

MEMORANDUM

To: Interested Parties

From: George Haggerty, Assistant Land Use Manager

RE: Ordinance 11-019

Date: June 14, 2011

EFFECTIVE DATE:

March 30, 2011

APPLICABILITY:

For any permitted structure greater than 480 square feet and less than 5,000 square feet

PROCESS:

Individual lines and grades plans are accepted on the seal of the responsible professional and the signature of the owner. The accuracy of the plans and compliance with the Drainage Code is the responsibility of the owner and design professional. Any applicant with questions regarding the implementation of this ordinance is encouraged to contact the Engineering Section at 395-5400.

Submission Recommendations

1. All applications/permits subject to Section 12.04.001.A of the NCCC shall provide an analysis of the receiving drainage system including all relevant components of the system in which the site discharges; including, open channels, storm sewers, culverts, inlet grates and watercourses. Generally, if the site discharges directly to a watercourse or the drainage system discharges directly to a watercourse, the watercourse is considered to be adequate for a single lot discharge in its existing state. Also if the drainage area, defined at the parcel boundary, is 90% greater than the proposed improvements the peak rate impacts are considered negligible and no further analysis required.
2. The purpose of the analysis shall be to establish the available capacity within the receiving conveyance system for the peak rate discharge of the design storm event, as established by Section 12.04.002 of NCCC.
3. The limit of the analysis shall be confined to the existence of any clearly defined point of hydraulic constriction with the receiving watershed in which the project permit area represents no more than 10% of the receiving watershed, but to include the entire drainage area to a point where the site area represents 10%. If no clearly defined point of constriction is found within the 10% watershed area, the point of the receiving discharge shall be the point where the site area represents 10% of the receiving watershed. The analysis shall be based on the total drainage area contributing to the point of analysis.
4. The hydraulic assessment shall include an evaluation of the existing discharge conditions (type of flow, existing discharge points, non-erosive conveyance) and the ability of the

existing discharge to maintain and sustain the existing discharge condition, or the proposed discharge condition if it is to be improved. The assessment of the existing discharge condition is used to evaluate circumstances such as providing and maintaining a non-erosive discharge through a shear stress evaluation, determination if the discharge can be maintained in a sheet flow condition, etc.

Decision Recommendations

1. If the assessment demonstrates that adequate drainage conveyance exists for the proposed discharge then the Code has been satisfied. If the assessment demonstrates that adequate drainage conveyance cannot be provided for the proposed discharge, then the applicant shall take appropriate measures so as not to aggravate the existing condition or adversely impact the existing drainage system and downstream properties by the proposed discharge. The applicant may pursue the following measures:
 - a. A redesign of the site so that the proposed peak rate discharge is such that the adequate conveyance requirements are met; or
 - b. The existing conveyance system may be improved to provide adequate conveyance for the peak discharge rate of drainage required. The applicant/owner shall be responsible for obtaining the drainage/access easement(s) from each of the downstream property owners, according to the criteria of the Drainage Code, for access to improve and maintain the receiving conveyance system; or
 - c. Provide mitigation on the project so that the peak rate of runoff from the design storm event is managed to the pre-developed rate or to which adequate conveyance is provided and any downstream flooding condition is not aggravated; or
 - d. Obtain easement(s) from the downstream property owner(s), according to the criteria of this Chapter, if the downstream property owner(s) are willing to accept the increase in peak discharge on their properties. The applicant/owner shall be responsible for obtaining the drainage/access easement from each of the downstream property owners to convey the increase discharge to the nearest adequate conveyance system. A receiving conveyance system is considered adequate where the required conveyance of flows from the appropriate design storm for the entire upstream drainage area can be shown to exist.
2. If an application is subject to the Delaware Sediment and Stormwater Regulations (DSSR) and eligible for the quantitative and qualitative waiver; DSSR 3.2.1.3, the waiver shall only be considered when adequate conveyance exists.
3. In keeping with DeIDOT's drainage policy dated March 2, 2007, any applications that increase peak rate discharge to a DeIDOT maintained drainage system must have a written approval or waiver from DeIDOT.