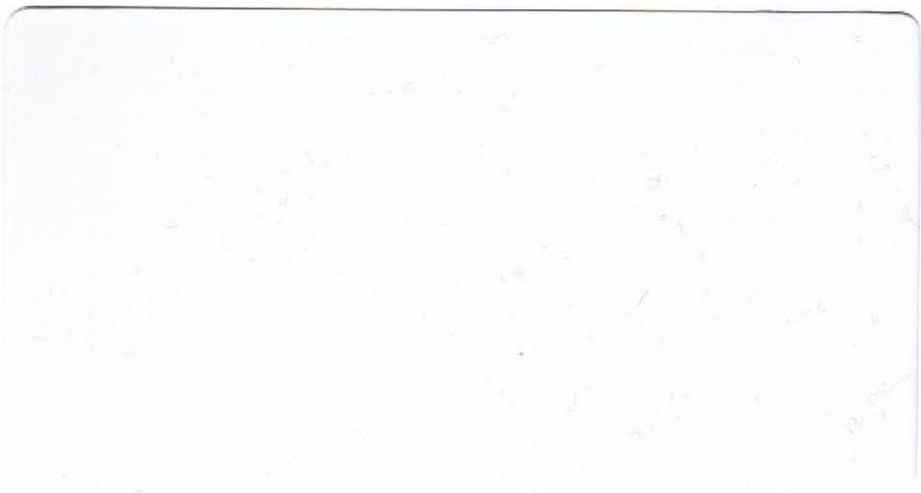

THE
Chazen
COMPANIES

Stormwater Pollution Prevention Plan

Hedley Hotel/Conference Center & Parking Structure

515 River Street
City of Troy
Rensselaer County, New York

July 19, 2007
Revised: February 11, 2008

THE Chazen COMPANIES

Prepared for:

First Columbia, LLC
22 Century Hill Drive
Latham, NY 12110

Stormwater Pollution Prevention Plan

Hedley Hotel/Conference Center & Parking Structure

515 River Street
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July 19, 2007
Revised: February 11, 2008

THE Chazen COMPANIES

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PREPARER OF THE SWPPP

"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(s) 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 29.45 if the Penal Law."

Name:[1] Joseph M. Lanaro

Title: Vice President, Engineering Services

License No.: 070126

Date: February 11, 2008

[1] This is a signature of an officer of the corporation authorized in policy or decision making functions of the corporation.

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1.0 EXECUTIVE SUMMARY

First Columbia, LLC is proposing the construction of a 6 story, 77,750 sq. ft., 138 room hotel with an adjacent 3 story, 25,000 sq. ft. conference center on a 2.28± acre parcel located at the corner of River Street and Hutton Street (515 River Street) in the City of Troy, New York. The Applicant is also proposing to construct a six-level, 277,740 sq. ft. parking structure on multiple parcels that total 1.76± acres in size and will be located at the opposite corner of River and Hutton Streets (466 River Street.

This Stormwater Pollution Prevention Plan (SWPPP) has been developed in accordance with the "New York State Department of Environmental Conservation (NYSDEC) State Pollution Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Construction Activity" General Permit Number GP-02-01, effective January 8, 2003. The SWPPP and accompanying plans identify and detail stormwater management, pollution prevention, and erosion and sediment control measures necessary during and following completion of construction.

This SWPPP and the accompanying site plans have been submitted as a set. These engineering drawings are considered an integral part of this SWPPP, therefore this SWPPP is not considered complete without them. References made herein to "the plans" or to a specific "sheet" refer to these drawings.

The measures described herein have been designed in accordance with the technical standards outlined in the NYSDEC *New York State Stormwater Management Design Manual* dated August 2003 (Design Manual) and the *New York State Standards and Specifications for Erosion and Sediment Control* dated August 2005.

A comparison of the pre- and post-development surface runoff rates has not been completed for the two design points due to the fact that they discharge directly into the Hudson River, which is classified as greater than a 4th order watercourse. Therefore, the proposed stormwater management measures outlined herein have been designed to provide quality controls only. Quantity controls are not required pursuant to the NYS Stormwater Management Design Manual.

2.0 NYSDEC SPDES GENERAL PERMIT GP-02-01

A summary of responsibilities and obligations of all parties involved with compliance with the NYSDEC SPDES General Permit, GP-02-01 conditions are outlined in the subsequent sections. For a complete listing of the responsibilities and obligations refer to the SPDES General Permit GP-02-01 presented in Appendix A.

2.1 Definitions

1. "General Permit" shall mean the general stormwater permit for construction activities issued by the United States Environmental Protection Agency, New York State Department of Environmental Conservation or a comparable general permit issued by local or other appropriate governmental agency.

2. "Operator" shall be any party (or parties) that has (or have) either (a) operational control over construction plans and specifications, including the ability to make modification to those plans and specifications or (b) 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. There may be occasions during the course of a project in which there are multiple Operators, all of which will need to file and maintain the appropriate SWPPP documents and plans, including without limitation, the Notice of Intent (NOI) and Notice of Termination (NOT).

3. "Operator's Engineer" shall be that person or entity retained by an Operator to design and oversee the implementation of the SWPPP.

4. "Contractor" 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.

5. "Qualified Professional" shall be a person knowledgeable in the practices of erosion and sediment controls, such as a NYS professional engineer or Certified Professional in Erosion and Sediment Control (CPESC).

2.2 Operator's Responsibilities

1. Have an authorized corporate officer sign the NOI and SWPPP Operator's Certification forms.

2. Submit the signed form along with any required fees and attachments to the following:

   NYS DEC "Notice of Intent"
   Bureau of Permit
   625 Broadway
   Albany, New York 12233-3505

   City of Troy Engineering Department
   One Monument Square
   Troy, New York 12180

3. Retain the services of a "Qualified Professional" as defined under Section 2.1 "Definitions" to provide the services outlined in Section 2.3 "Operator's Engineer's Responsibilities".

4. Schedule a pre-construction meeting which shall include the City of Troy representative, Operator's Engineer, Contractor, and their sub-contractors to discuss responsibilities as they relate to the implementation of this SWPPP.

5. Require the Contractor to fully implement the SWPPP prepared for the site by the Operator's Engineer.

6. Forward a copy of the Acknowledgement of Receipt of the Notice of Intent received from the regulatory agency to the Operator's Engineer for project records, and to the Contractor for display at the job site.

7. Keep a copy of the SWPPP, all NOI's, permit certificates, permit language, Spill Prevention, Countermeasures, and Cleanup ("SPCC") Plan, inspection records, and other required records on the job site so that they may be made available to the regulatory agencies.

8. Post at the site, in a publicly-accessible location, GP-02-01, a signed copy of the NOI, the Acknowledgement of Receipt of the NOI, and a summary of the site inspection activities on a monthly basis.

9. Prepare a written summary of projects status with respect to compliance with the general permit at a minimum frequency of every three months during which coverage under the permit exists. The summary should address the status of achieving the overall goal of the SWPPP. The summary shall be handled in the same manner as prescribed for SWPPP's

under Part III, subsection B of the NYSDEC SPDES General Permit GP-02-01.

10. Submit a Notice of Termination (NOT) form (see Appendix G) within 48 hours of receipt the Operator's Engineer's certification of final site stabilization to the following:

    NYS DEC "Notice of Termination"
    Bureau of Permit
    625 Broadway
    Albany, New York 12233-3505

    City of Troy Engineering Department
    One Monument Square
    Troy, New York 12180

11. Request and receive all SWPPP records from the Operator's Engineer and archive those records for a minimum of three years after the NOT is filed.

12. Require the implementation of the Post-Construction Inspections and Maintenance procedures outlined in Appendix H.

2.3 Operator's Engineers Responsibilities

1. Prepare the SWPPP using good engineering practices, best management practices, and in compliance with all federal, state, and local regulatory requirements.

2. Prepare the Notice of Intent Form (NOI) form (see Appendix B) and forward to Operator for signature.

3. Prepare and forward the SWPPP Operator Certification form for Operator's signature (see Appendix C).

4. Include a signed NOI and Operator Certification forms in the SWPPP prepared for the job site.

5. Provide copies of the SWPPP to the City of Troy once all signatures and attachments are complete.

6. Prepare a construction site log book to be used in maintaining a record of all inspection reports generated throughout the duration of construction.

7. Participate at pre-construction meeting with the City of Troy representative, Operator, Contractor, and their sub-contractors to discuss responsibilities as they relate to the implementation of this SWPPP.

8. Enter Contractor's information in Section 2.5 "SWPPP Participants" once a Contractor is selected by the Operator.

9. Conduct an initial site assessment of the site prior to the commencement of construction and certify in an inspection report that the appropriate erosion and sediment control measures described within this SWPPP and required by Part III.D of the NYSDEC General Permit, GP-02-01, have been adequately installed and implemented to ensure overall preparedness of the site.

10. Provide on-site inspections at least every seven (7) calendar days and within 24 hours of the end of a storm event of ½-inch or greater to determine compliance with the SWPPP. The written inspection reports shall be provided to the Operator within 24 hours of the field inspection with any deficiencies identified. A description of Construction Phase Inspections and Maintenance requirements are in presented Appendix D. A sample inspection form is provided in Appendix E.

11. Review the Contractor's SWPPP records on a periodic basis to ensure compliance with the requirements for daily reports and inspections and maintenance logs.

12. Maintain the construction site log book throughout the duration of construction.

13. Update the SWPPP each time there is a significant modification to the pollution prevention measures or a change of the principal Contractor working on the project who may disturb site soil.

14. Provide the Operator certification that an inspection has been completed verifying that the site has undergone final stabilization using appropriate measures and that all temporary erosion and sediment controls have been removed.

15. Transfer the SWPPP documents, along with all NOI's, permit certificates, NOT's, construction site log book, and written records required by the General Permit to the Operator for archiving.

2.4 Contractor's Responsibilities

1. Send all notifications required by SPDES General Permit Number GP-02-01 via certified mail with return receipt. Copies of mailing receipts shall be kept on record at the project site with the SWPPP and shall be considered part of the contract documents.

2. Sign the SWPPP Contractor's Certification form contained within Appendix C and forward to the Operator's Engineer for inclusion into the Site Log Book.

3. Provide the names and addresses of all subcontractors working on the project site. Require all subcontractors who will be involved with the major construction activities that will result in soil disturbance sign a copy of the Contractor's Certification Form and forward to the Operator's Engineer for inclusion into the Site Log Book. This information must be retained as part of the Site Log Book.

4. Prepare a Spill Prevention and Response Plan in accordance with requirements outlined in Section 6.5. This plan shall be provided to the Operator's Engineer for inclusion in the Site Log Book.

5. Participate in pre-construction meeting which shall include the 2 representative, Operator, Operator's Engineer, and all sub-contractors to discuss responsibilities as they relate to the implementation of this SWPPP.

6. Implement site stabilization, erosion and sediment control measures, and other requirements of the SWPPP.

7. Conduct daily inspections, prepare, and retain written documentation of inspections as well as all repairs/maintenance activities performed on erosion and sediment control measures.

8. Maintain a record of the dates when major grading activities occur, when construction activities temporarily or permanently cease on a portion of the site, and when stabilization measures are initiated, until such time as the NOT is filed. A log for keeping such records is provided in Appendix F.

9. Provide monthly training sessions for all entities and subcontractors involved with installing, applying, performing, maintaining and inspection of the SWPPP.

2.5 SWPPP Participants

1. Operator's Engineer:

Joseph M. Lanaro, P.E.
The Chazen Companies
547 River Street
Troy, New York 12180
Phone: (518)-273-0055
Fax: (518)-273-8391

2. Operator:

Chris Bette, P.E.
Vice President
First Columbia, LLC
22 Century Hill Drive, Suite 301
Latham, NY 12110
Phone: 518-213-1000
Fax: 518-213-1020

3. Contractor[2]:

Name and Title: _____
Company Name: _____
Mailing Address: _____
_____
Phone: _____
Fax: _____

[2] Contractor's information to be entered once the Contractor has been selected.

3.0 INTRODUCTION

This SWPPP has been prepared for site disturbance activities associated with construction of the proposed Hedley Hotel/Conference Center and proposed Parking Structure located at 515 and 466 River Street (respectively) in the City of Troy, Rensselaer County, New York. This SWPPP includes the elements necessary to comply with the national baseline general permit for construction activities enacted by the U.S. Environmental Protection Agency (EPA) under the National Pollutant Discharge Elimination System (NPDES) program and all local governing agency requirements. This SWPPP must be implemented at the start of construction.

Construction phase pollutant sources anticipated at the site are disturbed (exposed) soil, vehicle fuels and lubricants, chemicals associated with building construction, and building materials. Without adequate control there is the potential for each type of pollutant to be transported by stormwater.

Project construction will consist of primarily of site grading, paving, storm drainage, water supply and sewage collection to facilitate the construction of a 6 story, 77,750 S.F. hotel, a 3 story, 25,000 S.F. conference center, and a 6 level, 277,740 S.F. parking structure.

This report considers the impacts associated with the intended development with the purpose of:

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

2. Safely conveying stormwater runoff resulting from the proposed development without adversely altering downstream conditions; and

3. Preventing soil erosion and sedimentation resulting from stormwater runoff generated both during and after construction.

We have analyzed post development runoff conditions while proposed stormwater management facilities have been described and evaluated.

The hydrologic and hydraulic analyses were completed in accordance with the following standards and guidelines:

- *New York State Stormwater Management Design Manual* (August 2003).

- *New York State Standards and Specifications for Erosion and Sediment Control* (August 2005).

The analysis and design completed and documented in this report is intended to be part of the application made for a commercial development project completed on behalf of First Columbia, LLC.

A location map of the site has been provided in Appendix I, as Figure 1.

4.0 CONSTRUCTION SEQUENCE

This project encompasses less than 5 acres of land and disturbance of additional off-site properties to facilitate construction is not anticipated. Therefore written approval from NYSDEC allowing the disturbance of more than five (5) acres of land at any one time is not required. If the Contractor's construction sequence requires the disturbance of more than five acres at any one time, written approval must be obtained from NYSDEC prior to the commencement of construction.

Described below are the major construction activities that are the subject of this SWPPP. They are presented in the order (or sequence) they are expected to begin, but each activity will not necessarily be completed before the next begins. Also, these activities could occur in a different order if necessary to maintain adequate erosion and sediment control.

The Contractor will be responsible for implementing the following erosion and sediment 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 function remains with the Contractor. The order of activities will be as follows:

1. Selectively clear or remove existing pavement only in the areas required for the installation of the stabilized construction entrances/exits and temporary erosion and sediment control measures.

2. Install stabilized construction entrances/exits for all construction entrances/exits. This will be the first construction work on the project.

3. Install sediment control barriers down slope from construction activities that disturb site soil.

4. Begin demolition operations. Existing pavement should be removed only in areas where earthwork will be performed and only in areas where construction is planned to commence within 14 days.

5. Frequent watering of the excavation and fill areas shall be done to minimize wind erosion.

6. Commence site grading.

7. Disturbed areas of the site, where construction activity has ceased for more than 14 days, shall be temporarily or permanently seeded, mulched, and watered, or stabilized with gravel.

8. Install protective measures at the locations of all grate inlets and curb inlets.

9. Construct all utilities, curb and gutter, gutter inlets, area inlets, and storm sewer manholes, as shown on the plans. Inlet protection may be removed temporarily for this construction.

10. Finalize pavement sub-grade preparation.

11. Remove protective measures around inlets and manholes no more than 24 hours prior to placing stabilized base course.

12. Install sub-base material as required for pavement.

13. Carry out final grading, seeding, mulching, and landscaping.

14. Remove silt fencing only after all paving is complete and exposed tributary surfaces are stabilized.

15. Remove stabilized construction entrance(s) only prior to pavement construction in these areas (These areas are to be paved last).

16. Complete on-site stabilization.

17. Remove temporary sediment controls only after all paving is complete and exposed surfaces are completely stabilized, and cleanout all stormwater collection conveyance and treatment facilities.

Refer to the accompanying plans for clarifications and specifications regarding the construction sequencing schedule.

5.0 SITE DESCRIPTION

5.1 Land Use

The subject site is situated in the Hoosick Street Waterfront District (HWD) as designated by the City of Troy Zoning Map, last amended June 2005. The surrounding land uses consist of a mix of residential and commercial development, typical of the urban landscape. The area designated for the proposed hotel and conference center currently contains a vacant automobile dealership showroom and repair shop with associated paved parking areas and driveways. The area proposed for the parking structure currently contains a paved parking lot.

Stormwater runoff from the existing abandoned automobile dealership site that is proposed for the Hedley Hotel/Conference Center flows overland from east to west across the site (uncaptured) directly into the Hudson River.

Stormwater runoff from the existing open parking site that is proposed for the parking structure flows overland from east to west and is captured by a series of catch basins that discharge into the municipal combined sanitary and storm sewer system.

5.2 Soils

The United States Department of Agriculture (USDA) Soil Conservation Service (SCS) Soil Survey of Rensselaer County was reviewed and provided surface soil conditions for the subject site. The SCS identified the presence of mostly Urban Land (Ur). Soils in this classification are described as areas where ground surfaces consist of heavily built-up residential and commercial areas, 90 percent of which is covered by streets, buildings and parking lots. Soil data is unknown according to the information provided in the soil survey, presented in Table 1.

The soils map for the study area is presented in Appendix I, as Figure 2.

According to the report entitled "Preliminary Geotechnical Report for River Street Hotel", prepared by Daniel G. Loucks, P.E., dated June 19, 2007, the soils are comprised of an upper layer of uncontrolled fill extending to depths between 9 and 29 feet below grade. This uncontrolled fill consists of a mixture of sand and gravel, with silt/clayey silt, and varying amounts of shale, brick, ash, cinders, and small amounts of coal and wood. Weathered shale bedrock was found beneath the layer of uncontrolled fill. Based on the information presented in the geotechnical report, a hydrologic soil group, consisting of Type C Soils, was used in the hydrologic and hydraulic analyses presented herein.

The Soil Conservation Service defines the hydrologic soil groups as follows:

- Type A Soils: Soils having a high infiltration rate and low runoff potential when thoroughly wet. These soils consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a moderate rate of water transmission.

- Type B Soils: Soils having a moderate infiltration rate when thoroughly wet and consists mainly of moderately deep to deep, moderately well to well drained soils with moderately fine to moderately course textures. These soils have a moderate rate of water transmission.

- Type C Soils: Soils having a low infiltration rate when thoroughly wet and consists chiefly of soils with a layer that impedes downward movement of water and soils with moderately fine-to-fine texture. These soils have a low rate of water transmission.

- Type D Soils: Soils having a very low infiltration rate and high runoff potential when thoroughly wet. These soils consist chiefly of clays that have high shrink-swell potential, soils that have a permanent high water table, soils that have a clay pan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very low rate of water transmission.

5.3 Groundwater

The subject site is not located over a primary, principal, or sole source aquifer as per the NYSDEC Division of Water Technical and Operational Guidance, Series (2.1.3), Primary and Principle Aquifer Determinations, Table 1, 1990, and the Atlas of Eleven Selected Aquifers in New York, U.S. Geological Survey in cooperation with the NYS Department of Health, 1982.

According to the Preliminary Geotechnical Report referenced above, the groundwater level is greater than 12 feet below existing grade.

5.4 Topography

The majority of the site is slightly sloping, with slopes ranging from 1.5 to 16 percent across the paved areas. Grades across some of the existing landscaping beds are as high as 40 percent while grades across areas along the banks of the Hudson river are as steep as 80 percent. Site elevations range from approximately 50 feet above mean sea level (MSL) at the eastern fringe of the proposed development (at

the intersection of an existing parking lot with Fifth Avenue) to 5 feet above MSL along the Hudson River to the west.

5.5 Wetlands

On May 22, 2007 TCC wetland biologists evaluated the subject site for the presence of regulated wetlands and it was determined that the subject site contains neither NYSDEC nor Federally Regulated Wetlands.

5.6 Surface Waters and Flood Plains

According to the National Flood Insurance Program Flood Insurance Rate Map (FIRM), City of Troy, New York, Community Panel Number 3 of 4, the subject site lies partially within Flood Zone A12, an area of 100-year food; base flood elevations and flood hazard factors determined. The remainder of the site lies within Flood Zone B, areas between the limits of the 100-year flood and the 500-year flood, and Flood Zone C, areas of minimal flooding. Limits of the 100-year flood are depicted on the site plans.

Stormwater runoff from the majority of the existing automobile dealership flows directly to the Hudson River via overland flow, however, portions of the front of the site along River Street drain into the combined sanitary and storm sewer system located within River Street. Stormwater runoff from the existing open parking lot also flows into this combined sanitary and storm sewer system. This water is conveyed to the Rensselaer County Wastewater Treatment Plant where it is treated and discharged into the Hudson River. During large rain events, the combined sewer overflows allow water to be discharged directly to the Hudson River through various NYSDEC permitted outfalls.

The Hudson River is classified by NYSDEC as a Class "C" stream and it is regulated as a navigable water body. The Hudson River is not a 303(d) listed segment and the subject site is not located within a Total Maximum Daily Load (TMDL) Watershed.

5.7 Rainfall Data

Rainfall data utilized in the modeling and analysis was taken from National Weather Service (NWS) Technical Paper 40 (TP-40), Rainfall Frequency Atlas of the U.S. Weather Bureau, published by the U.S. Department of Commerce. Rainfall data specific to the portion of Rensselaer County under consideration for the 1, 10, and 100-year 24 hour storm events is presented in Table 1:

Table 1: Rainfall Data

STORM EVENT	24-HOUR RAINFALL
1 year	2.4-inches
10 year	4.3-inches
100 year	6.3-inches

These values were used to evaluate the post-development stormwater runoff conditions.

6.0 EROSION AND SEDIMENT CONTROLS

The SWPPP and accompanying plans identify the temporary and permanent erosion and sediment control measures that have been incorporated into the design of this project. These measures will be implemented during construction, to minimize soil erosion and control sediment transport off-site, and after construction, to control the quality and quantity of stormwater runoff from the developed site.

Erosion control measures, designed to minimize soil loss, and sediment control measures, intended to retain eroded soil and prevent it from reaching water bodies or adjoining properties, have been developed in accordance with the following documents:

- NYSDEC SPDES General Permit for Stormwater Discharges From Construction Activity, Permit No. GP-02-01 (effective January 2003).
- *New York State Standards and Specifications for Erosion and Sediment Control*, NYSDEC (August 2005).
- *New York State Stormwater Management Design Manual*, NYSDEC (August 2003).

The SWPPP and accompanying plans outline the construction scheduling for implementing the erosion and sediment control measures. The SWPPP and accompanying plans include limitations on the duration of soil exposure, criteria and specifications for placement and installation of the erosion and sediment control measures, a maintenance schedule, and specifications for the implementation of erosion and sediment control practices and procedures.

6.1 Erosion and Sediment Control Measures

The proposed stormwater management system has been designed to convey stormwater flows off-site via a combination of overland flow, closed storm sewers, and stormwater quality control measures, thereby preventing erosion and uncontrolled conveyance to the down gradient facilities.

Temporary and permanent erosion and sediment control measures that shall be applied during construction generally include:

1. Minimizing soil erosion and sedimentation by stabilization of disturbed areas and by removing sediment from construction-site discharges.

2. Preservation of existing vegetation as much as possible. Following the completion of construction activities in any portion of the site permanent vegetation shall be established on all exposed soils.

3. Site preparation activities shall be planned to minimize the area and duration of soil disruption.

4. Permanent traffic corridors shall be established and "routes of convenience" shall be avoided.

6.2 Temporary Erosion and Sediment Control Measures

Temporary erosion and sediment control measures are included as part of the construction documents and generally include the following:

1. Stabilized Construction Entrance

   Prior to construction, stabilized construction entrances will be installed, as shown on the detail plan, to reduce the tracking of sediment onto public roadways.

   Construction traffic must enter and exit the site at the stabilized construction entrance. The intent is to trap dust and mud that would otherwise be carried off-site by construction traffic.

   The entrance shall be maintained in a condition, which will control tracking of sediment onto public rights-of-way or streets. When necessary, the placement of additional aggregate atop the filter fabric will be done to assure the minimum thickness is maintained. All sediments and soils spilled, dropped, or washed onto the public rights-of-way must be removed

immediately. Periodic inspection and needed maintenance shall be provided after each substantial rainfall event.

2. Dust Control

   Water trucks shall be used as needed during construction to reduce dust generated on the site. Dust control must be provided by the general Contractor to a degree that is acceptable to the Owner, and in compliance with the applicable local and state dust control requirements.

3. Temporary Soil Stockpile

   Materials, such as topsoil, will be temporarily stockpiled (if necessary) on the site during the construction process. Stockpiles shall be located in an area away from storm drainage, water bodies and/or courses, and will be properly protected from erosion by a surrounding silt fence barrier.

4. Silt Fencing

   Prior to the initiation of and during construction activities, a geotextile filter fabric (or silt fence) will be established along the perimeter of areas to be disturbed as a result of the construction which lie up gradient of water courses or adjacent properties. These barriers may extend into non-impact areas to ensure adequate protection of adjacent lands.

   To ensure effectiveness of the silt fencing, daily inspections and inspections immediately after significant storm events will be performed by site personnel. Maintenance of the fence will be performed as needed.

5. Temporary Seeding

   Within 14 days after construction activity ceases on any particular area of the site, all disturbed areas where there will not be construction for longer than 21 days shall be temporarily seeded and mulched to minimize erosion and sediment loss.

6. Stone Inlet Protection Barrier

   Concrete blocks surrounded by wire mesh and crushed stone will be placed around proposed catch basins once they have been installed, to keep sediment from entering the catch basins and storm sewer system. During construction, crushed stone shall be replaced as necessary to ensure proper function of the structure.

2. Sanitary Facilities

Temporary sanitary facilities will be provided by the Contractor throughout the construction phase. They must be utilized by all construction personnel and will be serviced by a commercial Contractor. These facilities must comply with state and local sanitary or septic system regulations.

3. Water Source

Non-stormwater components of site discharge must be clean water. Water used for construction, which discharges from the site, must originate from a public water supply or private well approved by the Health Department. Water used for construction that does not originate from an approved public supply must not discharge from the site. It can be retained in the ponds until it infiltrates and evaporates.

4. Concrete Wash Areas

Concrete trucks will be allowed to wash out or discharge surplus concrete or drum wash water on the site, but only in specifically designated diked and impervious washouts which have been prepared to prevent contact between the concrete wash and storm water. Waste generated from concrete wash water shall not be allowed to flow into drainage ways, inlets, receiving waters or highway right of ways, or any location other than the designated Concrete Wash Areas. Waste concrete may be poured into forms to make riprap or other useful concrete products. Proper signage designating the "Concrete Wash Areas" shall be placed near the facility. Concrete Wash Areas shall be located at minimum 100 linear feet from drainage ways, inlets and surface waters.

The hardened residue from the Concrete Wash Areas will be disposed of in the same manner as other non-hazardous construction waste materials or may be broken up and used on site as deemed appropriate by the Contractor. Maintenance of the wash area is to include removal of hardened concrete. Facility shall have sufficient volume to contain all the concrete waste resulting from washout and a minimum freeboard of 12 inches. Facility shall not be filled beyond 95% capacity and shall be cleaned out once 75% full unless a new facility is constructed. The Contractor's Superintendent will be responsible for seeing that these procedures are followed.

Saw-cut Portland Cement Concrete (PCC) slurry shall not be allowed to enter storm drains or watercourses. Saw-cut residue should not be left on the surface of pavement or be allowed to flow over and off pavement. Residue

from saw-cutting and grinding shall be collected by vacuum and disposed of in the Concrete Wash Area.

The Project may require the use of multiple concrete wash areas. All concrete wash areas will be located in an area where the likelihood of the area contributing to storm water discharges is negligible. If required, additional BMPs must be implemented to prevent concrete wastes from contributing to storm water discharges.

6.5 Construction Housekeeping Practices

During the construction phase, the general Contractor will implement the following measures:

1. Material resulting from the clearing and grubbing operation will be stockpiled up slope from adequate sedimentation controls.

2. The general Contractor will designate areas for equipment cleaning, maintenance, and repair. The general Contractor and subcontractors will utilize those areas. The areas will be protected by a temporary perimeter berm.

3. The use of detergents for large scale washing is prohibited (i.e., vehicles, buildings, pavement surfaces, etc.)

4. Spill Prevention and Response

   A Spill Prevention and Response Plan shall be developed for the site by the Contractor. The plan shall detail the steps needed to be followed in the event of an accidental spill and shall identify contact names and phone numbers of people and agencies that must be notified.

   The plan shall include Material Safety Data Sheets (MSDS) for all materials to be stored on-site. All workers on-site will be required to be trained on safe handling and spill prevention procedures for all materials used during construction. Regular tailgate safety meetings shall be held and all workers that are expected on the site during the week shall be required to attend.

5. Material Storage

   Construction materials shall be stored in a dedicated staging area. The staging area shall be located in an area that minimizes the impacts of the construction materials effecting stormwater quality.

Chemicals, paints, solvents, fertilizers, and other toxic material must be stored in waterproof containers. Except during application, the contents must be kept in trucks or within storage facilities. Runoff containing such material must be collected, removed from the site, treated and disposed at an approved solid waste or chemical disposal facility.

6.6 Inspection and Maintenance Requirements

1. Pre-Construction Inspection and Certifications

   Prior to the commencement of construction, the Operator's Engineer shall conduct an assessment of the site and certify that the appropriate erosion and sediment control structures have been adequately installed and implemented. The Contractor shall contact the Operator's Engineer once the erosion and sediment control measures have been installed.

2. Construction Inspection and Maintenance

   To ensure the stability and effectiveness of all protective measures and practices during construction, all erosion and sediment control measures employed will be inspected by the Operator's Engineer at least every seven (7) calendar days and within 24 hours of the end of a storm event of ½-inch or greater. Section 6.7 Subsection 1 "Inspection and Maintenance Reports" outlines what each inspection shall include.

   In addition to the inspections performed by the Operator's Engineer, routine inspections shall be performed by the Contractor and include a visual check of all erosion and sediment control measures. All inspections and maintenance shall be performed in accordance with the inspection and maintenance schedule provided on the accompanying plans. Sediment removed from erosion and sediment control measures will be exported from the site, stockpiled for later use, or used immediately for general non-structural fill.

3. Post-Construction Inspection and Maintenance

   Inspections shall be performed by the Operator in accordance with Appendix H, when all disturbed areas are stabilized and all stormwater management systems are in place and operable.

6.7 Reporting

1. Inspection and Maintenance Reports

Inspection/maintenance reports shall be prepared prior to and during construction in accordance with the schedule outlined herein and in the SPDES General Permit GP-02-01. The reports shall be prepared to identify and document the maintenance of the erosion and sediment control measures.

Specifically, each inspection shall record the following information:

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 the sediment storage volume (e.g., 10 percent, 20 percent, 50 percent, etc.).

5. Inspect all erosion and sediment control practices and record all maintenance requirements such as verifying the integrity of barrier (silt fencing). 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 systems.

6. All deficiencies identified with the implementation of the SWPPP.

2. Site Log Book

The Operator shall retain a copy of the SWPPP required by NYSDEC SPDES General Permit GP-02-01 at the construction-site from the date of initiation of construction activities to the date of final stabilization.

During construction, the Operator or Operator's representative shall maintain a record of all erosion and sediment control inspection reports at the site in a log book. The site log book shall be maintained on-site and made available to the permitting authority.

3. Post Construction Records and Archiving

   Following construction, the Operator shall retain copies of the SWPPP, the complete construction site log book, and records of all data used to complete the NOI to be covered by this permit, for a period of at least three years from the date that the site is finally stabilized. This period may be extended by the Department, in its sole discretion, at any time upon written notification.

   The Operator should maintain a record of all post construction inspections and maintenance work performed in accordance with the requirements outlined in Appendix H.

7.0 STORMWATER MANAGEMENT PLAN

The goals of this Stormwater Management Plan are to determine the required capacity of the proposed stormwater infrastructure that will be required to capture and convey the runoff produced by the 100-year storm event, ensure that the discharge of runoff from the proposed development will not adversely impact adjacent or downstream properties, reduce the stormwater demands that are currently placed upon the existing municipal combined (sanitary/storm) sewer system, and to minimize the impact to the quality of runoff exiting the site.

In addition, both temporary and permanent erosion and sediment control measures will be installed prior to and during construction to minimize erosion and control sediment transport off-site.

7.1 Redevelopment Application Criteria

The New York State Stormwater Management Design Manual, Chapter 9 "Redevelopment Projects" provides alternative approaches to stormwater management for redevelopment projects. The redevelopment criteria can be applied to a project when there are physical site constraints on the site associated with the reconstruction of an existing impervious area. In order to apply the alternatives provided in Chapter 9 and comply with the technical standards one of the redevelopment application criteria set forth in Section 9.3.1 of Chapter 9 must be met. Section 9.3.1 of Chapter 9 identifies the criteria as the following:

(1) An already impervious area is reconstructed, and

(2) There is inadequate space for controlling stormwater runoff from the reconstructed area, or

(3) The physical constraints of the site do not allow meeting the required elements of the standard practices.

The proposed redevelopment of the Hedley car dealership and the existing paved parking lot meets one or more of the redevelopment criteria outlined above in that there are existing impervious areas being redeveloped on the site and there are physical space limitations on the site due to the size and shape of the property as well as spatial conflicts created by the presence of numerous existing utilities.

7.2 Stormwater Management Systems

Stormwater runoff from the proposed development will be collected and conveyed to the quality control systems described herein through a combination of a closed stormwater network conveyance systems. The design of the proposed stormwater management systems have been designed in accordance with the technical standards outlined in the NYSDEC *New York State Stormwater Management Design Manual dated August 2003* and the *New York State Standards and Specifications for Erosion and Sediment Control* dated August 2005. Since the project is a redevelopment of existing commercially developed areas, Chapter 9 "Redevelopment Projects" contained within the NYSDEC Design Manual was used in the sizing of the Stormwater Management Systems.

The closed stormwater network, consisting of catch basins, drainage manholes, and high density polyethylene piping (HDPE) has been designed to convey the 100 year storm event.

The following stormwater management systems have been incorporated into the stormwater management plan for this project:

1. CDS Model PMSU30_30 Hydrodynamic Separator

   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. Hydrodynamic systems move water in a circular, centrifugal manner to accelerate the separation and deposition of primarily sediment from the water. The indirect screening capability of the system allows for 100% removal of floatable and neutrally buoyant material without blinding. Flow and screening controls physically separate captured solids, preventing re-suspension and release of previously trapped pollutants.

The system consists of a precast concrete manhole structure equipped with a stainless steel expanded metal screen having a screen opening of 4700 microns or 0.185 inches. The separation screen is a self-cleaning and non-blocking screen for all flows diverted to it. The system is equipped with a sump for storage of sediment, organic solids and other settleable trash and debris. A conventional oil baffle is provided to capture and retain oil and grease and Total Petroleum Hydrocarbons pollutants within stormwater runoff which assures satisfactory oil and grease removal from typical urban stormwater runoff.

The CDS Model PMSU30_30 was designed according to the criteria set forth in Chapter 9 "Redevelopment Projects" of the *NYS Stormwater Management Design Manual.*

Design Calculations have been provided in Appendix K.

7.3 Hydrologic and Hydraulic Analysis

This report presents the post-development features and conditions associated with surface water runoff within the study area. The drainage patterns, drainage structures, soil types, and ground cover types are considered in this study.

1. Methodology

   The methodology used for the hydrologic and hydraulic analysis was obtained from the United States Department of Agriculture (USDA) Soil Conservation Service's (SCS) Technical Release No. 20, as utilized by the application program HydroCAD. HydroCAD, developed by Applied Microcomputer Systems of Chocorua, New Hampshire, is a Computer-Aided-Design (CAD) program for analyzing the hydrologic and hydraulic characteristics of a given watershed and associated stormwater management facilities. It utilizes the latest techniques to predict the consequences of any given storm.

   HydroCAD has the capability of computing hydrographs (which represents discharge rates characteristic of specified watershed conditions, precipitation, and geologic factors) combining hydrographs and routing flows though pipes, streams and ponds. Documentation for HydroCAD can be found on their website: http://www.hydrocad.net/.

   For this analysis, the watershed and drainage system was broken down into a network consisting of two types of components as described below:

1. Subcatchment: A relatively homogeneous area of land, which produces a volume and rate of runoff unique to that area.

2. Reach: Uniform streams, channels or pipes that convey stormwater from one point to another.

Subcatchments and reaches are represented by hexagons and squares, respectively, on the watershed routing diagrams provided with the computations included in Appendix J.

2. Analysis

The analysis of hydrologic and hydraulic conditions and proposed stormwater management facilities, servicing the study area, was performed by dividing the tributary watershed into relative homogeneous sub-catchments. The separation of the watershed into sub-catchments was dictated by watershed conditions, methods of collection, conveyance, and points of discharge. Watershed characteristics for each subcatchment were then assessed from aerial photographs, a topographical survey, soil surveys, and site investigations.

Proposed stormwater management facilities were designed and evaluated in accordance with the *NYS Stormwater Management Design Manual* and local regulatory requirements. The hydrologic and hydraulic analysis considered the SCS, Type II 24 hour storm events identified in Table 2

Table 2: Design Events

Facility	24 Hour Storm Event
Storm Sewer conveyance system	100 year

3. Study Area and Design Points (DP)

The study area consists of an overall watershed that encompasses approximately 3.93 acres. The overall watershed was broken down into smaller watersheds, or subcatchments, to allow for analysis of runoff conditions at two locations within the study area. Each of these locations was defined as a Design Point (DP) in order to compare the effects resulting from stormwater management facilities proposed as part of the project. Descriptions of each of the selected design points are provided below.

- Design Point 1: is a point within the Hudson River and is located immediately west of the outfall of the existing 48" round brick storm

sewer that is located within Hutton Street and discharges directly into the river. Stormwater from the proposed Hotel/Conference Center will be conveyed to this point.

- Design Point 2: is a point within the Hudson River and is located immediately west of the outfall of the existing 60" brick storm sewer that is located within Jacob Street and discharges directly into the river. Stormwater from the proposed parking structure will be captured and conveyed to this point through means of new storm sewer infrastructure that will connect to the existing brick sewer. It is important to note that stormwater from the parking structure will first pass through a CDS water quality treatment structure before it is discharged into the existing municipal system.

7.4 Pre-Development Watershed Conditions

The pre-development subject site is covered predominantly by impervious surfaces consisting of buildings, asphalt paved parking lots, and concrete sidewalks. Some small areas of green space are scattered throughout these paved areas and there is some existing vegetation located along the banks of the Hudson River bordering the subject site.

7.5 Post-Development Watershed Conditions

The post-development subject site will remain predominantly covered by impervious surfaces that will include the parking structure, hotel/conference center, and associated paved parking areas. The analysis of post-development conditions considered existing drainage patterns, soil types, ground cover to remain, planned site development, site grading and, stormwater management facilities proposed as part of site improvements.

Stormwater runoff from the majority of the proposed impervious areas associated with the Hotel/Conference Center will be captured and conveyed to the existing municipal storm sewer system that discharges directly into the Hudson River adjacent to the site. As is the case under existing conditions, runoff from some portions of the entrance driveways for the proposed parking lots will flow directly into River Street where it will be collected by a series of existing catch basins that are a part of the municipal combined storm/sanitary sewer system. The stormwater from the proposed parking structure will also be conveyed to the municipal storm sewer system that discharges directly into the Hudson River adjacent to the site. This will result in a reduction in the existing discharge volumes and rates to the combined sewers. A net decrease in the amount of stormwater that enters the combined sewer system from both project components will result.

The Post-Development Watershed Delineation Map has been provided in Appendix I as Figure 3. The results of the computer modeling used to analyze the overall watershed under post-development conditions are presented in Appendix K.

7.6 Hydrologic and Hydraulic Calculations

An analysis of post-development watershed conditions demonstrates that the peak rate of runoff from the proposed site will not pose a significant adverse impact to the adjacent or downstream properties or receiving water courses. Computer modeling was used to determine the necessary culvert sizing that will be required to convey the 100-year storm event. The CDS unit that is proposed to receive stormwater from the parking structure, and provide treatment for the required water quality volume, has an internal bypass that will allow the stormwater flows from the larger storm events to pass through without restriction.

The results of the computer modeling used to analyze the stormwater conveyance system under post-development conditions are presented in Appendix J.

7.7 Proposed Water Quantity and Quality Controls

1. Water Quantity Controls

   Stormwater runoff from each portion of the projects overall development including the Hotel/Conference center and the parking structure will be discharged to the Hudson River. Since the Hudson River is greater then a 4th order watercourse as defined in the NYS Stormwater Management Design Manual, water quantity controls are not required. Therefore, no water quantity controls for the development are proposed.

2. Water Quality Controls

   Stormwater runoff from impervious surfaces is recognized as a significant contributor of pollution that can adversely affect the quality of the receiving water bodies. Therefore, treatment of stormwater runoff is important since most runoff related water quality contaminants are transported from land, particularly the impervious surfaces, during the initial stages of storm events.

   The proposed water quality (WQ_v) controls have been sized based on the 90% rule methodology as described in Table 4.1 "New York Stormwater Sizing Criteria" of the *NYS Stormwater Management Design Manual* dated August 2003. The water quality (WQ_v) control is defined as:

$$WQ_v = \frac{[(P)(R_v)(A)]}{12}$$

Where:

P	=	90% Rainfall Event Number
R_v	=	0.05 + 0.009 (I), minimum R_v = 0.2
I	=	Impervious Cover (Percent)
A	=	Site Area in Acres

Utilizing the above design equation in conjunction with the criteria outlined in Chapter 9 of the Design Manual, each device has been sized accordingly to provide the required minimum 75% water quality volume (WQ_v) for its contributing drainage area. Design computations for the Stormwater Quality Control Component(s) are presented in Appendix K.

As mentioned previously, stormwater runoff from each component of the proposed development will discharge to the Hudson River. While stormwater quantity controls are not required, the runoff must undergo some form of quality treatment before being discharged to a downstream water body. Due to the existing impervious cover across the site, and the lack of space available to provide stormwater controls, this site meets the application criteria for redevelopment as defined in Chapter 9 of the New York State Stormwater Management Design Manual. Chapter 9 describes several options which can be used to achieve the water quality treatment objectives that are alternatives to the technical standards contained elsewhere in the Design Manual.

The first component of the overall project development that is considered is the hotel/conference center. The plan for this portion of the project proposes a reduction of impervious cover by 27% of the existing total site impervious area. This reduction meets the required minimum of 25% as discussed in Section 9.3.2. B and satisfies the stormwater criteria for water quality treatment for runoff being discharged to Design Point 1.

The remainder of the proposed development includes the parking structure. The plan for this portion of the project will result in a slight increase in the amount of impervious area. For stormwater quality controls, we are proposing the use of an alternative practice to treat the water quality volume, specifically, a CDS PMSU 30_30 as manufactured by Contech Stormwater Solutions. As a result, the required treatment of a minimum of 75% of the total water quality volume from this component of the project will be achieved prior to stormwater being discharged at Design Point 2.

8.0 CONCLUSION

The Chazen Companies have completed a Stormwater Pollution Prevention Plan for the planned Hedley Hotel/Conference Center and Parking Structure. The analyses included the review of watershed conditions, hydrologic and hydraulic analysis using computer modeling, and an evaluation of the proposed improvements across the subject site.

The Stormwater Management Plan allows for the maintenance of existing drainage patterns while continuing the conveyance of stormwater runoff from upland watershed areas. The Plan also ensures the safe discharge of stormwater from the proposed development to the Hudson River. The proposed stormwater collection system consisting of pipes, and on-site stormwater management facilities will adequately collect and convey the stormwater generated by the 100-year storm event.

Stormwater quality controls and treatment will be achieved through a reduction in the amount of impervious area for the Hotel/Conference Center component of the project and through the use of an approved CDS unit for the Parking Structure component. Additional quality control will be gained through the implementation of the proposed erosion and sediment control measures and maintenance practices outlined herein.

In conclusion, it is our opinion that the proposed development will not adversely impact adjacent or downstream properties if the stormwater management facilities are properly constructed and maintained in accordance with the requirements outlined within this Stormwater Pollution Prevention Plan.

Appendix A:
NYSDEC SPDES
General Permit GP-02-01

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SPDES GENERAL PERMIT
FOR STORMWATER DISCHARGES

from

CONSTRUCTION ACTIVITY

Permit No. GP-02-01

Issued Pursuant to Article 17, Titles 7, 8 and Article 70
of the Environmental Conservation Law

Effective Date: January 8, 2003

Expiration: January 8, 2008

William R. Adriance
Chief Permit Administrator

Address: NYS DEC
Div. Environmental Permits
625 Broadway, 4th Floor
Albany, N.Y. 12233-1750

Authorized Signature

William R. Adriance

Date: January 8, 2003

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NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
SPDES GENERAL PERMIT FOR STORMWATER DISCHARGES
FROM CONSTRUCTION ACTIVITY

Preface

Pursuant to Section 402 of the Clean Water Act ("CWA"), stormwater discharges from certain construction activities to waters of the United States[1] are unlawful unless they are authorized by a NPDES (National Pollutant Discharge Elimination System) permit or by a state permit program. New York's SPDES (State Pollutant Discharge Elimination System) is a NPDES-approved program with permits issued in accordance with the Environmental Conservation Law ("ECL"). Discharges of pollutants to all other "Waters of New York State" such as groundwaters are also unlawful unless they are authorized by a SPDES permit.

A discharger, owner, or operator may[2] obtain coverage under this general permit by submitting a Notice of Intent ("NOI") to the Department. Copies of this General Permit and the NOI for New York are available by calling (518) 402-8109 or at any Department of Environmental Conservation (the Department) regional office (see Appendix A on Page 23). They are also available on the Department's website at:

www.dec.state.ny.us

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[1] "Waters of the United States" means:

(a) All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide; and
(b) All interstate waters, including interstate "wetlands"; and
(c) All other waters such as interstate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds the use, degradation, or destruction of which would affect or could affect interstate or foreign commerce including any such waters:
    (1) Which are or could be used by interstate or foreign travelers for recreational or other purposes; or
    (2) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or
    (3) Which are used or could be used for industrial purposes by industries in interstate commerce; and
(d) All impoundments of waters otherwise defined as waters of the United States under this definition; and
(e) Tributaries of waters identified in paragraphs (a) through (d) of this definition; and
(f) The territorial sea; and
(g) Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a) through (f) of this definition.

Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of the CWA are not waters of the United States. This exclusion applies only to manmade bodies of water which neither were originally created in waters of the United States (such as disposal areas in wetlands) nor resulted from the impoundment of waters of the United States.

[2] "may" refers to circumstances under which the discharger is ineligible for coverage under this general permit because of other provisions of this permit. Dischargers which are excluded from coverage under this general permit as provided for in Part I, Section C, for example, are not authorized to discharge under this permit. This also applies to possible situations in which an NOI has been submitted and/or a regulatory fee paid pursuant to Article 72 of the ECL. The submittal of an NOI and/or regulatory fee has no bearing or relevance whatsoever on the eligibility of the construction activity discharging stormwater runoff under the authority of this permit.

Local Programs of a Regulated MS4

Under the federal Phase II stormwater program, many cities, villages, towns, and other public entities in New York State which are located within "Urbanized Areas" as defined by the U.S. Census and who operate a Municipal Separate Storm Sewer System ("MS4") will be required to obtain SPDES permit coverage for stormwater discharges under their jurisdiction and control (see 40CFR Part 122 §122.26.32). Additionally, MS4s may be designated by the Department as regulated MS4s. Among other requirements, the Phase 2 NPDES stormwater regulations require regulated MS4s to address stormwater runoff from construction activities. Construction activities covered under this general permit, which are subject to stormwater runoff controls of a regulated MS4, will also need to comply with the MS4's controls.

Five (5) Day Coverage

Prior to the submission of an NOI, the owner or operator must have completed a Storm Water Pollution Prevention Plan (SWPPP) that complies with all requirements of this general permit. Submitting an NOI is an affirmation that a SWPPP has been prepared and will be implemented. If an applicant certifies that the SWPPP has been developed in conformance with the Department's technical standards, the applied-for activity may obtain coverage under this general permit in five (5) business days after the Department's receipt of the NOI provided, that the activity is eligible for coverage under this general permit and that the Department has not informed the applicant otherwise.

Sixty (60) Day Coverage

While the Department's technical standards are appropriate statewide, it is recognized that there may be situations where stormwater management goals can best be met by alternative means that are more suitable given local conditions.

For construction projects in these situations, applicants must identify in their NOI each of the deviations from the Department's technical standards that they are seeking. Applicants must also explain why the deviations are needed or desired and what impacts to water quality, if any, can be expected if the deviation were allowed. Applicants must also explain the actions, if any, that local board(s) have taken with respect to the deviation(s). For applicants which cannot certify conformance with the Department's technical standards, the SWPPP must also be certified by a licensed/certified professional that the SWPPP has been developed in a manner which will insure compliance with water quality standards and with the substantive intent of this permit.

In cases of deviations from the Department's technical standards, applicants must allow sixty (60) business days after the receipt by the Department of a completed NOI and certification before gaining coverage under this general permit and before initiating any construction activity. During this 60 day period, the Department may conduct further review of the NOI and SWPPP. If additional information is needed to complete the review, the NOI will be considered

incomplete and the applicant will be so advised. The intent of this provision is to require conformance the Department's technical standards wherever possible and appropriate. At the same time, alternative means to address stormwater control may be allowed under this general permit where they are more suitable for the site in question and where they will not diminish water quality protection.

There are other scenarios under which coverage under this general permit will not occur until 60 business days from the receipt of a completed NOI. For example, if the construction activity or post construction runoff causes the discharge of a pollutant of concern to a water identified on the 303(d) list or a watershed with an approved TMDL for that pollutant of concern, coverage under the general permit will not occur until sixty (60) business days from the receipt by the Department of a completed NOI. For these projects the operator may be required to submit the SWPPP and/or appropriate certification(s) to the Department for review. The flowchart shown in Figure 1 on page vi will help to describe the process under which certain conditions exist that require possible further analysis and water quality/quantity considerations.

Computer Tool Available For Completion of SWPPPs and NOIs Under Development

The Department is currently developing an interactive computer software tool entitled "How to Prepare SWPPPs and Notices of Intent" to assist applicants in both developing SWPPPs and completing NOIs. This will be available in the near future for use on the Department website as well as being packaged independently on compact discs. This tool will contain guidance as well as many useful links to reference materials and documents concerning erosion and sedimentation control, as well as to the design of stormwater management practices . The Department's website will contain the latest information and guidance on the various tools available.

The Department's Technical Standards

The Department's technical standards for erosion and sediment control are contained in the document, *"New York Standards and Specifications for Erosion and Sediment Control"*[3] published by the Empire State Chapter of the Soil and Water Conservation Society. For the design of water quantity and water quality controls (post-construction stormwater control practices), the Department's technical standards are detailed in the *"New York State Stormwater Management Design Manual."* Both of these documents are available on the Department's website. If an applicant certifies that stormwater management practices will conform to the Department's technical standards, then coverage under the permit may occur sooner than otherwise would be the case if non-conformance with the manuals existed. See Figure 1 on page vi for more information.

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3 Previously, the *"New York Guidelines for Urban Erosion and Sediment Control"*, also commonly referred to as the "Blue Book".

Permit Valid for Any Size Disturbance

This permit may be used for construction activities involving any amount of disturbed acreage, provided that all other eligibility conditions in subsection B of Part I are satisfactorily met (see page 2 of this permit). Thus, this permit may apply to activities identified under 40 CFR Part 122, subsection 122.26(b)(14)(x) which are also referred to as "NPDES Phase 1 construction activities" involving soil disturbances of five (5) acres or more. This permit may also apply to activities identified under 40 CFR Part 122, subsection 122.26(b)(15) which are also referred to as "NPDES Phase 2 small construction activities" involving soil disturbances of between one (1) and five (5) acres. And, this permit may also apply to construction activities involving soil disturbances of less than one (1) acre if the Department determines that a SPDES permit is required pursuant to the ECL. In any and all cases, all of the eligibility provisions of this general permit must be met in order to gain coverage.

Notice of Termination

After construction is completed as defined in the general permit (see Part II beginning on Page 7), cancellation of coverage is accomplished by the submittal of a Notice of Termination ("NOT"). Failure to submit a NOT may result in the continued obligation to pay a yearly Regulatory Fee established pursuant to Article 72 of the ECL and/or may be cause for suspension of permit coverage.

Previous versions of NOIs, NOTs and Notices of Intent, Transfer and Termination ("NOITT"s) cannot be used in conjunction with this general permit. There is a new NOI required for obtaining coverage under this general permit. Failure to include information identified as "mandatory" entries on the new NOI form may prevent and/or delay discharge authorization being sought under this permit.

The new NOT will also include an identification of any permanent structures that are being left on the site after stabilization occurs and after termination of permit coverage under this general permit. The NOT will also include a certification that the structures were constructed as described in the SWPPP and that an Operation and Maintenance ("O&M") manual has been prepared and has been made available to the owner of such permanent structures who is expected to conduct the necessary O&M over the life of the structure(s).

Ineligible Activities

The submittal of a completed NOI and/or the payment of an annual regulatory fee by an applicant does not necessarily mean that an applicant is covered under this permit if the applicant is ineligible for coverage under this permit under the terms cited in Part I of this permit. In other words, submitting a completed NOI and paying an annual regulatory fee does not automatically gain an applicant permit coverage if the applicant is ineligible for coverage under this permit even if the Department fails to immediately inform the applicant of such ineligibility.

Permit Expiration Date

Coverage under this general permit is available January 8, 2003 and will expire five (5) years after issuance on January 8, 2008.

Activities Previously Covered Under GP-93-06

In a separate proposal, the Department is also concurrently seeking to re-issue GP-93-06 with an expiration of August 1, 2003. The purpose of this action is to provide a transition period for permittees which have had SPDES permit coverage under GP-93-06 immediately prior to January 8, 2003, the effective date of GP-02-01. **Prior to August 1, 2003**, these activities will need to:
(1) stabilize their sites in accordance with GP-93-06 and submit an NOT; or, if necessary,
(2) gain coverage under GP-02-01 by submitting a new NOI.

For **new** construction activities, coverage under GP-93-06 will not be available after the effective date of GP-02-01, January 8, 2003. Such discharges may be eligible for coverage under GP-02-01 (see Part I.B. on page 2 of this permit).

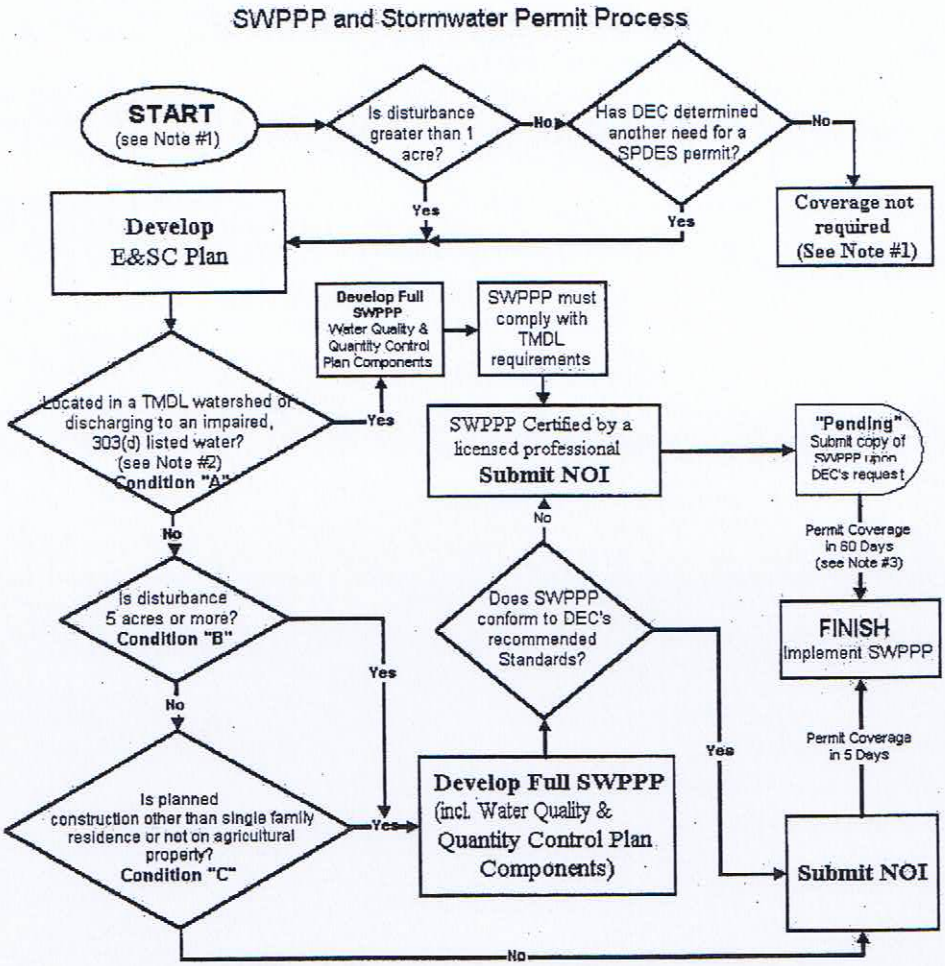
Water Quality Violations Not Permitted

This permit does not authorize any person to cause or contribute to a condition in contravention of any water quality standards that are contained in the Rules and Regulations of the State of New York (see Part I of this permit on page 2) even if the permittee is in compliance with all other provisions of this permit. Any violations of water quality standards may be considered by the Department to be violations of this permit and/or the ECL, including its accompanying regulations.

Other Department Permits

Construction activities may also require other Department permits in addition to the coverage provided by this general permit including, but not limited to, dam safety, wetlands and stream protection. Such other Department permits must be obtained separately from coverage under this general permit. Further information concerning these permits should be sought from the Regional Permit Administrator at the appropriate Department regional office (See Appendix A on page 23).

FIGURE 1



NOTES:

1. Under any of the above conditions other environmental permits may be required. DEC may require permit for construction disturbance < 1 acre on a case by case basis.
2. **and** the following exists: construction and/or stormwater discharges from the construction or post-construction site contain the pollutant of concern identified in the TMDL or 303(d) listing.
3. After receipt by DEC of completed application.

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
SPDES GENERAL PERMIT FOR STORMWATER DISCHARGES

FROM CONSTRUCTION ACTIVITIES

TABLE OF CONTENTS

Part I. COVERAGE UNDER THIS PERMIT

A. **Maintaining Water Quality** - It shall be a violation of this general permit and the Environmental Conservation Law ("ECL") for any discharge authorized by this general permit 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 including, but not limited to:

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 and 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.

B. **Eligibility Under This General Permit**

1. This permit may authorize all discharges of stormwater from construction activity[4] to surface waters and groundwaters except for ineligible discharges identified under subparagraph C of this Part (see below). Discharge authorization under this permit requires the submittal of a completed NOI.

2. Except for non-stormwater discharges explicitly listed in the next paragraph, this permit only authorizes stormwater discharges from construction activities.

3. Notwithstanding paragraphs B.1 and B.2 above, the following non-stormwater discharges may be authorized by this permit: discharges from fire

[4] This includes discharges of stormwater associated with industrial activity identified under 40 CFR Part 122, subsection 122.26(b)(14)(x), small construction activities identified under 40 CFR Part 122, subsection 122.26(b)(15) or any other stormwater from construction activities that are not otherwise ineligible for coverage under this permit (See Part I, subsection B beginning on page 2).

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; springs; 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 general 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(see Part III beginning on Page 7). Under all circumstances, the permittee must still comply with water quality standards (see Part I, subsection A on Page 2).

C. **Activities Which Are Ineligible for Coverage Under This General Permit** - All of the following stormwater discharges from construction activities are **not** authorized by this permit:

1. Discharges after construction activities have been completed and the site has undergone final stabilization[5];

2. Discharges that are mixed with sources of non-stormwater other than those expressly authorized under subsection B.3. of this Part (see page 3) and identified in the SWPPP required by this permit;

3. Discharges that are subject to an existing SPDES individual or general permit or which are required to obtain an individual or alternative general permit pursuant to Part V, subparagraph K (see page 21) of this permit;

4. Discharges that are likely to adversely affect a listed, or proposed to be listed, endangered or threatened species, or its critical habitat;

5. Discharges which are subject to an existing effluent (limitation) guideline addressing stormwater and/or process wastewater unless said guidelines are contained herein; or

6. Discharges which either cause or contribute to a violation of water quality standards adopted pursuant to the ECL and its accompanying regulations (See subsection A of Part I on page 2).

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[5] "Final Stabilization" means that all soil disturbing activities at the site have been completed, and that a uniform perennial vegetative cover with a density of 80% 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.

D. **Authorization Under This General Permit**

1. An operator[6] must submit a completed NOI form in order to be authorized to discharge under this general permit. The NOI form shall be one which is associated with this general permit, signed in accordance with Part V. H.(see Page 19) of this permit and submitted to the address indicated on the NOI form. NOIs and NOITTs used in association with either previous or other general permits are not valid for obtaining coverage under this general permit. The submittal of an NOI is an affirmation to the operators' understanding and belief that the activity is eligible for coverage under this permit and that a SWPPP has been prepared and will be implemented in accordance with Part III of this permit.

2. All contractors and subcontractors of the operator identified under Part III.E.1 (see page 17) must provide the certification cited under Part III.E.2 (see page 17). Such certifications shall become part of the SWPPP for the construction activity covered under this general permit.

3. Unless notified by the Department to the contrary, operators who are eligible for coverage under this permit **and** who submit an NOI in accordance with the requirements of this permit, may be authorized to discharge stormwater from construction activities under the terms and conditions of this permit, and in accordance with the following timetable:

a. For construction activities which:

(1) develop a SWPPP in conformance with the Department's technical standards (See subsection D of Part III on page 10), and do not or will not discharge a pollutant of concern to an impaired water or a TMDL watershed;

or

(2) as of the effective date of this general permit, GP-02-01, have obtained coverage under, and are operating in compliance with, GP-93-06; and do not or will not discharge a pollutant of concern to an impaired water or a TMDL watershed;

authorization to discharge under this permit may occur five (5) business days after the date on which the NOI is received by the Department.

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6 For the purposes of this permit, the term "operator" means the person, persons, or legal entity which owns or leases the property on which the construction activity is occurring. Also, see Part V., subsection H. on page 19 of this permit.

b. For activities which do not comply with the preceding subsection (i.e. Part I.D.3.a.), authorization to discharge under this permit will begin no sooner than sixty (60) business days from the receipt of the completed NOI unless notified differently by the Department pursuant to Part V, subsection K of this permit (see page 21). For activities not satisfying Part I.D.3.a.(1) above, or for construction site runoff subject to a TMDL (see Figure 1 on page vi), the SWPPP must be prepared by a licensed/certified professional[7] and include a certification stating that the SWPPP has been developed in a manner which will assure compliance with water quality standards (see Part I.A.) and with the substantive intent of this permit.

c. For construction activities which are subject to a sixty-day period provision identified in the preceding subparagraph b., the SWPPP shall include each of the components identified in Part III.A.1.b. (see page 8).

4. At its sole discretion, the Department may deny or terminate coverage under this permit and require coverage under another SPDES permit at any time based on a review of the NOI, the SWPPP or other relevant information (see Part V, subsection K of this permit on page 21).

5. A copy of the NOI and a brief description of the project shall be posted at the construction site in a prominent place for public viewing.

6. A signed copy of the NOI, the SWPPP, and any reports required by this permit shall also be submitted concurrently to the local governing body and any other authorized agency[8] having jurisdiction or regulatory control over the construction project.

7. New stormwater discharges from construction activities that require any other Uniform Procedures Act permit (Environmental Conservation Law, 6 NYCRR Part 621) cannot be covered under this general permit until the other required permits are obtained. Upon satisfaction of the State Environmental Quality Review Act ("SEQRA") for the proposed action and issuance of necessary permits, the applicant may submit an NOI to obtain coverage under this general

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7 A "licensed/certified professional" means a person currently licensed to practice engineering in New York State or is a Certified Professional in Erosion and Sediment Control (CPESC).

8 For the purposes of this general permit, "any other authorized agency" shall include any local, regional, or state entity or agency except the Department which has authority to review stormwater discharge from the project, including authority under any approved watershed protection plan or regulations.

permit.[9] In order to facilitate the Department's review of a multi-permitted project, an applicant should submit, at a minimum, a copy of the SWPPP which contains the information specified in Appendix B (see page 24). This information will assist the Department in determining whether or not coverage under this general permit or another SPDES permit is the more appropriate option. The Department may also require the submission of additional information in order to determine the SWPPP's conformance with the Department's technical standards.

8. Upon renewal of this general permit or issuance of a new general permit, the permittee is required to notify the Department of its intent to be covered by the new general permit. Coverage will continue under this permit for its term unless action is taken to terminate permit coverage as provided elsewhere in this permit. See also Part V. subsection B. on page 18 of this permit.

9. In the event of a transfer of ownership or responsibility for stormwater runoff, there can be no "automatic" transfer of permit coverage from one permittee to the next without appropriate notification from the dischargers. The former permittee must submit an NOT and notify the new discharger of the possible need for the new discharger to submit a new NOI (see Section E, subparagraph 2 below).

E. **Deadlines for Notification**

1. Operators who intend to obtain coverage under this general permit for stormwater runoff from construction activities must submit an NOI in accordance with the requirements of this Part at least five (5), or sixty (60) business days, as appropriately determined from Part I, Section D.3 (see page 4) prior to the commencement of construction[10] activities.

2. For stormwater runoff from construction activities where the operator changes, a new NOI must be submitted by the new operator in accordance with the requirements of this permit. The former operator must submit a NOT in accordance with Part II (see page 7) of this permit and notify the new operator of the requirement to submit a new NOI to obtain coverage under this permit. The new operator must also review and sign the SWPPP in accordance with Part III.B.(see page 9) and continue implementation of the SWPPP as required by this

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9 The purposes of this subsection is to assure that the requirements of SEQRA are fulfilled, if necessary, before any discharge authorization under this general permit is granted.

10 "Commencement of Construction" means the initial disturbance of soils associated with clearing, grading, or excavating activities, or other construction activities.

permit.

Part II. TERMINATION OF COVERAGE[11]

Where a site has been finally stabilized, the operator must submit a NOT form prescribed by the Department for use with this general permit. The NOT shall be signed in accordance with Part V. H.(see page 19) of this permit and submitted to the address indicated on the approved NOT form.

The permittee must identify all permanent stormwater management structures that have been constructed and provide the owner(s) 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 structure(s) have been constructed as described in the SWPPP.

Part III. STORMWATER POLLUTION PREVENTION PLANS ("SWPPP"s)

A. General

1. SWPPP Preparation

a. A SWPPP shall be developed by the operator for construction activities at each site to be covered by this permit, prior to the initiation of activities requiring coverage under this permit. SWPPPs shall be prepared in accordance with sound engineering practices. The SWPPP shall identify potential sources of pollution which may reasonably be expected to affect the quality of stormwater discharges. In addition, the SWPPP shall describe and ensure the implementation of practices which will be used to reduce the pollutants in stormwater discharges and to assure compliance with the terms and conditions of this permit. Operators are encouraged to have their SWPPP reviewed for adequacy and completeness by the local soil and water conservation district ("SWCD") and/or other professionals qualified in erosion and sediment control practices[12] and stormwater management. Moreover, if the construction activity is identified under Part I, subsection D.3.b. (See page 5), or for construction site runoff subject to a TMDL (see Figure 1 on page vi), the SWPPP must include a certification by a licensed/certified professional.

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11 Submittal of an NOT will terminate coverage under this general permit and will also remove the permittee from subsequent billings of the annual regulatory fee levied under Article 72 of the ECL.

12 For example, CPESC, Inc. administers a certified program of individuals under its CPESC (Certified Professional in Erosion and Sediment Control) program which is sponsored by the International Erosion Control Association (IECA) and the Soil and Water Conservation Society (SWCS) and is endorsed by USDA - Natural Resources Conservation Service. CPESC, Inc. also administers the CPSWQ (Certified Professional in Stormwater Quality) program.

b. All SWPPPs shall include erosion and sediment controls. For construction activities meeting either Condition "A", "B" or "C" described below, the SWPPP shall also include water quantity and water quality controls (post-construction stormwater control practices).(see Part III. D.).

(1) Condition A - Construction site or post construction runoff discharging a pollutant of concern to either an impaired water identified on DEC's 303(d) list or a TMDL watershed for which pollutants in stormwater have been identified as a source of the impairment.

(2) Condition B - Construction site runoff from Phase 1 construction activities (construction activities disturbing five (5) or more acres) identified under 40 CFR Part 122, §122.26(b)(14)(x).

(3) Condition C - Construction site runoff from construction activity disturbing between one (1) and five (5) acres of land during the course of the project, exclusive of the construction of single family residences and construction activities at agricultural properties.

2. **SWPPP Implementation** - Operators are responsible for implementing the provisions of the SWPPP and ensuring that all contractors and subcontractors who perform professional services at the site provide certification of the SWPPP in accordance with Part I.D.2. (see page 4) and Part III.E.2. (see page 17) of this permit. All contractors and subcontractors identified in the SWPPP in accordance with Part III.E.1. (see page 17) of this permit must agree to implement applicable provisions of the SWPPP and satisfy the certification requirement of Part III.E.2. (see page17). However, contractors and subcontractors who are not operators, as defined in this permit (see page 4), are not required to submit a NOI in addition to the NOI submitted by the operator.

3. **Deadlines for SWPPP Preparation and Compliance** - The SWPPP must be developed prior to the submittal of an NOI and provide for compliance with the terms and schedule of the SWPPP beginning with the initiation of construction activities. The operator shall also certify in the SWPPP that all appropriate stormwater control measures will be in place before commencement of construction of any segment of the project that requires such measures.

4. **Local Requirements** - Developing a SWPPP that complies with the requirements listed herein does not relieve an operator from the obligation of complying with stormwater management requirements of the local government having jurisdiction over the project.

5. **Activities Previously Covered Under GP-93-06** - For construction activities which are covered by GP-93-06 as of the effective date of this permit (GP-02-01), the continued implementation of their SWPPP that was developed and implemented in accordance with GP-93-06 is acceptable until such time as:

(a) an NOT is submitted;

(b) the Department notifies them otherwise in accordance with this permit, including Part V, subsection K (see page 21); or

(c) this permit expires.

B. **Signature and SWPPP Review**

1. The SWPPP shall be signed in accordance with Part V. H.(see page 19), and be retained at the site where the construction activity occurs in accordance with Part IV (see retention of records on page 17) of this permit.

2. The permittee shall submit a copy of the SWPPP and any amendments thereto to the local governing body and any other authorized agency having jurisdiction or regulatory control over the construction activity. The operator shall make SWPPPs available upon request to the Department and any local agency having jurisdiction; or in the case of a stormwater discharge associated with industrial activity which discharges through a municipal separate storm sewer system, to the municipal operator of the system.

3. The Department, or its authorized representative, may notify the permittee at any time that the SWPPP does not meet one or more of the minimum requirements of this permit. Such notification shall identify those provisions of the permit which are not being met by the SWPPP and identify which provisions of the SWPPP require modifications in order to meet the minimum requirements of this permit. Within seven (7) days of such notification, (or as otherwise provided by the Department) the permittee shall make the required changes to the SWPPP and shall submit to the Department a written certification that the requested changes have been made. Notwithstanding the foregoing, the Department reserves all rights to enforce the terms of the ECL.

C. **Keeping SWPPPs Current** - The permittee 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 required by this permit, or

   b. Achieving the general objectives of controlling pollutants in stormwater discharges from permitted construction activity.

3. Additionally, the SWPPP shall be amended to identify any new contractor or subcontractor that will implement any measure of the SWPPP (see Part III.E, page 17 below). Amendments to the SWPPP may be reviewed by the Department in the same manner as provided by Part III.B (see page 9 above).

D. **General Contents of SWPPPs** -

1. Standards for construction activities covered under this permit - The Department's technical standards for erosion and sediment controls are detailed in the "*New York Standards and Specifications for Erosion and Sediment Control*"[13] published by the Empire State Chapter of the Soil and Water Conservation Society. For the design of water quality and water quantity controls (post-construction stormwater control practices), the Department's technical standards are detailed in the "*New York State Stormwater Management Design Manual.*"

If an operator certifies that the SWPPP has been developed in conformance with the Department's technical standards referenced above, they may obtain coverage under this general permit in five (5) business days from the Department's receipt of the NOI, provided the construction activity does not meet Condition A in Part III.A.1.b. For SWPPPs which will not conform with the Department's technical standards, the SWPPP must be prepared by a licensed/certified professional and include a certification stating that the SWPPP has been developed in a manner which will assure compliance with the State's water quality standards and with the substantive intent of this permit. In addition, coverage under this general permit will not begin until sixty (60) business days from the receipt of a completed NOI.

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13 Previously, the "*New York Guidelines for Urban Erosion and Sediment Control*," also commonly referred to as the "Blue Book."

2. **Minimum SWPPP Components** SWPPPs prepared pursuant to this general permit shall present fully designed and engineered stormwater management practices with all necessary maps, plans and construction drawings. The SWPPP must, at a minimum, include the following:

a. For all construction activities subject to this general permit -

(1). provide background information about the scope of the project, including the location, type and size of project.

(2) provide a site map/construction drawing(s) for the project, including a general location map. At a minimum, the site map should 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 off-site material, waste, borrow or equipment storage areas; and location(s) of the stormwater discharge(s);

(3) provide a description of the soil(s) present at the site;

(4) provide a construction phasing plan describing the intended sequence 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. Consistent with the New York Guidelines for Urban Erosion and Sediment Control, there shall not be more than five (5) acres of disturbed soil at any one time without prior written approval from the Department;

(5) provide 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 storm water discharges;

(6) provide a description of construction and waste materials expected to be stored on-site with updates as appropriate, and a description of controls to reduce pollutants from these materials including storage practices to minimize exposure of the materials to storm water, and spill prevention and response;

(7) describe the temporary and permanent structural and vegetative measures to be used for soil stabilization, runoff control and sediment control for each stage of the project from initial land

clearing and grubbing to project close-out;

(8) identify and show on a site map/construction drawing(s) the specific location(s), size(s), and length(s) of each erosion and sediment control practice;

(9) provide the dimensions, material specifications and installation details for all erosion and sediment control practices, including the siting and sizing of any temporary sediment basins;

(10) identify temporary practices that will be converted to permanent control measures;

(11) provide an implementation schedule for staging temporary erosion and sediment control practices, including the timing of initial placement and the duration that each practice should remain in place;

(12) provide a maintenance schedule to ensure continuous and effective operation of the erosion and sediment control practices;

(13) provide the names(s) of the receiving water(s);

(14) provide a delineation of SWPPP implementation responsibilities for each part of the site;

(15) provide a description of structural practices to divert flows from exposed soils, store flows, or otherwise limit runoff and the discharge of pollutants from exposed areas of the site to the degree attainable; and

(16) provide any existing data that describes the stormwater runoff characteristics at the site.

b. For construction activities meeting Condition A, B or C in Part III.A.1.b.

(1) provide all the information required in Parts III.D.2.a.1 - 16 above;

(2) provide a description of each post-construction stormwater control practice;

(3) identify and show on a site map/construction drawing(s) the specific location(s) and size(s) of each post-construction stormwater control practice;

(4) provide a hydrologic and hydraulic analysis for all structural components of the stormwater control system for the applicable design storms;

(5) provide a comparison of post-development stormwater runoff conditions with pre-development conditions;

(6) provide the dimensions, material specifications and installation details for each post-construction stormwater control practice;

(7) provide a maintenance schedule to ensure continuous and effective operation of each post-construction stormwater control practice.

The following three subsections, Part III.D. 3. through Part III.D. 5., apply only to construction activities covered under this general permit which meet Conditions "A" , "B"[14] or "C" in Part III. A.1.b. Beginning with Part III.E. below (see page 17) the requirements set forth therein apply to all permittees covered under this permit.

3. **Site Assessment and Inspections** -

a. The operator shall have a qualified professional[15] conduct an assessment of the site prior to the commencement of construction and certify in an inspection report that the appropriate erosion and sediment controls described in the SWPPP and required by Part III.D. (see page 10) of this permit have been adequately installed or implemented to ensure overall preparedness of the site for the commencement of construction. Following the commencement of construction, 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. During each inspection, the qualified professional shall record the following information:

(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 the 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

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14 Condition "B" includes construction activities covered under GP-93-06 and, therefore, are subject to Part III.D.3 through Part III.D. 5.

15 "Qualified professional" means a person knowledgeable in the principles and practice of erosion and sediment controls, such as a licensed professional engineer, Certified Professional in Erosion and Sediment Control (CPESC), or soil scientist.

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) All deficiencies that are identified with the implementation of the SWPPP.

b. The operator shall maintain a record of all inspection reports in a site log book. The site log book shall be maintained on site and be made available to the permitting authority upon request. Prior to the commencement of construction,[16] the operator shall certify in the site log book that the SWPPP, prepared in accordance with Part III.D. (see page 10) of this permit, 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.

c. Prior to filing of the Notice of Termination or the end of permit term, the operator shall have the qualified professional perform a final site inspection. The qualified professional shall certify that the site has undergone final stabilization[17] 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.

d. The operator shall certify that the requirements of Parts III.D.3., III.D.4. and III.D.5 of this permit have been satisfied within 48 hours of actually meeting such requirements.

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16 "Commencement of construction" means the initial removal of vegetation and disturbance of soils associated with clearing, grading or excavating activities or other construction activities.

17 "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.

4. **Stabilization**[18] - The operator shall initiate stabilization measures as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than 14 days after the construction activity in that portion of the site has temporarily or permanently ceased. This requirement does not apply in the following instances:

a. Where the initiation of stabilization measures by the 14th day after construction activity temporarily or permanently ceased is precluded by snow cover or frozen ground conditions, stabilization measures shall be initiated as soon as practicable;

b. Where construction activity on a portion of the site is temporarily ceased, and earth-disturbing activities will be resumed within twenty-one (21) days, temporary stabilization measures need not be initiated on that portion of the site.

5. **Maintenance** - Sediment shall be removed from sediment traps or sediment ponds whenever their capacity has been reduced by fifty (50) percent from the design capacity.

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18 "Stabilization" means covering or maintaining an existing cover over soil. Cover can be vegetative (e.g. grass, trees, seed and mulch, shrubs, or turf) or non-vegetative (e.g. geotextiles, riprap, or gabions).

E. **Contractors**

1. The SWPPP must clearly identify for each measure identified in the SWPPP, the contractor(s) and subcontractor(s) that will implement the measure. All contractors and subcontractors identified in the SWPPP must sign a copy of the certification statement in Part III.E.2 (see below) of this permit in accordance with Part V.H.(see page 19) of this permit. All certifications must be included in the SWPPP. Additionally, new contractors and subcontractors (see subsection C.3. above) need to similarly certify.

2. **Certification Statement** - All contractors and subcontractors identified in a SWPPP in accordance with Part III.E.1 (see above) of this permit shall sign a copy of the following certification statement before undertaking any construction activity at the site identified in the SWPPP:

> "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."

The certification must include the name and title of the person providing the signature in accordance with Part V.H.(see page 19) of this permit; the name, address and telephone number of the contracting firm; the address (or other identifying description) of the site; and the date the certification is made.

Part IV. MONITORING, REPORTING AND RETENTION OF RECORDS

A. The Department may, at its sole discretion, require monitoring of discharge(s) from the permitted construction activity after notifying the permittee in writing of the basis for such monitoring, the parameters and frequency at which monitoring shall occur and the associated reporting requirements, if any.

B. The operator shall retain copies of SWPPPs and any reports submitted in conjunction with this permit, and records of all data used to complete the NOI to be covered by this permit, for a period of at least three years from the date that the site is finally stabilized. This period may be extended by the Department, in its sole discretion, at any time upon written notification.

C. The operator shall retain a copy of the SWPPP required by this permit at the construction site from the date of initiation of construction activities to the date of final

stabilization.

D. The operator shall also prepare a written summary of its status with respect to compliance with this general permit at a minimum frequency of every three months during which coverage under this permit exists. The summary should address the status of achieving each component of the SWPPP . This summary shall be handled in the same manner as prescribed for SWPPPs under Part III, subsection B (see Page 9).

E. **Addresses** - Except for the submittal of NOIs and NOTs, all written correspondence under this permit directed to the Department, including the submittal of individual permit applications, shall be sent to the address of the appropriate Department Office as listed in Appendix A (see page 23).

Part V. STANDARD PERMIT CONDITIONS

A. **Duty to Comply** - The 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 permit noncompliance constitutes a violation of the Clean Water Act (CWA) and the ECL and is grounds for an enforcement action against either the operator or the contractor/subcontractor; permit revocation 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. The stop work order shall be in writing, shall describe the non-compliance in detail, and shall be sent to the operator or the operator's on-site representative.

B. **Continuation of the Expired General Permit** - This permit expires five (5) years after issuance on January 8, 2008. However, coverage may be obtained under the expired general permit which will continue in force and effect until a new general permit is issued. After issuance of a new general permit, those with coverage under GP-02-01 will have six (6) months from the effective date of the new general permit to complete their project or obtain coverage under the new permit. Unless otherwise notified by the Department in writing, operators seeking authorization under a new general permit must submit a new NOI in accordance with the terms of such new general permit. See also Part I, subsection D.8. on page 6.

C. **Penalties for Violations of Permit Conditions** - There are substantial criminal, civil, and administrative penalties associated with violating the provisions of this permit. Fines of up to $25,000 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 a permittee 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. **Duty to Mitigate** - The permittee 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 permittee shall furnish any information requested by any agency with regulatory or review authority over this project for the purpose of determining compliance with this permit or compliance with any other regulatory requirements placed on the project in conjunction with this permit. Failure to provide requested information shall be a violation of this permit. Such regulating agencies include but are not limited to the Department, SWCDs,[19] local planning, zoning, health, and building departments that review and approve erosion and sediment control plans, grading plans, and Stormwater Management Plans, as well as MS4s into whose system runoff from the permitted project or activity discharges. The SWPPP and inspection reports required by this general permit are public documents that the operator must make available for inspection, review and copying by any person within five (5) business days of the operator receiving a written request by any such person to review the SWPPP and/or the inspection reports. Copying of documents will be done at the requester's expense.

G. **Other Information** - When the permittee becomes aware that he or she failed to submit any relevant facts or submitted incorrect information in the NOI or in any other report to the Department, he or she shall promptly submit such facts or information.

H. **Signatory Requirements** - All NOIs, NOTs, SWPPPs, reports, certifications or information required by this permit or submitted pursuant to this permit, shall be signed as follows:

1. All NOIs and NOTs shall be signed as follows:

   a. For a corporation: by (1) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person authorized to and who performs similar policy or decision-making functions for the corporation; or (2) the manager of one or more manufacturing, production or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding $25,000,000 (in second-quarter 1980 dollars) if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;

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19 "SWCD" means Soil and Water Conservation District

b. For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or

c. For a municipality, State, Federal, or other public agency: by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes (1) the chief executive officer of the agency, or (2) 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 all reports required by the permit and other information requested by the Department or local agency shall be signed by a person described above 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 above and submitted to the Department.

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 manager, operator, superintendent, or 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).

c. **Certification** - Except for NOIs and NOTs, any person signing documents in accordance with this Part shall make the following 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. I am aware that false statements made herein are punishable as a class A misdemeanor pursuant to Section 210.45 of the Penal Law."

I. **Property Rights** - 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.

J. **Severability** - 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.

K. **Denial of Coverage Under This Permit**

1. At its sole discretion, the Department may require any person authorized by this permit to apply for and/or obtain either an individual SPDES permit or an alternative SPDES general permit. Where the Department requires a discharger authorized to discharge under this permit to apply for an individual SPDES permit, the Department shall notify the discharger in writing that a permit application is required. This notification shall include a brief statement of the reasons for this decision, an application form, a statement setting a deadline for the discharger to file the application, and a statement that on the effective date of issuance or denial of the individual SPDES permit or the alternative general permit as it applies to the individual permittee, coverage under this general permit shall automatically terminate. Applications shall be submitted to the appropriate Department Office indicated in Appendix A of this permit. The Department may grant additional time to submit the application upon request of the applicant. If a discharger fails to submit in a timely manner an individual SPDES permit application as required by the Department under this paragraph, then the applicability of this permit to the individual SPDES permittee is automatically terminated at the end of the day specified by the Department for application submittal.

2. Any discharger authorized by this permit may request to be excluded from the coverage under this permit by applying for an individual permit. In such cases, the permittee shall submit an individual application in accordance with the requirements of 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 A on page 23 of this permit). The request may be granted by issuance of an individual permit or an alternative general permit at the discretion of the Department.

3. When an individual SPDES permit is issued to a discharger covered by this permit, or the discharger is authorized to discharge under an alternative SPDES general permit, the applicability of this permit to the individual SPDES permittee is automatically terminated on the effective date of the individual permit or the date of authorization of coverage under the alternative general permit, whichever the case may be. When an individual SPDES permit is denied to an operator otherwise subject to this permit, or the operator is denied for coverage under an alternative SPDES general permit, the applicability of this permit to the individual SPDES permittee is automatically terminated on the date of such denial, unless otherwise specified by the Department.

L. **Proper Operation and Maintenance** - The permittee 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 permittee to achieve compliance with the conditions of this permit and with the requirements of SWPPPs. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. Proper operation and maintenance requires the operation of backup or auxiliary facilities or similar systems, installed by a permittee only when necessary to achieve compliance with the conditions of the permit.

M. **Inspection and Entry** - The permittee 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:

1. Enter upon the permittee'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. **Permit Actions** - At the Department's sole discretion, this permit may, at any time, be modified, revoked, or renewed. The filing of a request by the permittee for a permit modification, revocation and reissuance, termination, a notification of planned changes or anticipated noncompliance does not stay compliance with any terms of this permit.

APPENDIX A

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	Bldg 40 - SUNY @ Stony Brook Stony Brook, NY 11790-2356 Tel. (631) 444-0365	Bldg 40 - SUNY @ Stony Brook Stony Brook, NY 11790-2356 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 Paltz, NY 12561-1696 Tel. (845) 256-3059	200 White Plains Road, 5th Floor Tarrytown, NY 10591-5805 Tel. (845) 332-1835
4	Albany, Columbia, Delaware, Greene, Montgomery, Otsego, Rensselaer, Schenectady and Schoharie	1150 North Westcott Road Schenectady, NY 12306-2014 Tel. (518) 357-2069	1150 North Westcott Road Schenectady, NY 12306-2014 Tel. (518) 357-2045
5	Clinton, Essex, Franklin, Fulton, Hamilton, Saratoga, Warren and Washington	Route 86, PO Box 296 Ray Brook, NY 12977-0296 Tel. (518) 897-1234	232 Hudson Street 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 B

Information Required of Construction Activities Which Are Identified Under Part I, subsection D.7. (see page 5)

A. The location (including a map) and the nature of the construction activity;

B. The total area of the site and the area of the site that is expected to undergo excavation during the life of the permit;

C. Proposed measures, including best management practices, to control pollutants in storm water discharges during construction, including a brief description of applicable State and local erosion and sediment control requirements;

D. Proposed measures to control pollutants in storm water discharges that will occur after construction operations have been completed, including a brief description of applicable State or local erosion and sediment control requirements;

E. An estimate of the runoff coefficient of the site and the increase in impervious area after the construction addressed in the permit application is completed, the nature of the fill material and existing data describing the soil or the quality of the discharge; and

F. The name of the receiving water(s).

Appendix B: Notice of Intent (NOI)

1752059166

NOTICE OF INTENT

New York State Department of Environmental Conservation
Division of Water
625 Broadway, 4th Floor
Albany, New York 12233-3505

NYR ☐☐☐☐☐☐
(for DEC use only)

Stormwater Discharges Associated with Construction Activity Under State Pollutant Discharge Elimination System (SPDES) General Permit # GP-02-01

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. To properly complete this form, please refer to the Instruction Manual which can be accessed at www.dec.state.ny.us/website/dow/toolbox/instr_man.pdf

-IMPORTANT-

THIS FORM FOR MACHINE PRINT ONLY
RETURN THIS FORM TO THE ADDRESS ABOVE
OWNER/OPERATOR **MUST SIGN FORM**

Owner/Operator Information

Owner/Operator (Company Name/Private Owner Name/Municipality Name)
First Columbia, L.L.C.

Owner/Operator Contact Person Last Name (NOT CONSULTANT)
Bette

Owner/Operator Contact Person First Name
Chris

Owner/Operator Mailing Address
22 Century Hill Drive

City
Latham

State
NY

Zip
12110-

Phone (Owner/Operator)
518-213-1000

Fax (Owner/Operator)
518-213-1020

Email (Owner/Operator)
cbette@firstcolumbia.com

7599059161

Location Information

Project Site Information

Project/Site Name
Hedley Hotel/Conf. Ctr.&Parking Structure

Street Address (NOT P.O. BOX)
515 and 466 River Street

City/Town/Village (THAT ISSUES BUILDING PERMIT)
City of Troy

State
NY

Zip
12180 -

County
Rensselaer

DEC Region (if known)
4

Name of Nearest Cross Street
Hoosick Street

Distance to Nearest Cross Street (Feet)
530

Direction to Nearest Cross Street
● North ○ South ○ East ○ West

1. 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.state.ny.us/website/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 dropdown menu on the left and choose "Get Coordinates". Click on the center of your site and a small 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)
607520

Y Coordinates (Northing)
4732669

2. What is the nature of this construction project?

○ New Construction

○ Redevelopment with increase in imperviousness

● Redevelopment with no increase in imperviousness

Project Site Information

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
○ FOREST	○ SINGLE FAMILY HOME
○ PASTURE/OPEN LAND	○ SINGLE FAMILY SUBDIVISION
○ CULTIVATED LAND	○ TOWN HOME RESIDENTIAL
○ SINGLE FAMILY HOME	○ MULTIFAMILY RESIDENTIAL
○ SINGLE FAMILY SUBDIVISION	○ INSTITUTIONAL/SCHOOL
○ TOWN HOME RESIDENTIAL	○ INDUSTRIAL
○ MULTIFAMILY RESIDENTIAL	● COMMERCIAL
○ INSTITUTIONAL/SCHOOL	○ ROAD/HIGHWAY
○ INDUSTRIAL	○ RECREATIONAL/SPORTS FIELD
● COMMERCIAL	○ BIKE PATH/TRAIL
○ ROAD/HIGHWAY	○ LINEAR UTILITY (water, sewer, gas, etc.)
○ RECREATIONAL/SPORTS FIELD	○ PARKING LOT
○ BIKE PATH/TRAIL	○ OTHER
○ SUBSURFACE UTILITY	
○ PARKING LOT	
○ OTHER	

Number of Lots: [ ]

OTHER: [ ]

OTHER: [ ]

4. Will future use of this site be an agricultural property as defined by the NYS Agriculture and Markets Law ?
○ Yes ● No

5. Is this a project which does not require coverage under the General Permit (e.g. Project done under an Individual SPDES Permit, or department approved remediation)?
○ Yes ● No

6. Is this property owned by a state authority, state agency or local government?
○ Yes ● No

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.

Total Site Acreage	Acreage To Be Disturbed	Existing Impervious Area Within Disturbed	Future Impervious Area Within Disturbed
3.9	3.5	3.2	2.9

8. Will there be more than 5 acres disturbed at any given time?
○ Yes ● No

9. Indicate the percentage of each Hydrologic Soil Group(HSG) at the site.

A	B	C	D
%	%	100 %	%

10. Is this a phased project? **(if yes, The SWPPP must address all planned phases)** * ○ Yes ● No

11. Enter the planned start and end dates of the disturbance activities

Start Date 11/01/2008 - End Date 11/01/2009

Receiving System(s)

12. Provide the name of the nearest, natural, classified surface waterbody(ies) into which construction site runoff has the potential to discharge.

Hudson River

For Questions 13 and 14 refer to the Instruction Manual for a subset of 303(d) segments and TMDL watersheds subject to Condition A of the permit. These waterbodies and watersheds have been identified for regulation within the stormwater program due to some level of impairment by nutrients, silt or sediment. The Instruction Manual can be accessed at www.dec.state.ny.us/website/dow/toolbox/instr_man.pdf

13. Has the surface waterbody(ies) in question 12 been identified as a 303(d) segment? * ○ Yes ● No

14. Is this project located in a TMDL Watershed? * ○ Yes ● No

***NOTE:** If you answered Yes to either question 13 or 14, Pursuant to Part I.D.3.(b) of the permit, you must have your SWPPP prepared and certified by a licensed/certified professional and the SWPPP is subject to a 60-business day review.*

15. Does the site runoff enter a separate storm sewer system- including roadside drains, swales, ditches, culverts, etc? **(if no, skip question 16)** ● Yes ○ No ○ Unknown

16. What is the name of the municipality/entity that owns the separate storm sewer system?

City of Troy

17. Does any runoff from the site enter a sewer classified as a Combined Sewer? ● Yes ○ No ○ Unknown

Stormwater Pollution Prevention Plan (SWPPP)

18. 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 *

19. Does this construction activity require the development of a SWPPP that includes Water Quality and Quantity Control components (Post-Construction Stormwater Management Practices) **If no, Skip question 20**

● Yes ○ No

20. Have the Water Quality and Quantity Control components of the SWPPP been developed in comformance with the current NYS Stormwater Management Design Manual ?

● Yes ○ No *

NOTE: If you answered no to question 18 or 20, Pursuant to Part I.D.3.(b) of the permit, you must have your SWPPP prepared and certified by a licensed/certified professional and the SWPPP is subject to a 60-business day review. Please provide further details in the details/comment section on the last page of this form.

21. The Stormwater Pollution Prevention Plan (SWPPP) was prepared by:

- ● Professional Engineer (P.E.)
- ○ Soil and Water Conservation District (SWCD)
- ○ Registered Landscape Architect (R.L.A)
- ○ Certified Professional in Erosion and Sediment Control (CPESC)
- ○ Owner/Operator
- ○ Other

SWPPP Preparer Information (if different from Owner/Operator info)

SWPPP Preparer: The Chazen Companies

Contact Name (Last, Space, First): Lanaro Joseph

Mailing Address: 547 River Street

City: Troy

State: NY

Zip: 12180 -

Phone: 518 - 273 - 0055

Fax: 518 - 273 - 8391

Email: jlanaro@chazencompanies.com

Stormwater Pollution Prevention Plan (SWPPP)

Erosion and Sediment Control Practices

22. Has a construction sequence schedule for the planned management practices been prepared?

● Yes ○ No

23. Select all of the erosion and sediment control practices that will be employed on the project site.

Temporary Structural

- ○ Check Dams
- ○ Construction Road Stabilization
- ● Dust Control
- ○ Earth Dike
- ○ Level Spreader
- ○ Perimeter Dike/Swale
- ○ Pipe Slope Drain
- ○ Portable Sediment Tank
- ○ Rock Dam
- ○ Sediment Basin
- ○ Sediment Traps
- ● Silt Fence
- ● Stabilized Construction Entrance
- ● Storm Drain Inlet Protection
- ○ Straw/Hay Bale Dike
- ○ Temporary Access Waterway Crossing
- ○ Temporary Stormdrain Diversion
- ○ Temporary Swale
- ○ Turbidity Curtain
- ○ Water bars

Biotechnical

- ○ Brush Matting
- ○ Wattling

Vegetative Measures

- ○ Brush Matting
- ○ Dune Stabilization
- ○ Grassed Waterway
- ● Mulching
- ○ Protecting Vegetation
- ○ Recreation Area Improvement
- ● Seeding
- ○ Sodding
- ○ Straw/Hay Bale Dike
- ○ Streambank Protection
- ○ Temporary Swale
- ● Topsoiling
- ○ Vegetating Waterways

Permanent Structural

- ○ Debris Basin
- ○ Diversion
- ○ Grade Stabilization Structure
- ○ Land Grading
- ○ Lined Waterway (Rock)
- ○ Paved Channel (Concrete)
- ○ Paved Flume
- ○ Retaining Wall
- ○ Riprap Slope Protection
- ○ Rock Outlet Protection
- ○ Streambank Protection

Other

Stormwater Pollution Prevention Plan (SWPPP)

Water Quality and Quantity Control

Important: Completion of Questions 24-30 is not required if the project:

Disturbs less than 5 acres and is planned for single-family residential homes (including subdivisions) or construction on agricultural property and does not have a discharge to a 303(d) water or is not located within a TMDL watershed.

Additionally, sites where there will be no future impervious area within the disturbed area and that do not have a change (pre to post development) in hydrology do not need to complete questions 24-30.

24. Indicate all the permanent Stormwater Management Practice(s) that will be installed on this site

Post Construction Stormwater Management Practices

Ponds

- ○ Micropool Extended Detention (P-1)
- ○ Wet Pond (P-2)
- ○ Wet Extended Detention (P-3)
- ○ Multiple Pond System (P-4)
- ○ Pocket Pond (P-5)

Filtering

- ○ Surface Sand Filter (F-1)
- ○ Underground Sand Filter (F-2)
- ○ Perimeter Sand Filter (F-3)
- ○ Organic Filter (F-4)
- ○ Bioretention (F-5)

Wetlands

- ○ Shallow Wetland (W-1)
- ○ Extended Detention Wetland (W-2)
- ○ Pond/Wetland System (W-3)
- ○ Pocket Wetland (W-4)

Infiltration

- ○ Infiltration Trench (I-1)
- ○ Infiltration Basin (I-2)
- ○ Dry Well (I-3)

Open Channels

- ○ Dry Swale (O-1)
- ○ Wet Swale (O-2)

- ● Other

Describe other stormwater management practices not listed above or explain any deviations from the technicial standards. If the SWPPP does not conform to the technicial standards, the SWPPP must be prepared and certified by a licensed/certified professional and is subject to a 60-business day review.

Through a combination of methods described in Ch 9 Redevelopment Projects including a minimum reduction of impervious area by 25 percent and the use of CDS units WQv treatment objectives are achieved Only stormwater quality controls will be used because the site discharges to the Hudson River which is greater than a 4th order stream These measures are considered to be in compliance with the standard and therefore a 5 day review is acceptable

Has a long term Operation and Maintenance plan for the post construction management practices been developed? ● Yes ○ No

If Yes, Identify the entity responsible for the long term Operation and Maintenance

First Columbia, LLC.

Stormwater Pollution Prevention Plan (SWPPP)
Water Quality and Quantity Control

25. Provide the total water quality volume required and the total provided for the site.

Total Water Quality Volume (WQv)

WQv Required	WQv Provided
0.130 acre-feet	0.130 acre-feet

26. Provide the following Unified Stormwater Sizing Criteria for the site.

Total Channel Protection Storage Volume (CPv) - Extended detention of post-developed 1 year, 24 hour storm event

CPv Required	CPv Provided
. acre-feet	. acre-feet

The need to provide for channel protection has been waived because
- ● Site discharges directly to fourth order stream or larger

Total Overbank Flood Control Criteria (Qp) - Peak discharge rate for the 10 year storm

Pre-Development	Post-development
. CFS	. CFS

Total Extreme Flood Control Criteria (Qf) - Peak discharge rate for the 100 year storm

Pre-Development	Post-development
. CFS	. CFS

The need to provide for flood control has been waived because
- ● Site discharges directly to fourth order stream or larger
- ○ Downstream analysis reveals that flood control is not required

IMPORTANT: For questions 27 and 28 impervious area should be calculated considering the project site and all offsite areas that drain to the post-construction stormwater management practice(s) (Total Drainage Area = Project Site + Offsite areas)

27. Pre-Construction Impervious Area - As a percent of the Total Drainage Area enter the percentage of the existing impervious areas before construction begins. **84 %**

28. Post-Construction Impervious Area - As a percent of the Total Drainage Area enter the percentage of the future impervious areas that will be created/remain on the site after completion of construction. **99 %**

29. Indicate the total number of permanent stormwater management practices to be installed **1**

30. Provide the total number of stormwater discharge points from the site (include discharges to either surface waters or to seperate storm sewer systems) **2**

0567059169

Other Permits

31. Select any other DEC permits that are required for this project or ● None

DEC Permits

○ Air Pollution Control	○ Stream Protection/Article 15
○ Coastal Erosion	○ Water Quality Certificate
○ Hazardous Waste	○ Dam Safety
○ Long Island Wells	○ Water Supply
○ Mined Land Reclamation	○ Freshwater Wetlands
○ Other SPDES	○ Tidal Wetlands
○ Solid Waste	○ Wild, Scenic and Recreational Rivers

Other

32. If this NOI is being submitted for the purpose of continuing coverage under a general permit for stormwater runoff from construction activities, please indicate the former SPDES number assigned.

NYR

Details/Comments

Certification

I have read or been advised of the permit conditions and believe that I understand them. I also understand that, under the terms of the permit, there may be reporting requirements. I also certify under penalty of law that this document and the corresponding documents were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person(s) 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 there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. I further understand that coverage under the general permit will be identified in the acknowledgment that I will receive as a result of submitting this NOI and can be as long as sixty (60) days as provided for in the general permit. I also understand that, by submitting this NOI, I am acknowledging that the SWPPP has been developed and will be implemented as the first element of construction. and agreeing to comply with all the terms and conditions of the general permit for which this NOI is being submitted.

Print First Name: Chris

MI:

Print Last Name: Bette

Owner/Operator Signature:

Date: / /

Appendix C: Operator's and Contractor's Certification Forms

TCC Job Number: 30718.01

The Chazen Companies
July 19, 2007
Revised: February 11, 2008

Stormwater Pollution Prevention Plan
Contractor's Certification
Hedley Hotel/Conference Center & Parking Structure
515 and 466 River Street
City of Troy, Rensselaer County, New York

The Contractor and/or Subcontractor(s) that will implement the pollutant control measures described in the SWPPP must be identified below. Each must sign a statement certifying that they understand the NPDES and NYSDEC general permit authorizing storm water discharges during construction. These statements must be maintained in the SWPPP file on site.

Contractor Implementing the Storm Water Pollution Prevention Plan:

Business Name:_____

Business Address:_____

Telephone No.:_____

Name of Signatory:_____

Title of Signatory:_____

Signature:_____

Date:_____

Contractor's Responsibility(s):

_____

_____

Certification:

(Note: signature requirements in Part VI.G. of the NPDES General Permit and Part III.E.1 of the NYSDEC SPDES Permit GP-02-01)

"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 storm water. I also understand that the Operator must comply with the terms and conditions of the New York State Pollution Discharge Elimination System ("SPDES") general permit for storm water discharges from construction discharges from construction activities and that it is unlawful for any person to cause or contribute to a violation of water quality standards."

Signatory Requirements - All NOIs, NOTs, SWPPPS, reports, certifications or information required by this permit or submitted pursuant to this permit, shall be signed as follows:

1 For a corporation: by a (1) president, secretary, treasurer, or vice-president of the corporation in charge of a principle business function, or any other person authorized to and who performs similar policy or decision-making functions for the corporation; or (2) the manager of one or more manufacturing, production or operating facilities employing more than 250 persons or having a gross annual sales or expenditures exceeding $25,000,000 (in second-quarter 1980 dollars) if authority to sign documents has been assigned or delegated to manage in accordance with corporate procedures;
2 For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or
3 For a municipality, State, Federal, or other public agency; by either a principal executive officer ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes (1) the chief executive officer of the agency, or (2) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g. Regional Administrators of EPA).

Stormwater Pollution Prevention Plan
Operator's Certification
Hedley Hotel/Conference Center & Parking Structure
515 and 466 River Street
City of Troy, Rensselaer County, New York

The Operator that will implement the pollutant control measures described in the SWPPP must be identified below. Each must sign a statement certifying that they understand the NPDES and NYSDEC general permit authorizing storm water discharges during construction. These statements must be maintained in the SWPPP file on site.

Owner:

Business Name:_____

Business Address:_____

Telephone No.:_____

Name of Signatory:_____

Title of Signatory:_____

Signature:_____

Date:_____

Certification:

(Note: signature requirements in Part V.H.2.c of the NYSDEC SPDES Permit GP-02-01)

"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."

Signatory Requirements - All NOIs, NOTs, SWPPPS, reports, certifications or information required by this permit or submitted pursuant to this permit, shall be signed as follows:

1 For a corporation: by a (1) president, secretary, treasurer, or vice-president of the corporation in charge of a principle business function, or any other person authorized to and who performs similar policy or decision-making functions for the corporation; or (2) the manager of one or more manufacturing, production or operating facilities employing more than 250 persons or having a gross annual sales or expenditures exceeding $25,000,000 (in second-quarter 1980 dollars) if authority to sign documents has been assigned or delegated to manage in accordance with corporate procedures;
2 For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or
3 For a municipality, State, Federal, or other public agency; by either a principal executive officer ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes (1) the chief executive officer of the agency, or (2) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g. Regional Administrators of EPA).

Appendix D: Construction Phase Inspections and Maintenance (Pocket)

TCC Job Number: 30718.01

The Chazen Companies
July 19, 2007
Revised: February 11, 2008

CONSTRUCTION PHASE INSPECTIONS AND MAINTENANCE

Between the time this SWPPP is implemented and final site stabilization is achieved, all disturbed areas and pollutant controls must be inspected at least once every seven calendar days and within 24 hours following a rainfall of 0.5 inches or greater. The purpose of site inspections is to assess performance of pollutant controls. The inspections will be conducted by the Operator's Engineer. Based on these inspections, the Operator's Engineer will decide whether it is necessary to modify this SWPPP, add or relocate sediment barriers, or whatever else may be needed in order to prevent pollutants from leaving the site via storm water runoff. The general contractor has the duty to cause pollutant control measures to be repaired, modified, maintained, supplemented, or whatever else is necessary in order to achieve effective pollutant control.

Examples of particular items to evaluate during site inspections are listed below. This list is not intended to be comprehensive. During each inspection the inspector must evaluate overall pollutant control system performance as well as particular details of individual system components. Additional factors should be considered as appropriate to the circumstances.

1. Locations where vehicles enter and exit the site must be inspected for evidence of off-site sediment tracking. A stabilized construction entrance will be constructed where vehicles enter and exit. This entrance will be maintained or supplemented as necessary to prevent sediment from leaving the site on vehicles.

2. Sediment barriers must be inspected and, if necessary, they must be enlarged or cleaned in order to provide additional capacity. All material from behind sediment barriers will be stockpiled on the up slope side. Additional sediment barriers must be constructed as needed.

3. Inspections will evaluate disturbed areas and areas used for storing materials that are exposed to rainfall for evidence of, or the potential for, pollutants entering the drainage system. If necessary, the materials must be covered or original covers must be repaired or supplemented. Also, protective berms must be constructed, if needed, in order to contain runoff from material storage areas.

4. Grassed areas will be inspected to confirm that a healthy stand of grass is maintained. The site has achieved final stabilization once all areas are covered with building foundation or pavement, or have a stand of grass with at least 80 percent density. The density of 80 percent or greater must be maintained to be considered as stabilized. Areas must be watered, fertilized, and reseeded as needed to achieve this goal.

5. All discharge points must be inspected to determine whether erosion control measures are effective in preventing significant impacts to receiving waters.

Based on inspection results, any modification necessary to increase effectiveness of this SWPPP to an acceptable level must be made within seven calendar days of the inspection. The inspection reports must be completed entirely and additional remarks should be included if needed to fully describe a situation. An important aspect of the inspection report is the description of additional measures that need to be taken to enhance plan effectiveness. The inspection report must identify whether the site was in compliance with the SWPPP at the time of inspection and specifically identify all incidents of non-compliance. An erosion and sediment control inspections and maintenance schedule is presented on the project drawings.

Inspection reports must be kept on file by the general contractor as an integral part of this SWPPP for at least three years from the date of completion of the project.

Ultimately, it is the responsibility of the general contractor to assure the adequacy of site pollutant discharge controls. Actual physical site conditions or contractor practices could make it necessary to install more structural controls than are shown on the accompanying plans. (For example, localized concentrations of runoff could make it necessary to install additional sediment barriers.) Assessing the need for additional controls and implementing them or adjusting existing controls will be a continuing aspect of this SWPPP until the site achieves final stabilization.

Appendix E:
Inspection Report (Sample Form)

Inspection Type (Circle One):	Routine Weekly	Following 1/2" or Greater Rainfall

Site Assessment / Inspection Report
SWPPP Construction Activities
Hedley Hotel/Conference Center & Parking Structure
515 and 466 River Street
City of Troy, Rensselaer County, New York

Report Number:_____ Weather:_____
Inspectors Name (Please Print):_____ Temperature:_____
Date:_____Time:_____ Page:_____of _____

Observation Instructions:

1 On a site map, indicate the extent of all disturbed site areas and drainage pathways. Indicate site areas 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 on a site map all 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 the sediment storage volume. Note if a substantial increase in turbidity in downstream water courses/bodies exists.

5 Inspect all erosion and sediment control practices and record all maintenance requirements such as verifying the integrity of sediment control barriers or diversion systems (i.e. silt fence, diversion swales, earthen berms, etc.) and containment systems (i.e. sediment basins and sediment traps, etc.).

6 Inspect all equipment, material handling or storage areas for evidence of apparent spills, leaks or deleterious materials.

7 On a monthly basis, post a copy of the Inspection Log in a publicly accessible location.

Temporary Erosion and Sediment Control Practices:

Practice	Condition	Accumulation %	Conforming	Actions Required
Stabilized Construction Entrance	Good / Fair / Poor		Yes / No	
Temporary Parking	Good / Fair / Poor		Yes / No	
Silt Fence	Good / Fair / Poor		Yes / No	
Temporary Swales and Berms	Good / Fair / Poor		Yes / No	
Check Dams (Stone)	Good / Fair / Poor		Yes / No	
Slope Protection	Good / Fair / Poor		Yes / No	
Dewatering Operations	Good / Fair / Poor		Yes / No	
Sediment Traps	Good / Fair / Poor		Yes / No	
Inlet Protection	Good / Fair / Poor		Yes / No	
Mulching / Seeding	Good / Fair / Poor		Yes / No	

See attached pages for additional comments

Hedley Hotel/Conference Center & Parking Structure
Stormwater Pollution Prevention Plan Construction Site Log Book

Report No._____ Page _____ of _____

Practice	Condition	Accumulation %	Conforming	Actions Required
Temporary Stockpiles	Good / Fair / Poor		Yes / No	
Dust Control	Good / Fair / Poor		Yes / No	
Sedimentation on Public Streets	Good / Fair / Poor		Yes / No	
Less than 5 Acres of Disturbance	Good / Fair / Poor		Yes / No	
Other:	Good / Fair / Poor		Yes / No	
Other:	Good / Fair / Poor		Yes / No	

Non-conforming work items still outstanding (List item number):

Inspection Notes:

Inspectors Signature:_____

Inspectors Printed Name:_____

Qualified Professional Signature_____ Date_____

Qualified Professional Printed Name_____

Appendix F: Record of Stabilization and Construction Activity Dates (Sample Form)

Site Stabilization & Construction Activities Dates

Hedley Hotel/Conference Center & Parking Structure
515 and 466 River Street
City of Troy, Rensselaer County, New York

Note: This form shall be completed by the Contractor and shall remain as part of the Storm water Pollution Prevention Plan that is to remain at the project site for the duration of construction.

A record of dates when major grading activities occur, when construction activities temporarily or permanently cease on a portion of the site, and when stabilization measures are initiated shall be maintained until final site stabilization is achieved and the Notice of Termination is filed.

MAJOR GRADING ACTIVITIES:

Page ____ of ____

Description of Activity:_____

Contractor:_____

Location:_____

Start Date:_____ Finish Date:_____

Description of Activity:_____

Contractor:_____

Location:_____

Start Date:_____ Finish Date:_____

Description of Activity:_____

Contractor:_____

Location:_____

Start Date:_____ Finish Date:_____

Description of Activity:_____

Contractor:_____

Location:_____

Start Date:_____ Finish Date:_____

Description of Activity:_____

Contractor:_____

Location:_____

Start Date:_____ Finish Date:_____

Appendix G: Notice of Termination (NOT)

New York State Department of Environmental Conservation
Division of Water
625 Broadway, 4th Floor
Albany, New York 12233-3505

NOTICE OF TERMINATION for Storm Water Discharges Associated with Construction Activity UNDER SPDES GENERAL PERMIT: ☐ #GP-93-06 or ☐ #GP-02-01

Please indicate your permit identification number: NYR ___ ___ ___ ___ ___ ___

I. Permittee Information

1. Owner/Operator Name:

2a. Mailing Address: | 2b. City/State/Zip:

3a. Contact Person: | 3b. Phone: | 3c. E-mail:

II. Site /Activity Information

4. Facility/Project Site Name:

5a. Street Address: | 5b. City/State/Zip:

6. County:

III. Reason for Termination

7a. ☐ Site has been finally stabilized in accordance with permit and SWPPP. Date site stabilization completed: _____ month/year

7b. ☐ 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 permittee identified in I.1. above until new owner/operator obtains coverage under GP-02-01)

IV. Final Site Information:

8a. Are there permanent stormwater management practices remaining on the site? ☐ yes ☐ no
If the answer to question 8a. is no, go to question 8e.
If the answer to question 8a. is yes, answer the following questions 8b., 8c., and 8d.:
8b. Is the design and function of each permanent practice described in the final SWPPP? ☐ yes ☐ no
8c. Who will be responsible for long-term operation and maintenance of practice(s)? _____
8d. Has the individual(s) responsible for long-term operation and maintenance been given a copy of the operation and maintenance requirements? ☐ yes ☐ no
8e. Provide the total acreage of impervious surface (i.e. roof, pavement, concrete, gravel, etc.) constructed within the disturbance area? _____

V. Certification

I certify under penalty of law that this document was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person(s) 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 there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Printed Name: | Title/Position:

Signature: | Date:

Reset Button

08/16/04

POST CONSTRUCTION INSPECTIONS AND MAINTENANCE

1. SITE COVER

a. Inspections

Site cover and associated structures and embankments should be inspected periodically for the first few months following construction and then on a biannual basis. Site inspections should also be performed following all major (i.e., intense storms, thunder storms, cloud burst, etc.) storm events. Items to check for include (but are not limited to):

i. Differential settlement of embankments, cracking or erosion.
ii. Lack of vigor and density of grass turf.
iii. Accumulation of sediments or litter on lawn areas, paved areas, or within catch basin sumps.
iv. Accumulation of pollutants, including oils or grease, in catch basin sumps.
v. Damage or fatigue of storm sewer structures or associated components.

b. Mowing and Sweeping

Vegetated areas and landscaping should be maintained to promote vigorous and dense growth. Lawn areas should be mowed at least three times a year (more frequent mowing may be desired for aesthetic reasons). Resultant yard waste shall be collected and disposed of off-site.

Paved areas should be swept at least twice a year. Additional sweeping may be appropriate in the early spring for removal of deicing materials

c. Debris and Litter Removal

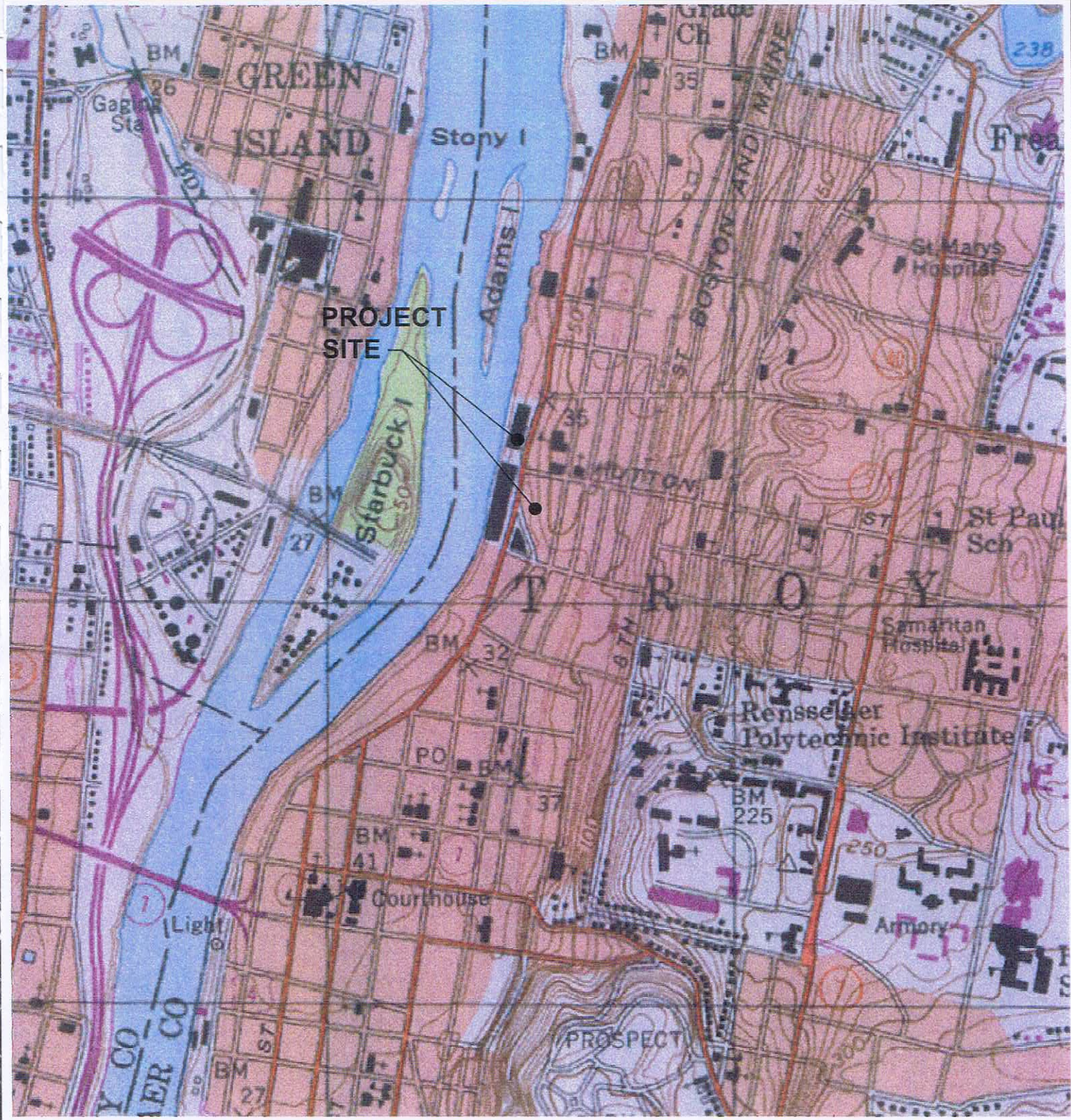
Accumulation of litter and debris should be removed during each mowing or sweep operation.

d. Structural Repair or Replacement

Components of the system which require repair or replacement should be addressed immediately following identification.

Appendix I: Figures

Figure 1: Site Location Map



THE Chazen COMPANIES
Engineers/Surveyors
Planners
Environmental Scientists

Dutchess County Office:
21 Fox Street Poughkeepsie, NY 12601
Phone: (845) 454-3980

Capital District Office:
547 River Street Troy, NY 12180
Phone: (518) 273-0055

Orange County Office:
356 Meadow Avenue Newburgh, NY 12550
Phone: (845) 567-1133

North Country Office:
100 Glen Street Glens Falls, NY 12801
Phone: (518) 812-0513

HEDLEY HOTEL/CONFERENCE CENTER

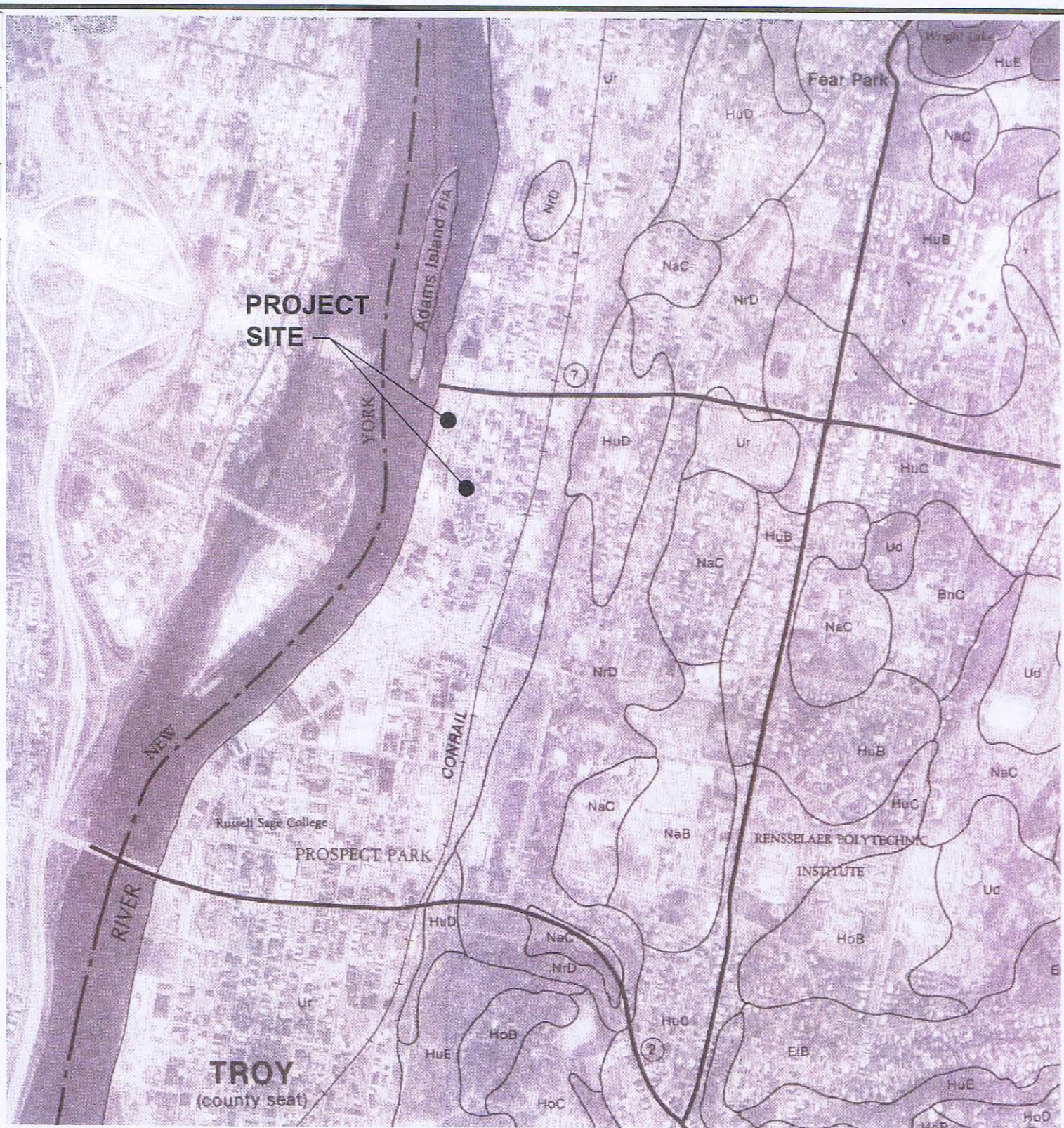
SITE LOCATION MAP

CITY OF TROY, RENSSELAER COUNTY, NEW YORK

drawn	checked
WJK	
date	scale
7/19/07	N.T.S.
project no.	
30718.01	
sheet no.	
FIG 1	

Drawing Name: S:\3\30700-30799\30718_00\ENG\DWG\20_SWM_FIG1_30718-01.dwg Date Printed: Feb 13, 2008, 2:42pm

Figure 2: Soils Map



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HEDLEY HOTEL/CONFERENCE CENTER

SOILS MAP

CITY OF TROY, RENSSELAER COUNTY, NEW YORK

drawn	checked
WJK	
date	scale
7/19/07	N.T.S.
project no.	
30718.01	
sheet no.	
FIG 2	

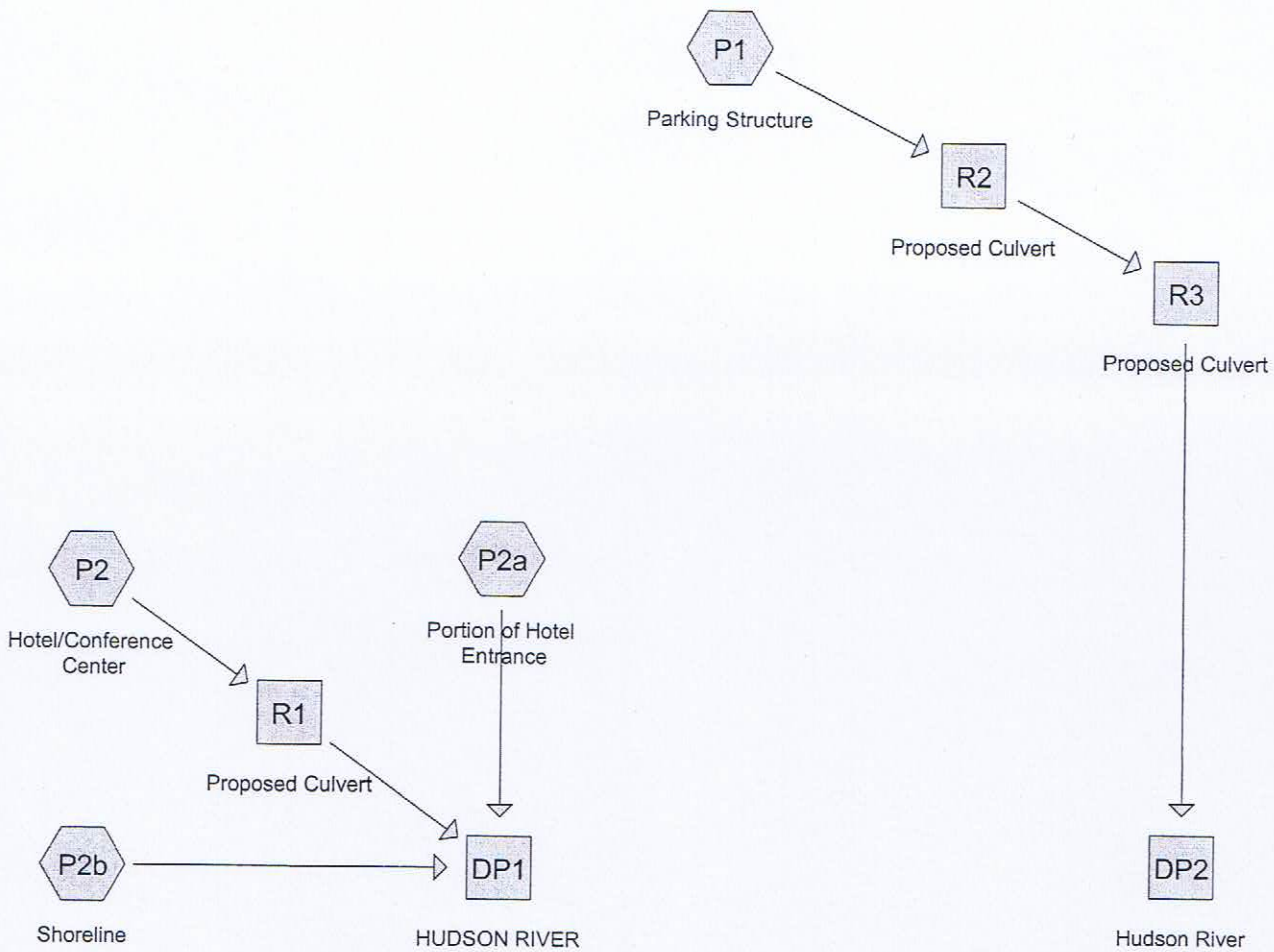
Drawing Name: S:\3\30700–30799\30718_00\ENG\DWG\20_SWM_FIG2_30718–01.dwg Date Printed: Feb 13, 2008, 2:43pm

Figure 3: Post-Development Watershed Delineation Map (Pocket)

Appendix J: Post-Development Watershed Conditions Modeling

TCC Job Number: 30718.01

The Chazen Companies
July 19, 2007
Revised: February 11, 2008



Subcat Reach Pond Link

Drainage Diagram for 30718.00_proposedconditions
Prepared by {enter your company name here}, Printed 2/13/2008

Post-Development Conditions
1 year 24 hour Storm Event
Model Computations

TCC Job Number: 30718.01

The Chazen Companies
July 19, 2007
Revised: February 11, 2008

Summary for Subcatchment P1: Parking Structure

Runoff = 5.56 cfs @ 11.97 hrs, Volume= 0.299 af, Depth= 2.17"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-YR Rainfall=2.40"

Area (sf)	CN	Description
727	74	>75% Grass cover, Good, HSG C
71,260	98	Paved parking & roofs
71,987	98	Weighted Average
727		Pervious Area
71,260		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Min Tc used in accord. w/SCS methodology**

Summary for Subcatchment P2: Hotel/Conference Center

Runoff = 3.86 cfs @ 11.97 hrs, Volume= 0.188 af, Depth= 1.69"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-YR Rainfall=2.40"

Area (sf)	CN	Description
11,198	74	>75% Grass cover, Good, HSG C
47,116	98	Paved parking & roofs
58,314	93	Weighted Average
11,198		Pervious Area
47,116		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Min Tc used in accord. w/SCS methodology**

Summary for Subcatchment P2a: Portion of Hotel Entrance

Runoff = 0.49 cfs @ 11.97 hrs, Volume= 0.026 af, Depth= 2.17"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-YR Rainfall=2.40"

Area (sf)	CN	Description
* 6,311	98	Pavement
6,311		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Summary for Subcatchment P2b: Shoreline

Runoff = 1.16 cfs @ 11.98 hrs, Volume= 0.054 af, Depth= 0.82"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-YR Rainfall=2.40"

	Area (sf)	CN	Description
	26,672	74	>75% Grass cover, Good, HSG C
*	7,993	98	Pavement
	34,665	80	Weighted Average
	26,672		Pervious Area
	7,993		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Summary for Reach DP1: HUDSON RIVER

Inflow Area = 2.279 ac, 61.86% Impervious, Inflow Depth = 1.41" for 1-YR event
Inflow = 5.50 cfs @ 11.98 hrs, Volume= 0.269 af
Outflow = 5.50 cfs @ 11.98 hrs, Volume= 0.269 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Summary for Reach DP2: Hudson River

Inflow Area = 1.653 ac, 98.99% Impervious, Inflow Depth = 2.17" for 1-YR event
Inflow = 5.50 cfs @ 11.98 hrs, Volume= 0.299 af
Outflow = 5.50 cfs @ 11.98 hrs, Volume= 0.299 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

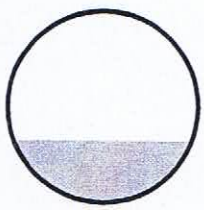
Summary for Reach R1: Proposed Culvert

Inflow Area = 1.339 ac, 80.80% Impervious, Inflow Depth = 1.69" for 1-YR event
Inflow = 3.86 cfs @ 11.97 hrs, Volume= 0.188 af
Outflow = 3.85 cfs @ 11.97 hrs, Volume= 0.188 af, Atten= 0%, Lag= 0.3 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Max. Velocity= 4.44 fps, Min. Travel Time= 0.4 min
Avg. Velocity = 1.28 fps, Avg. Travel Time= 1.3 min

Peak Storage= 87 cf @ 11.97 hrs, Average Depth at Peak Storage= 0.64'
Bank-Full Depth= 2.00', Capacity at Bank-Full= 17.33 cfs

24.0" Diameter Pipe, n= 0.012
Length= 100.0' Slope= 0.0050 '/'
Inlet Invert= 0.50', Outlet Invert= 0.00'



Summary for Reach R2: Proposed Culvert

Inflow Area = 1.653 ac, 98.99% Impervious, Inflow Depth = 2.17" for 1-YR event
Inflow = 5.56 cfs @ 11.97 hrs, Volume= 0.299 af
Outflow = 5.55 cfs @ 11.97 hrs, Volume= 0.299 af, Atten= 0%, Lag= 0.3 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Max. Velocity= 4.91 fps, Min. Travel Time= 0.4 min
Avg. Velocity = 1.42 fps, Avg. Travel Time= 1.3 min

Peak Storage= 122 cf @ 11.97 hrs, Average Depth at Peak Storage= 0.78'
Bank-Full Depth= 2.00', Capacity at Bank-Full= 17.33 cfs

24.0" Diameter Pipe, n= 0.012
Length= 108.0' Slope= 0.0050 '/'
Inlet Invert= 20.80', Outlet Invert= 20.26'

Summary for Reach R3: Proposed Culvert

Inflow Area = 1.653 ac, 98.99% Impervious, Inflow Depth = 2.17" for 1-YR event
Inflow = 5.55 cfs @ 11.97 hrs, Volume= 0.299 af
Outflow = 5.50 cfs @ 11.98 hrs, Volume= 0.299 af, Atten= 1%, Lag= 0.6 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Max. Velocity= 4.83 fps, Min. Travel Time= 0.9 min
Avg. Velocity = 1.37 fps, Avg. Travel Time= 3.1 min

Peak Storage= 294 cf @ 11.98 hrs, Average Depth at Peak Storage= 0.71'
Bank-Full Depth= 2.50', Capacity at Bank-Full= 31.54 cfs

30.0" Diameter Pipe, n= 0.012
Length= 258.0' Slope= 0.0050 '/'
Inlet Invert= 17.90', Outlet Invert= 16.60'

Post-Development Conditions 10 year 24 hour Storm Event Model Computations

TCC Job Number: 30718.01

The Chazen Companies
July 19, 2007
Revised: February 11, 2008

Summary for Subcatchment P1: Parking Structure

Runoff = 10.10 cfs @ 11.97 hrs, Volume= 0.560 af, Depth= 4.06"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-YR Rainfall=4.30"

Area (sf)	CN	Description
727	74	>75% Grass cover, Good, HSG C
71,260	98	Paved parking & roofs
71,987	98	Weighted Average
727		Pervious Area
71,260		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Min Tc used in accord. w/SCS methodology**

Summary for Subcatchment P2: Hotel/Conference Center

Runoff = 7.68 cfs @ 11.97 hrs, Volume= 0.392 af, Depth= 3.51"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-YR Rainfall=4.30"

Area (sf)	CN	Description
11,198	74	>75% Grass cover, Good, HSG C
47,116	98	Paved parking & roofs
58,314	93	Weighted Average
11,198		Pervious Area
47,116		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Min Tc used in accord. w/SCS methodology**

Summary for Subcatchment P2a: Portion of Hotel Entrance

Runoff = 0.89 cfs @ 11.97 hrs, Volume= 0.049 af, Depth= 4.06"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-YR Rainfall=4.30"

Area (sf)	CN	Description
* 6,311	98	Pavement
6,311		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Summary for Subcatchment P2b: Shoreline

Runoff = 3.25 cfs @ 11.97 hrs, Volume= 0.152 af, Depth= 2.29"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-YR Rainfall=4.30"

	Area (sf)	CN	Description
	26,672	74	>75% Grass cover, Good, HSG C
*	7,993	98	Pavement
	34,665	80	Weighted Average
	26,672		Pervious Area
	7,993		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Summary for Reach DP1: HUDSON RIVER

Inflow Area = 2.279 ac, 61.86% Impervious, Inflow Depth = 3.12" for 10-YR event
Inflow = 11.79 cfs @ 11.97 hrs, Volume= 0.593 af
Outflow = 11.79 cfs @ 11.97 hrs, Volume= 0.593 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Summary for Reach DP2: Hudson River

Inflow Area = 1.653 ac, 98.99% Impervious, Inflow Depth = 4.06" for 10-YR event
Inflow = 10.02 cfs @ 11.98 hrs, Volume= 0.560 af
Outflow = 10.02 cfs @ 11.98 hrs, Volume= 0.560 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

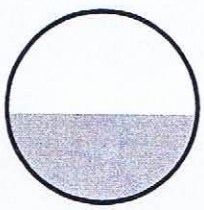
Summary for Reach R1: Proposed Culvert

Inflow Area = 1.339 ac, 80.80% Impervious, Inflow Depth = 3.51" for 10-YR event
Inflow = 7.68 cfs @ 11.97 hrs, Volume= 0.392 af
Outflow = 7.67 cfs @ 11.97 hrs, Volume= 0.392 af, Atten= 0%, Lag= 0.2 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Max. Velocity= 5.35 fps, Min. Travel Time= 0.3 min
Avg. Velocity = 1.55 fps, Avg. Travel Time= 1.1 min

Peak Storage= 143 cf @ 11.97 hrs, Average Depth at Peak Storage= 0.93'
Bank-Full Depth= 2.00', Capacity at Bank-Full= 17.33 cfs

24.0" Diameter Pipe, n= 0.012
Length= 100.0' Slope= 0.0050 '/'
Inlet Invert= 0.50', Outlet Invert= 0.00'



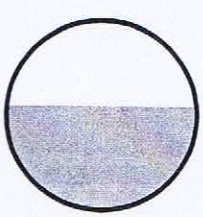
Summary for Reach R2: Proposed Culvert

Inflow Area = 1.653 ac, 98.99% Impervious, Inflow Depth = 4.06" for 10-YR event
Inflow = 10.10 cfs @ 11.97 hrs, Volume= 0.560 af
Outflow = 10.08 cfs @ 11.97 hrs, Volume= 0.560 af, Atten= 0%, Lag= 0.2 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Max. Velocity= 5.72 fps, Min. Travel Time= 0.3 min
Avg. Velocity = 1.71 fps, Avg. Travel Time= 1.1 min

Peak Storage= 190 cf @ 11.97 hrs, Average Depth at Peak Storage= 1.10'
Bank-Full Depth= 2.00', Capacity at Bank-Full= 17.33 cfs

24.0" Diameter Pipe, n= 0.012
Length= 108.0' Slope= 0.0050 '/'
Inlet Invert= 20.80', Outlet Invert= 20.26'



Summary for Reach R3: Proposed Culvert

Inflow Area = 1.653 ac, 98.99% Impervious, Inflow Depth = 4.06" for 10-YR event
Inflow = 10.08 cfs @ 11.97 hrs, Volume= 0.560 af
Outflow = 10.02 cfs @ 11.98 hrs, Volume= 0.560 af, Atten= 1%, Lag= 0.5 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Max. Velocity= 5.71 fps, Min. Travel Time= 0.8 min
Avg. Velocity = 1.65 fps, Avg. Travel Time= 2.6 min

Peak Storage= 453 cf @ 11.98 hrs, Average Depth at Peak Storage= 0.97'
Bank-Full Depth= 2.50', Capacity at Bank-Full= 31.54 cfs

30.0" Diameter Pipe, n= 0.012
Length= 258.0' Slope= 0.0050 '/'
Inlet Invert= 17.90', Outlet Invert= 16.60'

Post-Development Conditions 100 year 24 hour Storm Event Model Computations

TCC Job Number: 30718.01

The Chazen Companies
July 19, 2007
Revised: February 11, 2008

Summary for Subcatchment P1: Parking Structure

Runoff = 14.85 cfs @ 11.97 hrs, Volume= 0.835 af, Depth= 6.06"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-YR Rainfall=6.30"

Area (sf)	CN	Description
727	74	>75% Grass cover, Good, HSG C
71,260	98	Paved parking & roofs
71,987	98	Weighted Average
727		Pervious Area
71,260		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Min Tc used in accord. w/SCS methodology**

Summary for Subcatchment P2: Hotel/Conference Center

Runoff = 11.63 cfs @ 11.97 hrs, Volume= 0.611 af, Depth= 5.48"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-YR Rainfall=6.30"

Area (sf)	CN	Description
11,198	74	>75% Grass cover, Good, HSG C
47,116	98	Paved parking & roofs
58,314	93	Weighted Average
11,198		Pervious Area
47,116		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Min Tc used in accord. w/SCS methodology**

Summary for Subcatchment P2a: Portion of Hotel Entrance

Runoff = 1.30 cfs @ 11.97 hrs, Volume= 0.073 af, Depth= 6.06"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-YR Rainfall=6.30"

Area (sf)	CN	Description
* 6,311	98	Pavement
6,311		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Summary for Subcatchment P2b: Shoreline

Runoff = 5.62 cfs @ 11.97 hrs, Volume= 0.269 af, Depth= 4.05"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-YR Rainfall=6.30"

	Area (sf)	CN	Description
	26,672	74	>75% Grass cover, Good, HSG C
*	7,993	98	Pavement
	34,665	80	Weighted Average
	26,672		Pervious Area
	7,993		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Summary for Reach DP1: HUDSON RIVER

Inflow Area = 2.279 ac, 61.86% Impervious, Inflow Depth = 5.02" for 100-YR event
Inflow = 18.53 cfs @ 11.97 hrs, Volume= 0.953 af
Outflow = 18.53 cfs @ 11.97 hrs, Volume= 0.953 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

Summary for Reach DP2: Hudson River

Inflow Area = 1.653 ac, 98.99% Impervious, Inflow Depth = 6.06" for 100-YR event
Inflow = 14.74 cfs @ 11.98 hrs, Volume= 0.835 af
Outflow = 14.74 cfs @ 11.98 hrs, Volume= 0.835 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs

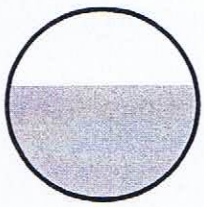
Summary for Reach R1: Proposed Culvert

Inflow Area = 1.339 ac, 80.80% Impervious, Inflow Depth = 5.48" for 100-YR event
Inflow = 11.63 cfs @ 11.97 hrs, Volume= 0.611 af
Outflow = 11.61 cfs @ 11.97 hrs, Volume= 0.611 af, Atten= 0%, Lag= 0.2 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Max. Velocity= 5.91 fps, Min. Travel Time= 0.3 min
Avg. Velocity = 1.76 fps, Avg. Travel Time= 0.9 min

Peak Storage= 196 cf @ 11.97 hrs, Average Depth at Peak Storage= 1.20'
Bank-Full Depth= 2.00', Capacity at Bank-Full= 17.33 cfs

24.0" Diameter Pipe, n= 0.012
Length= 100.0' Slope= 0.0050 '/'
Inlet Invert= 0.50', Outlet Invert= 0.00'



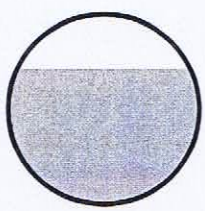
Summary for Reach R2: Proposed Culvert

Inflow Area = 1.653 ac, 98.99% Impervious, Inflow Depth = 6.06" for 100-YR event
Inflow = 14.85 cfs @ 11.97 hrs, Volume= 0.835 af
Outflow = 14.82 cfs @ 11.97 hrs, Volume= 0.835 af, Atten= 0%, Lag= 0.2 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Max. Velocity= 6.20 fps, Min. Travel Time= 0.3 min
Avg. Velocity = 1.93 fps, Avg. Travel Time= 0.9 min

Peak Storage= 258 cf @ 11.97 hrs, Average Depth at Peak Storage= 1.42'
Bank-Full Depth= 2.00', Capacity at Bank-Full= 17.33 cfs

24.0" Diameter Pipe, n= 0.012
Length= 108.0' Slope= 0.0050 '/'
Inlet Invert= 20.80', Outlet Invert= 20.26'



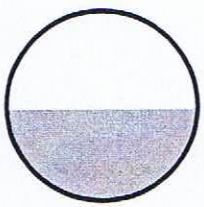
Summary for Reach R3: Proposed Culvert

Inflow Area = 1.653 ac, 98.99% Impervious, Inflow Depth = 6.06" for 100-YR event
Inflow = 14.82 cfs @ 11.97 hrs, Volume= 0.835 af
Outflow = 14.74 cfs @ 11.98 hrs, Volume= 0.835 af, Atten= 1%, Lag= 0.5 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Max. Velocity= 6.32 fps, Min. Travel Time= 0.7 min
Avg. Velocity = 1.86 fps, Avg. Travel Time= 2.3 min

Peak Storage= 602 cf @ 11.98 hrs, Average Depth at Peak Storage= 1.20'
Bank-Full Depth= 2.50', Capacity at Bank-Full= 31.54 cfs

30.0" Diameter Pipe, n= 0.012
Length= 258.0' Slope= 0.0050 '/'
Inlet Invert= 17.90', Outlet Invert= 16.60'



Appendix K: Design Calculations

TCC Job Number: 30718.01

The Chazen Companies
July 19, 2007
Revised: February 11, 2008

Water Quality Volume (WQv) Calculation Worksheet

Project Name Parking Structure
TCC Project Number 30718-00

Practice Description CDS Worksheet

The Water Quality Volume equation is described in Section 4.2 of the NYSDEC Stormwater Management

WQv = (P/12)*Rv*A

where: WQv = Water Quality Volume (acre-feet)
P = 90% Rainfall Event Number (inches)
Rv = 0.05 + 0.009 (I)
I = Impervious Cover (%) with the drainage area
A= Drainage area (acres) contributing to the

For this stormwater management practice:

P =	1.00	inches
I =	98.99	%
A =	1.657	acres
Rv =	0.9409	
WQv =	**0.1299**	**acre-feet**
	5,659	**cubic-feet**

Water Quality Peak Flow calculations, following the instructions in Appendix B of the NYSDEC Stormwater Management Design Manual:

Equivalent CN =	99	98 (forced)	CN cannot exceed 98
Time of Concentration = Tc =	0.1	hours	(Minimum = 0.1 hours)
Initial Abastraction = Ia =	0.041	inches	(from TR-55 Table 4-1)
Ia / P =	0.041		(Min = 0.10; Max = 0.50)
qu =	1000	cfs/sq.mi./in	(from TR-55 Exhibit 4-II)
Drainage Area = A =	0.002589	square miles	
Water Quality Peak Flow = Qp =	**2.44**	**cfs**	