

Permit Application Review

Permit No. 2019-139  
Received complete: November 25, 2019

Applicant: Dean Williamson: Frauenshuh, Inc.  
Consultant: Vicki Van Dell; Loucks, Inc.  
Project: Parking Lot Expansion for Creekview Office Building  
Location: 7101 West 78<sup>th</sup> Street: Bloomington  
Rule(s): 2,3,4,5,11,12  
Reviewer: BCO

### **General Background & Comments**

The project proposes the construction of a 23 stall parking lot expansion immediately east of the Creekview Office building in Bloomington. The Creekview Office building was approved by the District in 1997, Permit #97-41. The common scheme of development framework in subsection 4.2.5 for storm water management requires consideration of development and redevelopment at a site since March 2008. Since the development of the property took place prior to 2008, it is not considered in analyzing stormwater management requirements under the present permit. A permit, #2018-91, was issued for a smaller project, a 7 stall parking expansion in the same location, however the project was never started. The previously approved permit, granted for one year, has expired and is no longer valid.

Nine Mile Creek forms the southern boundary of the property. The creek's 100-year Atlas 14 flood elevation on the site is 825 M.S.L. The project proposes to fill 363 cubic yards of material below elevation 825 M.S.L. and mitigate this proposed encroachment by creating 364 cubic yards of floodplain volume below elevation 825 M.S.L.

A wetland area on the site has been identified and boundary delineated by the permit applicant's wetland consultant. The City of Bloomington is the LGU administering the requirements of the Wetland Conservation Act. The City of Bloomington has issued a Notice of Decision, dated May 14, 2018, approving the wetland boundary. The wetland has been identified as a medium value wetland requiring a minimum 20 foot and 40 foot average buffer in accordance with section 3.4.1b of the District rules. We have reviewed the July 12, 2018 MNRAM provide by the applicant and we concur with a medium value determination made for the wetland.

The project site information is:

- Total Site Area: 2.78 acres (1218,097 square feet)

- Existing Total Site Impervious Area: 1.16 acres (50,530 square feet)
- New Total Site Impervious Area : 63,473 square feet
- Increase in the site impervious area: 12,943 square feet
- 25.6% increase in the Site Impervious Area
- Total Area to be Disturbed: 38,246 square feet

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 increase in the on-site impervious area is 25.6%, storm water management is required for the 38,246 square feet of disturbed area that includes 12,943 square feet of new 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 rainwater garden/infiltration area that will provide volume retention, rate control and water quality management.

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 November 19, 2019.
2. Plans dated November 20, 2019, revised November 25, 2019, prepared by Loucks, Inc.
3. Storm Water Management calculations dated November 20, 2019, revised November 25, 2019, prepared by Loucks, Inc.
4. Geotechnical Report dated November 19, 2019 prepared by American Engineering Testing, Inc.
5. E-mail correspondence from Barr Engineering dated July 12, 2018 agreeing with the medium value wetland identification for the wetland area along the creek.
6. Notice of Decision issue by the City of Bloomington dated May 14, 2018 approving the on-site wetlands boundary determination.
7. E-mail correspondence dated November 21, 2019 outlining 4 items requiring information for the submittal to be considered complete by the District.

The submittal is complete.

## **2.0 Floodplain Management and Drainage Alterations**

A 100-year frequency floodplain elevation of 825 M.S.L. has been established along the South Fork of Nine Mile Creek that forms the southern boundary of the property. The project proposes to fill approximately 363 cubic yards of material within the floodplain of the creek. To

mitigate the loss of floodplain volume, 364 cubic yards of floodplain volume is to be created on the site complying with Rule 2.3.2.

Cut/fill calculations for the floodplain volume created below elevation 825 M.S.L. is to be compensated for at the same elevation (+/- 1 foot) complying with Rule 2.3.2.

The following addresses Rule 2.3.3:

- Since the floodplain encroachment/impacts are to be compensated at the same elevation, there will be no impacts to upstream or downstream property owners, complying with Rule 2.3.3.
- Work is not proposed within the creek nor is there an increase in the rate and volume of runoff generated by the project therefore channel stability will not be affected by the project.
- Inflow capacity to the groundwater will be improved to the interface with the native soils within the areas of fill with the material likely to be more conducive to infiltration.
- The stream base flow will not be affected since there is not increase in volume or rate of runoff as a result of the project nor is work proposed within the channel of the creek.
- The water quality will not be affected with areas altered being restored to pervious conditions. Runoff from the project site will be directed to a stormwater basin to be constructed to provide water quality management.
- Buffer areas are to be provided riparian to the on-site wetland to promote habitat.

Rule 2.3.4 states that, *no structure may be placed, constructed or reconstructed and no surface may be paved within 50 feet of the centerline of any water course.* The minimum distance between the parking lot and the centerline of the creek is 55 feet, complying with Rule 2.3.4.

### **3.0 Wetlands Management**

As previously stated, the wetland area on the site has been identified and boundary determined by the permit applicant's wetland consultant. The City of Bloomington, being the LGU administering the requirements of the Wetland Conservation Act, has issued a Notice of Decision dated May 14, 2018 approving of the wetland boundary determination. The wetland has been identified as a medium value wetland requiring a minimum 20 foot and 40 foot average buffer in accordance with section 3.4.1b of the District rules. We are in agreement with the medium value determination for the wetland.

An area of 12,550 square feet is required for the 40 foot average buffer. The plans show a buffer area of 12,555 square feet will be provided. The closest point between the proposed modular block wall and the wetland boundary is 43 feet, a minimum of 20 feet is required.

### **4.0 Stormwater Management**

Storm water management is to be provided within a rainwater garden/ infiltration basin that will provide volume retention, rate control and water quality

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

<b>Frequency</b>	<b>Existing Discharge c.f.s.</b>	<b>Proposed Discharge c.f.s.</b>
2 year	<1.0	<1.0
10 year	<1.0	<1.0
100 year	3.1	2.3

There is one discharge point from the project area. Rule 4.3.1b is met.

An infiltration volume of 1,186 cubic feet is required from the 12,943 square feet of new impervious area. The soil borings show the underlying soil in the area of the proposed stormwater basin/infiltration facility as a clayey-sand (SC) having an infiltration rate of 0.2 inches/hour using the Minnesota Storm Water Manual. A volume of 1,933 cubic feet is proposed to be provide (1,186 cubic feet required) with an area of 1,483 square feet. At an inundation depth of 0.8 feet based on the 0.2 inches/hour infiltration rate to comply with the basin to be drawdown in 48 hours (4.3.1a (ii)) an area of 2,560 square feet is to be provide (1,483 square feet required). Rule 4.3.1a 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 the MIDS calculator show that the rainwater garden/infiltration basin will provide an annual removal efficiency of 93% for total suspended solids (99.8 lbs.) and an annual removal efficiency of 93% for total phosphorus (0.55 lbs.). Rule 4.3.1c is met.

From the file for Permit #97-41, the finished floor of the existing on-site building is shown to be 830 M.S.L. The calculated 100-year flood elevation of the proposed rainwater garden/infiltration basin is 828.8 M.S.L. the surface overflow from the basin is shown to be 828.9 M.S.L. Rule 4.3.3c, Low floor elevation, states the low floor elevation of a building must be at least two feet above the 100-year high water elevation or one foot above the emergency overflow of a constructed facility. A stormwater facility must also be constructed at an elevation that ensures that no habitable building will be brought into noncompliance with a standard in subsection 4.3.3. 1.1 feet of separation will be provided between the overflow elevation of the rainwater garden/infiltration basin and the finished floor elevation of the existing structure.

In accordance with Rule 4.3.1a (i), the pre-treatment of runoff prior to reaching the rainwater garden/infiltration basin will be provide by a Rain Guardian Turrent pretreatment chamber constructed at the edge of the parking lot.

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 boring B-2 at a depth of 6 feet, elevation 823.5 M.S.L. The bottom of the rainwater garden/infiltration basin is shown to be 826.8 M.S.L. providing a separation of 3.3 feet complying with Rule 4.5.4d (i).

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 entrance. The project contact is Vick Van Dell, Loucks, Inc.

### **11.0 Fees**

Fees for the project are:

Rules 2.0-6.0	\$2,250
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### **12.0 Financial Assurances**

Financial Assurances for the project are:

Rule 4.0 Volume Retention: 1,483 sq. ft. x \$12/sq. ft. = \$17,796	\$17,796
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Chloride Management:	\$5000
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Rule 5: Silt fence: 1,100 L.F. x \$2.50/L.F. = \$2,750	
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Inlet Control: 2 x \$100/each = \$200	
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Site restoration: 0.9 acres x \$2500/acre = \$2,250	\$5,200
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Contingency and Administration	\$9,904
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### **Findings**

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

1. Rules 2, 3, 4 and 5 are met.
2. Permit #2018-91 was issued for a smaller project, a 7 stall parking expansion in the same location, however the project was never started. The previously approved permit, granted for one year, has expired and is no longer valid.

### **Recommendation**

Approval, contingent upon:

1. General Conditions
2. Financial Assurance in the amount of \$37,900 - \$32,900 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 facilities 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 facilities and wetland buffer area. 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 4.5.6, an as-built drawing of the storm water facilities conforming to the design specifications, including a stage volume relationship in tabular form for the basin, as approved by the District must be submitted.
2. Buffer markers, in accordance with the requirements of District Rule 3.4.5, must be installed.
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 \$32,900 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.

**CREEKVIEW  
EAST PARKING LOT**

PROJECT ADDRESS

FRAUENSHUH

7101 WEST 7TH STREET  
MINNEAPOLIS, MN 55439

**LOUCKS**  
PLANNING  
CIVIL ENGINEERING  
LAND SURVEYING  
LANDSCAPE ARCHITECTURE  
ENVIRONMENTAL

7200 Hemlock Lane, Suite 300  
Maple Grove, MN 55369  
763.424.5505  
www.loucksinc.com

**CADD QUALIFICATION**

CADD files prepared by the Consultant for this project are instruments of the Consultant's professional services for use solely with respect to this project. These CADD files shall not be used on other projects, for additions to this project, or for completion of this project by others without written approval by the Consultant. With the Consultant's approval, others may be permitted to obtain copies of the CADD drawing files for information and reference only. All intentional or unintentional revisions, additions, or deletions to these CADD files shall be made at the full risk of that party making such revisions, additions or deletions and that party shall hold harmless and indemnify the Consultant from any & all responsibilities, claims, and liabilities.

**SUBMITTAL/REVISIONS**

11/20/2019 WATERSHED SUBMITTAL

**PROFESSIONAL SIGNATURE**

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

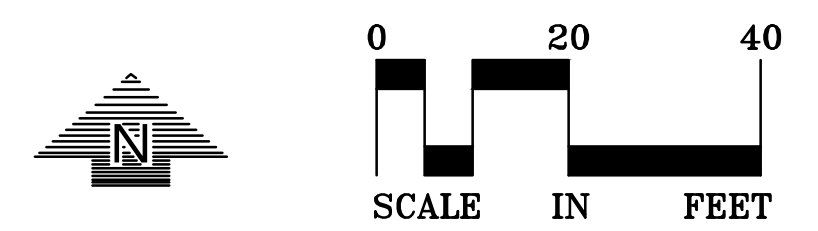
**NOT FOR CONSTRUCTION**

License No. 41352  
Date 11/20/19  
Vicki J. Van Dell - PE

**QUALITY CONTROL**

Loucks Project No. 14004.D  
Project Lead VJV  
Drawn By JBT  
Checked By VJV  
Review Date 11/20/19

**SHEET INDEX**



**CIVIL LEGEND**

EXISTING	PROPOSED

**PAVEMENT TYPES**  
 LIGHT DUTY BITUMINOUS PAVEMENT

**WETLAND BUFFER AREA**  
 40 FOOT WETLAND BUFFER REQUIRED: 10,114 SQ. FT.  
 WETLAND BUFFER AREA PROVIDED: 10,115 SQ. FT.

**SITE NOTES**

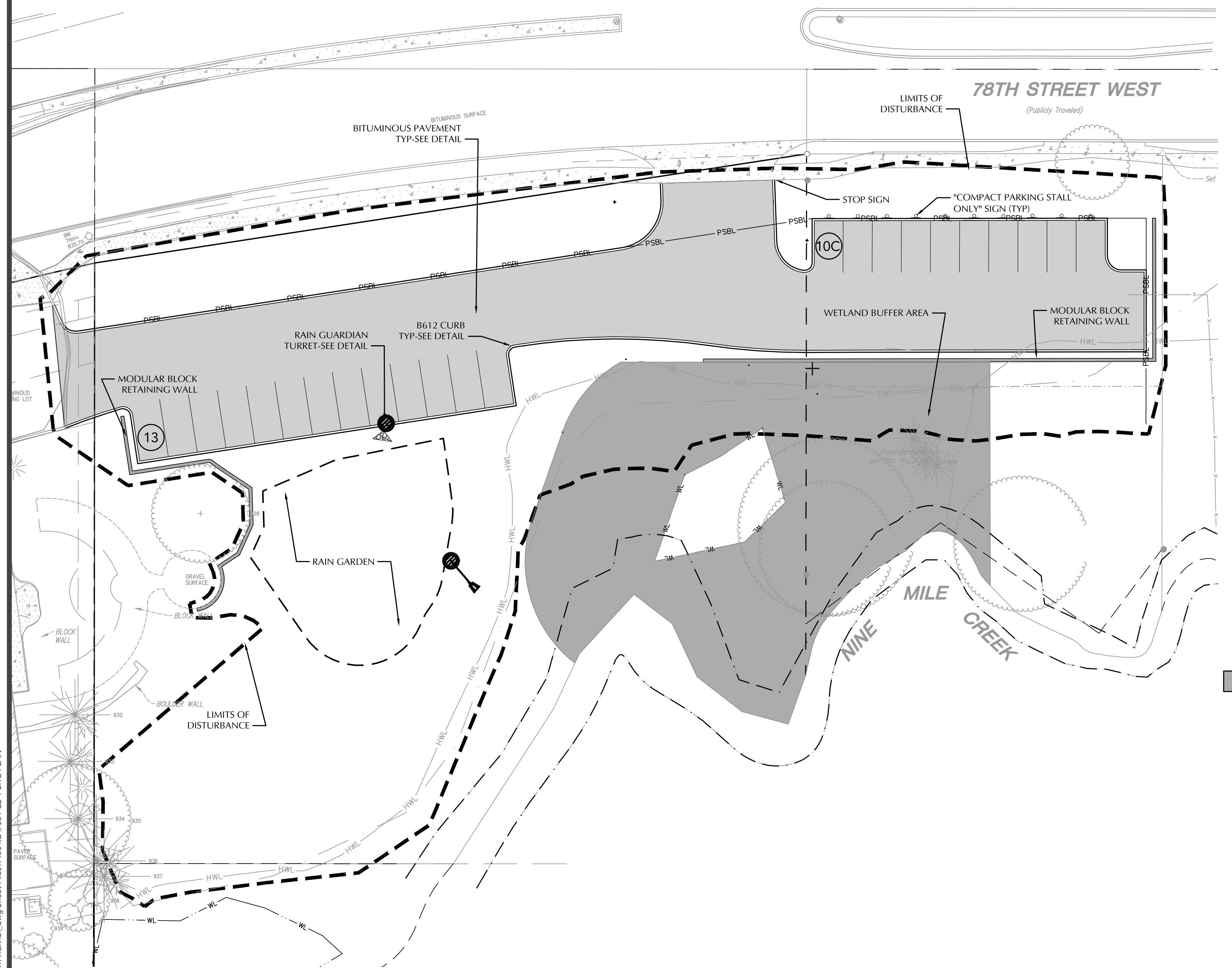
- BACKGROUND INFORMATION IS BASED ON A FIELD SURVEY BY LOUCKS AND RECORD UTILITY DRAWINGS FROM THE CITY. LOUCKS DOES NOT GUARANTEE THE ACCURACY OF INFORMATION PROVIDED BY OTHERS.
- ALL PAVING, CONCRETE CURB, GUTTER AND SIDEWALK SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH THE DETAILS SHOWN PER THE DETAIL SHEET(S) AND STATE/LOCAL JURISDICTION REQUIREMENTS.
- ACCESSIBLE PARKING AND ACCESSIBLE ROUTES SHALL BE PROVIDED PER CURRENT ADA STANDARDS AND LOCAL/STATE REQUIREMENTS.
- ALL CURB DIMENSIONS SHOWN ARE TO THE FACE OF CURB UNLESS OTHERWISE NOTED.
- ALL BUILDING DIMENSIONS ARE TO THE OUTSIDE FACE OF WALL UNLESS OTHERWISE NOTED.
- PARKING STALLS ARE 8.5'X16.5'.
- ALL CURB RADII SHALL BE 5.0' UNLESS OTHERWISE NOTED.
- BITUMINOUS IMPREGNATED FIBER BOARD TO BE PLACED AT FULL DEPTH OF CONCRETE ADJACENT TO EXISTING STRUCTURES AND BEHIND CURB ADJACENT TO DRIVEWAYS AND SIDEWALKS.
- SEE SITE ELECTRICAL PLAN FOR SITE LIGHTING.
- ALL PARKING LOT PAVEMENT MARKINGS SHALL BE 4" WIDE WHITE PAINTED STRIPING.

**PARKING**

SURFACE COMPACT STALLS:	10 STALLS
SURFACE REGULAR STALLS:	13 STALLS
TOTAL STALLS:	23 STALLS

**SIGNAGE AND STRIPING NOTES**

- CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SITE SIGNAGE AND STRIPING AS SHOWN ON THIS PLAN.
- CONTRACTOR SHALL PAINT ALL ACCESSIBLE STALLS, LOGOS AND CROSS HATCH LOADING AISLES WITH WHITE PAVEMENT MARKING PAINT, 4" IN WIDTH.
- ANY/ALL STOP SIGNS TO INCLUDE A 24" WIDE PAINTED STOP BAR IN WHITE PAINT, PLACED AT THE STOP SIGN LOCATION, A MINIMUM OF 4' FROM CROSSWALK IF APPLICABLE. ALL STOP BARS SHALL EXTEND FROM DIRECTIONAL TRANSITION BETWEEN LANES TO CURB.
- ALL SIGNS TO BE PLACED 18" BEHIND BACK OF CURB UNLESS OTHERWISE NOTED.



Plotted: 11/20/2019 10:39 AM W:\2014\14004\CADD DATA\CIVIL.dwg Sheet Files\4004.DY001 C2-1 SITE PLAN



**CALL BEFORE YOU DIG!**  
**Gopher State One Call**  
 TWIN CITY AREA: 651-454-0002  
 TOLL FREE: 1-800-252-1166

**WARNING:**  
 THE CONTRACTOR SHALL BE RESPONSIBLE FOR CALLING FOR LOCATIONS OF ALL EXISTING UTILITIES. THEY SHALL COOPERATE WITH ALL UTILITY COMPANIES IN MAINTAINING THEIR SERVICE AND / OR RELOCATION OF LINES.  
 THE CONTRACTOR SHALL CONTACT GOPHER STATE ONE CALL AT 651-454-0002 AT LEAST 48 HOURS IN ADVANCE FOR THE LOCATIONS OF ALL UNDERGROUND WIRES, CABLES, CONDUITS, PIPES, MANHOLES, VALVES OR OTHER BURIED STRUCTURES BEFORE DIGGING. THE CONTRACTOR SHALL REPAIR OR REPLACE THE ABOVE WHEN DAMAGED DURING CONSTRUCTION AT NO COST TO THE OWNER.

**SITE PLAN  
C2-1**