & Gre	ease	Ot	her:		Detention	tention None			
Trash/Fl	oatables	Metals:	(e.g. co	opper) No	пе		Retention/In	filtration	Other:		
NYDEC A	Applicati	ion					Storage Ty	pe (if know	n)		
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				ALTERNATION LAW			Plastic V	olume Required	d: cf		
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Design S	pecifica	itions	ere garage. Tanàna				1	, 16. - L.			
Structure	Contr	Contributing Drainage Area		WQ Design	Peak C	ondition	Inlet size/		Elevations (ft	:)	
ID	Area (ac or hec)	Runoff C/ % Impervious	T _c (min)	Flow (cfs) OR Volume (cf)	Flow (cfs)	Return Period (yr)	Outlet Size (ir	Rim	Inlet Invert	Outlet Invert	
CDS-1	5.56	C/82%	10.00	/8095	29.00 -	10	18.00/18.00	146.00	140.39	140.39	
		C/ %		1			/				
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Name:	Emile Pi	erides					E-mail: epier	des@blcompar	nies.com		
Company:	BL Com						Phone: 203-6	30-1406			
		earch Parkway, M	leriden C	T 06450			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	30-2615			
Address:	300 KeS	caluiraikway, IV	chach, C								

Appendix B

Columbia County Rainfall Data

Existing 1, 10, 100-year Type II peak runoff flow and runoff volume

Proposed 1, 10, 100-year Type II peak runoff flow and runoff volume



total site runoff









Type II 24-hr 1 YR Rainfall=2.50"

Prepared by {enter your company name here}
HydroCAD® 7.10 s/n 002266 © 2005 HydroCAD Software Solutions LLC

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Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment EDA-1:

Runoff Area=5.370 ac Runoff Depth>1.93"

Flow Length=573' Tc=9.3 min CN=96 Runoff=15.97 cfs 0.864 af

Subcatchment EDA-2:

Runoff Area=5.320 ac Runoff Depth>0.90"

Flow Length=719' Tc=26.5 min CN=82 Runoff=4.83 cfs 0.400 af

Pond 1P: total site runoff

Inflow=18.26 cfs 1.264 af

Primary=18.26 cfs 1.264 af

Total Runoff Area = 10.690 ac Runoff Volume = 1.264 af Average Runoff Depth = 1.42"

Prepared by {enter your company name here}

Page 3 12/17/2009

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Subcatchment EDA-1:

Runoff = 15.97 cfs @ 12.00 hrs, Volume=

0.864 af, Depth> 1.93"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type II 24-hr 1 YR Rainfall=2.50"

Area	a (ac)	CN	Desc	cription			
4.880 98 Paved parking & roofs						LICC D	
0.490 80 >75% Grass cover, Good, HSG D							
5							
Tc (min)			Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description	
6.3		0 0	.0007	0.4		Sheet Flow, AB	
3.0		•	.0137	2.4		Smooth surfaces n= 0.011 P2= 3.30" Shallow Concentrated Flow, BC Paved Kv= 20.3 fps	
9.3	57	З T	otal				

Subcatchment EDA-2:

Runoff = 4.83 cfs @ 12.21 hrs, Volume=

0.400 af, Depth> 0.90"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type II 24-hr 1 YR Rainfall=2.50"

	Area	(ac) C	N Desc	cription		
_	1.	140 9		ed parking		
_	4.	180 7	7 Brus	h, Fair, HS	SG D	
	5.	320 8	32 Wei	ghted Aver	age	
	Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
-	2.6	150	0.0063	1.0		Sheet Flow, AB
	23.9	569	0.0032	0.4		Smooth surfaces n= 0.011 P2= 3.30" Shallow Concentrated Flow, BC Short Grass Pasture Kv= 7.0 fps
-	26.5	719	Total			

Pond 1P: total site runoff

Inflow Area = 10.690 ac, Inflow Depth > 1.42" for 1 YR event Inflow = 18.26 cfs @ 12.01 hrs, Volume= 1.264 af

Primary = 18.26 cfs @ 12.01 hrs, Volume= 1.264 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Type II 24-hr 10 YR Rainfall=4.50"

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Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points Runoff by SCS TR-20 method, UH=SCS Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment EDA-1:

Runoff Area=5.370 ac Runoff Depth>3.76"

Flow Length=573' Tc=9.3 min CN=96 Runoff=30.03 cfs 1.681 af

Subcatchment EDA-2:

Runoff Area=5.320 ac Runoff Depth>2.43"

Flow Length=719' Tc=26.5 min CN=82 Runoff=13.13 cfs 1.076 af

Pond 1P: total site runoff

Inflow=37.21 cfs 2.757 af

Primary=37.21 cfs 2.757 af

Total Runoff Area = 10.690 ac Runoff Volume = 2.757 af Average Runoff Depth = 3.09"

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Subcatchment EDA-1:

Runoff = 30.03 cfs @ 12.00 hrs, Volume=

1.681 af, Depth> 3.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type II 24-hr 10 YR Rainfall=4.50"

Area	(ac)	ON Des	cription			
			ed parking	& roofs over, Good	HSG D	
			ghted Aver		, 1100 D	
Tc (min)	Length (feet)	Slope	Velocity (ft/sec)	Capacity (cfs)	Description	
6.3	150		0.4		Sheet Flow, AB	
3.0	423	0.0137	2.4		Smooth surfaces n= 0.011 P2= 3.30" Shallow Concentrated Flow, BC Paved Kv= 20.3 fps	
9.3	573	Total		• • • • • • • • • • • • • • • • • • • •		

Subcatchment EDA-2:

Runoff = 13.13 cfs @ 12.20 hrs, Volume=

1.076 af, Depth> 2.43"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type II 24-hr 10 YR Rainfall=4.50"

	Area ((ac) C	N Desc	cription		
_	1.	140 9		ed parking		
	4.	180 7	7 Brus	h, Fair, HS	SG D	
	5.	320 8	32 Weig	ghted Aver	age	•
	Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
-	2.6	150	0.0063	1.0		Sheet Flow, AB
	23.9	569	0.0032	0.4		Smooth surfaces n= 0.011 P2= 3.30" Shallow Concentrated Flow, BC Short Grass Pasture Kv= 7.0 fps
-	26.5	719	Total			

Pond 1P: total site runoff

Inflow Area = 10.690 ac, Inflow Depth > 3.09" for 10 YR event

Inflow = 37.21 cfs @ 12.01 hrs, Volume= Primary = 37.21 cfs @ 12.01 hrs, Volume=

2.757 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Type II 24-hr 100 YR Rainfall=6.90"

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Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment EDA-1:

Runoff Area=5.370 ac Runoff Depth>5.94"

Flow Length=573' Tc=9.3 min CN=96 Runoff=46.68 cfs 2.656 af

Subcatchment EDA-2:

Runoff Area=5.320 ac Runoff Depth>4.48"

Flow Length=719' Tc=26.5 min CN=82 Runoff=23.81 cfs 1.986 af

Pond 1P: total site runoff

Inflow=60.45 cfs 4.642 af

Primary=60.45 cfs 4.642 af

Total Runoff Area = 10.690 ac Runoff Volume = 4.642 af Average Runoff Depth = 5.21"

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Subcatchment EDA-1:

Runoff = 46.68 cfs @ 12.00 hrs, Volume=

2.656 af, Depth> 5.94"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type II 24-hr 100 YR Rainfall=6.90"

	Area	(ac) C	N Desc	cription			
_				ed parking		LICC D	
_	<u> </u>	490 8	30 >75°	% Grass co	over, Good.	, nog D	
	5.	370 9	6 Weig	ghted Aver	age		
	Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description	
-	6.3	150	0.0007	0.4		Sheet Flow, AB	
	3.0	423	0.0137	2.4		Smooth surfaces n= 0.011 P2= 3.30" Shallow Concentrated Flow, BC Paved Kv= 20.3 fps	
-	9.3	573	Total				

Subcatchment EDA-2:

Runoff = 23.81 cfs @ 12.20 hrs, Volume=

1.986 af, Depth> 4.48"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type II 24-hr 100 YR Rainfall=6.90"

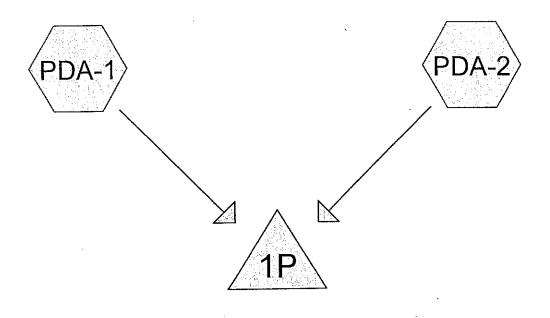
	Area	(ac) C	N Desc	cription		
-	1.	140 9	8 Pave	ed parking	& roofs	
	4.	180 7	7 Brus	h, Fair, HS	SG D	
-	5.	320 8	32 Wei	ghted Aver	rage	,
	Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
-	2.6	150	0.0063	1.0		Sheet Flow, AB
	23.9	569	0.0032	0.4		Smooth surfaces n= 0.011 P2= 3.30" Shallow Concentrated Flow, BC Short Grass Pasture Kv= 7.0 fps
-	26.5	719	Total			

Pond 1P: total site runoff

Inflow Area = 10.690 ac, Inflow Depth > 5.21" for 100 YR event Inflow = 60.45 cfs @ 12.02 hrs, Volume= 4.642 af

Primary = 60.45 cfs @ 12.02 hrs, Volume= 4.642 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs













Type II 24-hr 1 YR Rainfall=2.50"

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Time span=5.00-20.00 hrs, dt=0.06 hrs, 251 points
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment PDA-1:

Runoff Area=5.560 ac Runoff Depth>1.84"

Flow Length=702' Tc=10.0 min CN=95 Runoff=15.60 cfs 0.852 af

Subcatchment PDA-2:

Runoff Area=5.130 ac Runoff Depth>0.80"

Flow Length=585' Tc=33.1 min CN=80 Runoff=3.50 cfs 0.340 af

Pond 1P: total site runoff

Inflow=16.82 cfs 1.193 af

Primary=16.82 cfs 1.193 af

Total Runoff Area = 10.690 ac Runoff Volume = 1.193 af Average Runoff Depth = 1.34"

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Subcatchment PDA-1:

15.60 cfs @ 12.01 hrs, Volume= Runoff

0.852 af, Depth> 1.84"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.06 hrs Type II 24-hr 1 YR Rainfall=2.50"

Area	(ac) C	N Desc	cription			
4.550 98 Paved parking & roofs 0.850 80 >75% Grass cover, Good, HSG D						
0.	160	<u>30 Grav</u>	<u>rel roads, l</u>	HSG A		
5.	560	95 Wei	ghted Aver	age		
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description	
7.3	39	0.0070	0.1		Sheet Flow,	
0.7	80	0.0100	2.0		Grass: Short n= 0.150 P2= 3.00" Shallow Concentrated Flow, BC Paved Kv= 20.3 fps	
2.0	583	0.0050	5.0	8.78	Circular Channel (pipe), Diam= 18.0" Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.011	
10.0	702	Total				

Subcatchment PDA-2:

Runoff

3.50 cfs @ 12.30 hrs, Volume=

0.340 af, Depth> 0.80"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.06 hrs Type II 24-hr 1 YR Rainfall=2.50"

Area	(ac) C	N Desc	cription			
			ed parking		•	
4.	480	77 Brus	h, Fair, HS	G D	The state of the s	
5.	130	30 Weig	ghted Aver	age	•	
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description	
12.3	90	0.0100	0.1		Sheet Flow, AB Grass: Short n= 0.150 P2= 3.00"	
20.8	495	0.0032	0.4		Shallow Concentrated Flow, BC Short Grass Pasture Kv= 7.0 fps	
33.1	585	Total	- 			

Pond 1P: total site runoff

Inflow Area =

10.690 ac, Inflow Depth > 1.34" for 1 YR event

Inflow

16.82 cfs @ 12.02 hrs, Volume=

1.193 af

Primary =

16.82 cfs @ 12.02 hrs, Volume=

1.193 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.06 hrs

Type II 24-hr 10 YR Rainfall=4.50"

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Time span=5.00-20.00 hrs, dt=0.06 hrs, 251 points
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment PDA-1:

Runoff Area=5.560 ac Runoff Depth>3.66"

Flow Length=702' Tc=10.0 min CN=95 Runoff=29.90 cfs 1.698 af

Subcatchment PDA-2:

Runoff Area=5.130 ac Runoff Depth>2.25"

Flow Length=585' Tc=33.1 min CN=80 Runoff=10.24 cfs 0.963 af

Pond 1P: total site runoff

Inflow=34.30 cfs 2.661 af

Primary=34.30 cfs 2.661 af

Total Runoff Area = 10.690 ac Runoff Volume = 2.661 af Average Runoff Depth = 2.99"

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Subcatchment PDA-1:

29.90 cfs @ 12.01 hrs, Volume= Runoff

1.698 af, Depth> 3.66"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.06 hrs Type II 24-hr 10 YR Rainfall=4.50"

Area ((ac) C	N Desc	cription		
 4.	550 9	8 Pave	ed parking	& roofs	
0.	850 8	0 >759	√ Ġrass co	over, Good,	, HSG D
0.	160 8	0 Grav	rel roads, l	HSG A	
 5.	560 9	5 Weig	hted Aver	age	
Tc	Length	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
 (min)	(feet)	0.0070	0.1	(013)	Sheet Flow,
7.3	39	0.0070	Ų, I		Grass: Short n= 0.150 P2= 3.00"
0.7	80	0.0100	2.0		Shallow Concentrated Flow, BC Paved Kv= 20.3 fps
2.0	583	0.0050	5.0	8.78	Circular Channel (pipe), Diam= 18.0" Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.011
10.0	702	Total			

Subcatchment PDA-2:

10.24 cfs @ 12.28 hrs, Volume= Runoff

0.963 af, Depth> 2.25"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.06 hrs Type II 24-hr 10 YR Rainfall=4.50"

	Area	(ac) C	N Desc	cription			
_	0.	650 9	8 Pave	ed parking	& roofs		
	4.	480 7	77 Brus	h, Fair, HS	SG D		
5.130 80 Weighted Average					age	•	
	Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description	
-	12.3	90	0.0100	0.1		Sheet Flow, AB	
	20.8	495	0.0032	0.4		Grass: Short n= 0.150 P2= 3.00" Shallow Concentrated Flow, BC Short Grass Pasture Kv= 7.0 fps	
-	33.1	585	Total	···			

Pond 1P: total site runoff

10.690 ac, Inflow Depth > 2.99" for 10 YR event Inflow Area = 34.30 cfs @ 12.02 hrs, Volume= 2.661 af Inflow

2.661 af, Atten= 0%, Lag= 0.0 min 34,30 cfs @ 12.02 hrs, Volume= Primary

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.06 hrs

Type II 24-hr 100 YR Rainfall=6.90"

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Time span=5.00-20.00 hrs, dt=0.06 hrs, 251 points
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment PDA-1:

Runoff Area=5.560 ac Runoff Depth>5.85"

Flow Length=702' Tc=10.0 min CN=95 Runoff=46.78 cfs 2.711 af

Subcatchment PDA-2:

Runoff Area=5.130 ac Runoff Depth>4.26"

Flow Length=585' Tc=33.1 min CN=80 Runoff=19.13 cfs 1.820 af

Pond 1P: total site runoff

Inflow=55.67 cfs 4.531 af

Primary=55.67 cfs 4.531 af

Total Runoff Area = 10.690 ac Runoff Volume = 4.531 af Average Runoff Depth = 5.09"

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Subcatchment PDA-1:

Runoff

46.78 cfs @ 12.01 hrs, Volume=

2.711 af, Depth> 5.85"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.06 hrs Type II 24-hr 100 YR Rainfall=6.90"

	Area	(ac) C	N Desc	cription			
	4.	550 9		ed parking		LICC D	
					over, Good,	100 D	
	0.	<u> 160 </u>	30 Grav	<u>rel roads, l</u>	ASG A	·	
5.560 95 Weighted Average							
	Тс	Length	Slope	Velocity	Capacity	Description	
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)		
	7.3	39	0.0070	0.1		Sheet Flow, Grass: Short n= 0.150 P2= 3.00"	
	0.7	80	0.0100	2.0		Shallow Concentrated Flow, BC Paved Kv= 20.3 fps	
	2.0	583	0.0050	5.0	8.78	Circular Channel (pipe), Diam= 18.0" Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.011	
_	10.0	702	Total				

Subcatchment PDA-2:

Runoff

19.13 cfs @ 12.28 hrs, Volume=

1.820 af, Depth> 4.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.06 hrs Type II 24-hr 100 YR Rainfall=6.90"

Area	(ac) C	N Desc	cription			
	_		ed parking h, Fair, HS			
5.130 80 Weighted Average						
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description	•
12.3	90	0.0100	0.1		Sheet Flow, AB Grass: Short n= 0.150 P2= 3.00"	
20.8	495	0.0032	0.4		Shallow Concentrated Flow, BC Short Grass Pasture Kv= 7.0 fps	
33.1	585	Total				

Pond 1P: total site runoff

Inflow Area = 10.690 ac, Inflow Depth > 5.09" for 100 YR event Inflow = 55.67 cfs @ 12.02 hrs, Volume= 4.531 af

Primary = 55.67 cfs @ 12.02 hrs, Volume= 4.531 af, Atten= 0%, Lag= 0.0 min



Sizing Estimate

Provided by Don LeBlanc on December 21, 2009

Greenport Crossings

Information provided by Emile Pierides of BL Companies:

Structure	Area	% Impervious	Water Quality Flow
Identification	(acres)		(cfs)
CDS-1	5.56	82	3.70

Assumptions:

NYSDEC has adopted the NJCAT/NJDEP verified flow rates for the CDS system. NYSDEC has
effectively created three categories of treatment, new development (standalone), redevelopment and
pretreatment. Specific approval and sizing criteria are applied to each category. Per the specifying
engineer, this project falls under <u>Redevelopment</u>. The CDS will be sized to treat the required Water
Quality criteria of 75%WQv which is attained in the calculations within the drainage are quantity (0.75 x
5.56 AC = 4.17AC).

Sizing Summary:

The CDS Stormwater Treatment System is a high-performance hydrodynamic separator. Using patented continuous deflective separation technology, the CDS system screens, separates and traps debris, sediment, and oil and grease from stormwater runoff. The indirect screening capability of the system allows for 100% removal of floatables and neutrally buoyant material without blinding. Flow and screening controls physically separate captured solids, preventing re-suspension and release of previously trapped pollutants.

CONTECH Stormwater Solutions typically selects the CDS model that based on the NJCAT/NJDEP verified flow rates meets or exceeds the Water Quality Flow generated by the Water Quality Volume. 74% TSS removal is the removal percentage verified by NJCAT/NJDEP (and adopted by NYSDEC) in laboratory testing for the CDS unit corresponding to these flows. It exceeds the 50% requirement that was laid out by NYSDEC on page 9-46 of the New York State Stormwater Management Design Manual for redevelopment projects. No such specification exists for pretreatment projects, but in the best interest of the environment Contech holds to those flows for pretreatment projects as well. The following hydrographs show the Water Quality flow generated by the Water Quality Volume for this project. Based on these flows, Contech recommends:

Structure Identification	Treatment Device
CDS-1	CDS3035-6W = 3.80 cfs

Maintenance:

Like any stormwater best management practice, the CDS system requires regular inspection and maintenance to ensure optimal performance. Maintenance frequency will be driven by site conditions. Quarterly visual inspections are recommended, at which time the accumulation of pollutants can be determined. On average, the CDS systems require annual removal of accumulated pollutants.

Project:

Greenport Crossings

Location:

Greenport, NY

Prepared For:

Emile Pierides, BL Companies

Purpose:

To calculate the first flush runoff flow rate (WQF) over a given site area. In this situation the WQV to be analyzed is the runoff produced by the first 1.2" of rainfall.

Reference:

United States Department of Agriculture Natural Resources Conservation Service TR-55

Manual

Given:

Structure	Α	Α	Runoff	Percent Imp.	t _c	t _c
Name	(acres)	(miles²)	Coefficient	(%)*	(min)	(hr)
CDS-1	4.17	0.00652	0.79	82.00	10.0	0.167

^{*} Assumes runoff coefficient of 0.3 for pervious areas and 0.9 for impervious areas.

Procedure:

The Water Quality Flow (WQF) is calculated using the Water Quality Volume (WQV). This WQV, converted to watershed inches, is substituted for the runoff depth (Q) in the Natural Resources Conservation Service (formerly Soil Conservation Service), TR-55 Graphical Peak Discharge Method.

1. Compute WQV in watershed inches using the following equation:

$$WQV = P * R$$

where:

WQV = water quality volume (watershed inches)

P = design precipitation (inches) = (1.2" for water quality storm)

R = volumetric runoff coefficient = 0.05 + 0.009(I)

I = percent impervious cover

Structure	Percent		P	WQV	WQV :
Name	Imp. (%)	R	(in)	(in)	(ac-ft)
CDS-1	82.00	0.788	1.2	0.946	0.3286

2. Compute the NRCS Runoff Curve Number (CN) using the following equation, or graphically using Figure 2-1 from TR-55 (USDA, 1986):

$$CN = 1000 / [10+5P+10Q-10(Q^2+1.25QP)^{1/2}]$$

where:

CN = Runoff Curve Number

P = design precipitation (inches) = (1.2" for water quality storm)

Q = runoff depth (watershed inches)

- 1			
	Structure	Q	
	Name	(in)	CN
	CDS-1	0.946	97.57

3. Using computed CN, read initial abstraction (l_a) from Table 4-1 in Chapter 4 of TR-55; compute l_a/P , interpolating when appropriate.

Structure Name	l _a (in)	l _a /P
CDS-1	0.042	0.035

4. Compute the time of concentration (t_c) in hours and the drainage area in square miles. A minimum t_c of 0.167 hours (10 minutes) should be used.

Structure	t _c	Α
Name	(hr)	(miles²)
CDS-1	0.167	0.00652

5. Read the unit peak discharge (q_u) from Exhibit 4-III in Chapter 4 of TR-55 for appropriate t_c for type III rainfall distribution.

Structure	t _c		$\mathbf{q}_{\mathbf{u}}$
Name	(hr)	I _a /P	(csm/in)
CDS-1	0.167	0.035	600

6. Substituting WQV (watershed inches) for runoff depth (Q), compute the water quality flow (WQF) from the following equation:

$$\mathsf{WQF} = (\mathsf{q}_\mathsf{u})^*(\mathsf{A})^*(\mathsf{Q})$$

where: WQF = water quality flow (cfs)

q_u = unit peak discharge (cfs/mi²/inch)

A = drainage area (mi²)

Q = runoff depth (watershed inches)

Structure Name	q _u	A (miles²)	Q (in)	WQF
ivame	(csm/in)	(miles)	(111)	(CIS)
CDS-1	600	0.00652	0.946	3.70

APPENDIX K2

OPERATIONS AND MAINTANANCE PLAN

Site Engineering Report Appendix K2: Operations and Maintenance Plan Croopport Crossings

Greenport Crossings

181 Union Turnpike (NYS Rte. 66)

Town of Greenport

Columbia County, New York

Prepared for Submission to:

Town of Greenport, Columbia County and New York Department of Environmental Conservation

Submission Date: October 9, 2009

Prepared by:
BL Companies
355 Research Parkway
Meriden, Connecticut 06450
Phone: (203) 630-1406 Fax (203) 630-2615

Prepared for:

Greenport Crossings LLC 40 Corbett Road Montgomery, New York

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Appendix: A Maintenance Inspection Checlists

General Overview

The subject property consists of 10.31 acres located off Union Turnpike in the Town of Greenport, Columbia County, New York. The site contains urban land, grass, and wetland areas with mild slopes throughout the site.

The subject property has a total relief of approximately 5 feet, sloping towards the northwest and southeast. The front northern 75 percent of the site is developed with multiple industrial buildings and pavement area. There are no catch basins or water quality structures onsite resulting in water drainings via overland flow to the Route 66 drainage system to the north and to the wetland area to the southon the property. Because the site is currently developed, there will be an impervious coverage reduction with the new development.

The project involves the construction of a hotel and entertainment facility, a 6,500 s.f. retail building with a gas station. A portion of one of the existing building structures will be reused as a portion of the hotel / family entertainment facility.

The site will be graded to provide a relatively flat area for the proposed parking lot and driveways. Stormwater runoff will be collected in catch basins located at various locations throughout the developed portion of the parcel, then piped through a system of underground piping to a CDS hydrodynamic separator meeting NYSDEC requirements for total suspended solid removal. Overall site post-construction peak flows will remain consistent with overall site preconstruction peak flows. Runoff from the northern portion of the site will then be conveyed through existing drainage pipes located in the Route 66 Right of Way runoff from the southern portion of the site will sheet flow towards the wetlands area at the south portion of the site.

The demolition required on site consists of removing portions of one of the existing structures and complete removal of another structure and all pavement structures. Soil disturbing activities will include:

- Construction of temporary construction ingress / egress points and construction laydown areas
- Construction of temporary sediment traps
- Demolition of the buildings and pavement
- Final grading and seeding
- Any off-site improvements shall be made concurrently with items above.

The site will be owned and developed by Greenport Crossings, LLC for which erosion and sediment controls have been developed and fully addressed in this written plan and the Sediment and Erosion Control Plan(s). See Sediment and Erosion Control Plans Detail Sheets for additional details. The total acreage of this development is 10.31 acres of which 7.03 acres will be disturbed.

Purpose & Goals

The purpose of this Manual is to ensure that the development is operated in accordance with NYSDEC requirements for a SWPPP and accordance with all approvals and permits. The primary goal is to inform all the property managers how the system operates and what maintenance items are necessary to protect downstream stormwater systems and receiving waters. The secondary goal is to provide a practical, efficient means of maintenance planning and record keeping to ensure permit compliance.

Responsible Parties

Greenport Crossings, LLC will be responsible for implementing the Plan on the entire subject property. The party may retain a management company to oversee the maintenance of the subject property. It will be Greenport Crossings, LLC responsibility to ensure that the management company is qualified and familiar with the SWPPP.

Some utilities located on the site will be owned and maintained by the various utility providers in accordance with their standards. Greenport Crossings, LLC will maintain the service connections during construction. After completion of construction the maintenance duties will be allocated to the property manager.

List of Permits & Special Conditions

The project is seeking several land development permits, which may contain special conditions (monitoring requirements, record keeping, etc.) that need to be complied with by the owners, tenants, and maintenance contractors. These permits may include the following:

- Town of Greenport / Site Plan Approval
- New York State Department of Conservation SPDES General Permit for Stormwater Discharges from Construction Activity
- New York State Department of Conservation Stormwater Pollution Prevention Plan (SWPPP)

Maintenance Logs and Checklists

The Responsible Party will keep a record of all maintenance procedures performed, date of inspection/ cleanings, etc. Copies of inspection reports and maintenance records shall be kept on site in the tenants manager's office once they are established.

Forms

The following forms will be developed for annual maintenance. Copies of the forms will be kept on-site as part of the Storm Water Management Plan. A draft of the SWPPP is included in this SWPPP report where sample forms can be found.

- Quarterly Checklist
- Monthly Checklist
- Stormwater Construction Inspection Checklist

Employee Training

The Responsible Party will have an employee-training program, with annual up-dates, to ensure that the employees charged with maintaining this development do so in accordance with the approved permit conditions and SWPPP. All sub-contractors (Vactor, landscaping, snowplowing, etc.) will be informed of special requirements and responsibilities.

Spill Control

Greenport Crossings LLC will have a spill control program. That program will be updated annually and incorporated into the employee-training program. The reporting and clean-up of all spills shall comply with all local, State, and Federal requirements.

Storm Water Management

System Components

The storm water management system has several components and they perform various functions in treating storm water runoff:

Catch Basins are inlets, which trap road sand and floatable debris prior to draining through the storm sewer system. The catch basins (CB's) are equipped with 2' deep sumps.

An inspection report shall be completed and the findings and any corrective action taken shall be noted. The report shall be kept with the SWPPP.

CDS Hydrodynamic Separator units are water quality devices, which catch and store sediments, oils and floatable debris prior to draining into a detention system. The CDS Hydrodynamic separator units are equipped to induce a vortex to separate solid and floatable contaminants from stormwater.

Catch Basins and Manholes

Greenport Crossings, LLC is responsible for cleaning the catch basins and manholes on the properties. The sumps shall be pumped by a New York-Licensed hauler, and the sand and other debris disposed of legally. The road sand may be reused for winter sanding, but may not be stored on-site. As part of the hauling contract, the hauler shall notify the property owner in writing where the material is being disposed.

Each catch basin shall be inspected every four months, with one inspection occurring during the month of April. Any debris occurring within one foot from the bottom of each sump shall be removed by Vacuum "Vactor" type of maintenance equipment.

During the inspection of each of the catch basin sumps, the hoods (where provided) on each of the outlet pipes shall also be observed. If the hood is damaged or off it's hanger, it shall be reset or repaired. Any floatables on the water surface shall be removed and disposed of.

An inspection report shall be completed and the findings and any corrective action taken shall be noted. The report shall be kept with the SWPPP.

CDS Hydrodynamic Separator

Greenport Crossings, LLC is responsible for cleaning the CDS Hydrodynamic separator unit after construction. The CDS Hydrodynamic separator bottom, outlet, and inlet pipes shall be cleared of any debris and sediment that may have collected and shall be removed by Vacuum "Vactor" type of maintenance equipment to be trucked off by a New York-Licensed hauler, and disposed of legally. The CDS Hydrodynamic separator shall be inspected for damage and repaired by a contractor licensed by the manufacturer to repair such units.

An inspection report shall be completed and the findings, and any corrective action taken shall be so noted. The report shall be kept on file with the SWPPP.

Site Maintenance

Driveways and Parking Lots

Driveways and parking lots shall be swept during the month of April to remove winter accumulations of road sand and monthly to clean trash and debris. Road sand may be reused for winter sanding, but may not be stored on-site. As part of the hauling contract, the hauler shall notify the property owner in writing where the material is being disposed.

Landscaping

Landscaped areas will be maintained by the tenants. Normally the landscaping maintenance will consist of pruning, mulching, planting, mowing lawns, raking leaves, etc,. Use of fertilizers and pesticides will be controlled and limited to minimal amounts necessary for healthy landscape maintenance.

Soil tests will be performed prior to fertilization. Trees will be fertilized no more than once in the fall season with an organic fertilizer. Shrubs will be fertilized with an organic slow-release fertilizer each spring. Lawns shall receive a minimum of one application of fertilizer in the Fall. Liming of lawn areas to control pH will be done in the spring if testing indicates that it is necessary.

The lawn areas, once established, will be maintained at a typical height of 3 ½". This will allow the grass to be maintained with minimal impact from weeds and/or pests.

Pesticides will only be used as a control method when a problem has been clearly identified and other natural control methods are not successful. All pesticide applications shall be by licensed applicators, where necessary.

Topsoil, brush, leaves, clippings, woodchips, mulch, equipment, and other material shall be stored off site.

Trash Collection

All trash will be collected on a regular basis and disposed of legally off-site.

Snow Removal & Storage

Snow shall be plowed from the driveways, parking lots and sidewalks as soon as practical during and after winter storms. Snow shall be piled within the right of way snow shelf, or the perimeter of the parking lots or hauled off site and legally disposed of.

Utilities

Sanitary Sewer System

The land owner will be responsible for maintaining the sewer laterals from the property line to the building. Annual inspections of the cleanouts within the laterals will be conducted

Water System

The property owner will be responsible for maintaining the water system from the property line to the building.

Electric\Telephone\Cable TV System

The electric system will be owned and maintained up to the transformers by the electric company. The property owner will maintain the secondary lines from the transformer to the buildings. The telephone system will be owned and maintained by phone company up to the buildings. The cable TV system will be owned and maintained by the cable company.

Site Lighting System

The tenants will be responsible for maintaining the site lighting from the property line to the building

Operations & Maintenance Plan Proposed Commercial Development, 09c3290 OperMaint.DOC Greenport, New York

Appendix A

Maintenance Inspection Checklists

Project: Location: Site Status:

Date:

Open Channel Operation, Maintenance, and Management Inspection Checklist

Time:		
Inspector:		
Maintenance Item	SATISFACTORY/ UNSATISFACTORY	COMMENTS
1. Debris Cleanout (Monthly		
Contributing areas clean of debris		
2. Check Dams or Energy Dissipator	s (Annual, After I	Major Storms)
No evidence of flow going around structures		·
No evidence of erosion at downstream toe		
Soil permeability		
Groundwater / bedrock		
3. Vegetation (Monthly)		
Mowing done when needed		
Minimum mowing depth not exceeded		
No evidence of erosion		
Fertilized per specification		
4. Dewatering (Monthly)		
Dewaters between storms		

MAINTENANCE ITEM	SATISFACTORY/ UNSATISFACTORY	COMMENTS	
5. Sediment deposition (Annual)			
Clean of sediment			
6. Outlet/Overflow Spillway (Annua	al)		
Good condition, no need for repairs			
No evidence of erosion			
Comments:			
Actions to be Taken:			
4			
			-

APPENDIX L

CONSTRUCTION SITE LOG BOOK

APPENDIX H

STATE POLLUTANT DISCHARGE ELIMINATION SYSTEM FOR CONSTRUCTION ACTIVITIES CONSTRUCTION SITE LOG BOOK

Table of Contents

- I. Pre-Construction Meeting Documents
 - a. Preamble to Site Assessment and Inspections
 - b. Operator's Certification
 - c. Qualified Professional's Credentials & Certification
 - d. Pre-Construction Site Assessment Checklist
- II. Construction Duration Inspections
 - a. Directions
 - b. Modification to the SWPPP
- III. Monthly Summary Reports
- IV. Monitoring, Reporting, and Three-Month Status Reports
 - a. Operator's Compliance Response Form

Properly completing forms such as those contained in Appendix H meet the inspection requirement of NYS-DEC SPDES GP for Construction Activities. Completed forms shall be kept on site at all times and made available to authorities upon request.

I. PRE-CONSTRUCTION MEETING DOCUMENTS Project Name Permit No. ______ Date of Authorization ______ Name of Operator ______ Prime Contractor ______

a. Preamble to Site Assessment and Inspections

The Following Information To Be Read By All Person's Involved in The Construction of Stormwater Related Activities:

The Operator agrees to have a qualified professional¹ conduct an assessment of the site prior to the commencement of construction² and certify in this inspection report that the appropriate erosion and sediment controls described in the SWPPP have been adequately installed or implemented to ensure overall preparedness of the site for the commencement of construction.

Prior to the commencement of construction, the Operator shall certify in this site logbook that the SWPPP has been prepared in accordance with the State's standards and meets all Federal, State and local erosion and sediment control requirements.

When construction starts, site inspections shall be conducted by the qualified professional at least every 7 calendar days and within 24 hours of the end of a storm event of 0.5 inches or greater (Construction Duration Inspections). The Operator shall maintain a record of all inspection reports in this site logbook. The site logbook shall be maintained on site and be made available to the permitting authorities upon request. The Operator shall post at the site, in a publicly accessible location, a summary of the site inspection activities on a monthly basis (Monthly Summary Report).

The operator shall also prepare a written summary of compliance with this general permit at a minimum frequency of every three months (Operator's Compliance Response Form), while coverage exists. The summary should address the status of achieving each component of the SWPPP.

Prior to filing the Notice of Termination or the end of permit term, the Operator shall have a qualified professional perform a final site inspection. The qualified professional shall certify that the site has undergone final stabilization³ using either vegetative or structural stabilization methods and that all temporary erosion and sediment controls (such as silt fencing) not needed for long-term erosion control have been removed. In addition, the Operator must identify and certify that all permanent structures described in the SWPPP have been constructed and provide the owner(s) with an operation and maintenance plan that ensures the structure(s) continuously functions as designed.

^{1 &}quot;Qualified Professional means a person knowledgeable in the principles and practice of erosion and sediment controls, such as a Certified Professional in Erosion and Sediment Control (CPESC), soil scientist, licensed engineer or someone working under the direction and supervision of a licensed engineer (person must have experience in the principles and practices of erosion and sediment control).

^{2 &}quot;Commencement of construction" means the initial removal of vegetation and disturbance of soils associated with clearing, grading or excavating activities or other construction activities.

^{3 &}quot;Final stabilization" means that all soil-disturbing activities at the site have been completed and a uniform, perennial vegetative cover with a density of eighty (80) percent has been established or equivalent stabilization measures (such as the use of mulches or geotextiles) have been employed on all unpaved areas and areas not covered by permanent structures.

b. Operators Certification

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. Further, I hereby certify that the SWPPP meets all Federal, State, and local erosion and sediment control requirements. I am aware that false statements made herein are punishable as a class A misdemeanor pursuant to Section 210.45 of the Penal Law.

Name (please prin	nt):		_
Title		Date:	_
Address:			<u> </u>
			_
Signature:		11.00	_
"I hereby certify th project and that the the following Pre-c	appropriate erosion and sed construction Site Assessment	Certification in the General Permit to conduct site inspectiment controls described in the SWPPP and a Checklist have been adequately installed or the commencement of construction."	as described in
Name (please prin	it):		_
		Date:	_
Address:			
Signature:			

d. Pre-construction Site Assessment Checklist (NOTE: Provide comments below as necessary) 1. Notice of Intent, SWPPP, and Contractors Certification: Yes No NA [] [] Has a Notice of Intent been filed with the NYS Department of Conservation? [] [] [] Is the SWPPP on-site? Where? [] [] Is the Plan current? What is the latest revision date? [] [] Is a copy of the NOI (with brief description) onsite? Where? [] [] Have all contractors involved with stormwater related activities signed a contractor's certification? 2. Resource Protection Yes No NA [] [] Are construction limits clearly flagged or fenced? [] [] Important trees and associated rooting zones, on-site septic system absorption fields, existing vegetated areas suitable for filter strips, especially in perimeter areas, have been flagged for [] [] Creek crossings installed prior to land-disturbing activity, including clearing and blasting. 3. Surface Water Protection Yes No NA [] [] Clean stormwater runoff has been diverted from areas to be disturbed. [] [] Bodies of water located either on site or in the vicinity of the site have been identified and protected. [] [] Appropriate practices to protect on-site or downstream surface water are installed. [] [] Are clearing and grading operations divided into areas <5 acres? 4. Stabilized Construction Entrance Yes No NA [] [] A temporary construction entrance to capture mud and debris from construction vehicles before they enter the public highway has been installed. [] [] Other access areas (entrances, construction routes, equipment parking areas) are stabilized immediately as work takes place with gravel or other cover. [] [] Sediment tracked onto public streets is removed or cleaned on a regular basis. 5. Perimeter Sediment Controls Yes No NA [] [] Silt fence material and installation comply with the standard drawing and specifications. [] [] Silt fences are installed at appropriate spacing intervals [] [] Sediment/detention basin was installed as first land disturbing activity. [] [] Sediment traps and barriers are installed. 6. Pollution Prevention for Waste and Hazardous Materials

Yes No NA [] [] The Operator or designated representative has been assigned to implement the spill prevention avoidance and response plan. [] [] The plan is contained in the SWPPP on page [] [] Appropriate materials to control spills are onsite. Where?

II. CONSTRUCTION DURATION INSPECTIONS

a. Directions:

Inspection Forms will be filled out during the entire construction phase of the project. Required Elements:

- (1) On a site map, indicate the extent of all disturbed site areas and drainage pathways. Indicate site areas that are expected to undergo initial disturbance or significant site work within the next 14-day period;
- (2) Indicate on a site map all areas of the site that have undergone temporary or permanent stabilization;
- (3) Indicate all disturbed site areas that have not undergone active site work during the previous 14-day period;
- (4) Inspect all sediment control practices and record the approximate degree of sediment accumulation as a percentage of sediment storage volume (for example, 10 percent, 20 percent, 50 percent);
- (5) Inspect all erosion and sediment control practices and record all maintenance requirements such as verifying the integrity of barrier or diversion systems (earthen berms or silt fencing) and containment systems (sediment basins and sediment traps). Identify any evidence of rill or gully erosion occurring on slopes and any loss of stabilizing vegetation or seeding/mulching. Document any excessive deposition of sediment or ponding water along barrier or diversion systems. Record the depth of sediment within containment structures, any erosion near outlet and overflow structures, and verify the ability of rock filters around perforated riser pipes to pass water; and
- (6) Immediately report to the Operator any deficiencies that are identified with the implementation of the SWPPP.

CONSTRUCTION DURATION INSPECTIONS Page 1 of _____ SITE PLAN/SKETCH Date of Inspection Inspector (print name)

forms is accurate and complete.

Qualified Professional (print name)

The above signed acknowledges that, to the best of his/her knowledge, all information provided on the

Qualified Professional Signature

CONSTRUCTION DURATION INSPECTIONS

Page	2	of	

Maintaining	water	Quanty

Yes No NA [] [] [] Is there an increase in turbidity causing a substantial visible contrast to natural conditions? [] [] Is there residue from oil and floating substances, visible oil film, or globules or grease? [] [] [] All disturbance is within the limits of the approved plans. [] [] [] Have receiving lake/bay, stream, and/or wetland been impacted by silt from project?
Housekeeping
1. General Site Conditions Yes No NA [] [] [] Is construction site litter and debris appropriately managed? [] [] [] Are facilities and equipment necessary for implementation of erosion and sediment control in working order and/or properly maintained? [] [] [] Is construction impacting the adjacent property? [] [] [] Is dust adequately controlled?
2. Temporary Stream Crossing Yes No NA [] [] [] Maximum diameter pipes necessary to span creek without dredging are installed. [] [] Installed non-woven geotextile fabric beneath approaches. [] [] Is fill composed of aggregate (no earth or soil)? [] [] Rock on approaches is clean enough to remove mud from vehicles & prevent sediment from entering stream during high flow.
Runoff Control Practices
1. Excavation Dewatering Yes No NA [] [] Upstream and downstream berms (sandbags, inflatable dams, etc.) are installed per plan. [] [] Clean water from upstream pool is being pumped to the downstream pool. [] [] Sediment laden water from work area is being discharged to a silt-trapping device. [] [] Constructed upstream berm with one-foot minimum freeboard.
2. Level Spreader Yes No NA [] [] [] Installed per plan. [] [] [] Constructed on undisturbed soil, not on fill, receiving only clear, non-sediment laden flow. [] [] [] Flow sheets out of level spreader without erosion on downstream edge.
3. Interceptor Dikes and Swales Yes No NA [] [] Installed per plan with minimum side slopes 2H:1V or flatter. [] [] Stabilized by geotextile fabric, seed, or mulch with no erosion occurring. [] [] Sediment-laden runoff directed to sediment trapping structure

Runoff Control Practices (continued) 4. Stone Check Dam Yes No NA [] [] Is channel stable? (flow is not eroding soil underneath or around the structure). [] [] Check is in good condition (rocks in place and no permanent pools behind the structure). [] [] [] Has accumulated sediment been removed?. 5. Rock Outlet Protection Yes No NA [] [] Installed per plan. [] [] Installed concurrently with pipe installation. Soil Stabilization 1. Topsoil and Spoil Stockpiles Yes No NA [] [] Stockpiles are stabilized with vegetation and/or mulch. [] [] Sediment control is installed at the toe of the slope. 2. Revegetation Yes No NA [] [] Temporary seedings and mulch have been applied to idle areas. [] [] 4 inches minimum of topsoil has been applied under permanent seedings **Sediment Control Practices** 1. Stabilized Construction Entrance Yes No NA [] [] Stone is clean enough to effectively remove mud from vehicles. [] [] Installed per standards and specifications? [] [] Does all traffic use the stabilized entrance to enter and leave site? [] [] Is adequate drainage provided to prevent ponding at entrance? 2. Silt Fence Yes No NA [] [] Installed on Contour, 10 feet from toe of slope (not across conveyance channels). [] [] Joints constructed by wrapping the two ends together for continuous support. [] [] Fabric buried 6 inches minimum. [] [] Posts are stable, fabric is tight and without rips or frayed areas. Sediment accumulation is % of design capacity.

CONSTRUCTION DURATION INSPECTIONS

Page 3 of ____

CONSTRUCTION DURATION INSPECTIONS

Page	4	of		
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Sediment Control Practices (continued)

3. Storm	Drain Inlet Protection (Use for Stone & Block; Filter Fabric; Curb; or, Excavated practices)
Yes No N	
[][]	Installed concrete blocks lengthwise so open ends face outward, not upward.
	Placed wire screen between No. 3 crushed stone and concrete blocks.
	Drainage area is 1 acre or less.
	Excavated area is 900 cubic feet.
	Excavated side slopes should be 2:1.
וֹ וֹוֹ וֹן	2" x 4" frame is constructed and structurally sound.
	Posts 3-foot maximum spacing between posts.
וֹ וֹן וֹן	Fabric is embedded 1 to 1.5 feet below ground and secured to frame/posts with staples at max 8.
Fl Il t	inch spacing.
F1 F1 f	Posts are stable, fabric is tight and without rips or frayed areas.
	accumulation % of design capacity.
Seamone	decumatation/v or design supurity.
4. Tempo	rary Sediment Trap
Yes No N	· · · · · · · · · · · · · · · · · · ·
	Outlet structure is constructed per the approved plan or drawing.
	Geotextile fabric has been placed beneath rock fill.
	accumulation is% of design capacity.
Scamon	accumulation is
5. Tempo	rary Sediment Basin
Yes No N	f A
	Basin and outlet structure constructed per the approved plan.
זֿ וֹזֹ וֹזֹ	Basin side slopes are stabilized with seed/mulch.
ז וֹז וֹז	Drainage structure flushed and basin surface restored upon removal of sediment basin facility.
	accumulation is % of design capacity.
	<u> </u>
Note:	Not all erosion and sediment control practices are included in this listing. Add additional pages
	to this list as required by site specific design.
	Construction inspection checklists for post-development stormwater management practices can
	be found in Appendix F of the New York Stormwater Management Design Manual.

CONSTRUCTION DURATION INSPECTIONS

b. Modifications to the SWPPP (To be completed as described below)

The Operator shall amend the SWPPP whenever:

- 1. There is a significant change in design, construction, operation, or maintenance which may have a significant effect on the potential for the discharge of pollutants to the waters of the United States and which has not otherwise been addressed in the SWPPP; or
- 2. The SWPPP proves to be ineffective in:
 - a. Eliminating or significantly minimizing pollutants from sources identified in the SWPPP and as required by this permit; or
 - b. Achieving the general objectives of controlling pollutants in stormwater discharges from permitted construction activity; and
- 3. Additionally, the SWPPP shall be amended to identify any new contractor or subcontractor that will implement any measure of the SWPPP. Modification & Reason:

III. Monthly Summary of Site Inspection Activities

Name of Permitted Facility: Location:			Today's Date:	Reporting Month:	
			Permit Identification #:		
Name and Telep	hone Number of Site Inspe	ctor:			
Date of Inspection			r Items of Concern		
				1,00	
"I certify under p accordance with a submitted. Based gathering the info	a system designed to assure to on my inquiry of the person formation, the information sub- ware that false statements ma	nent and all attachments were hat qualified personnel prope or persons who manage the so omitted is, to the best of my k de herein are punishable as a	erly gathered and evalual system, or those person nowledge and belief, to	ated the information as directly responsible for rue, accurate, and	
	tee or Duly Authorized Represe representatives <u>must</u> hav	ntative Name of Pen	nittee or Duly Authorized	•	

APPENDIX M

REPORTING AND RETENTION OF RECORDS

UPON TERMINATION OF PERMIT COVERAGE THE OPERATOR IS TO MAINTAIN THE FOLLOWING:

- A. MAINTAIN COPIES OF THE FOLLOWING FOR 5 YEARS AFTER FINAL STABILIZATION OF THE SITE.
 - 1. NOTICE OF INTENT
 - 2. NOTICE OF INTENT ACKNOWLEDGMENT LETTER
 - 3. STORMWATER POLLUTION PREVENTION PLAN
 - 4. SWPPP ACCEPTANCE FORM
 - 5. ALL INSPECTION REPORTS
 - 6. NOTICE OF TERMINATION
- B. ALL CORRESPONDANCE TO BE SENT TO NYSDEC REGION #3
 - 1. PERMITS: 21 SO PUTT CORNERS RD, NEW PLATZ, NY 12561
 - 2. SPDES 100 HILLSIDE AVE, # 1W, WHITE PLAINS NY 10603