Construction/Erosion Control

FACT SHEET

This fact sheet provides basic guidance on City permits required for planned land disturbance activities as well as recommended minimum erosion control measures. The City encourages developers to consult with its engineers and planners prior to any proposed land disturbance activities to minimize delays, added expenses and adverse impacts to local water resources. Protecting our water resources not only makes economic sense but also helps the City meet its regulatory obligations under the EPA MS4 Stormwater Permit.

You should know:

A City Stormwater Permit is required for any of the following activities:

1. Any land disturbance of more than 5,000 square feet of area (certain exceptions may apply—see City Site Plan Regulations (See link in Resources Below)
2. Any land disturbance or alteration within a Critical Area (within 200 feet of a wetland)
3. An Excavation Permit may also be required for any planned major excavation

Larger Development Projects:

Development projects that disturb more than 20,000 square feet may need Site Plan approval as well as a Stormwater Management and Erosion Control Plan consistent with the City's Chapter 218 Ordinance. Developers are strongly encouraged to use Low Impact Development (LID) measures to maintain existing hydrologic conditions, minimize increases in stormwater runoff volumes and protect adjacent natural vegetation and water resources. Refer to Low Impact Development Center listed under Resources below.

Basic Erosion Control Practices

Per the City's Chapter 218 Ordinance, site development and land disturbance activities must include proper erosion control measures to minimize any offsite movement or tracking or sediment and avoid adverse water quality impacts to adjacent water bodies. The following provides guidance for several typical erosion control measures. Prior to any land disturbance, schedule a pre-construction meeting with City Planning at least 1 week prior to project start.

Resources

City Planning and Development Web Page with Related Applications and Forms
https://www.rochesternh.net/planning-development

City Department of Public Works/ Infrastructure Standards Design Manual
https://www.rochesternh.net/public-works

NHDES Stormwater Manual
https://www.des.nh.gov/organization/divisions/water/stormwater/manual.htm

EPA Construction General Permit
https://www.epa.gov/npdes/stormwater-discharges-construction-activities

Low Impact Development Center
https://lowimpactdevelopment.org/

UNH Stormwater Center PTAPP
https://www.unh.edu/unhsc/ptapp

Perimeter Controls

Perimeter controls are sediment barriers that are the last line of defense to retain and capture sediment and should be used in combination with other soil stabilization and site management measures. Perimeter controls include silt fence barriers, sediment filter socks and other geotextile barriers and should be installed only under the following site conditions:

- Flow to the silt fence from a disturbed area occurs as overland sheet flow
- The contributing drainage area should be less than 1/4 acre per 100 feet of barrier length, the maximum length of slope above the barrier is 100 feet, and the maximum gradient behind the barrier is 50 percent (2:1)
- Sediment barriers should not be used in areas of concentrated flow and especially not in streams, swales or where there is the possibility of a washout
- Sediment barriers should be regularly inspected and periodically replaced on longer duration construction projects. Silt fencing typically does not last longer than one construction season.

Construction Access Pads

Construction access pads represent one of the most important erosion control measures for preventing sediment and mud from being tracked offsite on to paved surfaces.

MINIMUM REQUIREMENTS

- The minimum stone used should be 3-inch crushed stone
- The minimum length should be 75 feet or 50 feet if a 6-inch berm is installed at the entrance
- The pad should be at least 6 inches thick and should slope away from the existing roadway
- The pad should extend the full width of the construction access road or a minimum of 10 feet, whichever is greater
- A geotextile filter fabric should be placed between the stone pad and the earth surface below the pad
- The pad should be maintained or replaced when mud and soil particles clog the voids in the stone such that it no longer prevents mud and soil particles from being tracked off-site

Slope Stabilization

Slope stabilization measures involve a wide range of natural and geotextile materials designed to disperse the erosive energy of flow and rainfall. These measures can include use of straw mulch and seeding, erosion control stone, erosion control blankets as well as flow diversion and dissipators. Refer to the NHDES Stormwater Manual Vol. 3 for more details on the applicability of these measures.

Inlet Protection

Storm drain inlets downstream of construction sites must have appropriate inlet protection measures prior to any land disturbance. Concrete block and stone barriers can be used when vehicle traffic is not an issue (see NHDES Stormwater Manual above). However, various at-grade, proprietary inlet protection devices are available from erosion control suppliers. Depending on site and rainfall conditions, inlet protection measures often require more frequent inspection and cleaning/replacement.