

Permit Application Review

Permit No. 2018-113
Received complete: October 17, 2018

Applicant: John Pierce; HOM Furniture
Consultant: Todd Erickson; Erickson Civil
Project: HOM Furniture Reconstruction
Location: 7800 & 7850 Dupont Avenue and 1217 Clover Drive: Bloomington
Rule(s): 4,5,11,12
Reviewer: BCO

General Background & Comments

The project proposes the demolition of the existing building and reconstruction of a new building in two phases. Half of the building will be remain open while the other half is reconstructed.

The project site information is:

- Total Site Area: 5.47 acres (238,623 square feet)
- Existing Total Site Impervious Area: 217,235 square feet
- New Total Site Impervious Area : 206,105 square feet (a 11,130 square foot reduction in impervious area)
- 5.1% reduction in the site impervious area
- Site Impervious Area Disturbed/reconstructed: 100,185 square feet
- 48.6% of existing impervious area will be disturbed and reconstructed

GHD Services Inc. conducted the removal of the underground storage tank (UST) that was located in the northwest corner of the site (the former Budget Rental location). The soil samples collected from the underground storage tank basin and around the basin indicated there was "light" soil contamination that was removed and disposed of with the tank. Groundwater on the site was encountered at a depth of 30 feet, approximately elevation 817 M.S.L.

The procedures for groundwater mounding assessment listed in the Minnesota Stormwater Manual, "Screening assessment for contamination at potential stormwater infiltration sites" was used. The results of the analysis indicates the separation distance required for stormwater infiltration is 120 feet based on the groundwater mounding calculator. The MPCA screening

calculator results indicate the maximum extent of the groundwater mound (at 0.25 feet) beyond the infiltration area is approximately 60 feet. This value is multiplied by a safety factor of 2 resulting in a required design separation of 120 feet. The distance from the edge of the proposed infiltration area and the location of the former UST is 400+ feet.

Based on the documentation submitted on behalf of the applicant, we find no basis to require additional assessment of the suitability of the property for infiltration. Relying on the findings, analysis and conclusions of its consultant (GHD Services, Inc.), the applicant has requested that NMCWD allow the applicant to meet the NMCWD stormwater-retention requirement through infiltration. We do not represent that infiltration will not cause or exacerbate contamination condition at or near the site but we are in agreement with the methodology GNC used to reach its conclusions in the assessment that infiltration on the site will not cause or exacerbate migration of pollutants through the subsurface. However, because of the remaining uncertainty as to the precise location and extent of any contamination, approval of the permit should be conditioned on the applicant's affirmative acknowledgement and assumption of any risk that infiltration at the site will cause or exacerbate migration of contamination.

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 there is a reduction in the site impervious area and the disturbed and reconstructed impervious area is 48.6% of the site impervious area, storm water management is required for the disturbed project area of 100,185 square feet, all impervious area.

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 is to be provided within a proposed underground storm water management facility (UGSWMF) that will provide volume retention and water quality management. Rate control for the 2, 20 and 100-year frequency storm events will be provided through the proposed 5.1% reduction in the on-site impervious area.

Silt fence and sediment logs are 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 September 20, 2018.
2. Plans dated September 20, 2018 prepared by Erickson Civil.
3. Storm Water Management calculations dated September 27, 2018, revised October 2 and 8, 2018, prepared by Erickson Civil.
4. Geotechnical Report dated March 7, 2016 prepared by Haugo GeoTechnical Services and Geotechnical Evaluation Report dated September 6, 2018 prepared by Braun Intertec.
5. Stormwater Infiltration Mounding Assessment prepared by Erickson Civil/ GHD Services, Inc.

6. Analytical results of the soil samples taken in conjunction with the tank removal prepared by Pace Analytical Services dated August 15, 2018.
7. Figure showing the soil sample results for the UST closure on the site prepared by GHD dated August 30, 2018.
8. Correspondence dated October 17, 2018 from GHD stating that GHD concludes that the proposed infiltration of stormwater in the eastern portion of the HOM Furniture property does not pose a risk of mobilizing residual petroleum hydrocarbons in the area of the former UST basin on the Budget Property.
9. E-mails dated September 21, September 24 and October 9, 2018 summarizing review comments of the project information submitted.

The application is now complete.

4.0 Stormwater Management

A UGSWMF to be constructed will provide volume retention and water quality management. The 5.1% reduction in the on-site impervious area results in less runoff being generated therefore compliance with Rule 4.3.1b.

An infiltration volume of 9,184 cubic feet is required from 1.1-inches of runoff from the 100,185 square feet of site impervious area disturbed and reconstructed. The soil boring logs indicate the underlying on-site soil as poorly graded sand and silty sand (SP-SM). An infiltration rate of 0.8 inches/hour has been assumed using the Minnesota Storm Water Manual. An area of 2,870 square feet is required for the drawdown of the water level within the UGSWMF within 48 hours using this infiltration rate, Rule 4.3.1a (ii). The UGSWMF will provide a volume of 9,414 cubic feet (9,184 cubic feet required) and area of 6,857 square feet (2,870 square feet required) to comply with Rule 4.3.1a.

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 MIDS calculator show that the UGSWMF will provide an annual removal efficiency of 95% for total suspended solids (1,536 lbs.) and an annual removal efficiency of 95% for total phosphorous (8.47 lbs.). Rule 4.3.1c is met.

The soil boring logs indicates that groundwater was encountered at a depth of 30 feet, approximately elevation 817 +/- M.S.L. The bottom of the proposed UGSWMF is shown to be 833.5 M.S.L., a resultant separation of 16.5 feet between the bottom of the infiltration facility and groundwater. A minimum 3 foot of separation is required for compliance with Rule 4.5.4d (i).

Rule 4.3.3 a states, all structures riparian to inundation areas or constructed or natural storm water management facilities must be located and elevations must be set according to Appendix 4a, "Low-Floor Elevation Assessment ." The western half of the reconstructed building, located away from the UGSWMF location, has a proposed basement floor elevation of 831.4 M.S.L. The finished floor elevation of the portion of the building closes to the UGSWMF is 847.4 M.S.L. Referring to Plot 1, Appendix 4A of the District Rules with the building a distance of 140 feet from the UGSWMF, the minimum permissible depth to groundwater is 1 foot. With groundwater not being encountered to a minimum depth of 817

M.S.L., a separation of 14.4 feet between the basement low floor elevation of the structure (831.4 M.S.L.) and groundwater. Rule 4.3.3 is met.

In accordance with Rule 4.3.1a (i), where below-ground infiltration facilities, practices or systems are proposed, pretreatment of runoff must be provided. Pretreatment of storm water is not shown to be provided upstream of the UGSWMF. A sump constructed in M.H. 101, as shown on the plans, will provide compliance with this requirement.

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 and biologs at the limits of construction, inlet protection and a gravel construction entrance. The project contact is Todd Erickson, Erickson Civil.

11.0 Fees

Fees for the project are:

Rules 2.0-6.0	\$1500
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12.0 Financial Assurances

Financial Assurances for the project are:

Rule 4.0 Volume Retention: 2,870 sq. ft. x \$12/sq. ft. = \$34,440	\$34,440
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Chloride Management: \$5000

Rule 5: Silt fence: 900 L.F. x \$2.50/L.F. = \$2,250	
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Inlet Protection: 7 x \$100/each = \$700

Biologs: 435 L.F. x \$5.00/L.F. = \$2,175

Site restoration: 4.1 acres x \$2500/acre = \$10,250	\$15,375
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Contingency and Administration	\$21,485
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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 \$76,300 - \$71,300 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 Bloomington (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 properties that comprise the site and are the subject of the application will remain three separate legal parcels, the applicant must submit draft document(s) providing any drainage and use rights between or among parcels necessary for compliant operation of the proposed stormwater management system.
5. 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.
6. Submission of a letter from the applicant to NMCWD, acknowledging the remaining uncertainty as to the contamination conditions on the property and accepting sole responsibility for infiltration at the site causing or exacerbating migration of contaminants through the subsurface and/or groundwater.
7. Submission to NMCWD of site plans/drawings for approval showing pretreatment to be provided prior to runoff discharging to the proposed UGSWMF in accordance with subsection 4.3.1a (i) of the Rules (e.g. a sump constructed in M.H. 101).

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. For the release of the \$71,300 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.

The release of the \$5,000 financial assurance required for the chloride management plan requires that the documentation required in Rule 4.3.3 has been provided and approved by the District's Administrator.

Board Action

It was moved by Manager _____, seconded by Manager _____ to approve permit application No. 2018-113 with the conditions recommended by staff.

Permit #: 2018-113
Project Name: HOM Furniture Reconstruction – 7800 Dupont Avenue: Bloomington
Approval Date: November 13, 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.2018-113

Is hereby issued to John Pierce, HOM Furniture, subject to the conditions specified in the attached form:

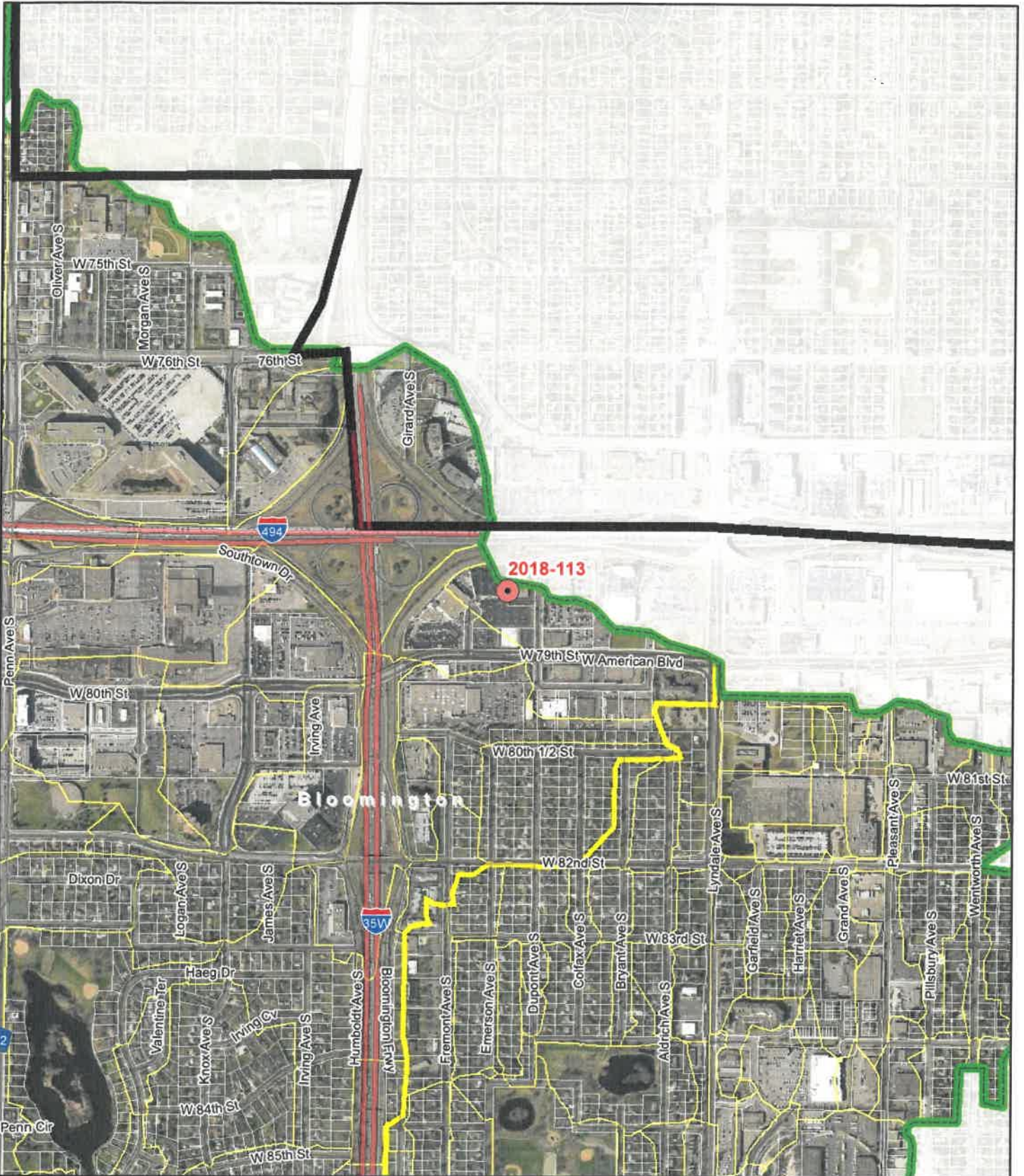
For the reconstruction of HOM Furniture located at 7800 Dupont Avenue in Bloomington.








Steve Kloiber, Chair

Nine Mile Creek Watershed District

This permit expires on: December 1, 2019

Barr Footer: ArcGIS 10.6, 2018-10-10 10:48 File: I:\Client\Nine Mile Creek_WDI\Work_Orders\Monthly_General_Services\Permitting\Maps\NMC_Permit_Maps\2018\Permit_2018-113.mxd User: EMA



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



Feet



PERMIT LOCATION MAP
PERMIT 2018-113
Nine Mile Creek
Watershed District