



TOWN OF GREENBURGH

BUREAU OF ENGINEERING

177 Hillside Avenue, White Plains, NY 10607

Office: (914) 989-1583 Fax: (914) 989-1639

Web Site: <http://www.greenburghny.com>



Greenburgh Recycles

RICHARD C. FON

Commissioner of Public Works

BRIAN E. SIMMONS, P.E.

Deputy Commissioner of Public Works

KENNETH V. CIOCE, P.E.

Town Engineer

§ 248 STORMWATER MANAGEMENT CONTROL PERMITS

§ 248 of the Town of Greenburgh code stipulates that no person shall commence or otherwise perform any land development activity (major or minor) in the Town of Greenburgh that involves 500 or more square feet of disturbance without first obtaining the proper stormwater management control permit from the Town Engineer, in addition to all other necessary local, state and federal permits.

The information below outlines the obligations required of Applicants in order to obtain appropriate Stormwater Management Control Permits, including application forms and permit requirements.

■ ■ ■ MAJOR & MINOR STORMWATER PERMITS – REQUIREMENTS ■ ■ ■

I - Application Forms

The Applicant shall fill out and submit the following information in triplicate for all Stormwater Control Permits:

- Stormwater Management Control Permit application form;
- Project Commencement and Completion Forms, as appropriate. Please note that the Project Commencement Form must include a total project cost estimate by the Project Design Professional. Upon approval of the Total Construction Cost Estimate by the Bureau of Engineering, the Applicant shall submit the construction inspection fee of ½% of the Total Construction Cost Estimate.
- Application Fee of \$150.00;
- Stormwater Pollution Prevention Plan(s);
- Stormwater Management Design Calculations;
- Affidavit of Ownership;
- Contractor Certification;
- Wetland/Watercourse and Slope Clearance Approval;

Applicants shall submit the above information, prepared in accordance to the following guidelines.

II - Design Calculations

The Applicant shall provide design calculations to support the stormwater management and erosion and sediment control plan for the project site. Calculations must conform to the following standards, methodology and criteria as noted below.

Standards

The following documents shall serve as the official guides and specifications for stormwater management. Stormwater management practices that are designed and constructed in accordance with these technical documents shall be presumed to meet the standards imposed by this chapter:

- The New York State Stormwater Management Design Manual (New York State Department of Environmental Conservation, most current version or its successor, hereafter referred to as the "Design Manual").
- New York Standards and Specifications for Erosion and Sediment Control, (New York State Department of Environmental Conservation, Division of Water, August 2005, or most current version or its successor, hereafter referred to as the "Erosion Control Manual").

The Westchester County Best Management Practices Manual for Erosion and Sediment Control can also be utilized for examples of stormwater practices for pollutant removal and flow attenuation. However, if conflicts are found between the above New York State Standards and the County Best Management Practices, the New York State Standards shall govern.

Methodology

Stormwater shall be managed on site using stormwater control measures designed to afford optimum protection of ground and surface waters. Stormwater calculations for determining stormwater volume and flow rate shall be performed in accordance with any one of the following methodologies:

- For small watershed areas (up to 20 acres), the Rational Method or TR-55.
- For larger watershed areas (up to 2,000 acres), TR-55 or an equivalent widely accepted methodology.

Criteria

- Stormwater calculations for control measures shall be based upon the twenty-five-year design storm for local conditions, unless project characteristics require higher standards. For the convenience of design professionals, the following rainfall intensity and frequency data for the 24-hour Type III rainfall distribution for Westchester County shall be utilized as required to comply with the requirements of this chapter:

Rainfall Intensity (inches)							
1- Year	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	Annual
2.8	3.5	4.5	5.0	6.0	7.0	7.5	49.5

- Stormwater design calculations shall consider all existing and new impervious surfaces, including but not limited to roof areas, driveways, patios, deck areas, and walkways.
- Infiltration devices shall not be installed up gradient within 20 feet of the subsurface treatment system of a wastewater treatment system. Infiltration devices for roadways, parking lots, and other areas subject to vehicle traffic shall not be installed within 100 feet of any water well, wetland or water body.
- Infiltration devices and buildings shall be designed to maintain maximum attainable horizontal distance separation from wells, water bodies and wetlands.
- The bottom of any infiltration device shall be a minimum of two feet above seasonal high groundwater mark and two feet above bedrock.
- Stormwater management improvements shall include recommendations for special measures regarding safety and maintenance operations, as required.

III - Stormwater Pollution Prevention Plan

The Applicant shall provide a stormwater management and erosion and sediment control plan for the project site. The plan must conform to the following map standards; indicate the following existing and proposed map information; and include construction and housekeeping requirements, as noted below:

Map Standards

- A general location map, including property zoning information;
- North Arrow and Map Legend;
- Site map should be at a scale no smaller than one inch equals 100 feet.

Required Map Information

- Existing and proposed condition topography;
- Indication of existing and proposed drainage patterns, wetlands, water bodies and areas of 100-year floodplain, where applicable;
- Description of the soil(s) present at the site.
- Areas of vegetation, and the size and species of all trees with a trunk diameter of six inches or greater at a point 4 1/2 feet above ground level;
- Structures and paved areas;
- Areas of proposed excavation, grading and filling
- Existing and proposed stormwater conveyances/utilities, as well as other utilities;
- Proposed materials of construction;
- Equipment storage areas;
- Provide drawings which describe location, size, length, materials and installation details for all erosion and sediment control practices.

Housekeeping Information

- Describe pollution prevention measures that will be used to control litter, construction chemicals and construction debris from becoming a pollutant source in stormwater runoff.
- Describe construction and waste materials expected to be stored on site, with updates as appropriate. Additionally, describe controls to reduce pollutants from these materials, including storage practices to minimize exposure of the materials to stormwater, and proposed spill prevention and response.

IV - Construction Obligations

Contractor Responsibilities

- Each contractor and subcontractor identified in the SWPPP to be involved in soil disturbance and/or stormwater management practice installation shall sign and date a permit compliance certification statement before undertaking any land development activity.
- The applicant or developer of the land development activity 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 applicant or developer to achieve compliance with the conditions of this chapter. Sediment shall be removed from sediment traps or sediment ponds whenever their design capacity has been reduced by 50%.
- A copy of the approved SWPPP shall be retained at the site of the land development activity during construction, from the date of initiation of construction activities to the date of final stabilization.
- The applicant or developer or their representatives shall be on site at all times when construction or grading activity takes place and shall inspect and document the effectiveness of all erosion and

sediment control practices. Inspection reports shall be completed every seven days and within 24 hours of any storm event producing 0.5 inch of precipitation or more. The reports shall be delivered to the Town of Greenburgh Bureau of Engineering and copied to the site logbook.

Inspection Responsibilities

The Town of Greenburgh Bureau of Engineering and/or the Town of Greenburgh Building Department is responsible for conducting inspections of both stormwater management and sediment and erosion control practices.

Such inspections shall be performed as necessary, and as noted below, to determine compliance with this chapter and may either approve that portion of the work completed or notify the applicant wherein the work fails to comply with the requirements of this chapter and the stormwater pollution prevention plan (SWPPP) as approved.

To obtain inspections, the Applicant shall notify the Town of Greenburgh Bureau of Engineering (993-1583) at least 48 hours prior to any of the following project actions, as applicable:

- Start of construction;
- Installation of sediment and erosion control measures;
- Completion of site clearing;
- Completion of rough grading;
- Completion of final grading;
- Interruption of construction for more than five consecutive days.
- Completion of final landscaping.
- Successful establishment of landscaping in public areas.

If any violations are found, the Applicant and Developer shall be notified in writing of the nature of the violation and required corrective action. No further work shall be conducted except for site stabilization until violations are corrected and all work previously completed has received approval by the Town.

All applicants are required to submit as-built plans for any stormwater management practices located on site after final construction is completed. The plan must show the final design specifications for all stormwater management facilities and must be certified by a licensed professional engineer.

V - Post Construction Obligations

Operation and Maintenance Responsibilities

The owner or operator of permanent stormwater management practices installed in accordance with this chapter shall at all times operate and maintain the practices to achieve the goals of this chapter. Proper operation and maintenance includes, at a minimum, the following:

- A preventive/corrective maintenance program for all critical facilities and systems of treatment and control (or related appurtenances) that are installed or used by the owner or operator to achieve the goals of this chapter.
- Discharges from the SMPs shall not exceed design criteria, or cause or contribute to water quality standard violations in accordance with § 248-17, specifically: Land development activity shall not cause an increase in turbidity that will result in substantial visible contrast to natural conditions.

■ ■ MAJOR STORMWATER PERMITS - ADDITIONAL REQUIREMENTS ■ ■

III - Stormwater Pollution Prevention Plan

Construction Information

- 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. Please note that, consistent with the New York Standards and Specifications for Erosion and Sediment Control (Erosion Control Manual), not more than five acres shall be disturbed at any one time unless pursuant to an approved SWPPP.
- Plan and detail description of 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 closeout. Identify any temporary measures that will become permanent control measures.
- Provide an implementation schedule for staging temporary erosion and sediment control practices, including the timing of initial placement and duration that each practice should remain in place.
- Provide a maintenance schedule to ensure continuous and effective operation of erosion and sediment control practices.
- Delineate SWPPP implementation responsibilities for each part of the site, as specific project characteristics require.

V - Post-Construction Obligations

Inspection Responsibilities

When any new stormwater management facility is installed on private property or when any new connection is made between private property and the public stormwater system, the Bureau of Engineering shall have the right to enter the property at reasonable times and in a reasonable manner for the purpose of inspection. Inspection of stormwater facilities after project completion shall be performed by the Town on any reasonable basis, and can include, but not be limited to:

- Routine inspections and/or random inspections;
- Inspections based upon complaints or other notice of possible violations;
- Inspection of drainage basins or areas identified as higher-than-typical sources of sediment or other contaminants or pollutants;
- Inspections of businesses or industries of a type associated with higher-than-usual discharges of contaminants or pollutants or with discharges of a type that are more likely than the typical discharge to cause violations of state or federal water or sediment quality standards or the SPDES Stormwater permit;
- Joint inspections with other agencies inspecting under environmental or safety laws.

Specific Inspections may include, but are not limited to:

- Review of maintenance and repair records;
- Sampling of discharges, surface water, groundwater, and material or water in drainage control facilities, and;
- Evaluating the condition of drainage control facilities and other stormwater management practices.
- Submission of reports. The Bureau of Engineering may require monitoring and reporting, from entities subject to this chapter, as necessary to determine compliance with this chapter.

■ MAJOR STORMWATER PERMITS-SPECIAL CASE REQUIREMENTS ■

The following Major Stormwater Permit special cases shall include post construction water quality and quantity control provisions as noted herein:

- Non-residential land development activities disturbing between 1 – 5 acres, and any land development activities disturbing more than 5 acres;
- Stormwater runoff from land development activities discharging a pollutant of concern to either an impaired water body identified on the Department's 303(d) list of impaired waters or a total maximum daily load (TMDL) designated watershed for which pollutants in stormwater have been identified as a source of the impairment.

V - Post-Construction Obligations

Operation and Maintenance Responsibilities

- The Applicant shall be required to establish written procedures for operation and maintenance, and training new maintenance personnel, for all permanent stormwater management practices and facilities.
- The Applicant shall be required to provide a maintenance schedule to ensure continuous and effective operation of each post construction stormwater management practice.

Easement Responsibilities

Prior to the issuance of any approval that has a stormwater management facility as one of the requirements, the applicant or developer must execute a formal maintenance easement agreement with the Town. The easement agreement is intended to provide access at reasonable times for Town personnel for the purpose of inspection and/or repair, to ensure that the facilities are maintained in proper working condition by the owner.

The easement shall be approved by counsel for the Town, shall be binding on all subsequent landowners served by the stormwater management facility, and shall be recorded in the office of the County Clerk as a deed restriction on the property, prior to issuance of a building permit.

Optional Easement Considerations

The Town of Greenburgh Town Board, in lieu of a maintenance agreement, at its sole discretion, may accept dedication of any existing or future stormwater management facility, provided such facility meets all the requirements of this chapter and includes adequate and perpetual access and sufficient area, by easement or otherwise, for inspection and regular maintenance.

In order to ensure the full and faithful completion of all land development activities related to compliance with all conditions set forth by the Town of Greenburgh in its approval of a stormwater pollution prevention plan, the Town may require the applicant or developer to provide, prior to construction, a performance bond, cash escrow, or irrevocable letter of credit from an appropriate financial or surety institution which guarantees satisfactory completion of the project and names the Town of Greenburgh as the beneficiary. The security shall be in an amount to be determined by the Town based on submission of final design plans, with reference to actual construction and landscaping costs.

The performance guarantee shall remain in force until the surety is released from liability by the Town, provided that such release shall not be available until one year after the last to occur of:

- The date of final acceptance or such other certification that the facility or facilities have been constructed in accordance with the approved plans and specifications;

- The completed facilities have been inspected and found to be acceptable to the Bureau of Engineering. Per annum interest, if any, on cash escrow deposits shall be reinvested in the account until the surety is released from liability.

Where stormwater management and erosion and sediment control facilities are to be operated and maintained by the developer or by a corporation that owns or manages a commercial or industrial facility, the developer, prior to construction, may be required to provide the Town of Greenburgh with an irrevocable letter of credit from an approved financial institution or surety to ensure proper operation and maintenance of all stormwater management and erosion control facilities both during and after construction and until the facilities are removed from operation. If the developer or landowner fails to properly operate and maintain stormwater management and erosion and sediment control facilities, the Town, upon written notice to the developer or landowner, may draw upon the account to cover the costs of proper operation and maintenance, including engineering and inspection costs.



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Town Engineer

STORMWATER MANAGEMENT CONTROL PERMIT

Permit Number: _____

§ 248-8 of the Town of Greenburgh Code requires that no person shall commence or otherwise perform any major or minor land development activity that involves 500 or more square feet, without first obtaining the proper stormwater management control permit from the Town Engineer.

Submission Date: _____ Minor Project: 500 ft² - 20,000 ft² Major Project: 20,000 ft² or more

***** GENERAL PROJECT INFORMATION *****

Project Description: _____

Project Address: _____

Applicant: _____

Address: _____

Phone Number: _____

Owner: _____

Address: _____

Phone Number: _____

***** PROJECT DESIGN PROFESSIONAL INFORMATION *****

Design Professional: _____

Address: _____

Phone Number: _____

Email: _____

Design Documents: _____

Dated: _____

Professional Stamp

The Project Design Professional certifies that all project work, including any land clearing, construction, or development involving the movement of earth, has been designed in accordance with the requirements of §248-Stormwater Management, of the Town of Greenburgh Code.

Signature

Date

The Bureau of Engineering requires that the Project Design Professional complete the attached Project Commencement Form, including the construction cost estimate. When this estimate is approved by the Bureau of Engineering, the Applicant will be required to provide an inspection fee to the town in the amount of 0.005 x construction cost estimate, in addition to any other required bonds or fees. The Applicant shall provide at least 48 hours notice prior to start of work.

***** PROJECT APPROVAL - TOWN USE ONLY *****

Slope Clearance Approval: Yes No

Project Commencement Form: Yes No

Application Fee - \$150.00 - Paid: Yes No

Inspection Fee - Paid: Yes No

Affidavit of Ownership: Yes No

Stormwater Design Calculations: Yes No

Stormwater Management & Erosion and Sediment Control Plan: Yes No

Contractor Certification: Yes No

Approved by: _____ Date: _____

Kenneth V. Cioce, P.E. - Town Engineer: _____



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 Town Engineer

STORMWATER MANAGEMENT CONTROL PERMIT
PROJECT COMMENCEMENT NOTIFICATION

(As per Town Code § 248, this form must be completed by the Project Design Professional ONLY)

The Town Engineer MUST approve the start date and the construction cost estimate, and receive the inspection fee before any work may be performed at the project location.

Submission Date: _____

Project Applicant: _____

Project Address: _____

Applicant Phone Number: _____

Commencement Date: _____

The Bureau of Engineering requires that the Project Design Professional provide a Total Construction Cost Estimate for the project. When this estimate is approved by the Bureau of Engineering, the Applicant will be required to provide a Stormwater Management Control Permit inspection fee to the Town in the amount of 0.005 x Total Construction Cost Estimate, in addition to any other required bonds or fees.

Total Construction Cost Estimate: _____

Inspection Fee: _____

<p>Design Professional: _____</p> <p>Address: _____</p> <p>Phone Number: _____</p> <p>Fax Number: _____</p> <p>Design Documents: _____</p> <p>Dated: _____</p>	<p>Professional Stamp</p> <p>Signature _____ Date _____</p>
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Approved by:
 Kenneth V. Cioce, P.E. –Town Engineer: _____ Date: _____

Permit Number: _____



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STORMWATER MANAGEMENT CONTROL PERMIT

CONTRACTOR CERTIFICATION

Stormwater Management Control Permit Number: _____

Project Address: _____

As per Town of Greenburgh Code § 248-14 - Contractor Certification - each contractor and subcontractor identified in the SWPPP to be involved in soil disturbance and/or stormwater management practice installation shall sign and date a copy of the following certification statement before undertaking any land development activity:

"I certify under penalty of law that I understand and agree to comply with the terms and conditions of the stormwater pollution prevention plan. I also understand that it is unlawful for any person to cause or contribute to a violation of water quality standards."

Signature of Contractor Representative: _____ **Date:** _____

Name of Contractor Representative: _____

Title of Contractor Representative: _____

Contracting Company Name: _____

Contracting Company Address: _____

Contractor Email: _____

Contractor Telephone Number: _____

AFFIDAVIT OF OWNERSHIP

State of New York)
) ss.
County of Westchester)

_____ being duly sworn, deposes and says that (s)he resides at

in the Town of _____ in the County of _____

in the State of _____ that (s)he is the owner in fee of all that piece
or parcel of land situated and lying in the Town of Greenburgh aforesaid and known and
designated:

Section: _____ Volume: _____ Sheet: _____ Block: _____ Lot (s): _____

and that (s)he hereby authorizes _____
to make application in his/her behalf and that the statement of facts contained in said
application is true.

Signature of Owner

Sworn to me before this _____
Day of _____ 20 _____

Notary Public



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STORMWATER MANAGEMENT CONTROL PERMIT
PROJECT COMPLETION NOTIFICATION

(As per Town Code § 248, this form must be completed by the Project Design Professional ONLY)

Please provide the following project information to the Town of Greenburgh – Bureau of Engineering upon completion of the work.

Submission Date: _____

Permit Number: _____

Project Applicant: _____

Project Address: _____

Applicant Phone Number: _____ Email: _____

Completion Date: _____

The Project Design Professional noted below certifies that all project work is completed in substantial conformance to the approved project plans, and to the conditions of the Stormwater Management Control Permit issued for the project:

As-built plans attached.

<p>Design Professional: _____</p> <p>Address: _____</p> <p>_____</p> <p>Phone Number: _____</p> <p>Fax Number: _____</p> <p>Design Documents: _____</p> <p>Dated: _____</p>	<p style="text-align: center;">Professional Stamp</p> <p style="text-align: center;">Signature _____ Date _____</p>
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Approved by:
 Kenneth V. Cioce, P.E. –Town Engineer: _____ Date: _____