

Permit Application Review Report
Date: 1/8/2025

Board Meeting Date: 1/13/2025
Agenda Item: 15

Applicant/Landowner:

Entsminger Enterprises LLC
Attn: Jeff Entsminger
14916 Central Ave NE
Ham Lake, MN 55304

Project Name: Entsminger Estates

Project PAN: P-24-040

Project Purpose: Mass grading, construction of stormwater management, house pad preparation and site restoration for 3 new single-family residences

Project Location: 2045 Constance Blvd NE, Ham Lake

Site Size: size of parcel - 16.3 acres; size of disturbed area - 2.2 acres; size of regulated impervious surface - 0.34 acres

Applicable District Rule(s): Rule 2, Rule 3, Rule 4, Rule 5, Rule 8

Recommendation: Approve with 3 Conditions and 4 Stipulations

Description: The application proposes the mass grading, construction of stormwater management, house pad preparation and site restoration for 3 new single-family residences in Ham Lake. The project will disturb 2.2 acres and create 0.34 acres of regulated impervious. The area drains to County Ditch 58. The relevant water resource concerns are stormwater management, erosion and sediment control, wetlands, and buffers. These correspond to District Rules 3, 4, 5, and 8. See attached Figure 1: Project Location and Figure 2: Site Plan.

Conditions to be Met Before Permit Issuance:

Rule 2.7 – Procedural Requirements

1. Submittal of a performance escrow in the amount of \$3,100.00.

Rule 3.0 – Stormwater Management

2. Provide proof of recording of a fully executed Operations and Maintenance Agreement for the perpetual inspection and maintenance of all proposed stormwater management practices after review and approval by the District.

Rule 8.0 – Buffers

3. Update the buffer surrounding the Public Water to an average of 50 ft with a minimum of 30 ft.

Stipulations: The permit will be issued with the following stipulations as conditions of the permit. By accepting the permit, the applicant agrees to these stipulations:

1. Submittal of as-builts for the stormwater management practices and associated structures listed in Tables 2 and 3, including volume, critical elevations and proof of installation for hydrodynamic separators.
2. Completion of a post construction infiltration test on Infiltration Basins 1, 2, and 3 by filling the basin to a minimum depth of 6 inches with water and monitoring the time necessary to drain, or multiple double ring infiltration tests to ASTM standards. The Coon Creek Watershed District shall be notified prior to the test to witness the results.
3. If dewatering is required, provide DNR dewatering permit prior to construction. If a DNR permit is not required, provide well-field location, rates, discharge location, schedule and quantities prior to construction.
4. The applicant must apply for coverage under the Minnesota Pollution Control Agency's (MPCA's) Construction Stormwater Permit (Permit No: MNR100001).

Exhibits:

Exhibit Type	Exhibit Author	Signature Date	Received Date
Wetland Delineation Report	Jacobson Environmental, PLLC	07/05/2024	07/30/2024
Additional Soil Boring	Tradewell Soil Testing	09/06/2024	10/30/2024
Darcy's Law Calculations, Hydrographs	Plowe Engineering, Inc.	12/30/2024	12/30/2024
Drainage Map	Plowe Engineering, Inc.	12/16/2024	12/20/2024
Stormwater Drainage Report	Plowe Engineering, Inc.	12/16/2024	12/16/2024
Soil Borings	Tradewell Soil Testing	12/11/2024	12/16/2024
Construction Plans	Plowe Engineering, Inc.	12/16/2024	12/16/2024

Findings

Fees and Escrows (Rule 2.7):

The applicant has submitted a \$7,010.00 application fee and deposit which corresponds with the nonrefundable application fee (\$10), base fee for a Single Family/Multifamily Residential Development project of 16.3 acres (\$7,000.00). The applicant will be required to submit a performance escrow in the amount of \$3,100.00. This corresponds to a base escrow of \$2,000, plus an additional \$500/acre of disturbance (2.2 acres of land disturbance proposed).

Stormwater Management (Rule 3.0):

Rule 3.0 applies to the proposed project because it includes land disturbing activities creating a cumulative total of 10,000 sf or more of new or fully reconstructed impervious surface.

The Hydrologic Soil Group (HSG) of soils on site are HSG B. Curve Numbers have been shifted down one classification to account for the impacts of grading on soil structure.

Rate Control: Peak stormwater flow rate increases from the pre-development condition for the 10- and 100-year event for the wetland 2 discharge point. This increase has a static bounce of 0.01 ft, which is acceptable for the receiving waters. The peak flow rate to Constance Blvd also increases for the 2-, 10- and 100-year events. This increase has been reviewed and approved by the Anoka County Highway Department. The project will not impact Drainage Sensitive Use areas. The rate control standard is met.

Point of Discharge	2-year (cfs)		10-year (cfs)		100-year (cfs)	
	Existing	Proposed	Existing	Proposed	Existing	Proposed
Constance Blvd	0.89	1.18	2.31	2.98	6.5	7.36
Wetland 2	18.62	17.94	44.36	44.46	119.55	121.13
Wetland 1	1.15	0.93	3.42	2.54	10.34	7.29

Table 1.

Volume Control: The application proposes redevelopment which does not disturb more than 50% of the site or reconstruct more than 50% of the existing impervious surface, therefore the volume reduction requirement is equal to 1.1 inches over the area of new and fully reconstructed impervious surface. The amount of proposed impervious required to be treated is 14,678 ft².

The applicant is proposing the Stormwater Management Practices (SMPs) described below:

Drainage Area	Impervious required to be treated (ft ²)	Proposed SMP	TP Removal Factor	Required Water Quality Volume (ft ³)	Water Quality Volume Provided (ft ³)
Impervious Disconnect	5,800	Impervious Disconnect	1	532	532
Basin 3 (Area L3)	3,734	Infiltration Basin 3	1	342	563
Basin 2 (Area L2)	1,888	Infiltration Basin 2	1	173	650
Basin 1 (Area L1)	3,256	Infiltration Basin 1	1	298	1,040
Totals:	14,678			1,345	2,785

Table 2.

The following pretreatment has been provided:

SMP ID	Pretreatment Device/Method	Percent TSS Removal
Basin 3	Sediment Forebay	80
Basin 2	Sediment Forebay	80
Basin 1	Sediment Forebay	80

Table 3.

Pretreatment is required to be designed such that the device/method provides removal of 80% TSS entering an infiltration or filtration Stormwater Management Practice. The proposed project meets pretreatment requirements as shown in Table 3. The volume control standard has been met as shown in Table 2.

Water Quality: The total Water Quality Volume has been provided in aggregate.

Stormwater treatment on site must remove at least 80% of the average annual post development TSS per discharge location. The following TSS removal has been provided:

Discharge Point	TSS Removal Provided
Constance Blvd	80
Wetland 2	80
Wetland 1	80

Table 4.

The TSS removal standard is met at each discharge point as shown in Table 4.

Discharges to Wetlands: Stormwater from the proposed project is being discharged into the following wetlands.

Wetland ID	Wetland 2
Wetland Type	Slightly Susceptible
Change of Bounce 2-yr (ft)	0
Change of Bounce 10-yr (ft)	0
Change of Run out Control (ft)	no change

Wetland ID	Wetland 1
Wetland Type	Slightly Susceptible
Change of Bounce 2-yr (ft)	-0.00008
Change of Bounce 10-yr (ft)	-0.00004
Change of Run out Control (ft)	no change

Table 5.

Wetland 1 is a ditched wetland and therefore cannot be analyzed for inundation as there is no defined outlet. Wetland 2 was not analyzed for inundation because it does not discharge for the 2- and 10-year events. The proposed project meets bounce, discharge rate, and runoff control requirements for all wetlands receiving discharge from the site as shown in Table 5.

Landlocked Basins: The proposed drainage system does not outlet to a landlocked basin, therefore this section does not apply.

Low Floor Freeboard: The proposed project is new development which includes buildings and habitable structures. Therefore, SMPs must be designed such that the lowest basement floor elevations are at least 2 feet above the 100-yr high water level and 1 foot above the emergency overflow. The lowest basement floor elevations proposed are 908.9, 917.2 and 911.7 ft NAVD 88. The applicable 100-year high water levels are 912, 918.3 and 914.1 ft NAVD 88 and the applicable emergency overflows are 911.4, 918, and 913.5 ft NAVD 88. Darcy’s law calculations were provided which indicate the high water levels will not impact adjacent low floors. The freeboard requirement is met.

Maintenance:

Access: Sufficient maintenance access has been provided on the plans for all stormwater management practices.

Easements: All required maintenance easements have been provided on the plans.

Maintenance Agreements: The proposed stormwater management practices will not be maintained as part of standard municipal public work activities. Therefore, a maintenance agreement that meets District standards will be required.

Soils and Erosion Control (Rule 4.0)

Rule 4.0 applies to the proposed project because it is a land disturbing activity that requires a permit under another District rule.

The proposed project drains to County Ditch 58. The soils affected by the project includes Zimmerman, Isanti, Lino and Markey which have a soil erodibility factor of 0.15 or greater. Disturbed areas are proposed to be stabilized within 24 hours, as required. The proposed erosion and sediment control plan includes perimeter control, street sweeping, and stabilized construction entrance. The erosion control plan meets District Requirements. The site does require a NPDES permit. See attached Figure 3: Erosion and Sediment Control Plan.

Wetlands (Rule 5.0)

Wetlands exist on site, but no impacts are proposed. Wetlands were delineated under PAN W24-025. The boundary and type application was reviewed and approved. The Notice of Decision was issued on 08/26/2024. See Figure 4: Wetlands.

Floodplain (Rule 6.0)

The proposed project does not include land disturbing activities within the floodplain as mapped and modeled by the District. Rule 6.0 does not apply.

Drainage, Bridges, Culverts, and Utility Crossings (Rule 7.0)

The proposed project does not include land disturbing activities which construct, improve, repair, or alter the hydraulic characteristics of a bridge profile control or culvert structure on a creek, public ditch, or major watercourse. The proposed project does not include land disturbing activities which involve a pipeline or utility crossing of a creek, public ditch, or major watercourse.

The proposed project does not include land disturbing activities which construct, improve, repair or alter the hydraulic characteristics of a conveyance system that extends across two or more parcels of record not under common ownership and has a drainage area of 200 acres or greater. Rule 7.0 does not apply.

Buffers (Rule 8.0)

Rule 8.0 applies because it includes a land disturbing activity that requires a permit under another District Rule and is on land adjacent or directly contributing to a Public Water.

A continuous buffer is proposed on the plans. Because the resource is a Public Water, the average buffer width must be 50 ft, with a minimum width of 30 ft. The total buffer provided is 16.5 ft in width, which does not meet the requirement. Permanent monumentation at each parcel line, and every 200 ft as needed, have been proposed on the plan.

Variances (Rule 10.2)

The proposed project is not requesting a variance from the District's rules, regulations, and policies. Rule 10.2 does not apply.

P24-040 Entsminger Estates



Figure 1: Project Location

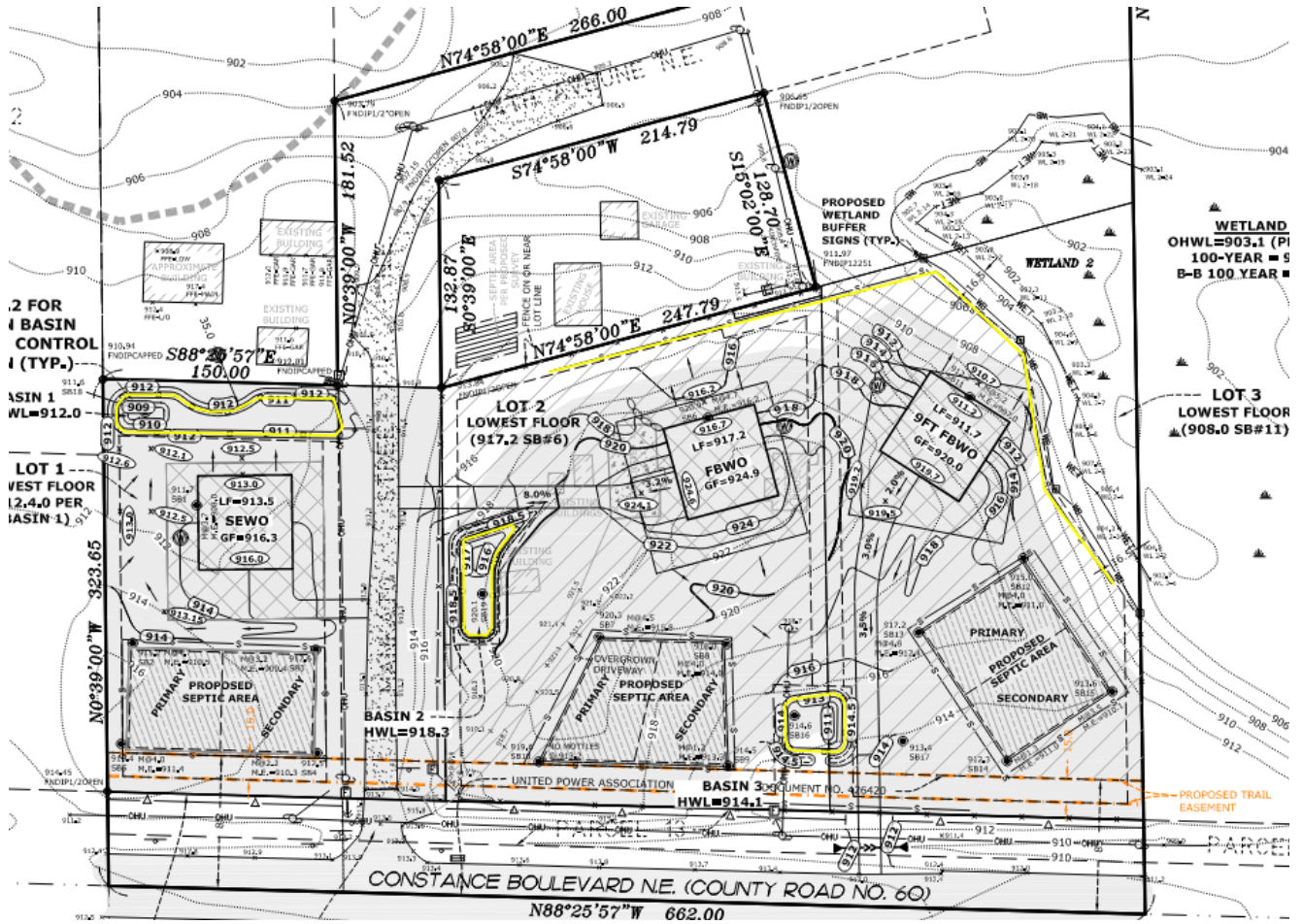


Figure 3: Erosion and Sediment Control Plan

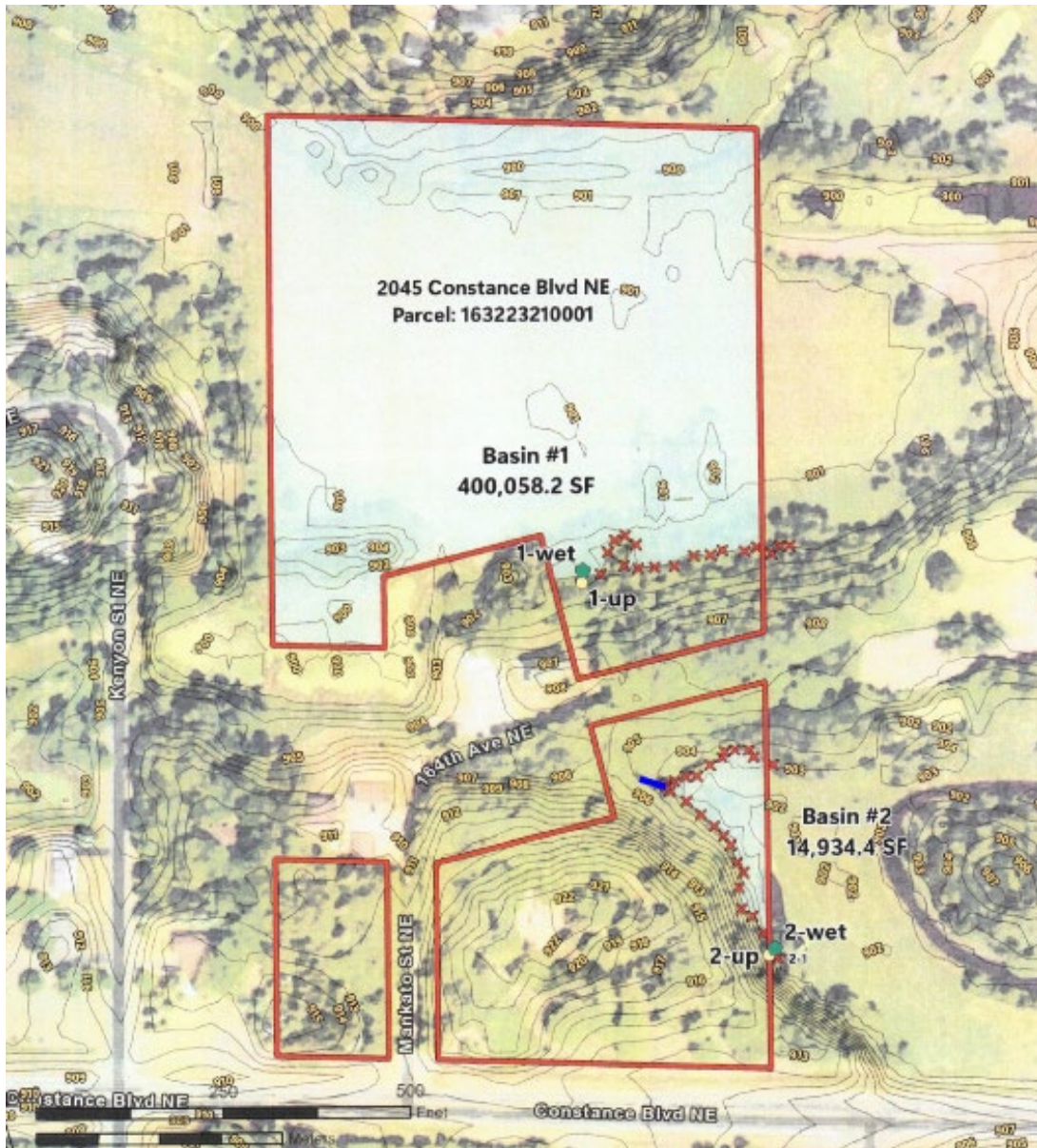


Figure 4: Wetland