

# Technical Memorandum

**To:** Linda Loomis, Administrator  
Lower Minnesota River Watershed District

**From:** Kaci Fisher, Environmental Specialist  
Katy Thompson, PE, CFM

**Date:** July 14, 2021

**Re:** Fort Snelling Redevelopment Extension Request (LMRWD No. 2020-113)

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Loucks (Applicant) has requested an extension for its permit for the Fort Snelling Redevelopment Project (Project), permit number 2020-113. The Lower Minnesota River Watershed District (LMRWD or District) issued a permit on August 20, 2020, for Rules B –Erosion and Sediment Control and D–Stormwater Management.

The proposed Project consisted of disturbing 23.40 acres and creating 4.25 acres of new impervious surface by renovating historic buildings to provide multifamily housing and constructing associated roads, surface parking, and garages. The stormwater management consisted of two best management practices (BMPs): one surface infiltration basin and one underground infiltration system.

The Applicant has made adjustments to the underground infiltration system, and the District’s comments on the Project modifications are presented below.

## Summary

<u>Project Name:</u>	Fort Snelling Redevelopment
<u>Purpose:</u>	Residential
<u>Project Size:</u>	23.40 acres disturbed, 12.43 acres existing impervious surface, 16.68 acres of proposed impervious surface, and 4.25 acres of net new impervious surface

Location: 6409 Taylor Avenue, St. Paul, MN 55111

LMRWD Rules: Rule B – Erosion and Sediment Control  
Rule D – Stormwater Management

Recommended Board Action: Approval

## Discussion

The District received the following documents for review to support the permit extension request:

- Memorandum by Loucks, dated July 7, 2021, received July 8, 2021
- Stormwater Management Plan by Loucks, dated September 10, 2019, revised July 7, 2021, received July 8, 2021
- Construction Plan Sheets by BKV Group, dated July 7, 2021, received July 8, 2021

The documents provided are sufficient for the completion of our review.

### Rule B–Erosion and Sediment Control

The District regulates land-disturbing activities that affect one acre or more under Rule B. The Project is not making any changes in relation to disturbed area and has submitted an approved NPDES permit coverage (effective 5/18/2021), so the Project still meets the requirements in Rule B.

### Rule D–Stormwater Management

Loucks has revised the underground infiltration location and configuration. It is now located further south along Taylor Avenue in an elongated formation, as shown in Figure 1. Additionally, the size of the chambers was reduced from 72 inches to 60 inches. Everything else remains the same, including the surface infiltration basin, drainage areas, and inverts for the underground system and outlet.

The water quality volume will decrease, as shown in Table 1; however, the Project will continue to exceed the required LMRWD volume reduction under Rule D.

Table 1. Volume Reduction Summary

	Volume Reduction (cubic feet)
LMRWD Required Reduction	15,442
2020 Permitted Conditions	21,480
2021 Proposed Conditions	18,704

Table 2 shows the existing conditions, 2020 permitted conditions, and 2021 proposed design changes with the changes to the underground infiltration system. The proposed loads for total phosphorus (TP) and total suspended solids (TSS) are increasing from the previously permitted conditions; however, the Project is still meeting the water quality requirements under Rule D.

Table 2. MIDS Water Quality Summary

	Total Area (ac)	Impervious Area (ac)	Area Routed to Proposed BMPs (ac)	TP Annual Load (lbs.)	TSS Annual Load (lbs.)
Existing Conditions	46.8	12.4	0	31.0	5,637
2020 Permitted Conditions	46.8	16.7	20.6	24.7	4,374
2021 Proposed Conditions	46.8	16.7	20.6	26.7	4,666
Change*				-4.3	971

\*Change of existing conditions to 2021 proposed conditions

The Project proposed to connect to the existing storm sewer near or within the MnDOT right-of-way using several outfalls (1R, 2R, 3R, 4R, and 5R), with proposed conditions redirecting flow away from the existing 1R outfall to the 3R system. The 3R outfall is a connection to an existing MnDOT storm sewer with stormwater treatment provided by the surface infiltration basin and the underground infiltration system. Modifications to the underground infiltration system only result in changes to the rates for the 3R outfall. All the rates to other outfalls remain the same as the previously permitted values. The modeled rates with the 2021 underground infiltration design modification for the 3R outfall are shown in Table 3. Although these rates are higher than previously permitted, the overall discharge rates are still being reduced and continue to meet the LMRWD rate control requirements.

*Table 3. Peak Runoff Rates at Discharge Point 3R from HydroCAD Models with Adjusted Underground Infiltration System*

<b>EVENT</b>	<b>EXISTING (cfs)</b>	<b>2020 PERMITTED (cfs)</b>	<b>2021 PROPOSED (cfs)</b>	<b>CHANGE* (cfs)</b>
1-YR/24-HR	12.22	1.72	2.15	-10.07
2-YR/24-HR	16.67	2.53	5.28	-11.39
10-YR/24-HR	28.11	17.00	21.85	-6.26
100-YR/24-HR	55.72	53.37	54.92	-0.80

\*Change of existing conditions to 2021 proposed conditions.

Despite the changes to the underground infiltration BMP design, the Project still meets the District’s volume reduction, water quality, and rate control requirements.

### **Recommendations**

Staff recommends approval of the Project extension request. The permit should be extended an additional year from the original permit deadline of August 19, 2021, with a new deadline of August 19, 2022.

### **Attachments**




- Figure 1–Fort Snelling Redevelopment Location Map
- Amended 2020-113 Individual Project Permit





Figure 1: Fort Snelling Redevelopment (Permit Extension)



**LEGEND**

-  Project Location
-  Parcel Boundaries
-  Fort Snelling Redevelopment Project (Permit No. 2020-113)

**Snelling Redevelopment Changes**

-  Old Underground Infiltration System Location
-  New Underground Infiltration System Location

**LMRWD Watershed Location Map**





LOWER MINNESOTA RIVER  
WATERSHED DISTRICT

Permit Number

2020-113

Amended:  
July 21, 2021

## Individual Project Permit

Pursuant to Minnesota Statutes, Chapters 103B and 103D, consistent with the rules of the Lower Minnesota River Watershed District (LMRWD), and on the basis of statements and information contained in the permit application, plans and supporting information provided by the applicant, all of which are made part hereof by reference, **permission is hereby granted** to the applicant to perform actions as authorized below.

By granting this permit, the LMRWD does not direct the activity authorized herein or warrant the soundness of the applicant's design or methods in any respect. The LMRWD waives no immunity or protection applicable to itself, an officer, an agent or an employee pursuant to this approval.

<b>Project Name</b> Fort Snelling Redevelopment	<b>Project Location</b> 6409 Taylor Avenue, St. Paul, MN 55111	
<b>Type of Development</b> Residential Development	<b>City</b> Fort Snelling	<b>County</b> Hennepin
<b>Permittee/Property Owner's Name and Title</b> Owen Metz	<b>Permittee Mailing Address</b> 2905 Northwest Blvd, Suite 150 Plymouth, MN 55441	
<b>Authorized Agent Name and Title</b> Michael St. Martin	<b>Agent Email Address</b> <a href="mailto:mstmartin@loucksinc.com">mstmartin@loucksinc.com</a>	<b>Agent Phone Number</b> (763) 496-6713
<b>Purpose of Permit:</b> Rehabilitation of historic buildings for occupancy, construction of new surface pavements, utilities, and garages.	<b>Authorized Action(s):</b> Grading, erosion and sediment control and stormwater infrastructure activities.	
<b>Affected Rule(s):</b> Rule B: Erosion and Sediment Control Rule and Rule D: Stormwater Management		
<b>Issued Date:</b> August 19, 2020	<b>Effective Date:</b> August 19, 2020	<b>Expiration Date:</b> August 19, 2022 (Amended 7/21/2021)
<b>Authorized Issuer Name and Title</b> Linda Loomis, Administrator	<b>Email Address:</b> <a href="mailto:naiadconsulting@gmail.com">naiadconsulting@gmail.com</a>	<b>Phone Number:</b> (763) 545-4659

This permit is granted **subject to** the following **general conditions**:

**NPDES Permit:** Submit a copy of the NPDES construction stormwater general permit to the LMRWD before construction begins.

All erosion and sediment control measures must be effectively installed and maintained according to LMRWD guidelines and MPCA NPDES Permit guidelines as laid out by current District Rules and Policies until all disturbed soils have been permanently stabilized.

Grading and excavating must not begin until the applicant has been noticed that a permit has been issued and required erosion control measures are in place. Working without a permit where required is in violation of LMRWD Rules and is a misdemeanor subject to penalty by law.

**Applicable federal, state, or local regulations:** The permittee is responsible for the action(s) of their representative, contractor and employees and compliance with all rules, regulations, requirements, or standards of any applicable federal, state, or local agencies; including, but not limited to, the U.S. Army Corps of Engineers, Board of Water and Soil Resources, MN Pollution Control Agency, watershed districts, water management organizations, county, city and township zoning.

**Site access:** In accepting this permit, the owner recognizes and agrees that LMRWD representatives may enter the site at reasonable times to inspect the activities authorized hereunder and compliance with the requirements of this permit, the LMRWD Rules and applicable statutes. This includes routine site inspections as well as inspections during or immediately following installation of best management practices, following storms/critical events, prior to seeding deadlines, for the purpose of permit closeout, or on report of issue or complaint. This right of access is in addition to the access authority of the LMRWD under existing law.

**Completion date:** Construction work authorized under this permit shall be completed on or before the date specified above. No construction is authorized beyond the expiration date. The permittee may request an extension of the time to complete the project by submitting a written request, stating the reason thereof, to the LMRWD, no later than two weeks before this permit expiration.

**Written consent:** In all cases where the permittee by performing the work 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 thereon or interests therein, the permittee, before proceeding, shall obtain the written consent of all persons, agencies, or authorities concerned, and shall acquire all property, rights, and interests needed for the work.

**Not assignable:** This permit is not assignable nor transferable by the permittee except with the written consent of the LMRWD.

**No changes:** The permittee shall make no changes, without written permission or amendment previously obtained from the LMRWD, in the dimensions, capacity or location of any items of work authorized hereunder.

**Permission only/ no liability:** This permit is permissive only. No liability shall be imposed by the LMRWD or any of its officers, agents or employees, officially or personally, on account of the granting hereof 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. This permit shall not be construed as estopping or limiting any legal claims or right of action of any person other than the state against the permittee, its agents, employees, or contractors, for any damage or injury resulting from any such act or omission, or as estopping or limiting any legal claim or right of action of the state against the permittee, its agents, employees, or contractors for violation of or failure to comply with the permit or applicable conditions.

**Contractor responsibility:** The permittee shall ensure the contractor has received and thoroughly understands all conditions of this permit.

**Termination:** This permit may be terminated by the LMRWD at any time deemed necessary for the conservation of water resources, or in the interest of public health and welfare, or for violation of any of the conditions or applicable laws, unless otherwise provided in the permit.