

Permit Application Review

Permit No. 2020-21
Received complete: June 8, 2020

Applicant: Andrew Walser; Walser Real Estate, LLC
Consultant: Nick Adam; Rehder and Associates, Inc.
Project: Walser Toyota Parking Structure Addition
Location: 4401 American Boulevard West: Bloomington
Rule(s): 3, 4, 5
Reviewer: BCO/LLH

General Background & Comments

The project proposes construction of a new parking structure located south of the existing Walser Toyota building at 4401 American Boulevard West in Bloomington, MN. The existing car dealership is located on a 10.7-acre parcel. The parcel boundary extends into Wanda Miller Pond, located south of the existing building and surface parking area. In addition to construction of the proposed three-tiered parking ramp structure, site improvements including removal of bituminous and concrete pavement, utility improvements, retaining wall construction, landscaping, and construction of a stormwater management facility are proposed.

No previous projects have been permitted on the site since the District's Redevelopment Rule (4.2.3) became applicable. An application for site redevelopment, Permit #2016-082, was submitted but withdrawn by the developer.

The project site information includes the following:

- Total Site Area: 10.66 acres (464,350 square feet)
- Total Disturbed Area: 0.63 acres (27,443 square feet)
- Disturbed Area Drainage Area: 1.23 acres (53,579 square feet)
- Existing Site Impervious Area: 6.42 acres (279,655 square feet)
- Post Construction Site Impervious Area: 6.36 acres (277,042 feet)
- 0.9% decrease, 2,613 square feet, in the total site impervious area.
- Total New or Reconstructed Impervious Area: 0.34 acres (14,810 square feet)
- 5.2% of the existing site impervious area is to be disturbed and reconstructed.

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%, stormwater management will apply to the entire project parcel. Otherwise, the stormwater requirements will apply only to the disturbed areas, replaced and net additional impervious area on the parcel. Since there is a decrease in the site impervious area and 5.2% (14,810 square feet) of the site impervious area is to be disturbed and reconstructed, stormwater management is required for the 14,810 square feet not the entire project parcel.

The 0.34 acres of new and reconstructed impervious surface includes locations disturbed by full depth on-grade pavement reconstruction and areas disturbed by the construction of parking ramp support structures. The 0.34 acres of new and reconstructed site impervious area excludes impervious area from tier two and tier three (the upper deck) of the proposed parking ramp structure, as no underlying soils are disturbed as a direct result of construction (other than the support system as previously stated).

The District's requirements for both stormwater management and erosion and sediment control apply to the project because more than 5,000 square feet or more surface area will be disturbed, Rules 4.2.1a and b and 5.2.1a and b.

Wanda Miller Pond, DNR public water wetland 27-7, is downgradient from the proposed land disturbing activities. Therefore, the District's buffer criteria requirements apply to the project, Rule 3.4. The City of Bloomington is the Local Governing Unit (LGU) responsible for administering the Wetland Conservation Act. A wetland boundary determination was completed by Sambatek on April 17, 2020 and confirmed the presence of the one wetland along the southern boundary of the property. Based on wetland information presented in the wetland delineation report and MnRAM, and comparison of the function and values presented in Appendix 3b of the District's Rules, the wetland is identified as a medium value wetland. We are in agreement with the MnRAM conclusion.

The 100-year frequency elevation of Wanda Miller Pond is 825.17 M.S.L. The proposed project does not propose impacts within the floodplain, as all land disturbing activities are proposed above elevation 825.17 M.S.L. Therefore, Rule 2 Floodplain Management and Drainage Alternations is not triggered (Rule 2.2).

Stormwater management is to be provided by an infiltration basin located on the south side of the proposed parking structure along the southern property boundary. The stormwater management facility will provide rate control, volume retention and water quality management for the disturbed, replaced and net additional impervious surface (14,810 square feet) on the project site.

For temporary erosion control measures, silt fence will be utilized along the western limits of disturbance and the east side of the proposed infiltration basin. Storm drain inlet protection will be provided for erosion control in the parking areas downgradient from land-disturbing activities. Temporary turf establishment methods include seeding and permanent stabilization methods include sod.

American Engineering Testing, Inc. (AET) conducted a geotechnical evaluation and performed five (5) standard penetration test (SPT) borings on-site in March 2020. The soil borings indicate that groundwater was encountered at elevations ranging between 818.5 M.S.L. to

821.0 M.S.L. No District rule requires a specific distance separation between the low floor elevation of a structure and groundwater; however, the applicant is advised that seasonal fluctuations of the groundwater elevation can occur.

Exhibits

1. Permit Application dated March 16, 2020.
2. Plan sheets dated June 8, 2020 prepared by Rehder & Associates, Inc.
3. Stormwater Management Report dated March 18, 2020, revised June 4, 2020 and June 8, 2020 (including existing and proposed HydroCAD reports and a P8 output report dated June 8, 2020) prepared by Rehder & Associates, Inc.
4. Geotechnical Report dated April 6, 2020 completed by American Engineering Testing, Inc.
5. Watershed Narrative dated February 11, 2020 prepared by PHILLIPS Architects & Contractors, Ltd.
6. Wetland Delineation Report and MnRAM assessment dated April 27, 2020 prepared by Sambatek, Inc.
7. Email correspondence dated April 6, 2020 indicating revisions required for compliance with NMCWD Wetlands Management Rule 3.

The applicant with the revised submittals has addressed the items identified in the April 6, 2020 email. The submittal is complete.

3.0 Wetlands Management

As previously stated, the District's wetland buffer Rule 3.4 applies to the project because DNR public water wetland 27-7 is downgradient from proposed construction activities. No disturbance of the wetland itself is proposed.

The City of Bloomington is the Local Governing Unit (LGU) responsible for administering the Wetland Conservation Act. Per Rule 3.2.2., in cases where the District is not the Wetland Conservation Act LGU, applicable wetland buffer and stormwater treatment criteria Rules 3.4 and 3.5 nevertheless apply.

A field investigation was performed on April 27, 2020 by Sambatek, Inc. to evaluate and verify the existence and boundary of the wetland along the southern portion of the property. The northern perimeter of the 2.2-acre wetland (27-7) is heavily wooded and vegetated, providing a natural buffer.

Based on wetland information presented in the submitted wetland delineation report and MnRAM, and comparison of the function and values presented in Appendix 3b of the District's Rules, the wetland has been identified as a medium value wetland. We concur with the medium value determination for the wetland. A medium value wetland requires a 20 foot minimum and 40 foot average buffer width, Rule 3.4.1b.

The plans show a buffer area of 29,867 square feet currently exists and will continue to be provided and identified by wetland buffer markers at locations consistent with criteria in Rule 3.4.5. The minimum 20 foot buffer and average 40 foot buffer criteria are met. Therefore, Rule 3.4.1b is met.

4.0 Stormwater Management

Currently, the majority of runoff from the project area is collected in storm sewers within the parking lot which discharge into Wanda Miller Pond. Only a portion of the site runoff is treated prior to discharging to Wanda Miller Pond.

Proposed stormwater management is to be provided by an infiltration basin located on the south side of the proposed parking structure along the southern property boundary. The stormwater management facility will provide rate control, volume retention and water quality management for the 14,810 square feet of disturbed, replaced and net additional impervious surface on the project site.

The existing and proposed 2, 10 and 100 year frequency discharges from the site are as follows:

| Frequency | Existing Discharge c.f.s. | Proposed Discharge c.f.s. |
|------------------|--------------------------------------|--------------------------------------|
| 2 year | 4.1 | 3.0 |
| 10 year | 6.3 | 5.1 |
| 100 year | 11.1 | 9.6 |

Rule 4.3.1b is met.

American Engineering Testing, Inc. (AET) conducted a geotechnical evaluation and performed five (5) standard penetration test (SPT) borings on-site in March 2020. The soil borings indicate that groundwater ranged from elevation 818.5 M.S.L. to 821.0 M.S.L. The soil borings performed by AET throughout March 2020 indicate the underlying soil near the proposed stormwater management system is comprised of urban fill underlain by clayey sand (SC) and lean clay (CL). The urban fill is comprised of a mixture of silty sand (SM) and clayey sand (SC). As identified by the stormwater management modeling, a design infiltration rate of 0.06 inches/hour was used based on Minnesota Stormwater Manual soil classification infiltration rates for HSG Type D soils. The applicant has not requested that the site be considered restricted as identified in District Rule 4.3.2.

An infiltration volume of 1,358 cubic feet is required for 1.1-inches of runoff from the 0.34 acres of disturbed and replaced impervious area. **A volume of 1,366 cubic feet is proposed to be provided (1,358 cubic feet required)** with an area of 5,788 square feet (5,658 square feet required) at an inundation depth of 0.24 feet. Rule 4.3.1a is met.

The maximum inundation depth allowable for the volume retention of 1,358 cubic feet to be drawn down within 48 hours using an infiltration rate of 0.06 inches per hour is 0.24 feet. The plans and stormwater management computations are based on the 0.24 feet of maximum inundation. Rule 4.3.1.a (ii) is met.

In accordance with Rule 4.3.1a (i), where infiltration facilities, practices or systems are proposed, pretreatment of runoff must be provided. The plans identify two (2) micro pools at the infiltration basin inlet locations which convey runoff from the parking ramp upper deck via two (2) roof drains. The micro pools are graded to an elevation of 824 M.S.L. (one foot lower than the bottom of the proposed infiltration basin) to promote settling of particles and serve as pretreatment for the infiltration facility. Rule 4.3.1a (i) is met.

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 P8 modelling indicate the proposed stormwater management systems will provide an annual removal efficiency of 91% for Total Suspended Solids (TSS – 5,715 lbs.) and 75% for Total Phosphorus (TP – 15 lbs.). Rule 4.3.1c is met.

Rule 4.3.3 states that a stormwater management facility must be constructed at an elevation that ensures that no adjacent habitable building will be brought into noncompliance with a standard in subsection 4.3.3. The first floor elevation located at the southeast side of the building, 829.02 M.S.L. is identified as the low floor elevation of the existing building. The loading dock on the southwest side of the building has a ground surface (low spot) elevation of 825.16 M.S.L. however the loading dock access to the building is the same as the first floor elevation of the building, elevation 829.02 M.S.L. The 100-year high water elevation for the proposed infiltration basin is 825.8 M.S.L., providing 3.22 feet of separation. The 100-year flood frequency elevation of Wanda Miller Pond is 825.17 M.S.L., providing 3.85 feet of separation.

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.

Rule 4.5.4d (i), requires a minimum separation of 3 feet between the bottom of an infiltration facility, practice or system. From the ATE geotechnical report, groundwater was encountered in soil boring B-4, in the area of the proposed inundation basin, at a depth of approximately 7.5 feet, elevation 819.5 M.S.L. The bottom of the infiltration basin is shown to be 825 M.S.L., providing a separation of 5.5 feet complying with Rule 4.5.4d (i).

Since site-specific infiltration capacities of the soils were not taken at the bottom of the proposed stormwater management facility, an infiltration rate of 0.06 inches/hour has been used for the engineer's review. The assumed infiltration rate of 0.06 inches per hour is based on boring soil classification information and suggested design infiltration rates from the MN Stormwater Manual. The assumed infiltration rate is typically used for HSG Type D soils and represents the "worst case" assumption.

5.0 Erosion and Sediment Control

For temporary erosion control measures, silt fence will be utilized along the western limits of disturbance and the east side of the proposed infiltration basin. Storm drain inlet protection will be provided onsite for erosion control in the parking areas downgradient from land-disturbing activities. Temporary turf establishment methods include seeding and permanent stabilization methods include sod.

Nick Adams, Rehder & Associates Inc., is the project contact.

11.0 Fees

Fees for the project are:

| | |
|------------------------|---------|
| Rules 3.0, 4.0 and 5.0 | \$1,500 |
|------------------------|---------|

12.0 Financial Assurances

Financial Assurances for the project are:

| | |
|---|----------|
| Rule 3: Wetland Management: | \$5,000 |
| Rule 4: Volume Retention: 5,658 sq. ft. x \$12/sq. ft. = \$67,896 | \$67,896 |
| Chloride Management: | \$5,000 |
| Rule 5: Perimeter control: 250 L.F. x \$2.50/L.F. = \$625 | |
| Inlet Control: 5 x \$100/each = \$500 | |
| Site restoration: 0.63 acres x \$2500/acre = \$1,575 | \$2,700 |
| Contingency and Administration | \$32,504 |

Findings

The proposed project includes the information necessary, plan sheets and erosion control plan for review. Rules 3, 4 and 5 are met.

Recommendation

Approval, contingent upon:

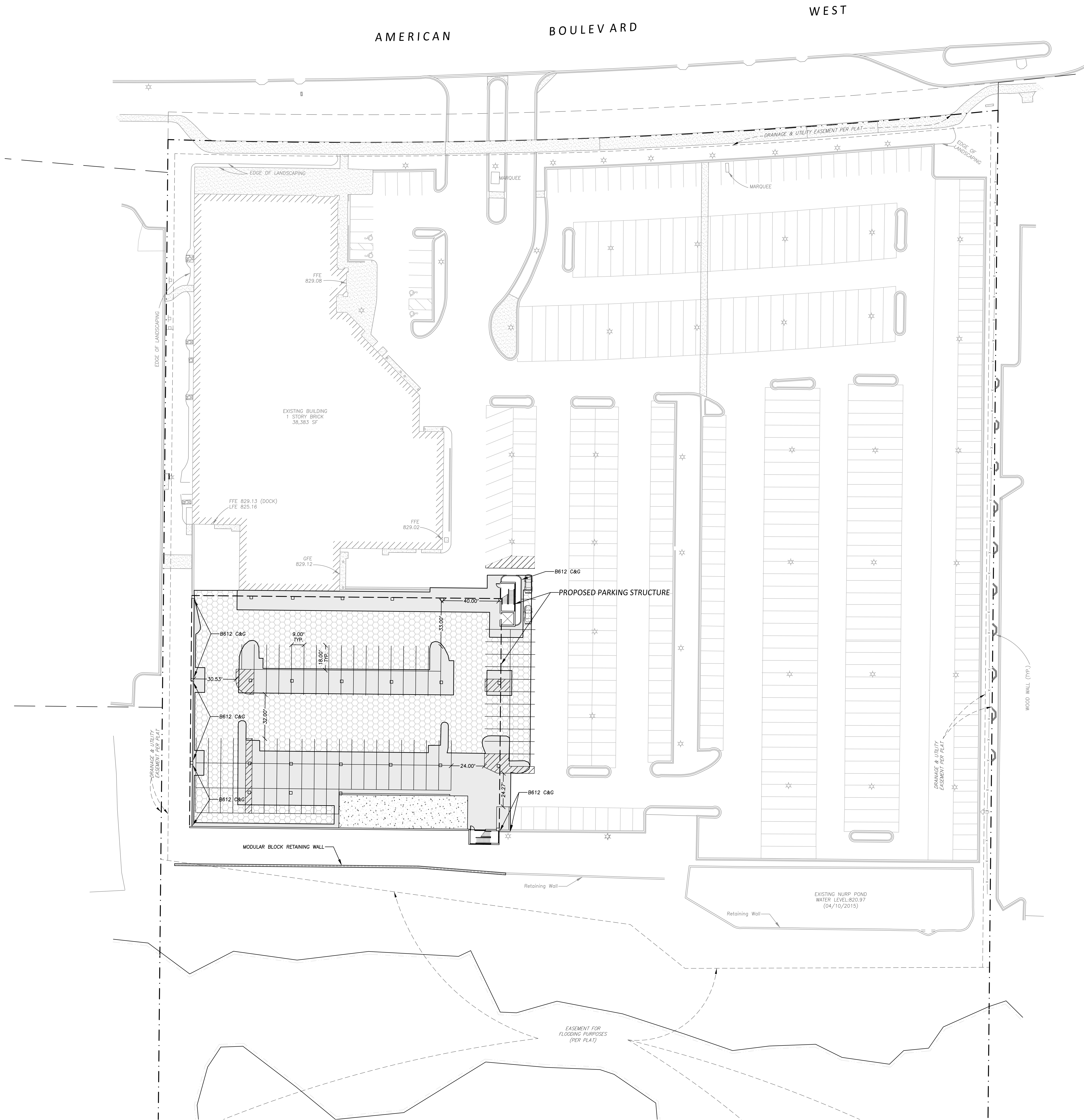
1. General Conditions
2. Financial Assurance in the amount of \$113,100, \$108,100 for wetland management, stormwater management, erosion control, and site restoration, and \$5,000 for compliance with the chloride management requirements.
3. Submittal of documentation that a drainage easement over hydrologic features has been submitted to the City of Bloomington (Rule 4.5.4i), if such easement is required by the City.
4. A receipt showing recordation of a maintenance declaration for the wetland buffer and on-site stormwater management facility, Rules 3.4.7 and 4.3.5, respectively. A draft of the declaration must be approved by the District prior to recordation.

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

1. Per Rule 4.5.8, an as-built drawing of the stormwater facility conforming to the design specifications, including a stage volume relationship in tabular form for the infiltration system.
2. Buffer markers for compliance with Rule 3.4.5 are required. The buffer areas will be created in compliance with Rule 3.4.6.
3. 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.

4. For the release of the \$108,100 financial assurance required, Rule 12.4.1b requires demonstration and confirmation that the stormwater management facility has been constructed or installed and is functioning as designed and permitted. Verification, through daily observation logs and photographs, must be provided showing the stormwater facilities used for volume retention have drawn down within 48 hours from the completion of two 1-inch (approximate) separate rainfall events.
5. Per Rule 4.2.1, the requirements of the Rule 4 – Stormwater Management apply to land-disturbing activities that will disturb 5,000 square feet or more of surface area. For future development at the site, the applicant is required to evaluate compliance with stormwater management criteria based on land-disturbing activities in aggregate, with respect to all development and redevelopment that has occurred on the site or on adjacent sites under common or related ownership (Rule 4.2.5). Future redevelopment activities will be considered in aggregate and apply to disturbed, replaced and net additional impervious surface for the project site (Rule 4.2.3).



SITE SUMMARY

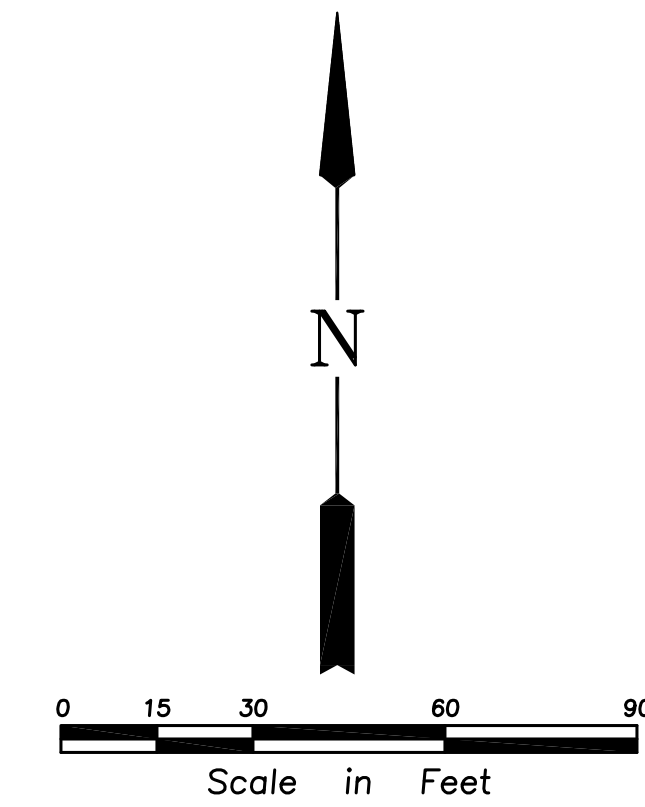
SITE AREA = 10.66 ACRES
 DISTURBED AREA = 0.63 ACRES
 EXISTING IMPERVIOUS AREA = 6.42 ACRES
 POST CONSTRUCTION IMPERVIOUS AREA = 6.36 ACRES

SITE NOTES

- ① - All dimensions between curbing and to radius points are to face of curb.
- ② - All dimensions abutting curbs are to back of curb.
- ③ - All curb and gutter on private property shall be type B-612 unless otherwise noted.
- ④ - All parking stall striping width is 9.00' unless otherwise noted.

LEGEND

- PROPOSED CONCRETE
- PROPOSED STD. DUTY BITUMINOUS
- PROPOSED MILL & OVERLAY
- BOUNDARY/ROW/BLOCK LINE
- EASEMENT



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REHDER & ASSOCIATES, INC.
 Civil Engineers & Land Surveyors

PROJECT NO.: 201-2245.016 DRAWING FILE: 2245016.DWG

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer in the State of Minnesota.
PRELIMINARY
 Name _____ Date _____ Prg. No. _____

| | |
|---------------------------|---------|
| Issued | 3-18-20 |
| CITY AND WATERED SUBMITAL | |

SITE DIMENSION PLAN
 WALSER TOYOTA RAMP
 CITY OF BLOOMINGTON

SHEET NUMBER
C1