

**PERMIT REPORT**

To: Board of Managers

From: Heidi Quinn, Permitting Technician

Date: June 25th, 2019

Re: Permit 19-170: 4798/4800 Northern Road, Mound, MN 55364

Recommendation:

Approval of MCWD permit application on the following conditions:

- Reimbursement of fees for engineer and legal review
- Submission of draft declaration memorializing the noncompliant low-opening elevation for review by District Staff and then recordation
- That the Board of Managers consider if a submission of a draft indemnification of MCWD for flooding damages arising from noncompliant low-opening be a condition of approval.

Background:

Brad and Jennifer Totoritis-Searl (Applicant) have applied for a Minnehaha Creek Watershed District (MCWD) permit for single family home remodeling and construction. This project proposes demolishing one existing single family home and building an addition onto a second existing single family home, consolidating the two lots. The Applicant's stated purpose of the addition is to create an additional main floor living space for an elderly parent. The homes are located on the northwest portion of Lake Minnetonka, adjacent to Harrison's Bay, and majority of the site is within the 100-year floodplain. The application is before the MCWD Board of Managers for consideration as the Applicant has requested a Variance from full compliance with section 3(f) of the Floodplain Alteration rule. The application was complete on June 13th, 2019.

The project will demolish the home currently at 4800 Northern Road (House Two) and will result in an addition to the home currently at 4798 Northern Road (House One). The Applicant is requesting a Variance from the requirements of section 3(f) of the Floodplain Alteration rule that buildings maintain at least two feet of freeboard from the 100-year high-water level (HWL) and the low-entry opening. The requested variance will allow the proposed addition to have a low-entry opening elevation of 933.1' in order to match the existing low-entry elevation of House One.

The 933.1' low-entry elevation of House One was permitted by the City of Mound in 2006. This elevation provides only 1.6' of freeboard between the low-entries and the 100-year HWL of Lake Minnetonka, which is 931.5'. In order to maintain two feet of freeboard, the low-entry openings would need to be at an elevation of 933.5'.



The project triggers the District's Erosion Control and Floodplain Alteration rules. There is no proposed shoreline work associated with this project and this project is exempted from District stormwater requirements for a single family home per section 2(a) of the Stormwater Management rule. Per the submitted plans, there will be no loss in floodplain storage associated with this project and the homeowners are assuming any flooding risk associated with the low-entry openings not being at least two feet above Lake Minnetonka's 100-year HWL.

The permit application was received on April 29th, 2019 with resubmitted materials necessary to complete the application received on June 20th, 2019. A public notice informing residents of the MCWD Board of Managers consideration of the permit application was sent on May 31st, 2019. There were no inquiries or comments from the public received by District Staff regarding the permit application.

District Rule Analysis:

Erosion Control Rule

The District's Erosion Control Rule is applied to projects proposing 5,000 square feet of disturbance or 50 cubic yards of fill, excavation, or stockpiling on-site. The Applicant is proposing 800 square feet of disturbance and 120 cubic yards of excavation, therefore the rule is applied. In accordance with the rule provisions, the Applicant has submitted an erosion control plan which identifies erosion and sediment control best management practices. These include: silt fence down gradient of disturbed areas, a crushed-rock construction entrance, and a concrete washout area contained on the truck. Additionally, a final stabilization plan including sod and the incorporation of six-inches of topsoil into underlying soils and has been provided (attachment 3).

This project meets the Erosion Control Rule.

Floodplain Alteration

The Floodplain Alteration Rule is applicable whenever land altering activity is proposed below the projected 100-year HWL of any waterbody or watercourse. The projected 100-year HWL for Lake Minnetonka has been identified, and confirmed by the District Engineer, to be 931.5'. The Applicant is proposing land disturbance below the 100-year HWL of Lake Minnetonka, therefore the rule is applied.

Per section 3(a) of the rule, fill shall not cause a net decrease in storage capacity below the projected 100-year HWL of a waterbody and any fill brought onsite below the projected 100-year HWL must be mitigated by the creation of compensatory storage. The Applicant has submitted plans and quantified calculations, computed and signed by a professional engineer, to demonstrate the project will result in 316 cubic feet of fill and 331 cubic feet of compensatory storage, for a net increase of 15 cubic feet of storage within the floodplain. The District Engineer has reviewed the plans and has confirmed that the project will result in a net increase of 15 cubic feet, 0.6 cubic yards, of new floodplain storage below the 931.5' elevation contour, therefore the criteria of section 3(a) has been met.



Section 3(b) of the rule requires no increase in the 100-year flood elevation of a watercourse. Because the project involves a water basin, Section 3(b) of the rule does not apply to this project.

Section 3(c) of the rule states that section 3(a) of this rule does not apply to fill in a waterbasin if the applicant shows that the proposed fill, together with the filling of all other properties on the waterbody to the same degree of encroachment will not cause high water or aggravate flooding on other properties. Because the project is creating storage within the floodplain, Section 3(c) is not applicable to the project.

Section 3(d) of the rule requires that no new impervious surface be created in the lesser of 25 feet of the centerline of a watercourse or the 10 year floodplain, unless that surface is an integral component of a linear public roadway or trail. This project is not occurring on a watercourse and therefore this rule is not applicable.

Section 3(e) of the rule is not applicable, as no ice ridge grading is proposed.

Section 3(f) of the rule requires that the low-entry openings to all residential, commercial, and institutional structures be a minimum of 2 feet above the 100 year high-water level. The proposed project does not meet section 3(f) and the Applicant is requesting a variance for providing 1.6' of freeboard between low-entry openings and the 100 year HWL for this component of the District's Floodplain Alteration Rule.

The proposed project meets all criteria of the Floodplain Alteration Rule with the exception of Section 3(f), for which the Applicant is requesting a variance.

Variance

The Variance and Exception Rule allows the Board of Managers to grant variances from a provision of the rules based on the showing of the applicant in response to District Variance Standards. Section Two of the Variance and Exception Rule outlines these standards. The Applicant has submitted a Variance Application (attachment 2) to request a 0.4' shortfall from the required 2' of freeboard from low-entry openings and the 100-year HWL per section 3(f) of the Floodplain Alteration rule.

Section 2(a) states that the applicant must demonstrate that because of special conditions inherent to the property, which do not apply generally to other land or structures in the District, strict compliance with a provision of a District rule will cause undue hardship to the applicant or property owner. Per the Applicant's submitted narrative, The Applicant finished construction on House One in 2006. The City of Mound administered the erosion control and floodplain alteration rules for the construction and the City of Mound identifies the 100-HWL for Lake Minnetonka within the municipality to be 931.0'. House One's low-opening elevation of 933.1' was in conformance with City regulations at that time of the City permit approval. The applicant maintains that building the proposed addition with a low-opening elevation higher than 933.1' would create a step up within the home which will not meet the intent of providing a main floor living space that could easily be accessed by an elderly parent.



Section 2(b) states that the applicant must demonstrate that the hardship was not created by the landowner, the landowner's agent or representative, or a contractor, and that economic hardship is not grounds for a variance. At the original time of construction of House One, the Applicant did not know that the permitting responsibility would change from the City of Mound to MCWD and was not aware of the 0.5' discrepancy between MCWD's identified 100-year HWL (931.5') and the City of Mound's identified 100-HWL (931.0'). In addition, the Applicant did not anticipate building an addition onto House One.

Section 2(c) states that that the applicant must demonstrate that receiving the variance will not merely serve as a convenience. Per the Applicant's Variance Application, receiving a variance to maintain the low-entry opening elevation at 933.1' will allow the applicants to utilize the addition as a living area for an elderly parent.

Section 2(d) states that the applicant must demonstrate that there are no feasible and prudent alternatives to the proposed activity requiring the variance. The Applicant outlined two potential alternatives to the variance request, the first being the addition of a ramp in their home and the second being the creation of a step. A ramp is not feasible as the small space between House One and the proposed addition does not allow for an appropriate ramp length or slope. A step up is also not feasible as it would prevent use of the addition for the intended purposes, the applicant states.

Section 2(e) states that the applicant must prove that receiving the variance will not impair or be contrary to the intent of these rules. Per the Applicant's variance request, tearing down House Two will result in improvements to the property as the property will be raised to an elevation of 933.1' - House Two is currently below this elevation. Removing House Two will also reduce hardcover by 10% on the combined properties after construction. House Two currently exists within the 50 foot lakeshore setback- tearing it down will bring the entire property into compliance with the City's ordinance and will further enhance drainage benefits that will result from a reduction in hardcover. In addition, raising the proposed addition to an elevation of 933.5' to ensure two feet of freeboard would require additional fill to be added to the property and result in greater land disturbance and grading.

The analysis submitted by the applicant indicates that the elevation of the proposed addition will increase flood risk only for the applicant's proposed properties. The noncompliance with the MCWD low-opening elevation standard described above is the result of a decision by the applicant. MCWD legal counsel notes that if the managers elect to approve the variance based on the engineer's and staff's analysis finding no risk of flooding to adjacent properties, it would be prudent for the managers to require, as a condition of approval of the variance that the applicant add notation of the noncompliant low-floor condition for the relevant structures to the declaration recorded on the project property as a condition of approval. The managers may also consider whether to require the applicant to indemnify MCWD for flood damages resulting from the noncompliant opening.

**Summary:**

Brad and Jennifer Totoritis-Searl have applied for a MCWD permit for the Erosion Control, Floodplain Alteration and have requested a Variance to the criteria of section 3(f) of the Floodplain Alteration rule. Staff have found that the proposed project meets the applicable rule requirements, upon satisfaction of the recommended conditions of approval, and recommend approval of the permit. Furthermore, Staff find that the Applicant's assumption of any risk of flooding from the noncompliant low-flow elevation of 933.1' and recordation of the noncompliant opening on the deed mitigate the shortfall from compliance with the MCWD low-floor requirement.

Attachments:

1. Permit Application
2. Variance Application
3. Site Plan
4. Floodplain Mitigation Summary

19-170

WATER RESOURCE PERMIT APPLICATION FORM

Use this form to notify/apply to the Minnehaha Creek Watershed District (MCWD) of a proposed project or work which may fall within their jurisdiction. Fill out this form completely and submit with your site plan, maps, etc. to the MCWD at:
15320 Minnetonka Blvd. Minnetonka, MN 55345.

Keep a copy for your records.

YOU MUST OBTAIN ALL REQUIRED AUTHORIZATIONS BEFORE BEGINNING WORK.

1. Name of each property owner: Brad and Jennifer Totoritis-Searl
Mailing Address: 4798 Northern Road City: Mound State: MN Zip: 55364
Email Address: bsear17160@gmail.com Phone: 763.458.1727 Fax: _____

2. Property Owner Representative Information (not required) (licensed contractor, architect, engineer, etc...)
Business Name: Roy Custom Homes Representative Name: Roger Roy
Business Address: 2855 Newton Avenue Se City: Watertown State: MN Zip: 55388
Email Address: _____ Phone: 612-201-7177 Fax: _____

3. Project Address: 4798 / 4800 Northern Road City: Mound
State: MN Zip: 55364 Qtr Section(s): _____ Section(s): _____ Township(s): _____ Range(s): _____
Lot: 027/026 Block: _____ Subdivision: SUBDIVISION OF LOTS 1 AND 32 PID: 1811723330026-1311724440076

4. Size of project parcel (square feet or acres): 7,406 Sq Feet
Area of disturbance (square feet): 800 Sq Ft Volume of excavation/fill (cubic yards): 120 yards / 120 yds
Area of existing impervious surface: 39% Area of proposed impervious surface: 29.4%
Length of shoreline affected (feet): 45 Waterbody (& bay if applicable): Minnetonka

5. Type of permit being applied for (Check all that apply):

<input checked="" type="checkbox"/> EROSION CONTROL	<input type="checkbox"/> WATERBODY CROSSINGS/STRUCTURES
<input checked="" type="checkbox"/> FLOODPLAIN ALTERATION	<input type="checkbox"/> STORMWATER MANAGEMENT
<input type="checkbox"/> WETLAND PROTECTION	<input type="checkbox"/> APPROPRIATIONS
<input type="checkbox"/> DREDGING	<input type="checkbox"/> ILLICIT DISCHARGE
<input type="checkbox"/> SHORELINE/STREAMBANK STABILIZATION	

6. Project purpose (Check all that apply):

<input checked="" type="checkbox"/> SINGLE FAMILY HOME	<input type="checkbox"/> MULTI FAMILY RESIDENTIAL (apartments)
<input type="checkbox"/> ROAD CONSTRUCTION	<input type="checkbox"/> COMMERCIAL or INSTITUTIONAL
<input type="checkbox"/> UTILITIES	<input type="checkbox"/> SUBDIVISIONS (include number of lots)
<input type="checkbox"/> DREDGING	<input type="checkbox"/> LANDSCAPING (pools, berms, etc.)
<input type="checkbox"/> SHORELINE/STREAMBANK STABILIZATION	<input type="checkbox"/> OTHER (DESCRIBE):

7. NPDES/SDS General Stormwater Permit Number (if applicable): _____

8. Waterbody receiving runoff from site: Minnetonka

9. Project Timeline: Start Date: June 2019 Completion Date: August 2019

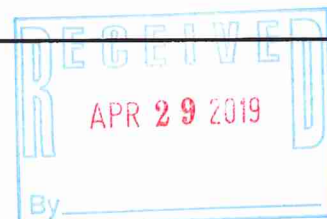
Permits have been applied for: City County MN Pollution Control Agency DNR COE
Permits have been received: City County MN Pollution Control Agency DNR COE

By signing below, I hereby request a permit to authorize the activities described herein. I certify that I am familiar with MCWD Rules and that the proposed activity will be conducted in compliance with these Rules. I am familiar with the information contained in this application and, to the best of my knowledge and belief, all information is true, complete and accurate. I understand that proceeding with work before all required authorizations are obtained may be subject to federal, state and/or local administrative, civil and/or criminal penalties.

[Signature]
Signature of Each Property Owner

[Signature]
Date

4/29/19
Date



REQUEST FOR VARIANCE AND STATEMENT OF HARDSHIP

MINNEHAHA CREEK WATERSHED DISTRICT (MCWD)
15320 MINNETONKA BLVD.
MINNETONKA, MN 55345

Phone: 952-471-0590
Fax: 952-471-0682

A request for a Variance must be accompanied by a MCWD Water Resources Application

Project Details:

Project address: 9798/4800 Northern Rd. City: Mound State: MN Zip: 55364
 County: Hennepin Property ID number (PID): 18-117-23-23-0026/13-117-24-44-6076

The Board of Managers may hear requests for variances from strict compliance with provisions of the District Rules in instances where strict enforcement of the rules would cause an undue hardship because of circumstances unique to the property under consideration. The Board of Managers may grant variances where it is demonstrated that such action will remain in spirit and with the intent of these rules. An applicant granted a variance from full compliance with a requirement of the rules would be required to meet the requirement to the greatest degree feasible short of full compliance. A variance must be approved by a two-thirds majority of managers voting.

To grant a variance, the Board of Managers must determine, based on a showing by the applicant:

- That because of special conditions inherent to the property, which do not apply generally to other land or structures in the District, strict compliance with a provision of a District rule will cause undue hardship to the applicant or property owner;
- That the hardship was not created by the landowner, the landowner's agent or representative, or a contractor. Economic hardship is not grounds for issuing a variance.
- That granting such variance will not merely serve as a convenience to the applicant.
- That there is no feasible and prudent alternative to the proposed activity requiring the variance.
- That granting the variance will not impair or be contrary to the intent of these rules.

A variance will remain valid only as long as the underlying permit remains valid.

A violation of any condition of approval of a permit subject to a variance shall constitute grounds for termination of the variance.

Variance Requested From MCWD Rule(s):

- Erosion Control
- Floodplain Alteration
- Wetland Protection
- Shoreline & Streambank Stabilization

- Waterbody Crossings & Structures
- Stormwater Management
- Appropriations
- Illicit Discharge

Provision(s) and Requirement(s) of the Rule(s):

3F - low entry of 933.5

Requested Variance:

Our existing house is at 933.1. We would request a variance to build our addition onto the 4200 property to match elevation of 933.1, which is 0.4ft lower than the MCWD level of 933.5. Our current house at 933.1 has never come close to flooding, even during the historic 2014 flooding. The current house on the 4200 property, which will be demolished is built even lower than 933.1 and it has never come close to flooding.

Please complete the below narrative to be used as the variance justification that will be considered by the Board of Managers. Please note that economic hardship is not grounds for issuing a variance.

Describe the special conditions inherent to the property and how strict compliance with the rule will cause an undue hardship.

When we built our current home on 4798 in 2005/06 the low entry point was regulated by the City of Mound at 933.1. We built to that code. Since then building regulations have switched to MCWD and changed to 933.5. By building to the new regulation of 933.5 it will cause a step between the existing and new addition which will not be ADA compliant.

Describe how the special condition was not created by the applicant, the representative, or a contractor.

Regulations were by the City of Mound during our original construction in 2005/06. It was 933.1 at the time. Now it is regulated by MCWD at 933.5. We did not know at the time that height requirements would change and did not have any plans at the time to do an addition.

Provide a minimum of two alternatives that were considered and why they were rejected to demonstrate that there is no feasible and prudent alternative to the proposed activity requiring the variance.

1) A ramp - This is not feasible in the size/area from the existing house to the new house/addition because the ramp length would be too long to reasonably fit into the small space.

2) A step - As this new space has a purpose of a second living area/bedroom it could not be ADA compliant for further elderly patient.

Referring to the Policy of the Rule(s), describe how the intent of the rule(s) will be met.

By tearing down the existing house on 4200 we will improve the 4200 property by raising it up to 933.1. Also, by tearing down that house, as well as the driveway being eliminated we will reduce hard cover from 39% to 29% on the combined 4200/4798 properties after construction.

Additionally, in order to raise the addition to a height of 933.5 for the 2 foot of setback, it will require additional fill which would alter runoff/drainage issues.

Lastly - by eliminating the house at 4200, we will also be in compliance of the 50' lakeshore setback.

EROSION CONTROL SUPPLEMENTAL INFORMATION FORM

INSPECTION PLAN REQUIREMENTS

1. Routine Inspections:

- Once every seven days during active construction
- Within 24 hours of a half inch or more precipitation

2. Completed Field Inspection Reports:

- Reports available within 24 hours of request until MCWD determines project is complete & stabilized

Failure to submit requested inspection information will result in a site inspection and may be subject to reimbursement for MCWD staff time.

Who will inspect your site regularly?

NAME: <u>Roger Roy</u>	ORGANIZATION: <u>Roy Custom Homes</u>
PHONE: <u>612-201-7177</u>	ALTERNATE PHONE: <u>952-955-2885</u>
EMAIL: <u>r.roycap3@gmail.com</u>	

Where is the concrete washout location?

<input checked="" type="checkbox"/> OFF SITE OR CONTAINED ON TRUCK
<input type="checkbox"/> INDICATED ON SITE PLAN (with required impermeable liner)
<input type="checkbox"/> N/A

What is the final stabilization method?

(seed, sod, etc.): <u>Sod</u>
<i>6 inches of topsoil must be added/replaced prior to final stabilization</i>

Will protective fencing for retained vegetation be installed?

<input checked="" type="checkbox"/> YES
<input type="checkbox"/> NOT APPLICABLE
<input type="checkbox"/> OTHER (describe) _____

I certify that I am familiar with the requirements of the MCWD Erosion Control Rule and that the proposed activity will be conducted in compliance with this rule.

[Signature]
Signature of Applicant or Authorized Agent

Date



MINNEHAHA CREEK
WATERSHED DISTRICT
QUALITY OF WATER, QUALITY OF LIFE

Certificate of Survey

~ for ~ Brad & Jennifer Searl
4800 & 4798 Northern Road
Mound, MN 55364

LAKE MINNETONKA

LAKE ELEVATION = 929.1 (NAVD88) 08/24/18



IMPERVIOUS SURFACE COVERAGE:

4798 NORTHERN RD EXISTING:

EXISTING HOUSE:	1056 S.F.
DRIVEWAY:	184 S.F.
SIDEWALK PAVERS:	44 S.F.
CONCRETE SIDEWALK:	44 S.F.
PATIO PAVERS:	167 S.F.
FIREPLACE CANT.	12 S.F.

4800 NORTHERN RD PROPOSED::

PROPOSED ADDITION:	564 S.F.
STOOP:	27 S.F.
SIDEWALK:	82 S.F.
DRIVEWAY:	NA
DECK & STEPS:	NA

TOTAL COMBINED COVERAGE: 2,180 S.F.

CONSOLIDATED LOT AREA: 7,406 S.F.

IMPERVIOUS COVERAGE: 29.4 %

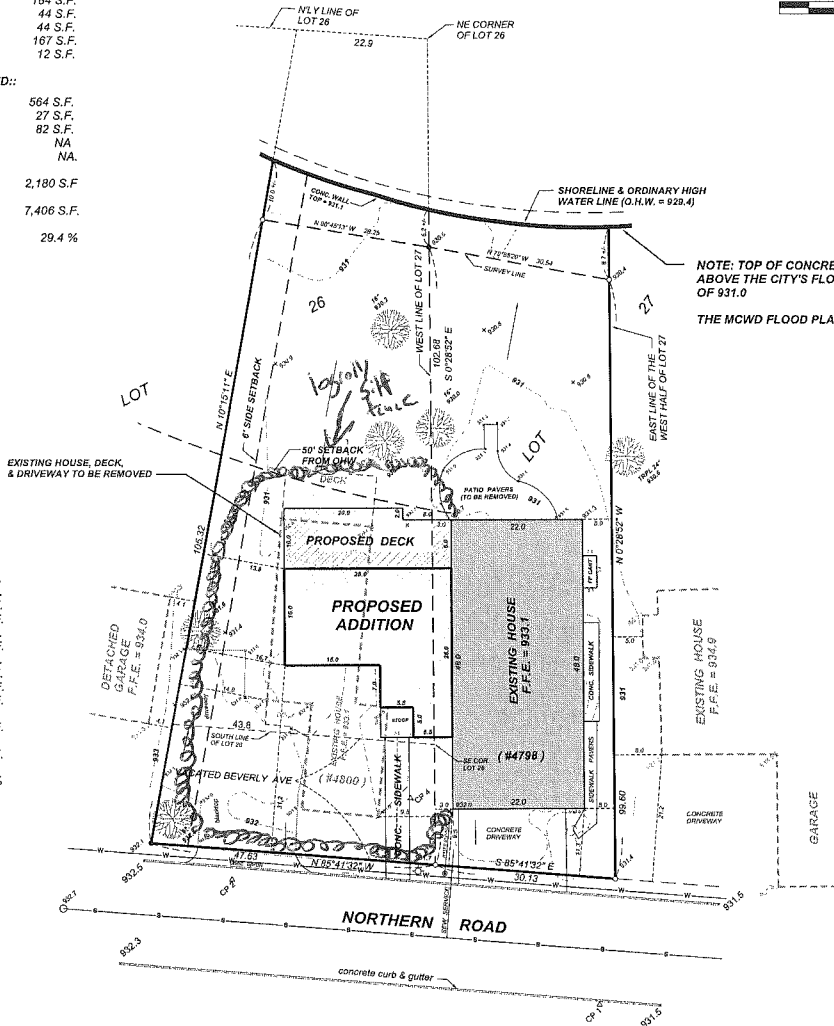
AS IS IMPERVIOUS SURFACE COVERAGE:

EXISTING HOUSE:	1056 S.F.
EXISTING CABIN:	682 S.F.
HOUSE DRIVEWAY:	184 S.F.
SIDEWALK PAVERS:	44 S.F.
CONCRETE SIDEWALK:	44 S.F.
PATIO PAVERS:	167 S.F.
FIREPLACE CANT.:	12 S.F.
CABIN DECK:	120 S.F.
FRONT DECK:	28 S.F.
CABIN DRIVEWAY:	553 S.F.

TOTAL IMPERVIOUS: 2880 S.F.

2 - LOT AREA: 7406 S.F.

IMPERVIOUS COVERAGE: 39.0 %



NOTE: TOP OF CONCRETE WALL IS 0.1 FEET ABOVE THE CITY'S FLOOD PLAIN ELEVATION OF 931.0
THE MCWD FLOOD PLAIN ELEVATION IS 931.5

EXISTING LEGAL DESCRIPTIONS:

PARCEL A: (4798 NORTHERN ROAD)

The West half of Lot 27, SUBDIVISION OF LOTS 1 AND 32, SKARP AND LINDQUIST'S RAVENWOOD, Hennepin County, Minnesota.

PARCEL B: (4800 NORTHERN ROAD)

All that part of Lot 26, Subdivision of Lots 1 and 32, Skarp and Lindquist's Ravenswood, lying Easterly of a line drawn from a point on the South line of said Lot, 43.8 feet West of Southeast corner thereof, to a point on the Northerly line of said Lot, 22.9 feet Westerly from the Northeast corner thereof, according to the map or plat thereof on file and of record in the office of the Register of Deeds in and for the County of Hennepin, State of Minnesota. And that part of vacated Beverly Avenue (now known as Northern Lane) adjoining said property thereof.

PROPOSED LOT CONSOLIDATION LEGAL DESCRIPTION:

The West half of Lot 27, SUBDIVISION OF LOTS 1 AND 32, SKARP AND LINDQUIST'S RAVENWOOD, Hennepin County, Minnesota.

AND ALSO:

All that part of Lot 26, Subdivision of Lots 1 and 32, Skarp and Lindquist's Ravenswood, lying Easterly of a line drawn from a point on the South line of said Lot, 43.8 feet West of Southeast corner thereof, to a point on the Northerly line of said Lot, 22.9 feet Westerly from the Northeast corner thereof, according to the map or plat thereof on file and of record in the office of the Register of Deeds in and for the County of Hennepin, State of Minnesota. And that part of vacated Beverly Avenue (now known as Northern Lane) adjoining said property thereof.

BENCHMARK:

Top of 600 common spike at control point #4, Elevation = 931.08 (NAVD88)

I hereby certify that this survey was prepared by me or under my direct supervision and that I am a duly licensed Professional Land Surveyor under the laws of the State of Minnesota.

Steven W. Ische License No. 22703 Date 08/25/18

REVISED: 04/29/19 - AS IS IMPERVIOUS COVERAGE
REVISED: 04/25/19 - NAVD88 VERTICAL DATUM
REVISED: 09/10/18 - IMPERVIOUS COVERAGE
REVISED: 08/28/18 - PATIO PAVERS, STOOP, SIDEWALK, DECK
REVISED: 08/28/18 - FIREPLACE CANT.

LEGEND	
X	Spot Elevation
●	Found Iron Monument
○	Set 1/2" X 1/4" rebar marked with cap number 22703
●	Curb Stop
●	Deciduous Tree
△	Survey Control Point
◆	Fire Hydrant
○	Sanitary Sewer Manhole
—	Sanitary Sewer
—	Water Main
—	Direction of Surface Drainage

PREMIER LAND SURVEYING, LLC

1600 Arboretum Blvd., Suite 203
Victoria, MN 55386
952-443-3010

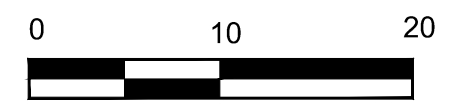
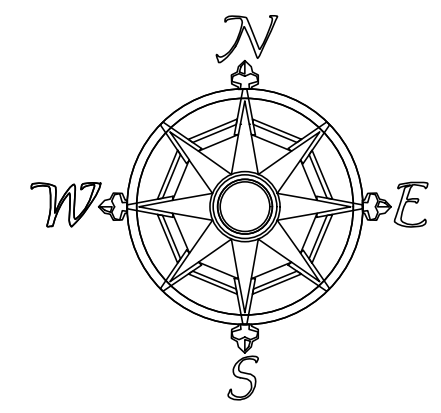
Certificate of Survey

Attachment 3

~ for ~ Brad & Jennifer Searl
4800 & 4798 Northern Road
Mound, MN 55364

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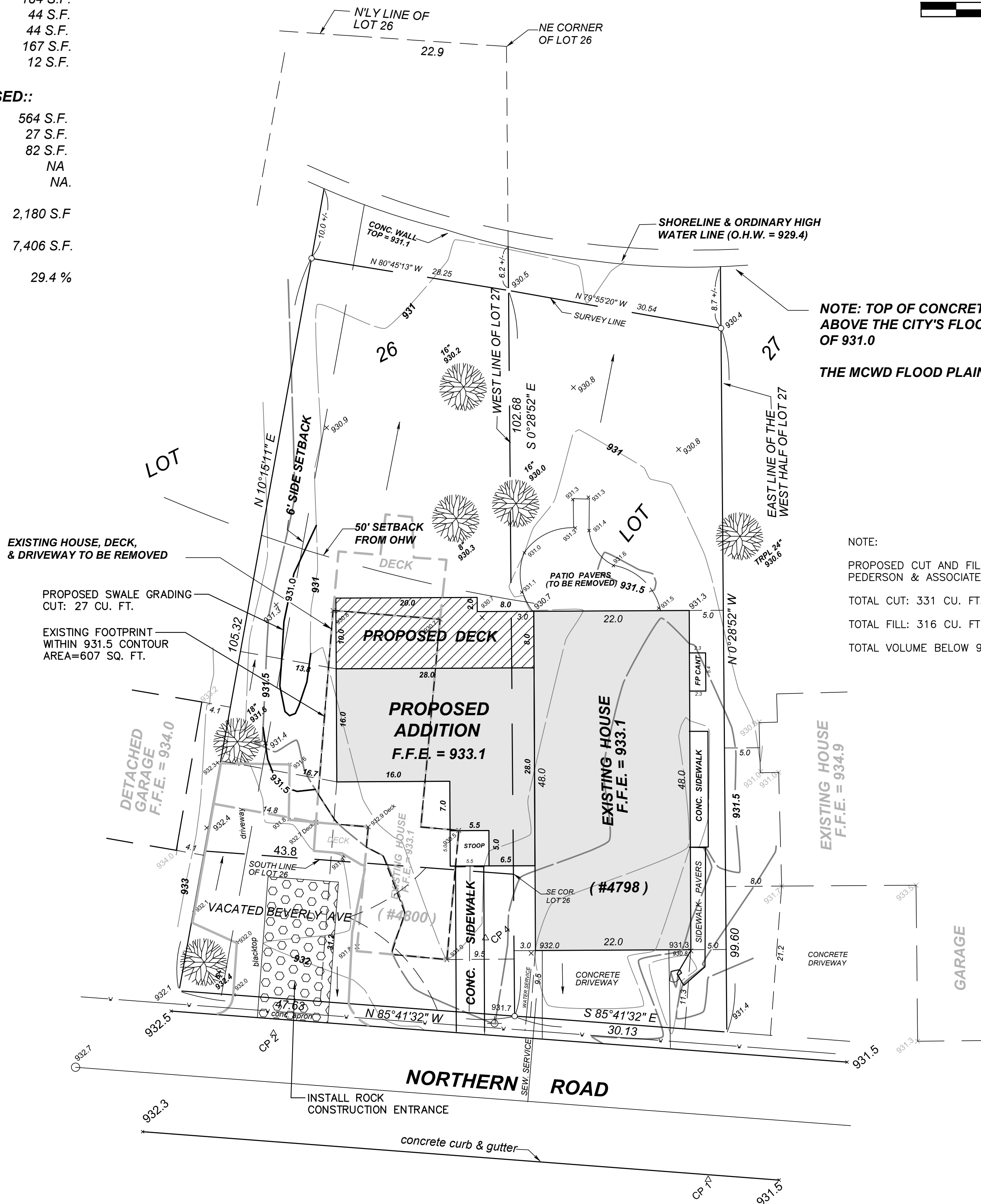
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THE MCWD FLOOD PLAIN ELEVATION IS 931.5

NOTE:

PROPOSED CUT AND FILL CALCULATION CONDUCTED BY BOGART, PEDERSON & ASSOCIATES.

TOTAL CUT: 331 CU. FT.

TOTAL FILL: 316 CU. FT.

TOTAL VOLUME BELOW 931.5 CONTOUR: 15 CU. FT. OF CUT

EXISTING LEGAL DESCRIPTIONS:

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The West half of Lot 27, SUBDIVISION OF LOTS 1 AND 32, SKARP AND LINDQUIST'S RAVENWOOD, Hennepin County, Minnesota.

AND ALSO:

All that part of Lot 26, Subdivision of Lots 1 and 32, Skarp and Lindquist's Ravenswood, lying Easterly of a line drawn from a point on the South line of said Lot, 43.8 feet West of Southeast corner thereof, to a point on the Northerly line of said Lot, 22.9 feet West of the Northeast corner thereof, according to the map or plat thereof on file and of record in the office of the Register of Deeds in and for the County of Hennepin, State of Minnesota. And that part of vacated Beverly Avenue (now known as Northern Lane) adjoining said property thereof.

BENCHMARK:

Top of 60D common spike at control point #4. Elevation = 931.08 (NAVD88)

REVISED: 04/29/19 - AS IS IMPERVIOUS COVERAGE
REVISED: 04/25/19 - NAVD88 VERTICAL DATUM
REVISED: 09/10/18 - IMPERVIOUS COVERAGE
REVISED: 08/28/18 - PATIO PAVERS, STOOP, SIDEWALK, DECK
REVISED: 08/26/18 - FIREPLACE CANT.

PROJ. #1611-00

LEGEND	
×	Spot Elevation
●	Found Iron Monument
○	Set 1/2" X 14" rebar maked with cap number 22703
●	Curb Stop
🌳	Deciduous Tree
△	Survey Control Point
⊕	Fire Hydrant
○	Sanitary Sewer Manhole
—	Sanitary Sewer
—	Water Main
→	Direction of Surface Drainage

1600 Arboretum Blvd., Suite 203
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952-443-3010



Bogart, Pederson & Associates, Inc.

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June 20th, 2019

Heidi Quinn
15320 Minnetonka Boulevard
Minnetonka, MN 55345

RE: MCWD Permit Application #4798/4800 Northern Road, Mound

Dear Heidi Quinn,

A calculation for the cut and fill of the #4800 and 4798 addition has been completed concerning the floodplain alteration. Below is a table of the areas used and volumes calculated. The areas within the 931.5 contour is shown. All elevations except the elevations located on the top of deck were used to determine the 931.5 contour line. The portion of the existing house slab within the 931.5 contour is the area given in the table below. The driveway of Beverly Ave to the Southwest is being removed but is outside of the 931.5 contour. A small swale graded on the west side of the site is proposed to help with drainage which will supply a cubic yard of cut to the balance. The proposed sidewalk, house slab, and deck footings are included as fill for the site.

Existing Item to be Removed	Amount	Area (ft ²)	Thickness or Height (ft)	Radius (ft)	Volume (ft ³)
Existing House Slab	1	607		0.5	303.5
Soil to be graded for Swale					27
Total Cut:					331
Proposed Item	Amount	Area (ft ²)	Thickness or Height (ft)	Radius (ft)	Volume (ft ³)
Proposed House Slab	1	564.5		0.5	282
Concrete Sidewalk	1	94.3		0.33	31
Helical Piers	5			5 0.165	2.14
Total Fill:					316
Difference:					15

According to these calculations, there will be roughly 15 cubic feet (0.6 cubic yards) in cut for the area within the 931.5 contour. The watershed volume will increase with this addition.

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Registered Engineer under the State of Minnesota Statutes Sections 326.02 to 326.16



Nicholas A. Anderson, P.E.

Date: 06/20/2019 Reg. No. 40100