Permit Application Review

Permit No. 2018-97
Received complete: September 26, 2018

Applicant:	Mark Walter: on behalf of Pentagon Village, LLC.
Consultant:	Dan Parks; Westwood Professional Services
Project:	Pentagon Village
Location:	S.W. Quadrant of West 77the Street and Computer Avenue: Edina
Rule(s):	4,5,11,12
Reviewer:	BCO

General Background & Comments

Prior to the razing of the existing buildings in 2015, the five-parcel, 12.1-acre site now under common or related ownership was compromised of a commercial/office development.(The buildings razed included the former District office located in the southeast corner of the site.) Where impervious surfaces have been removed from a site, the District rules define "existing conditions" for purposes of stormwater analysis to include the extent of imperviousness before the demolition as long as no intervening use of the site has been established. Here, no intervening use has been established, so the analysis (below) proceeds as if the site retains the previous extent of imperviousness. The project proposed will consist of seven new buildings, two 5-story office building with ramps (totaling approximately 225,000 square feet, two multi-story hotels (346 rooms), two one-story retail/restaurant buildings (23,000 square feet) and one two-story retail office building (11,000 square feet). (The five properties will be replatted for purposes of the project.)

The project site information is:

- Total Site Area: 527,510 square feet
- Existing Total Site Impervious Area: 391,643 square feet
- New Total Site Impervious Area : 394,221 square feet (an increase of 2,578 square feet of impervious area)
- 0.65% increase in the site impervious area
- 100% of the existing impervious area has or will be disturbed.

The Nine Mile Creek Watershed District's Rule for Redevelopment, Rule 4.2.3, states, if a proposed activity will disturb more than 50% of the existing impervious surface on a parcel or will increase the imperviousness of the parcel by more than 50%, storm water management

will apply to the entire project parcel. Otherwise, the storm water requirements will apply only to the disturbed areas and additional impervious area on the parcel. Since the entire site impervious area either has been or will be disturbed, storm water management is required for the entire site, 527,510 square feet, which includes the 394,221 square feet of proposed impervious area.

The project site is not within the floodplain of Nine Mile Creek or any other water body, and presently there are no existing constructed stormwater facilities onsite, therefore the requirements of the District's floodplain rule do not apply. Nonetheless, as an informational matter only: The Pentagon Park/Border Basin Regional Stormwater Management Plan, April 2018 (Plan) has identified a 100-year frequency flood elevation of 822.6 M.S.L. on this site, i.e. parking lots and other incidental flood-storage area on the property are inundated to elevation 822.6 M.S.L. during the 100-year event. The finished floor elevation of all 7 proposed buildings are shown to be 824.9 M.S.L. (2 feet above the 822.9 M.S.L. calculated flood elevation of proposed on-site storm water management facilities) with the remainder of the site is remaining below the flood elevation.

The District's requirements for both storm water management and erosion and sediment control apply to the project because more than 50 cubic yards of material will be disturbed and 5000 square feet or more surface area disturbed, Rules 4.2.1a and b and 5.2.1a and b.

Storm water management, volume retention, rate control and water quality management, is to be provided within four (4) underground storm water management facilities (UGSWMF).

The underlying soils on the site consist of 6-12 feet of clay (CL) and clayey sand (SC) over poorly graded sand (SP). In the areas identified for volume retention through infiltration the clay soils are to be excavated, removed and replaced with free draining material connected to the underlying sand to increase the infiltration rate from 0.06 inches/hour to 0.45 inches/hour.

Silt fence is to be constructed at the limits of construction, inlet protection and a rock construction entrance will be provided for erosion control.

Exhibits

1. Permit Application dated July 19, 2018.
2. Stormwater Management Plan, (Exhibit 3) with a last revision date of September 19, 2018 (received September 25, 2018) prepared by Westwood Professional Services.
3. Storm Water Management calculations dated August 31, September 6 and September 10, September 12, 2018, and September 19, 2018 prepared by Westwood Professional Services. XP-SWMM modeling, last revision dated September 12, 2018.
4. E-mail dated August 1, 2018 summarizing review comments of the project information submitted including a statement that the application was considered incomplete until the information requested had been provided.
5. Response to August 1st e-mail dated August 31, 2018. Subsequent submittals received on September 7th, 10th, 19th, and September 26, 2018.

The submittal is now complete.

4.0 Stormwater Management

Four UGSWMF are to be constructed throughout the site that will provide volume retention, rate control and water quality management. There are three discharge points from the site. The existing and proposed 2, 10 and 100 year frequency discharges are:

Frequency	Existing Discharge to the East c.f.s.	Proposed Discharge to the East c.f.s.
2 year	5.5	1.7
10 year	8.8	3.2
100 year	16.1	6.8

Frequency	Existing Discharge to the West c.f.s.	Proposed Discharge to the West c.f.s.
2 year	6.1	<1.0
10 year	10.8	<1.0
100 year	18.9	<1.0

Frequency	Existing Discharge to The South c.f.s.	Proposed Discharge to the South c.f.s.
2 year	23.9	18.8
10 year	42.5	19.8
100 year	77.3	22.5

Rule 4.3.1b is met.

An infiltration volume of 36,137 cubic feet is required from the 394,221 square feet of proposed impervious area. As previously stated, the overlying clay soils, ranging in depth from 6-12 feet, are to be excavated in the areas proposed for infiltration to the underlying poorly graded sand (SP). A conservative infiltration rate of 0.45 inches/hour was use in the stormwater management submittal. A volume of 41,774 cubic feet will be provided by the UGSWMF's (36,137 cubic feet required). An area of 20,076 feet is required for volume retention using this infiltration rate. The UGSWMF's provide an area of 51,052 square feet based on a maximum depth of 1.8 feet using an infiltration rate of 0.45 inches/hour, or the outlet elevation from each of the 4 underground systems if less than 1.8 feet, required for the inundation to drawdown in 48 hours (4.3.1a (ii)).

The District's water quality criterion requires a 60% annual removal efficiency for phosphorus and 90% annual removal efficiency for total suspended solids. The results of a P8 model show that the UGSWMF's will provide an annual removal efficiency of 98.2% for total suspended

solids (63,378 lbs.) and an annual removal efficiency of 93% for total phosphorus (190 lbs.). Rule 4.3.1c is met.

The soil boring logs indicates that groundwater was encountered at elevations 814.5 +/- M.S.L. to 816 +/- M.S.L. The following table provides a comparison of the bottom elevation of the UGSWMF's in relationship to groundwater. A 3 foot of separation is required between the bottom of an infiltration facility and groundwater.

Underground Storm Water Management Facility	Bottom elevation of the UGSWMF: M.S.L.	Groundwater Elevation: M.S.L.	Separation (ft)
1	817.5	814.5	3.0
2	819	816	3.0
3	818	815	3.0
4	817.5	814.5	3.0

District Rule 4.3.3b states that all new and reconstructed buildings must be constructed such that the low floor is at least two feet above the 100-year high water elevation or one foot above the emergency overflow of a constructed facility, elevation 822.9 M.S.L for the proposed on-site stormwater management facilities. The proposed buildings are to be set at or above elevation 824.9 M.S.L., providing a separation of 2 feet. Rule 4.3.3 is met.

Rule 4.3.1a (i) requires where infiltration or filtration facilities, practices or systems are proposed, the pre-treatment of runoff must be provided. The information submitted at this time has not shown pretreatment to be provided, therefore this will be included as a condition of any permit approval.

In accordance with Rule 4.3.4, a post-project chloride management plan must be provided that will, 1) designate an individual authorized to implement the chloride-use plan and 2) designate a MPCA certified salt applicator engaged in the implementation of the chloride-use plan for the site.

5.0 Erosion and Sediment Control

The submitted erosion and sediment control plan includes silt fence at the limits of construction, inlet control and a gravel construction entrances. The project contact is Dan Parks, Westwood Professional Services.

11.0 Fees

Fees for the project are:

Rules 2.0-6.0 $3,000

12.0 Financial Assurances

Financial Assurances for the project are:

Rule 4.0 Volume Retention: 20,075 sq. ft. x $12/sq. ft. = $240,900	$240,912
Chloride Management: $5000	
Rule 5: Silt fence: 3200 L.F. x $2.50/L.F.= $8,000	
Inlet Protection: 24 x $100/each = $2,400	
Site restoration: 12.1 acres x $2500/acre = $30,250	$40,650
Contingency and Administration	$121,438

Findings

The proposed project includes the information necessary, plan sheets and erosion control plan, for review.

1. Rules 4 and 5 are met.

Recommendation

Approval, contingent upon:

1. General Conditions
2. Financial Assurance in the amount of $408,000 - $403,000 for stormwater management, erosion control and site restoration and $5,000 for compliance with the chloride management requirements.
3. Submission of documentation that a drainage easement over the stormwater-management facility has been submitted to Edina (4.5.4i), if such easement is required by the city, and a receipt showing recordation of a maintenance declaration for the on-site storm water management facility. A draft of the declaration must be approved by the District prior to recordation.
4. If the maintenance declaration is recorded at a point in the platting process where some or all five of the parcels are recorded in county property records separately, applicant must submit draft document(s) providing any drainage and use rights between or among parcels necessary for continued compliance operation of the proposed stormwater-management system.
5. Pretreatment of stormwater in accordance with Rule 4.3.1a (i) is required prior to runoff discharging to an infiltration facility. A revised plan showing compliance with Rule 4.3.1a (i) must be submitted to the District.
6. Construction documents for the storm water management portion of the project must be submitted for review and compliance with the September 19, 2018 permit submittal (received September 25, 2018) to the District.

By accepting the permit, when issued, the applicant agrees to the following stipulations:

1. Per Rule 4.5.6, an as-built drawing of the storm water facilities conforming to the design specifications as approved by the District must be submitted.

2. Submission of a plan for post-project management of Chloride use on the site. The plan must include 1) the designation of an individual authorized to implement the chloride use plan and 2) the designation of a Minnesota Pollution Control Agency certified salt applicator engaged in the implementation of the chloride-use plan for the site. The release of the $5,000 of the financial assurance required for the chloride-management plan requires that chloride-management plan has been provided and approved by the District's Administrator.
3. For the release of the $403,000 financial assurance required in Recommendation #2, Rule 12.4.1b requires demonstration and confirmation that the storm water management facilities have been constructed or installed and are functioning as designed and permitted. Verification, through daily observation logs and photographs, must be provided showing the storm water facilities used for volume retention have drawn down within 48 hours from the completion of two 1-inch (approximate) separate rainfall events.

Board Action

It was moved by Manager _____, seconded by Manager _____ to approve permit application No. 2018-97 with the conditions recommended by staff.

Permit #: 2018-97
Project Name: Pentagon Village: S.W. Quadrant of West 77th Street and Computer Avenue: Edina
Approval Date: October 3, 2018

General Provisions

1. All temporary erosion control measures shown on the erosion and sedimentation control plans must be installed prior to commencement of surface or vegetation alteration and be maintained until completion of construction and vegetation is established as determined by NMCWD.

   If silt fence is used, the bottom flap must be buried and the maximum allowable spacing between posts is 4-foot on center. All posts must be either 2-inch x 2-inch pine, hardwood, or steel fence posts. If hay bales are used, all bales must be staked in place and reinforced on the downstream side with snow fence.

2. All areas altered because of construction must be restored with seed and disced mulch, sod, wood fiber blanket, or be hard surfaced within two weeks after completion of land alteration and no later than the end of the permit period.

3. Upon final stabilization, the permit applicant is responsible for the removal of all erosion control measures installed throughout the project site.

4. At the entryway onto the site, a rock filter dike being a minimum of two feet in height and having maximum side slopes of 4:1 must be constructed. This rock filter dike will enable construction traffic to enter the site and also provide an erosion control facility.

5. If dewatering is required and sump pumps are used, all pumped water must be discharged through an erosion control facility prior to leaving the construction site. Proper energy dissipation must be provided at the outlet of the pump system.

6. The NMCWD must be notified a minimum of 48 hours prior to commencement of construction.

7. The NMCWD, its officers, employees and agents review, comment upon, and approve plans and specifications prepared by permit applicants and their consultants for the limited administrative purpose of determining whether there is reasonable assurance that the proposed project will comply with the regulations and criteria of the NMCWD. The determination of the NMCWD that issuance of this permit is appropriate was made in reliance on the information provided by the applicant.

8. The grant of this permit shall not in any way relieve the permittee, its engineer, or other professional consultants of responsibility, nor shall it make the NMCWD responsible for the technical adequacy of the engineer's or consultant's work. The grant of this permit shall not relieve the permittee from complying with all conditions and requirements of the permit which shall be retained by the permittee with the permit.

9. The issue of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations.

10. This permit is permissive only. No liability shall be imposed upon the NMCWD or any of its officers, agents or employees, officially or personally, on account of the granting of this permit or on account of any damage to any person or property resulting from any act or omission of the permittee or any of its agents, employees, or contractors.

11. In all cases where the doing by the permittee of anything authorized by this permit shall involve the taking, using, or damaging of any property, rights or interests of any other person or persons, or of any publicly-owned lands or improvements or interests, the permittee, before proceeding therewith, shall obtain the written consent of all persons, agencies, or authorities concerned, and shall acquire all necessary property, rights, and interest.

12. The permit is transferable only with the approval of the NMCWD (see NMCWD Rule 1.0). The permittee shall make no changes, without written permission previously obtained from the NMCWD, in the dimensions, capacity, or location of any items of work authorized by this permit.

13. The permittee shall grant access to the site at all reasonable times during and after construction to authorized representatives of the NMCWD for inspection of the work authorized by this permit.

14. This permit may be terminated by the NMCWD at any time deemed necessary in the interest of public health and welfare, or for violation of any of the provisions of this permit.

15. Construction work authorized under this permit shall be completed on or before date specified above. The permittee may, in writing, request that the NMCWD extend the time to complete the project in accordance with NMCWD Rule 1.0.

Permit No.2018-97

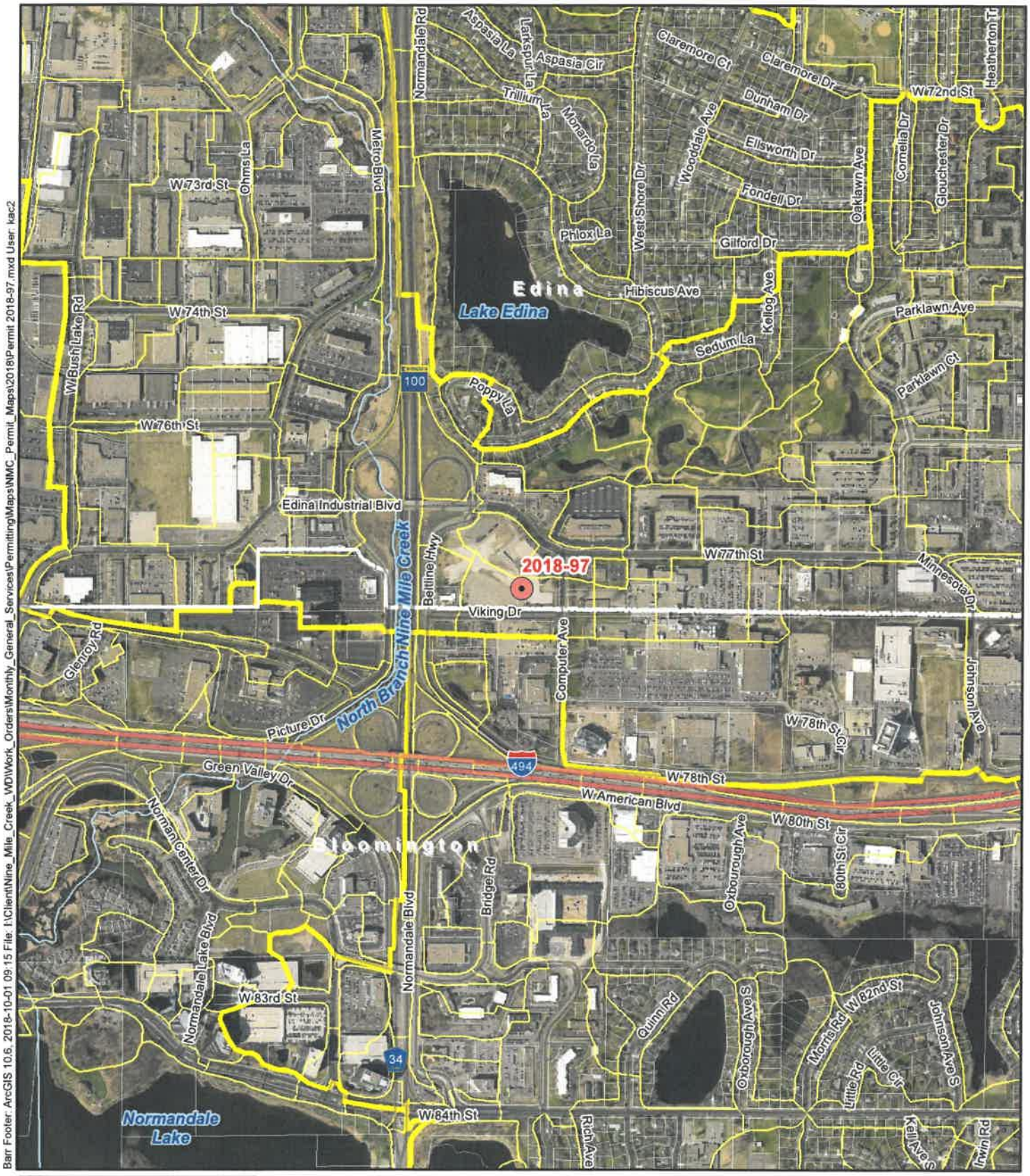
Is hereby issued to Mark Walter, Hillcrest Development, subject to the conditions specified in the attached form:

For the construction of a Pentagon Village development to be located in the S.W. quadrant of the intersection of West 78th Street and Computer Avenue in Edina.

Steve Kloiber

Chair, Board of Managers

This permit expires on: November 1, 2019



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- Permit Location
- District Legal Boundary
- Nine Mile Creek Watershed
- Municipalities
- Major Watersheds
- Small Watersheds
- Parcels

Imagery Source: Met Countil Spring 2016 (MnGeo WMS)

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Feet

0 500 1,000 1,500

PERMIT LOCATION MAP
PERMIT 2018-97
Nine Mile Creek Watershed District