



City of Takoma Park, Maryland
TAKOMA JUNCTION PLAN
Stormwater Permit Process
March 29, 2019

Stormwater management is regulated by the Takoma Park City Code, Title 16. This Code references adherence to the Maryland Stormwater Design Manual (MDE Manual).

The City reviewed the NDC stormwater concept application submitted in May, 2018. NDC received conditional approval of the Concept Plan on June 26, 2018.

The concept plan application is the first of three steps required for stormwater management permit approval. Once a Concept has been approved, the second step is Site Plan review and the final concludes with issuance of a stormwater permit, providing all conditions have been met.

The MDE Stormwater Management Manual and the City's permitting process and review guidelines are detailed on the City's website:

<https://takomaparkmd.gov/services/permits/stormwater-permit-application/>

<https://s3.amazonaws.com/publicworks-takomapark/public/stormwater/storm-water-management-plan-review-process.pdf>

The Concept Plan that the City reviewed and approved includes a green roof on the structure and a bioretention chamber at the rear of the building. Both these systems will treat rain water that will then be piped through the rear of the lot and join an existing stormwater infrastructure at Columbia Avenue and Poplar Avenue. A green roof is a recognized Best Management Practice (BMP) by Maryland Department of the Environment and the maintenance, upkeep and efficiency through the life of the project, is defined in the MD Manual.

The City will require NDC to do a system analysis of the existing stormwater structures that will receive the run-off from the project to determine the capacity of the existing stormwater infrastructure below the site. The City will ask NDC for a capacity analysis of the system. We cannot ask them to speculate about increased rainfall impacts. However, the system analysis will provide information about the capacity of the downstream system and determine in what conditions it reaches capacity, both now and after the project.

During the Site Development phase of the permit process, the City will require geotechnical analysis, both for construction and for the stormwater features of the building. The proposed bioretention chamber is currently designed as a concrete vault that would not allow infiltration of the collected water to the ground below. It was

designed as a treatment facility that would capture, filter and then release water into the stormwater system. During the site plan development phase, the developer will determine whether the soils beneath the proposed bioretention structure are suitable for infiltration through geotechnical analysis as well as infiltration testing. If the soils are appropriate and the evidence of fill in that area not found, then NDC may propose to revise their structure to be an infiltration structure, which would allow water to filter into the ground below, reducing the volume of runoff that would enter the stormwater system.

Currently stormwater runoff from the parking lot flows across the lot and into the curb line of Carroll Avenue. From there the water flows down the gutter on Carroll Avenue, until it reaches Sycamore Avenue where it flows, with the slope down Sycamore and onto Columbia Avenue. The nearest inlet that currently receives water from the Junction parking lot is on Columbia Avenue at Poplar Avenue. Currently that runoff receives no treatment and picks up sediment and pollutants from the parking lot surface as well as the roadway. Pre-development runoff and post development runoff are ending up in the same place. The difference now is that the runoff from the parking lot takes some time to make that journey around the streets. In post development, the stormwater may have a more direct route to the inlet at Columbia and Poplar Avenues however, since the runoff will be captured and delayed by the green roof and the bioretention facility, the post development delay through the system may be equal to or greater than the pre-development delay. Details about rates of stormwater flow and volume will be provided in the Site Development and Final Permit process phases of the process.

It is likely that some of the proposed site will still provide run-off to the Carroll Avenue side - the sidewalks in front and the public space will likely flow to Carroll Avenue, so that water runoff will continue to drain as it does currently from the site.

Sediment and erosion control is a process overseen by Montgomery County. NDC will be required to apply for a Sediment and Erosion Control permit, as per the requirements of the County's construction permitting process. The City does not review or issue approval for sediment and erosion control. However, we work together with the County inspector to ensure that the permit conditions are being followed and report any perceived violations to the inspector.

The purpose of the stormwater permit process is to ensure the safe conduct of stormwater runoff from a site. It identifies both quantitative aspects (volume) and qualitative aspects (pollution removal).

The City is required to follow the requirements of the MD Manual for stormwater application review. The MD Manual defines the scope and extent of Environmental Site Design (ESD) elements and how they can be quantified to achieve ESD to the Maximum Extent Practical (MEP) as defined by law.