



# CITY OF HAM LAKE

15544 Central Avenue NE  
Ham Lake, Minnesota 55304  
(763) 434-9555  
Fax (763) 434-9599

## CITY OF HAM LAKE PLANNING COMMISSION AGENDA MONDAY, JUNE 26, 2023

**CALL TO ORDER:** 6:00 p.m.

**PLEDGE OF ALLEGIANCE**

**APPROVAL OF MINUTES:** June 12, 2023

**PUBLIC HEARINGS:**

**6:01 p.m.** Richard and Diane Sylvester requesting Preliminary and Final Plat approval and rezoning of a portion of land from R-A (Rural Single Family Residential) to R-1 (Single Family Residential) of Toby's Trails (3 single family residential lots) located in Section 15.

**6:01 p.m.** Jeff Stalberger, HFN Properties, LLC, requesting Preliminary Plat approval and rezoning of portions of land from R-A (Rural Single Family Residential) to R-1 (Single Family Residential) of Hidden Forest East 4<sup>th</sup> Addition (22 Single Family Residential lots and 3 out lots) in sections 24 and 25.

**NEW BUSINESS:**

1. Mitch Stone, Stone Construction, requesting Commercial Site Plan approval to construct a 12,992 square foot addition to Jam Hops at 1460 133<sup>rd</sup> Lane NE.

**COMMISSION BUSINESS:**

1. City Council Update

CITY OF HAM LAKE  
PLANNING COMMISSION MINUTES  
MONDAY, JUNE 12, 2023

The Ham Lake Planning Commission met for its regular meeting on Monday, June 12, 2023 in the Council Chambers at Ham Lake City Hall located at 15544 Central Avenue NE in Ham Lake, Minnesota.

**MEMBERS PRESENT:** Commissioners Brian Pogalz, Dave Ringler, Jeff Entsminger, Jonathan Fisher and Erin Dixon

**MEMBERS ABSENT:** Commissioners Kyle Lejonvarn and Scott Heaton

**OTHERS PRESENT:** City Engineer Tom Collins and Building and Zoning Clerk Jennifer Bohr

**CALL TO ORDER:** Chair Pogalz called the meeting to order at 6:00 p.m.

**PLEDGE OF ALLEGIANCE:**

The pledge of allegiance was recited by all in attendance.

**APPROVAL OF MINUTES:**

**Motion by Dixon, seconded by Fisher, to approve the minutes of the May 22, 2023 Planning Commission meeting as written. All present in favor, motion carried.**

**PUBLIC HEARING:**

Kevin Hentges, Hentges Turf Farm, Inc., requesting Preliminary and Final Plat approval for the Hentges Addition a Minor Plat (2 lots) in Sections 15 and 22 and rezoning of Lot 2, Block 1, Hentges Addition, from Rural Single Family Residential (R-A) to Single Family Residential (R-1)

Mr. Kevin Hentges was present. Mr. Hentges stated this plat is to divide the property so that his sister will own the parcel with the house on it and he will own the remaining land for his farm operation. Chair Pogalz verified that Mr. Hentges knew the septic system for the house needs to be relocated and an accessory building on Lot 2 will need to be removed. Mr. Hentges stated he is aware of that. Chair Pogalz asked Engineer Collins to comment on the project. Engineer Collins stated this is a minor plat and, as with other minor plats, driveways are not required to outlet onto paved streets; Naples Street NE and 155<sup>th</sup> Avenue NE are not paved streets. Engineer Collins stated a development agreement will not be required but the applicant must pay a \$200 drainage fund contribution and a \$2500 parkland dedication fee for each lot. Engineer Collins stated Mr. Hentges is aware that one accessory building needs to be removed as it encroaches into a drainage and utility easement on Lot 2; the existing septic system, including tanks, for

the existing house will need to be abandoned; and the existing shallow well located within proposed Lot 2 will need to be sealed. Engineer Collins stated the existing farm driveway encroaches into Lot 2 and the replacement driveway will be constructed directly north of Lot 2. Engineer Collins stated the zoning of Lot 1 will continue to be R-A, Rural Single Family Residential as it is farmland, the zoning for Lot 2 will be changed to R-1, Residential Single Family. Engineer Collins stated the project has received approval from the Coon Creek Watershed District. Engineer Collins stated the property lines of Lot 2 were created to meet setback requirements between the farm buildings and the dwelling unit; the existing house has an egress entry on the south side of the house which allows it to be considered the front entry; the front entry parallels 155<sup>th</sup> Avenue NE and will require a change of address. (Per Articles 11-411.2.C and 11-820.) Engineer Collins stated the City will assign an address of 155<sup>th</sup> Avenue NE; the property owner will need to contact the post office to determine the placement of the mailbox. Engineer Collins stated the Building and Zoning Official required a re-designation of the front yard in order to meet Code requirements. Engineer Collins stated the primary means of egress must be unobstructed so a garage cannot be added onto the southside of the house. Commissioner Ringler completed the inspection; a copy which is on file. Commissioner Ringler stated his recommendation reflects the comments made by Engineer Collins.

**Chair Pogalz opened the public hearing at 6:07 p.m. and asked for public comment.**

Jerry Dahl, 1933 164<sup>th</sup> Lane NE. Mr. Dahl asked why the City had determined to only construct cement curbs and new roadway in the Meadow Park plat. Chair Pogalz informed Mr. Dahl his question was unrelated to the plat under review and that he could speak with Engineer Collins after the meeting

**Chair Pogalz closed the public hearing at 6:09 p.m.**

**Motion by Ringler, seconded by Fisher, to recommend approval of the request of Kevin Hentges, Hentges Turf Farm, Inc., requesting Preliminary and Final Plat approval for the Hentges Addition a Minor Plat (2 lots) in Sections 15 and 22 and rezoning of Lot 2, Block 1, Hentges Addition, from Rural Single Family Residential (R-A) to Single Family Residential (R-1) subject to designating the south side of the dwelling unit as the front yard, accepting an address change to meet Article 11-820 of City Code, removing the accessory building that encroaches into the westerly 10-foot wide drainage and utility easement of Lot 2, bringing the septic system into compliance within ninety days of recording of the final plat which includes abandoning the existing septic system, including tanks, for the dwelling unit and constructing a new septic system on Lot 2 for the dwelling unit, sealing the existing well, removing the Lot 1 driveway encroachment from Lot 2 and creating a new driveway access for Lot 1 north of Lot 2, paving the easterly 30-feet of the new driveway for Lot 2, paying a \$200 drainage fund contribution and a \$2,500 parkland dedication fee for each lot, meeting the requirements of the City Engineer and Building Official and meeting all City, County, and State requirements All present in favor, motion carried. *This application will be placed on the City Council's June 20, 2023 agenda.***

**NEW BUSINESS:** None

**COMMISSION BUSINESS:**

City Council Update

Chair Pogalz stated Senator Michael Kreun and Representative Nolan West provided a summary of laws passed during the recent legislative session and the impact the laws will have on residents, businesses and infrastructure in Ham Lake. Chair Pogalz stated the City Council concurred with the recommendation to approve the Temporary Conditional Use Permit for Seng Vang to raise pigeons. Chair Pogalz stated there was some discussion on the number of pigeons that can be released at one time for exercise. Chair Pogalz stated there was discussion about revising City Code related to raising pigeons. Chair Pogalz stated the City Council also concurred with the recommendation to approve the Conditional Use Permit and Commercial Site Plan for Fleet Star Truck and Trailer, LLC. A Planning Commissioner will not be present at the June 20, 2023 City Council meeting.

**ADJOURNMENT:**

**Motion by Fisher, seconded by Dixson, to adjourn the Planning Commission meeting at 6:13 p.m. All present in favor, motion carried.**

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Jennifer Bohr  
Building and Zoning Clerk

**CITY OF HAM LAKE  
PLANNING COMMISSION REQUEST APPLICATION  
INSPECTION REPORT**

MTG DATE: June 26, 2023

INSPECTION ISSUED TO: Jeff Entsminger

APPLICANT/CONTACT: Richard & Diane Sylvester

TELEPHONE NUMBER: 763-242-8866 or 763-229-1247;  
diane.sylvester@hotmail.com

BUSINESS/PLAT NAME: Toby's Trails

ADDRESS/LOCATION OF INSPECTION: 16220 Naples St NE

APPLICATION FOR: Preliminary Plat & Rezoning

RECOMMENDATION: \_\_\_\_\_

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\_\_\_\_\_

DATE: \_\_\_\_\_

PLANNING COMMISSIONER SIGNATURE: \_\_\_\_\_



# CITY OF HAM LAKE

## PLANNING REQUEST

15544 Central Avenue NE

Ham Lake, MN 55304

Phone (763) 434-9555 Fax (763) 235-1697

Date of Application 2/15/23

Date of Receipt 2/21/23  
Receipt # \_\_\_\_\_

Meeting Appearance Dates:  
Planning Commission 6-26-23

City Council \_\_\_\_\_

Please check request(s):

- Metes & Bounds Conveyance
- Sketch Plan
- Preliminary Plat Approval\*
- Final Plat Approval
- Rezoning\*
- Multiple Dog License\*

- Commercial Building Site
- Certificate of Occupancy
- Home Occupation Permit
- Conditional Use Permit (New)\*
- Conditional Use Permit (Renewal)
- Other

**\*NOTE: Advisory Signage is required for land use alterations and future road connections. This application also requires a Public Hearing. Such fees shall be deducted from deposit.**

Development/Business Name: Toby's Trails

Address/Location of property: 14220 Naples St Ham Lake Mn

Legal Description of property: SE 1/4 of NE 1/4 of Sec 15 Township 32 Range 23

PIN # 1532-2314-0004 Current Zoning RP+R1 Proposed Zoning R1

Notes: 3 lot development

Applicant's Name: Dick Sylvester & Diane Sylvester

Business Name: \_\_\_\_\_

Address 16220 Naples St. NE

City Ham Lake State MN Zip Code 55304

Phone 763.242.8866 Cell Phone 763.229.1247 Fax \_\_\_\_\_

Email address Dick.Sylvester@hotmail.com Diane.Sylvester@hotmail.com

**You are advised that the 60-day review period required by Minnesota Statutes Chapter 15.99 does not begin to run until all of the required items have been received by the City of Ham Lake.**

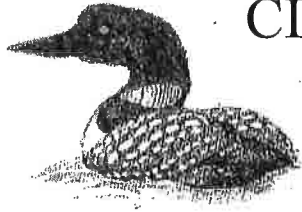
SIGNATURE [Signature] DATE 2/15/2023

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**- FOR STAFF USE ONLY -**

ACTION BY: Planning Commission \_\_\_\_\_  
City Council \_\_\_\_\_

PROPERTY TAXES CURRENT YES NO



# CITY OF HAM LAKE

15544 Central Avenue NE  
Ham Lake, Minnesota 55304  
(763) 434-9555  
Fax (763) 434-9599

NOTICE OF PUBLIC HEARING  
CITY OF HAM LAKE  
COUNTY OF ANOKA  
STATE OF MINNESOTA

TAKE NOTICE, that pursuant to the requirements of Minnesota Law, a public hearing shall be held before the Ham Lake Planning Commission on Monday, June 26, 2023 at 6:01 p.m. at the City Hall located at 15544 Central Avenue NE for the purpose of considering the application of Richard and Diane Sylvester requesting preliminary plat approval and rezoning of a portion of land from R-A (Rural Single Family Residential) to R-1 (Single Family Residential) the development of Toby's Trails, a minor plat (3 residential lots), in Section 15 a parcel of certain land situated in the City of Ham Lake, Anoka County, Minnesota and which is described as follows to wit:

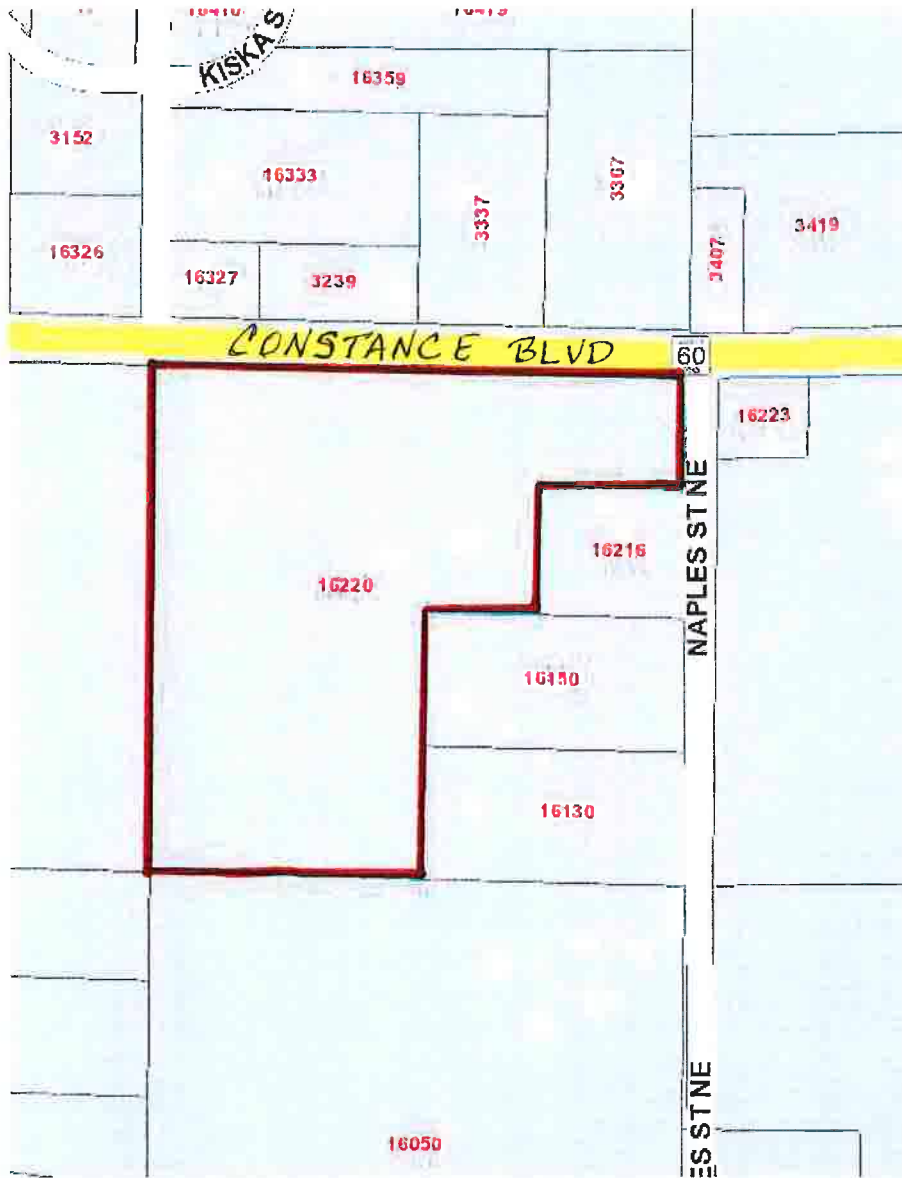
PID# 15-32-23-14-0004

SE1/4 OF NE1/4 SEC 15 32 23 EX E 657.04 FT OF S 663 FT OF SD 1/4, 1/4, ALSO EX E 373 FT OF N 320 FT OF S 983 FT OF SD 1/4, 1/4, (ALL DIST AS MEAS ALG & PRLW S & E LINES THEREOF); ALSO EX RD; SUBJ TO E ASE OF REC

At such hearing both written and oral comments will be heard.

DATED: June 16, 2023

Jennifer Bohr  
Building and Zoning Clerk  
City of Ham Lake



16220 Naples Street NE





## Memorandum

Date: June 22, 2023  
To: Planning Commissioners  
From: Tom Collins, City Engineer *TPC*  
Subject: Toby's Trails Minor Plat

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**Introduction:**

The Preliminary and Final Plat for Toby's Trails subdivides the 25.78-acre 16220 Naples Street / 15-32-23-14-0004 parcel into three lots. The existing house and accessory building are located on proposed Lot 1. The parcel is currently split zoned, with Rural Single Family Residential (R-A) over the southerly portion and Single Family Residential (R-1) over the northerly portion. The entire parcel would be zoned R-1 following final plat approval. A 700-scale zoning map, 400 scale half-section map and a 400 scale aerial photo are attached.

**Discussion:**

The Final Plat, Preliminary Plat, Grading, Erosion Control and Tree Protection Plan, Livability Plan and Livability Plan and Chart received May 5<sup>th</sup>, the Utility Plan & Details and SWPPP received May 26<sup>th</sup> and the Stormwater Drainage Report received June 15<sup>th</sup> address the prior review comments. The proposed subdivision falls under the Minor Plat portion of City Code Section 10-101, which does not require that the existing driveway access a paved road.

The existing house and accessory building are to remain on Lot 1. The existing 3,200 square foot accessory building is under the 9-370.1 maximum allowed for a 10+ acre lot of 5,000 square feet. A compliance inspection will be required for the existing septic system per 11-450.4c of City Code. Per 10-430E.2 of City Code, the existing Lot 1 gravel driveway will have to be paved prior to consideration of any future building permits. That portion of the existing Lot 1 gravel driveway that encroaches into the 10-foot drainage and utility easement will need to be removed/relocated.

The drainage and utility easement over the northerly portion of Lot 2 and Lot 3 extends beyond the standard 10-foot drainage and utility easement to contain the 15-foot setback from the wetland and the stormwater infiltration basin. An Encroachment Agreement will be required for the Lot 2 and Lot 3 driveways encroaching into the drainage and utility easement adjacent to Constance Boulevard.

Per the attached 600-scale Thoroughfare Map, it is anticipated that there will be a future road extension of East Lake Netta Drive to the south of Constance Boulevard. The Final Plat includes 33-feet of right-of-way dedication, tapering to the southwest, in the northwest portion of Lot 1.

Because the minor plat is utilizing the existing infrastructure, and no construction is required other than individual lot development, a Development Agreement will not be required. The developer will need to pay a \$200 drainage fund contribution along with a \$2,500 parkland dedication fee for

each of the three lots. It is anticipated that there will be a future subdivision to create up to four new lots, similar to what was approved at the July 18, 2022 City Council meeting (attached), which would require the upgrade of Naples Street from Constance Boulevard to the southeast plat border.

The Soil Boring Test Report confirms that there is adequate area for a primary and secondary septic system for all three lots. The attached April 10<sup>th</sup> Tradewell septic certification certifies that the lots will support two standard septic systems in accordance with Minnesota Rules 7080.

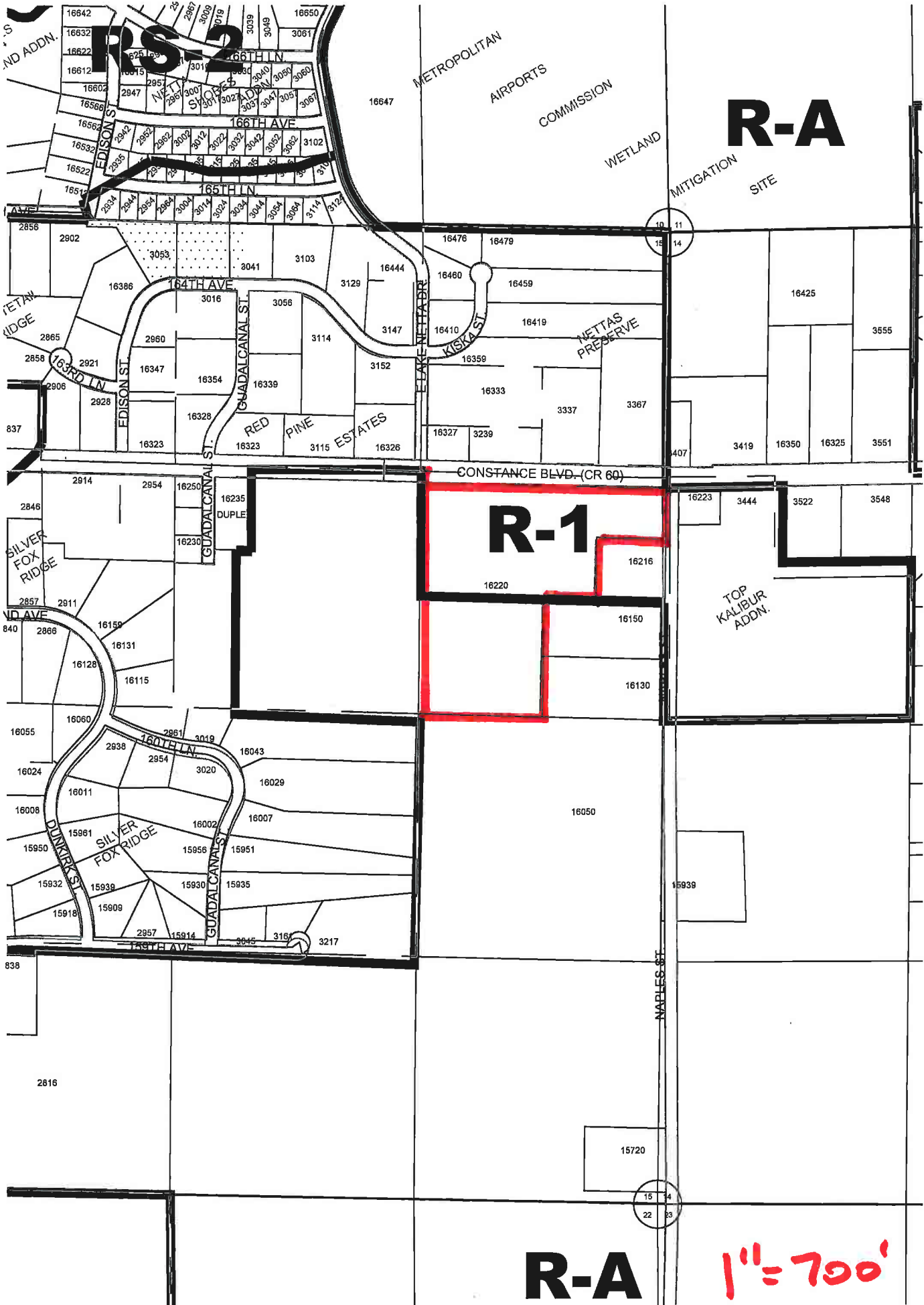
The Coon Creek Watershed District (CCWD) staff is recommending conditional approval at their June 26<sup>th</sup> Board of Directors meeting, per the attached June 12<sup>th</sup> email. The CCWD permit will be issued once the \$3,300 escrow is paid.

The attached April 17<sup>th</sup> Minnesota DNR Natural Heritage review for potential impacts to state-listed species and other rare features found that Blanding's turtles have been reported in the vicinity of the proposed project and may be encountered on site. If Blanding's turtles are encountered during construction the contractor is to move them by hand out of harm's way. Otherwise, the turtles are to be left undisturbed.

Per the attached March 21<sup>st</sup> Anoka County Transportation Division review letter, the driveways for Lot 2 and Lot 3 are approved; right of access should be dedicated to Anoka County except for the two proposed driveway access points. The right of access is the right of ingress and egress from abutting land to a public street. Per the attached March 22<sup>nd</sup> email, the County is not demanding right of access over Lot 1 because of the anticipated future development. The Final Plat only dedicates right of access to the County over Lot 2 and Lot 3, which excludes a 50-foot wide opening for each driveway.

**Recommendations:**

It is recommended that the Preliminary Plat and Final Plat for Toby's Trails be recommended for approval. Approval is contingent on removal of that portion of the existing gravel driveway that encroaches into the 10-foot drainage and utility easement.



**R-A**

**R-1**

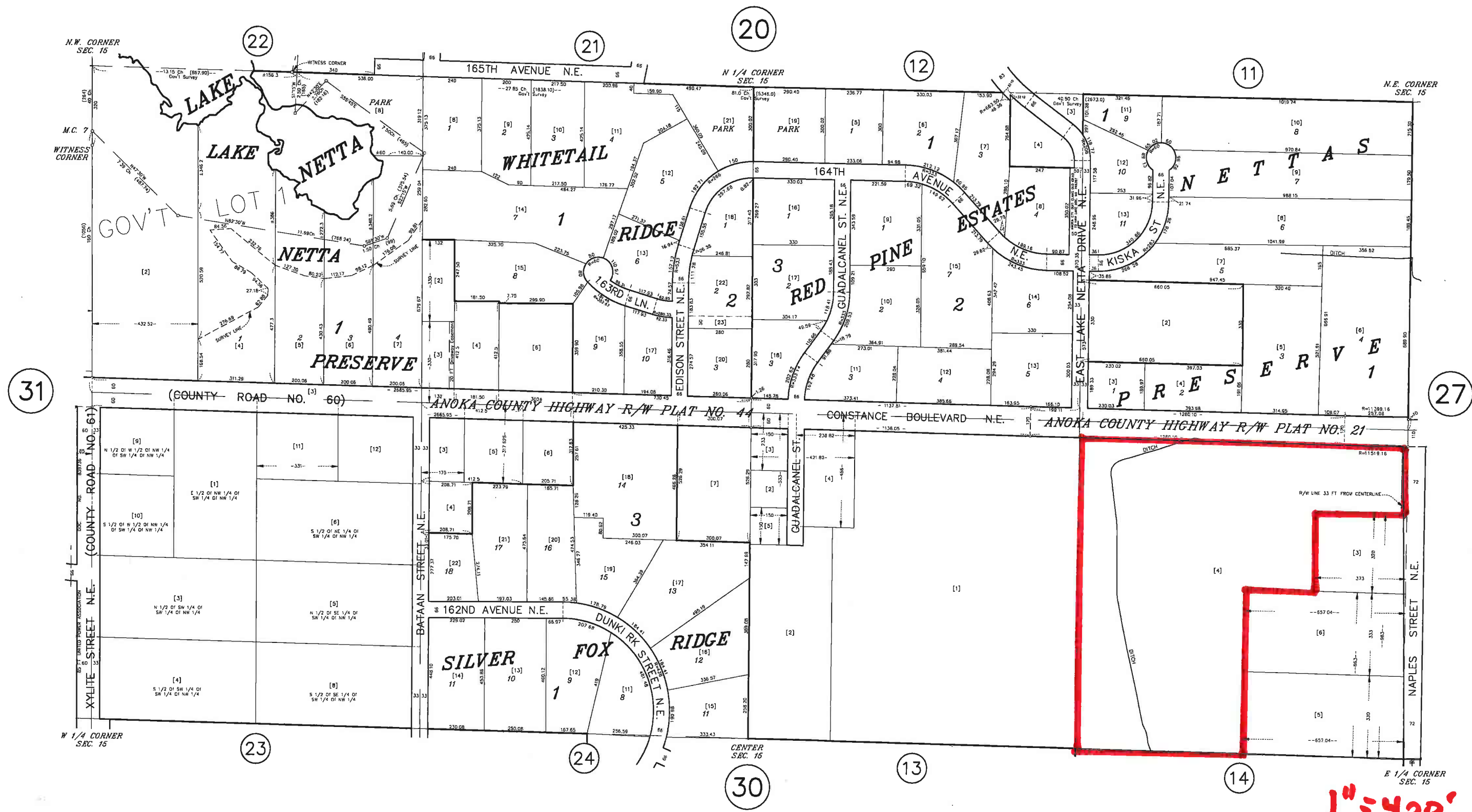
**R-2**

**R-A**

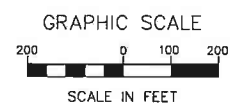
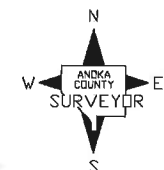
1" = 700'

# N 1/2 SECTION 15, T. 32, R. 23

CITY OF HAM LAKE



1" = 400'



ANOKA COUNTY  
SURVEYOR'S OFFICE  
ROOM 224  
2100 3RD AVENUE  
ANOKA, MN 55303  
(763) 324-3200

QUARTER QUARTER INDEX

22	21	12	11
23	24	13	14
32	31	42	41
33	34	43	44

NORTH HALF OF SECTION

SOUTH HALF OF SECTION

PROPERTY IDENTIFICATION NUMBER

Section Number	Township Number	Range Number	Quarter Number	Specific Parcel
XX	XX	XX	XX	XXXX

SPECIFIC PARCEL NUMBERS ARE IN BRACKETS. [1]  
EXAMPLE OF PIN NUMBER: 15-32-23-24-0011

THIS IS A COMPILATION OF RECORDS AS THEY APPEAR IN THE ANOKA COUNTY OFFICES AFFECTING THE AREA SHOWN. THIS DRAWING IS TO BE USED ONLY FOR REFERENCE PURPOSES AND THE COUNTY IS NOT RESPONSIBLE FOR ANY INACCURACIES HEREIN CONTAINED.



1"=400'

PRELIMINARY COPY

LAST SAVED BY: ERESSETT ON 03/31/2023 AT 8:13:26 AM  
LOCATION: S:\PROJECTS\2023\20230331\20230331.FINAL.PLT  
FILE NAME: 20230331.DWG  
PLOT DATE: 3/31/2023

KNOW ALL PERSONS BY THESE PRESENTS: That Richard W. Sylvester, as trustee of the Richard W. and Diane K. Sylvester Joint Living Trust, under Agreement dated May 4, 2018; Diane K. Sylvester, as trustee of the Richard W. and Diane K. Sylvester Joint Living Trust, under Agreement dated May 4, 2018, fee owners of the following described property:

The Southeast Quarter of the Northeast Quarter of Section 15, Township 32, Range 23, Anoka County, Minnesota.

EXCEPT

The East 657.04 feet of the South 663 feet of said Quarter Quarter, as measured along and parallel with the South and East lines of said Quarter Quarter.

AND EXCEPT

The East 373 feet of the North 320 feet of the South 983 feet of said Quarter Quarter, as measured along and parallel with the South and East lines of said Quarter Quarter.

AND EXCEPT

Parcel No. 3, Anoka County Highway Right-of-way Plat No. 21, according to the map or plat thereof on file and of record in the office of the Anoka County Recorder, Anoka County, Minnesota.

Have caused the same to be surveyed and platted as TOBYS TRAILS and do hereby dedicate to the public for public use the public ways and the drainage and utility easements as shown on this plat. Also dedicating to the County of Anoka the right of access onto Constance Boulevard NE as shown on this plat.

In witness whereof said Richard W. Sylvester, as trustee of the Richard W. and Diane K. Sylvester Joint Living Trust, under Agreement dated May 4, 2018 has hereunto set their hands this \_\_\_ day of \_\_\_, 20\_\_.

In witness whereof said Diane K. Sylvester, as trustee of the Richard W. and Diane K. Sylvester Joint Living Trust, under Agreement dated May 4, 2018 has hereunto set their hands this \_\_\_ day of \_\_\_, 20\_\_.

Richard W. Sylvester

Diane K. Sylvester

STATE OF MINNESOTA  
COUNTY OF \_\_\_\_\_

This instrument was acknowledged before me this \_\_\_ day of \_\_\_, 20\_\_ by Richard W. Sylvester and Diane K. Sylvester, as trustees of the Richard W. and Diane K. Sylvester Joint Living Trust, under Agreement dated May 4, 2018.

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Print name)

Notary Public, \_\_\_\_\_ County, Minnesota

My Commission Expires \_\_\_\_\_

I Jason E. Rud do hereby certify that this plat was prepared by me or under my direct supervision; that I am a duly Licensed Land Surveyor in the State of Minnesota; that this plat is a correct representation of the boundary survey; that all mathematical data and labels are correctly designated on this plat; that all monuments depicted on this plat have been, or will be correctly set within one year; that all water boundaries and wet lands, as defined in Minnesota Statutes, Section 505.01, Subd. 3, as of the date of this certificate are shown and labeled on this plat; and all public ways are shown and labeled on this plat.

Dated this \_\_\_ day of \_\_\_, 20\_\_.

Jason E. Rud, Licensed Land Surveyor  
Minnesota License No. 41578

STATE OF MINNESOTA  
COUNTY OF \_\_\_\_\_

This instrument was acknowledged before me this \_\_\_ day of \_\_\_, 20\_\_ by Jason E. Rud.

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Print name)

Notary Public, \_\_\_\_\_ County, Minnesota

My Commission Expires \_\_\_\_\_

CITY COUNCIL, CITY OF HAM LAKE, MINNESOTA

This plat of TOBYS TRAILS was approved and accepted by the City Council of the City of Ham Lake, Minnesota at a regular meeting thereof held this \_\_\_ day of \_\_\_, 20\_\_, and said plat is in compliance with the provisions of Minnesota Statutes, Section 505.03, Subd. 2.

CITY COUNCIL, CITY OF HAM LAKE, MINNESOTA

By \_\_\_\_\_ Mayor

By \_\_\_\_\_ Clerk

COUNTY SURVEYOR

I hereby certify that in accordance with Minnesota Statutes, Section 505.021, Subd. 11, this plat has been reviewed and approved this \_\_\_ day of \_\_\_, 20\_\_.

David M. Ziegler  
Anoka County Surveyor

COUNTY AUDITOR/TREASURER

Pursuant to Minnesota Statutes, Section 505.021, Subd. 9, taxes payable in the year 20\_\_ on the land hereinbefore described have been paid. Also, pursuant to Minnesota Statutes, Section 272.12, there are no delinquent taxes and transfer entered this \_\_\_ day of \_\_\_, 20\_\_.

Property Tax Administrator

By \_\_\_\_\_, Deputy

COUNTY RECORDER/REGISTRAR OF TITLES

COUNTY OF ANOKA, STATE OF MINNESOTA

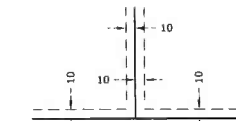
I hereby certify that this plat of TOBYS TRAILS was filed in the office of the County Recorder/Registrar of Titles for public record on this \_\_\_ day of \_\_\_, 20\_\_, at \_\_\_ o'clock \_\_\_ M. and was duly recorded as Document Number \_\_\_\_\_.

County Recorder/Registrar of Titles

By \_\_\_\_\_, Deputy

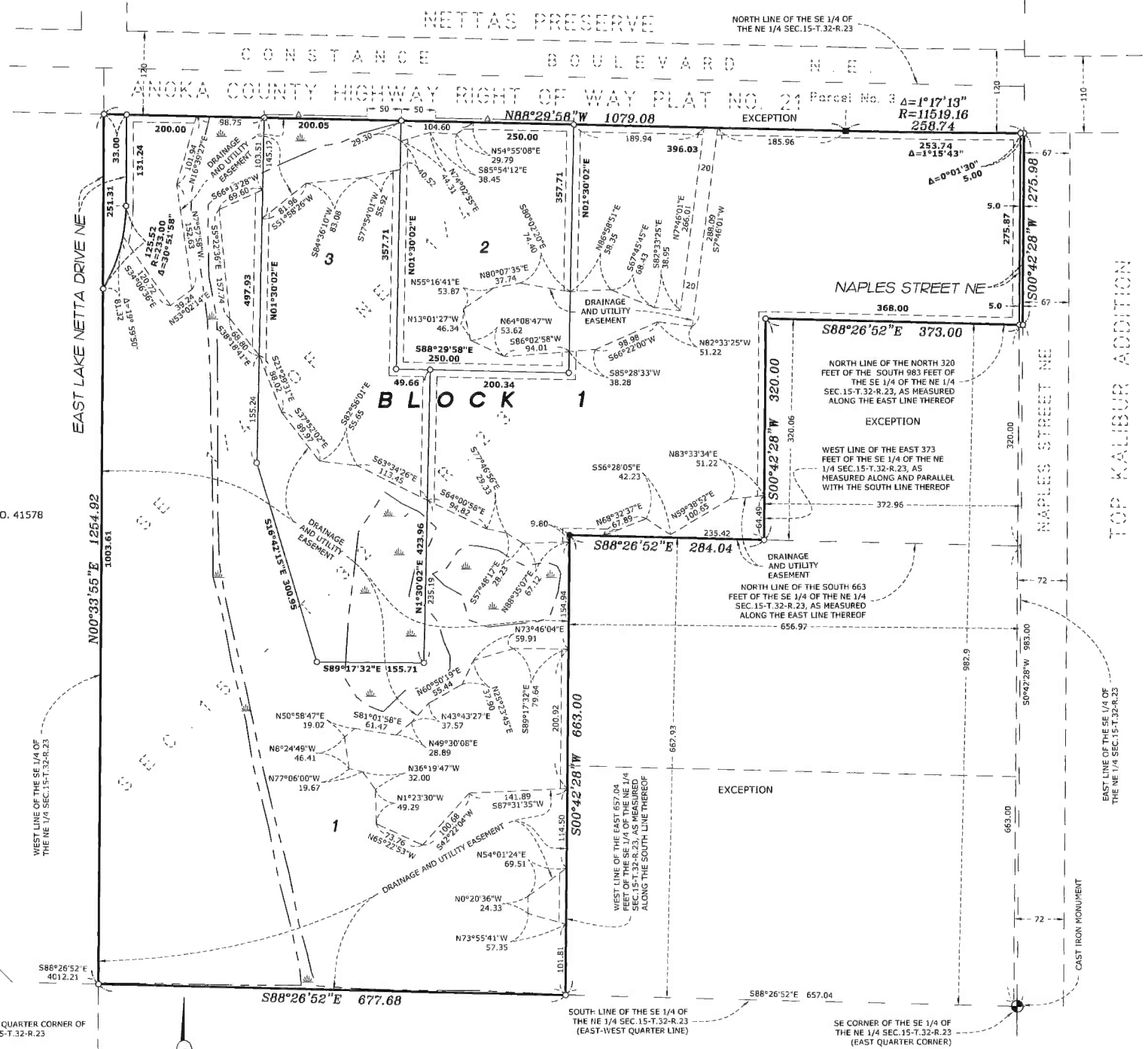
# TOBYS TRAILS

DRAINAGE AND UTILITY EASEMENTS ARE SHOWN THUS:  
(NOT TO SCALE)



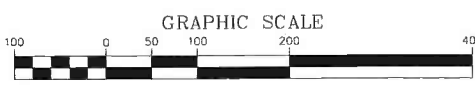
BEING 10 FEET IN WIDTH ADJOINING RIGHT OF WAY LINES AND 10 FEET IN WIDTH ADJOINING SIDE LOT LINES UNLESS OTHERWISE SHOWN.

City of Ham Lake  
County of Anoka  
Sec. 15, T32, R23



## LEGEND

- DENOTES 1/2 INCH BY 14 INCH IRON PIPE SET, MARKED RLS NO. 41578
- DENOTES FOUND 1/2 INCH IRON PIPE, CAP NOT LEGIBLE
- ◆ DENOTES ANOKA COUNTY SECTION MONUMENT, AS NOTED
- DENOTES ANOKA COUNTY HIGHWAY MONUMENT
- △ DENOTES RIGHT OF ACCESS DEDICATED TO ANOKA COUNTY
- ▭ DENOTES WET LAND AS DELINEATED BY JACOBSON ENVIRONMENTAL IN SEPTEMBER OF 2021



(SCALE IN FEET)  
1 INCH = 100 FEET

FOR THE PURPOSES OF THIS PLAT, THE SOUTH LINE OF THE SOUTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION 15, TOWNSHIP 32, RANGE 23, ANOKA COUNTY, MINNESOTA IS ASSUMED TO HAVE A BEARING OF SOUTH 88 DEGREES 26 MINUTES 52 SECONDS EAST.



NORTH

# PRELIMINARY PLAT

~of~ TOBY'S TRAILS  
~for~ RICHARD AND DIANE SYLVESTER

## PROPERTY DESCRIPTION

The Southeast Quarter of the Northeast Quarter of Section 15, Township 32, Range 23, Anoka County, Minnesota.

**EXCEPT**  
The East 657.04 feet of the South 663 feet of said Quarter Quarter, as measured along and parallel with the South and East lines of said Quarter Quarter.

**AND EXCEPT**  
The East 373 feet of the North 320 feet of the South 983 feet of said Quarter Quarter, as measured along and parallel with the South and East lines of said Quarter Quarter.

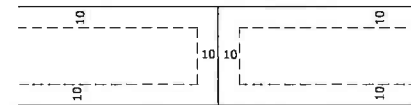
**AND EXCEPT**  
Parcel No. 3, Anoka County Highway Right-of-way Plat No. 21, according to the map or plat thereof on file and of record in the office of the Anoka County Recorder, Anoka County, Minnesota.

## LEGEND

- DENOTES IRON MONUMENT FOUND AS LABELED
- DENOTES IRON MONUMENT SET, MARKED RLS# 41578
- ⊙ DENOTES SOIL BORING BY TRADEWELL SOIL TESTING
- WET — DENOTES WET LAND
- — — DENOTES EXISTING CONTOURS
- — — DENOTES PROPOSED 2 FOOT CONTOURS
- DENOTES AREA 1' ABOVE MOTTLES
- - - DENOTES APPROXIMATE FEMA FLOOD ZONE A LINE FROM FEMA FLOOD INSURANCE RATE MAP NO. 27003C0215A AND 27003C0220E EFFECTIVE DATE DECEMBER 16TH, 2015.
- A - DENOTES RIGHT OF ACCESS DEDICATED TO ANOKA COUNTY

## TYPICAL EASEMENTS

(NOT TO SCALE)



BEING 10 FEET IN WIDTH ADJOINING RIGHT OF WAY LINES AND 10 FEET IN WIDTH ADJOINING LOT LINES UNLESS OTHERWISE SHOWN.

## NOTES

- Bearings shown are on Anoka County datum.
- Total lot acres include adjoining 33' feet of street per ordinance.
- This survey was prepared without the benefit of title work. Additional easements, restrictions and/or encumbrances may exist other than those shown hereon. Survey subject to revision upon receipt of a current title commitment or an attorney's title opinion.
- Wetlands delineated by Jacobson Environmental, PLLC.

Parcel ID: 15-32-23-14-0004

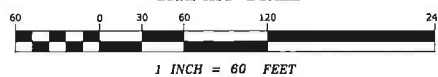
Owner: Richard W. and Diane K. Sylvester Joint Living Trust, under Agreement dated May 4, 2018

**NORTH**

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

JASON E. RUD  
Date: 05/03/2023 License No. 41578

GRAPHIC SCALE



**E. G. RUD & SONS, INC.**  
Professional Land Surveyors  
6776 Lake Drive NE, Suite 110  
Lino Lakes, MN 55014  
Tel. (651) 361-8200 Fax (651) 361-8701

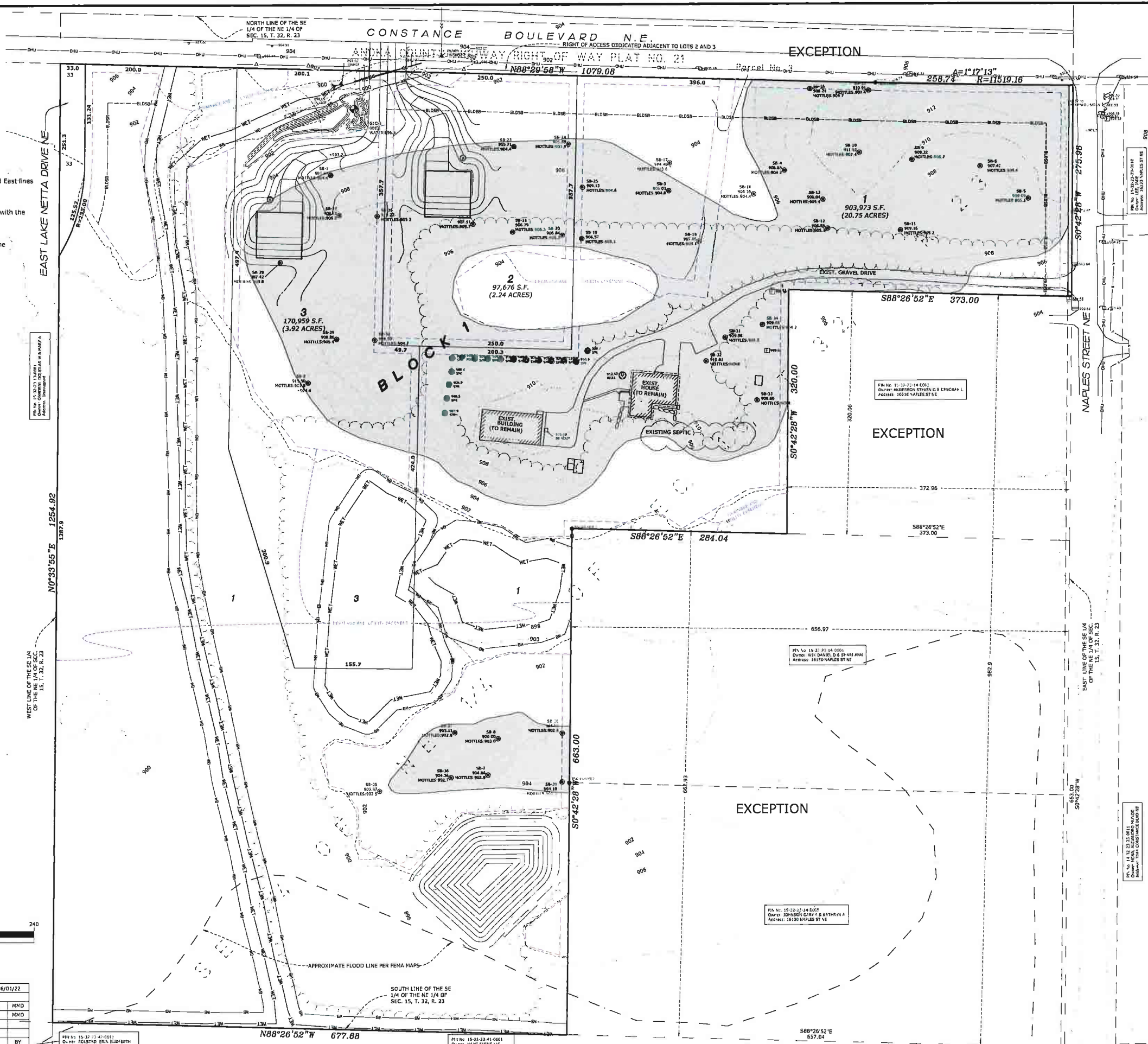
DRAWN BY: MMD	JOB NO: 210300PP	DATE: 06/01/22	
CHECK BY: JER	FIELD CREW: BH / BJ		
1 03/31/23	CITY / WATERSHED COMMENTS	MMD	
2 05/03/23	WATERSHED COMMENTS	MMD	
NO.	DATE	DESCRIPTION	BY

PLN No. 15-32-23-14-0004  
Owner: RICHARD SYLVESTER & DIANE SYLVESTER  
Address: 16045 GUNDEL DRIVE, ST. HE

PLN No. 15-32-23-14-0001  
Owner: RICHARD SYLVESTER & DIANE SYLVESTER  
Address: 16045 GUNDEL DRIVE, ST. HE

PLN No. 15-32-23-14-0005  
Owner: DANIEL D & SHARON ANN  
Address: 16130 NAPLES ST NE

PLN No. 15-32-23-14-0006  
Owner: DANIEL D & SHARON ANN  
Address: 16130 NAPLES ST NE

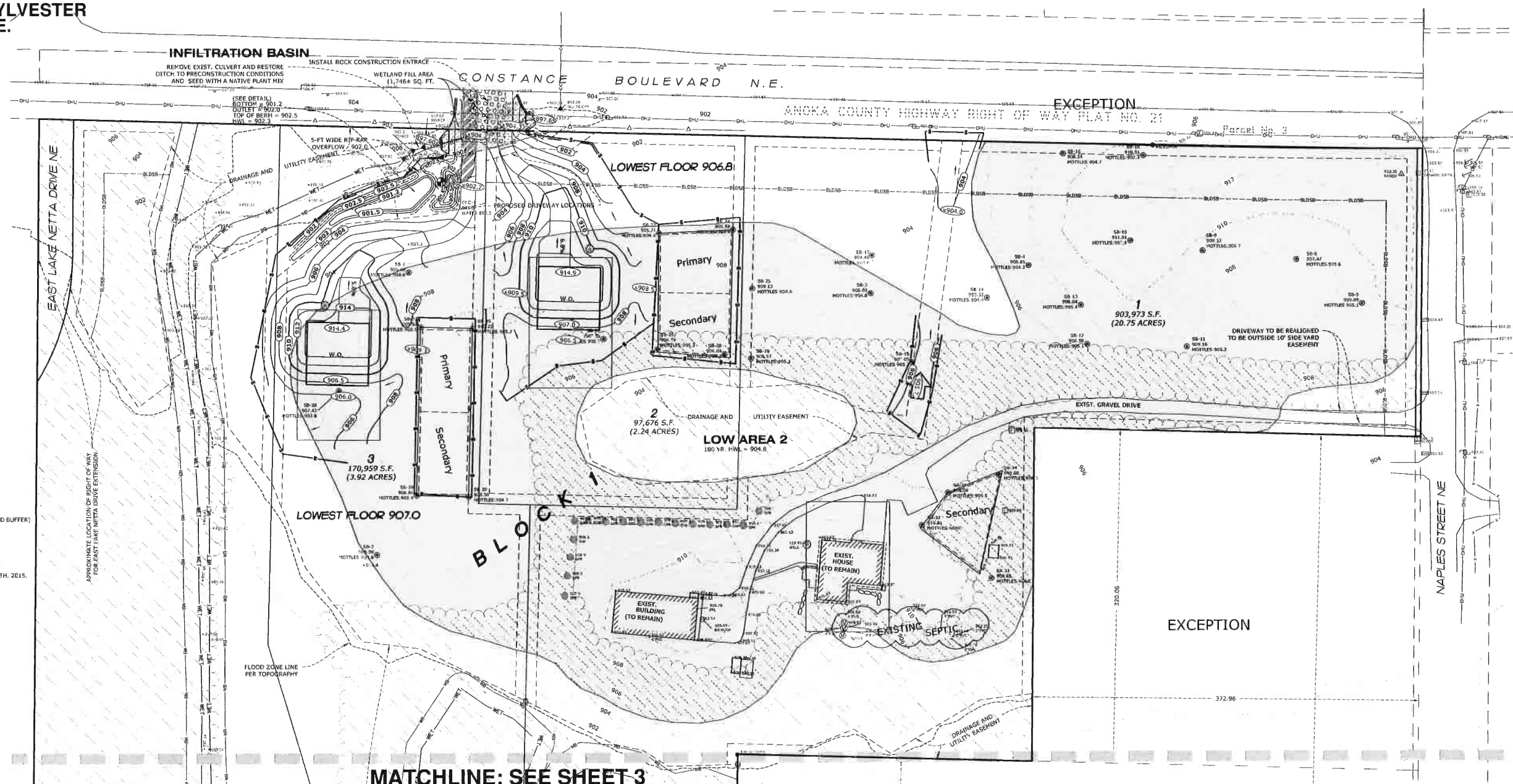


# GRADING, EROSION CONTROL AND TREE PROTECTION PLAN

~of~ TOBY'S TRAILS  
 ~for~ RICHARD AND DIANE SYLVESTER  
 16220 NAPLES STREET N.E.  
 HAM LAKE, MN 55304  
 (763) 229-1247

## LEGEND

- DENOTES SOIL BORING BY HAUGO GEOTECHNICAL SERVICES
- DENOTES SOIL BORING BY TRADEWELL SOIL TESTING
- DENOTES EMERGENCY OVERFLOW ELEVATION
- DENOTES EXISTING SPOT ELEVATION
- DENOTES WETLAND
- DENOTES EXISTING 2 FOOT CONTOUR
- DENOTES PROPOSED 2 FOOT CONTOURS
- DENOTES WETLAND DELINEATED BY JACOBSON ENVIRONMENTAL, PLLC.
- DENOTES EASEMENT LINE
- DENOTES SETBACK LINE
- DENOTES PROPOSED STORM SEWER
- DENOTES PROPOSED SILT / TREE PROTECTION FENCE
- DENOTES BIG ROLL TO BE INSTALLED INSIDE SILT FENCE ADJACENT TO WETLAND
- DENOTES DIRECTION OF DRAINAGE
- DENOTES PROPOSED SPOT ELEVATION
- DENOTES PROPOSED CENTERLINE ELEVATION
- DENOTES PROPOSED WELL LOCATION
- DENOTES AREA 1' ABOVE MOTTLES
- DENOTES WETLAND/ VEGETATIVE BUFFER
- DENOTES WETLAND/ VEGETATIVE BUFFER SIGN
- DENOTES RIPRAP (RIPRAP TO BE VEGETATED IN WETLAND BUFFER)
- DENOTES PROPOSED STORM SEWER INLET PROTECTION
- DENOTES C.C.W.D. FLOOD ZONE LINE PER TOPOGRAPHY
- DENOTES APPROXIMATE FEMA FLOOD ZONE A LINE FROM FEMA FLOOD INSURANCE RATE MAP NO. 27003C0202E PANEL NO. 220 SUFFIX E, EFFECTIVE DATE DECEMBER 16TH, 2015.
- DENOTES TREE PRESERVATION AREA
- DENOTES 12' POND ACCESS
- DENOTES FLOODPLAIN FILL
- DENOTES COMPENSATORY STORAGE AREA
- DENOTES WETLAND FILL AREA



MATCHLINE: SEE SHEET 3

PONDING CALCULATIONS AND STORM SEWER DESIGN BY  
**PLOWE ENGINEERING, INC.**  
 8776 LAKE DRIVE SUITE 110 LINO LAKES, MN 55014  
 PHONE: (651) 361-8210 FAX: (651) 361-8701

I HEREBY CERTIFY THAT THIS PLAN 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.

*Adam Ginkel*  
 ADAM GINKEL  
 DATE: 05.03.2023 LIC. NO. 43983

### FLOODPLAIN FILL NOTES

(CCWC CREEK WATERSHED FLOODPLAIN FILL)  
 FLOODPLAIN FILL = 3,196 CU/FT  
 COMPENSATORY STORAGE = 20,036 CU/FT  
 (COMPENSATORY STORAGE PROVIDED IN BORROW AREA BETWEEN 899.0 AND 898.0)

### EROSION CONTROL / REVEGETATION SPECS.

- PRIOR TO ROUGH GRADING, INSTALL SILT STOP FENCE IN LOCATIONS SHOWN. ADDITIONAL SILT STOP FENCE WILL BE REQUIRED WHERE LOCAL CONDITIONS REQUIRE. INSTALL TREE PROTECTION AS DEEMED NECESSARY BY THE CITY FORESTER PRIOR TO ANY GRADING.
- ANY GRADING SHALL PROCEED ON AN AREA BY AREA BASIS TO MINIMIZE UNCOMPLETED AREAS.
- AS EACH AREA OUTSIDE THE STREET IS GRADED, PROVIDE NATIVE TOPSOIL, SEED, AND MULCH ANCHORED WITH A STRAIGHT SET DISC WITHIN SEVEN DAYS AFTER ROUGH GRADING.
- MAINTAIN AND REPAIR SILT STOP FENCES (INCLUDING REMOVAL OF ACCUMULATED SILT) UNTIL VEGETATION IS ESTABLISHED.
- SEE "STORM WATER POLLUTION PREVENTION PLAN" FOR ADDITIONAL EROSION CONTROL NOTES AND SITE SEQUENCING.

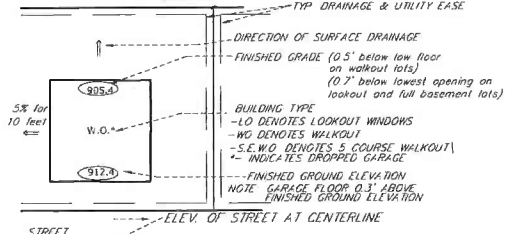
### LOT GRADING NOTES

PAID CONTOURS SHOWN ARE FOR DEMONSTRATION PURPOSES. HOUSE TYPES AND GRADING THAT VARY FROM WHAT IS PROPOSED ON THE GRADING PLAN REQUIRE A PLAN REVIEW BY THE CITY OF HAM LAKE. SILT FENCE TO BE INSTALLED BY BUILDER PRIOR TO HOUSE CONSTRUCTION. THERE IS TO BE NO GRADING WITHIN 15' AREAS.

### TREE PROTECTION NOTES

- TREE PROTECTION LIMITS TO BE MARKED IN FIELD PRIOR TO ANY TREE CLEARING ACTIVITY.
- SILT / TREE PROTECTION FENCE TO BE INSTALLED AT CONSTRUCTION LIMIT LINE.
- CARE IS TO BE TAKEN TO AVOID CONSTRUCTION ACTIVITY OR CONSTRUCTION VEHICLE TRAFFIC WITHIN THE DRIP LINE OF TREES IN THE TREE PROTECTION ZONE.
- FIELD DECISIONS WILL BE MADE ON LOCATION OF TREE PROTECTION LIMITS TO PRESERVE SIGNIFICANT TREES.
- SOME TREES AND DEAD FALL ARE TO BE CLEARED. THIS MAY BE DONE PRIOR TO INSTALLATION OF SILT / TREE PROTECTION FENCE. GRUBBING OF STUMPS WILL OCCUR AFTER EROSION CONTROL MEASURES ARE INSTALLED.

### TYPICAL LOT

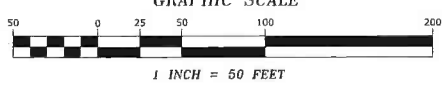


### NOTES

- BERARINGS SHOWN ARE ON ANOKA COUNTY DATUM.
- TOTAL LOT AREAS ARE CALCULATED TO STREET CENTERLINE PER ORDINANCE.
- 2 FOOT CONTOUR INTERVAL (NAVD 88)
- CONTOURS SHOWN ARE PER MAGDO LIDAR DISTRIBUTION AND FIELD VERIFICATION
- ALL MATCH POINTS AND PAVEMENT PATCHES TO BE SAVED AT FULL DEPTH.
- TURF AREA TO BE SEED WITHIN 7 DAYS AFTER COMPLETION OF ROUGH GRADING OR INACTIVITY.
- SEE UTILITY PLAN FOR STORM SEWER RISERS, INVERTS, AND SIZES.
- IF DEWATERING IS REQUIRED, THE CONTRACTOR SHALL APPLY FOR A MN DMR DEWATERING PERMIT AND WILL PROVIDE WELL-FIELD LOCATIONS, RATES, DISCHARGE LOCATION, SCHEDULE AND QUANTITIES TO CCWD 7 DAYS PRIOR TO ANY DEWATERING OPERATIONS.
- CONTRACTORS MUST BE PROVIDED WITH DMR FLYERS/ FACT SHEETS ON BLANDING'S TURTLES.

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

*Jason E. Rud*  
 JASON E. RUD  
 Date: 05/03/2023 License No. 41578



**E.G. RUD & SONS, INC.**  
 Professional Land Surveyors  
 6776 Lake Drive NE, Suite 110  
 Lino Lakes, MN 55014  
 Tel. (651) 361-8200 Fax (651) 361-8701

DRAWN BY:	MJM	JOB NO.:	210300PP	DATE:	02/15/23
CHECK BY:	JER	FIELD CREW:	BH/B		
1	03/31/23	CITY / WATERSHED COMMENTS		MMD	
2	05/03/23	WATERSHED COMMENTS		MMD	
3					
NO.	DATE	DESCRIPTION		BY	

NORTH

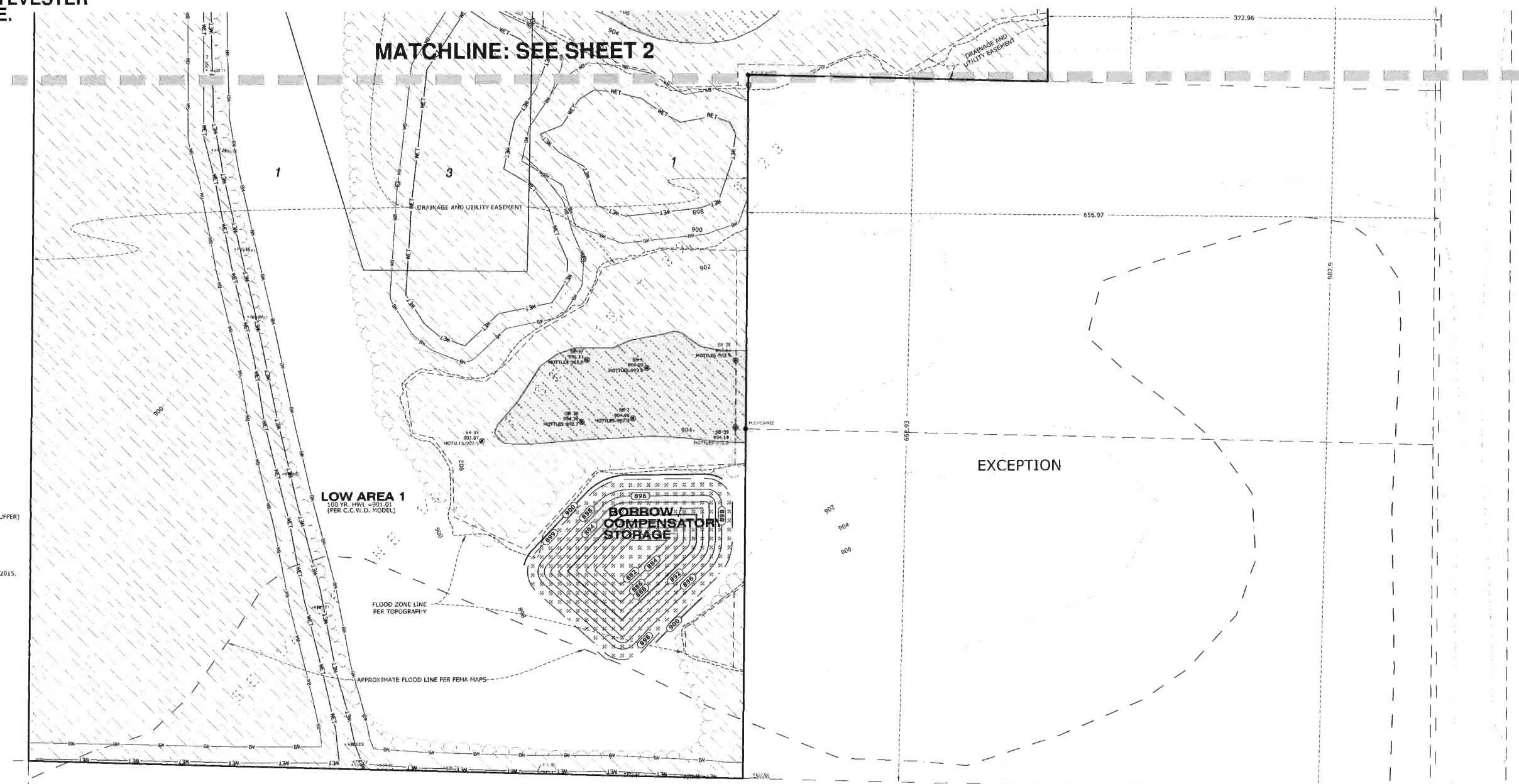


# GRADING, EROSION CONTROL AND TREE PROTECTION PLAN

~of~ TOBY'S TRAILS  
 ~for~ RICHARD AND DIANE SYLVESTER  
 16220 NAPLES STREET N.E.  
 HAM LAKE, MN 55304  
 (763) 229-1247

## LEGEND

- DENOTES SOIL BORING BY HALCIG GEOTECHNICAL SERVICES
- DENOTES SOIL BORING BY TRADEWELL SOIL TESTING
- DENOTES EMERGENCY OVERFLOW ELEVATION
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- DENOTES WETLAND DELINEATED BY JACOBSON ENVIRONMENTAL, PLLC.
- DENOTES EASEMENT LINE
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- DENOTES APPROXIMATE FEMA FLOOD ZONE A LINE FROM FEMA FLOOD INSURANCE RATE MAP NO. 270030202E PANEL NO. 220 SUFFIX E, EFFECTIVE DATE DECEMBER 16TH, 2015.
- DENOTES TREE PRESERVATION AREA
- DENOTES 12' POND ACCESS
- DENOTES FLOODPLAIN FILL
- DENOTES COMPENSATORY STORAGE AREA



FOUNDING CALCULATIONS AND STORM SEWER DESIGN BY  
 PLOWE ENGINEERING, INC.  
 8776 LAKE DRIVE SUITE 110 LINO LAKES, MN 55014  
 PHONE: (651) 361-8210 FAX: (651) 361-8701

I HEREBY CERTIFY THAT THIS PLAN 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.

ADAM GINKEL  
 DATE: 05.03.2023 LIC. NO. 43963

### FLOODPLAIN FILL NOTES

(COON CREEK WATERSHED FLOODPLAIN FILL)  
 FLOODPLAIN FILL = 3,196 CU/FT  
 COMPENSATORY STORAGE = 20,036 CU/FT  
 (COMPENSATORY STORAGE PROVIDED IN BORROW AREA BETWEEN 899.0 AND 898.0)

### EROSION CONTROL / REVEGETATION SPECS.

1. PRIOR TO ROUGH GRADING, INSTALL SILT STOP FENCE IN LOCATIONS SHOWN. ADDITIONAL SILT STOP FENCE WILL BE REQUIRED WHERE LOCAL CONDITIONS REQUIRE. INSTALL TREE PROTECTION AS DEEMED NECESSARY BY THE CITY FORESTER PRIOR TO ANY GRADING.
2. ANY GRADING SHALL PROCEED ON AN AREA BY AREA BASIS TO MINIMIZE UNCOMPLETED AREAS.
3. AS EACH AREA OUTSIDE THE STREET IS GRADED, PROVIDE NATIVE TOPSOIL, SEED, AND MULCH ANCHORED WITH A STRAIGHT SET DISC WITHIN SEVEN DAYS AFTER ROUGH GRADING.
4. MAINTAIN AND REPAIR SILT STOP FENCES (INCLUDING REMOVAL OF ACCUMULATED SILT) UNTIL VEGETATION IS ESTABLISHED.
5. SEE "STORM WATER POLLUTION PREVENTION PLAN" FOR ADDITIONAL EROSION CONTROL NOTES AND SITE SEQUENCING.

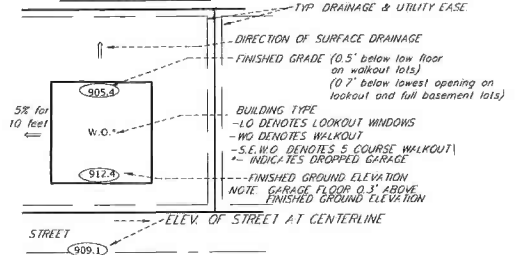
### LOT GRADING NOTES

- PAD CONTOURS SHOWN ARE FOR DEMONSTRATION PURPOSES.
- HOUSE TYPES AND GRADING THAT VARY FROM WHAT IS PROPOSED ON THE GRADING PLAN REQUIRE A PLAN REVIEW BY THE CITY OF HAM LAKE.
- SILT FENCE TO BE INSTALLED BY BUILDER PRIOR TO HOUSE CONSTRUCTION.
- THERE IS TO BE NO GRADING WITHIN 15' AREAS.

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- TREE PROTECTION LIMITS TO BE MARKED IN FIELD PRIOR TO ANY TREE CLEARING ACTIVITY.
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- CARE IS TO BE TAKEN TO AVOID CONSTRUCTION ACTIVITY OR CONSTRUCTION VEHICLE TRAFFIC WITHIN THE DRIP LINE OF TREES IN THE TREE PROTECTION ZONE.
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### TYPICAL LOT

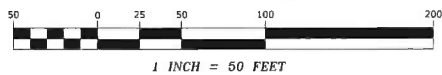


### NOTES

- BEARINGS SHOWN ARE ON ANOKA COUNTY DATUM.
- TOTAL LOT AREAS ARE CALCULATED TO STREET CENTERLINE PER ORDINANCE.
- 2 FOOT CONTOUR INTERVAL (NAVD 88)
- CONTOURS SHOWN ARE PER MINGO LINDAR DISTRIBUTION AND FIELD VERIFICATION
- ALL MATCH POINTS AND PAVEMENT PATCHES TO BE SAUCUT AT FULL DEPTH.
- TURF AREA TO BE SEEDDED WITHIN 7 DAYS AFTER COMPLETION OF ROUGH GRADING OR INACTIVITY.
- SEE UTILITY PLAN FOR STORM SEWER RISERS, INVERTS, AND SIZES.
- ALL PIPE ARROWS PROVIDED WITH TRASH GUARDS
- PROVIDE CLASS III RIPRAP WITH FILTER FABRIC FOR ALL PIPE OUTLETS. INSTALL 6" OF TOPSOIL ON RIPRAP IN WETLAND BUFFERS AND SEED WITH SEED MIX (MNDOT 33-26).
- IF DEWATERING IS REQUIRED, THE CONTRACTOR SHALL APPLY FOR A MN DNR DEWATERING PERMIT AND WILL PROVIDE WELL-FIELD LOCATIONS, RATES, DISCHARGE LOCATION, SCHEDULE AND QUANTITIES TO CCWD 7 DAYS PRIOR TO ANY DEWATERING OPERATIONS.
- CONTRACTORS MUST BE PROVIDED WITH DNR FLYERS/ FACT SHEETS ON BLANDING'S TURTLES.

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

JASON E. RUD  
 Date: 05/03/2023 License No. 41578



EST. 1877  
**E. G. RUD & SONS, INC.**  
 Professional Land Surveyors  
 6776 Lake Drive NE, Suite 110  
 Lino Lakes, MN 55014  
 Tel. (651) 361-8200 Fax (651) 361-8701



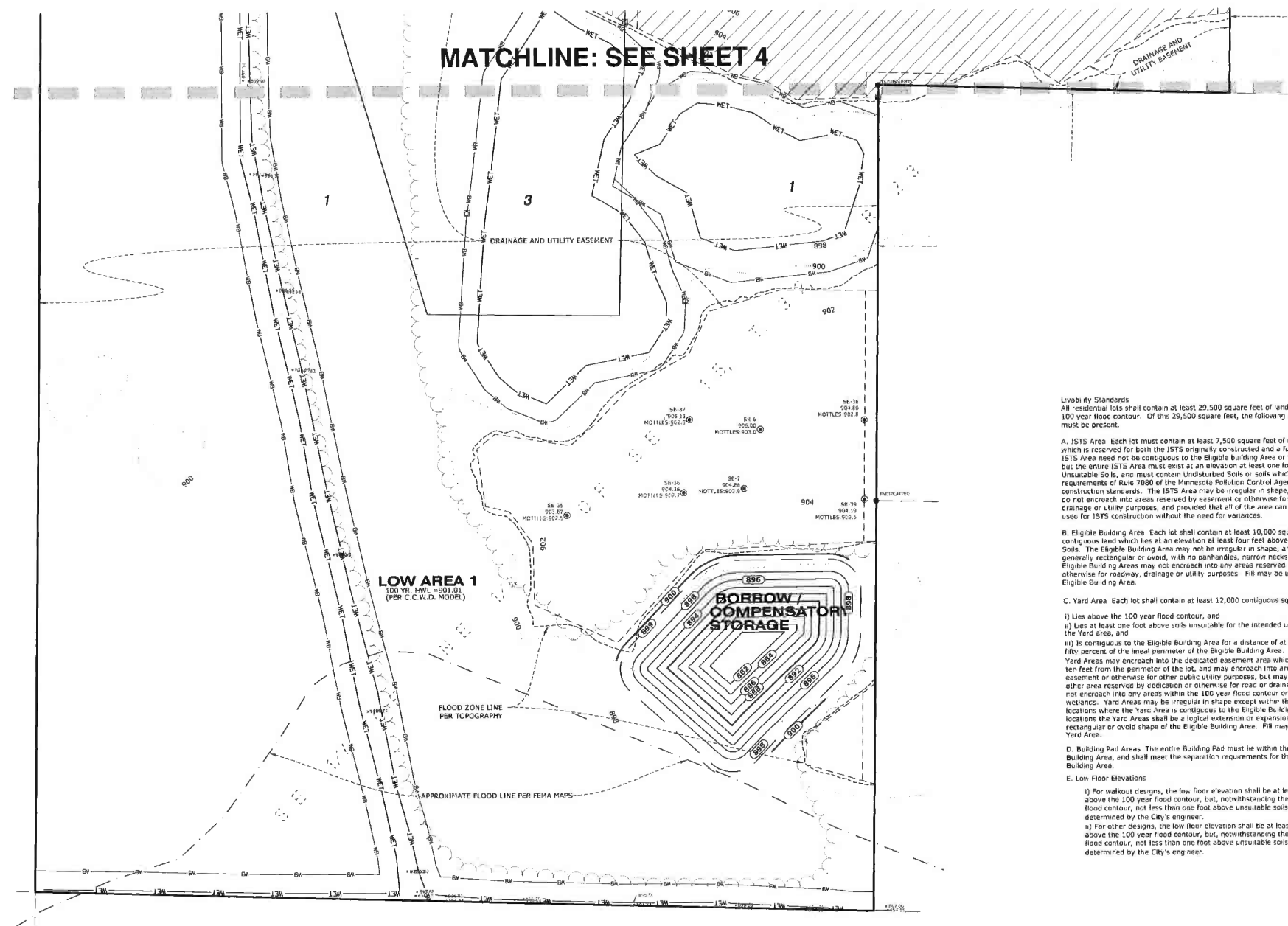


# LIVABILITY PLAN AND CHART

~of~ TOBY'S TRAILS  
 ~for~ RICHARD AND DIANE SYLVESTER  
 16220 NAPLES STREET N.E.  
 HAM LAKE, MN 55304  
 (763) 229-1247

## LEGEND

- DENOTES SOIL BORING BY TRADEWELL SOIL TESTING
- DENOTES EXISTING SPOT ELEVATION
- DENOTES WET LAND
- DENOTES EXISTING 2 FOOT CONTOUR
- DENOTES PROPOSED 2 FOOT CONTOURS
- DENOTES WETLAND DELINEATED BY JACOBSON ENVIRONMENTAL, P.L.L.C.
- DENOTES EASEMENT LINE
- DENOTES SETBACK LINE
- DENOTES PROPOSED STORM SEWER
- DENOTES PROPOSED SILT / TREE PROTECTION FENCE
- DENOTES DIRECTION OF DRAINAGE
- DENOTES PROPOSED WELL LOCATION
- DENOTES WETLAND/ VEGETATIVE BUFFER
- DENOTES WETLAND/ VEGETATIVE BUFFER SIGN
- DENOTES PROPOSED BUILDING PAD AREA
- DENOTES PROPOSED YARD AREA
- DENOTES PROPOSED SEPTIC AREA
- DENOTES 12' POND ACCESS



**Livability Standards**  
 All residential lots shall contain at least 29,500 square feet of land which lies above the 100 year flood contour. Of this 29,500 square feet, the following additional requirements must be present:

- A. **1515 Area** Each lot must contain at least 7,500 square feet of contiguous area which is reserved for both the 1515 originally constructed and a future 1515. The 1515 Area need not be contiguous to the Eligible Building Area or the Yard Area, but the entire 1515 Area must exist at an elevation at least one foot above Unsuitable Soils, and must contain Unsuitable Soils or soils which meet the requirements of Rule 7000 of the Minnesota Pollution Control Agency for 1515 construction standards. The 1515 Area may be irregular in shape, provided they do not encroach into areas reserved by easement or otherwise for roadway, drainage or utility purposes, and provided that all of the area can be reasonably used for 1515 construction without the need for variances.
- B. **Eligible Building Area** Each lot shall contain at least 10,000 square feet of contiguous land which lies at an elevation at least four feet above Unsuitable Soils. The Eligible Building Area may not be irregular in shape, and should be generally rectangular or oval, with no peninsulas, narrow necks or peninsulas. Eligible Building Areas may not encroach into any areas reserved by easement or otherwise for roadway, drainage or utility purposes. Fill may be used to create Eligible Building Area.
- C. **Yard Area** Each lot shall contain at least 12,000 contiguous square feet which:
  - i) Lies above the 100 year flood contour, and
  - ii) Lies at least one foot above soils unsuitable for the intended usage of the Yard Area, and
  - iii) Is contiguous to the Eligible Building Area for a distance of at least fifty percent of the linear perimeter of the Eligible Building Area.
 Yard Areas may encroach into the dedicated easement area which lies at a distance of ten feet from the perimeter of the lot, and may encroach into areas reserved by easement or otherwise for other public utility purposes, but may not encroach into any other area reserved by dedication or otherwise for road or drainage purposes, any area not encroach into any areas within the 100 year flood contour or into designated wetlands. Yard Areas may be irregular in shape except within thirty feet of the locations where the Yard Area is contiguous to the Eligible Building Area, at which locations the Yard Areas shall be a logical extension or expansion of the generally rectangular or oval shape of the Eligible Building Area. Fill may be used to create Yard Area.
- D. **Building Pad Areas** The entire Building Pad must lie within the Eligible Building Area, and shall meet the separation requirements for the Eligible Building Area.
- E. **Low Floor Elevations**
  - i) For walkout designs, the low floor elevation shall be at least one foot above the 100 year flood contour, but, notwithstanding the 100 year flood contour, not less than one foot above unsuitable soils, as determined by the City's engineer.
  - ii) For other designs, the low floor elevation shall be at least one foot above the 100 year flood contour, but, notwithstanding the 100 year flood contour, not less than one foot above unsuitable soils, as determined by the City's engineer.

## NOTES

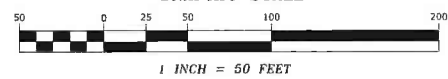
- BEARINGS SHOWN ARE ON ANOKA COUNTY DATUM.
- TOTAL LOT AREAS ARE CALCULATED TO STREET CENTERLINE PER ORDINANCE.
- 2 FOOT CONTOUR INTERVAL (NAVD 88)
- CONTOURS SHOWN ARE PER MINGO LIDAR DISTRIBUTION AND FIELD VERIFICATION
- ALL MATCH POINTS AND PAVEMENT PATCHES TO BE SAWCUT AT FULL DEPTH.
- TURF AREA TO BE SEEDED WITHIN 7 DAYS AFTER COMPLETION OF ROUGH GRADING OR INACTIVITY.
- SEE UTILITY PLAN FOR STORM SEWER RIMS, INVERTS, AND SIZES.
- ALL PIPE AREAS PROVIDED WITH TEAK GUARDS.
- PROVIDE CLASS III RIPRAP WITH FILTER FABRIC FOR ALL PIPE OUTLETS. INSTALL 6" OF TOPSOIL ON RIPRAP IN WETLAND BUFFERS AND SEED WITH SEED MIX MNDOT 33-251.
- IF DEWATERING IS REQUIRED, THE CONTRACTOR SHALL APPLY FOR A MN DNR DEWATERING PERMIT AND WILL PROVIDE WELL FIELD LOCATIONS, RATES, DISCHARGE LOCATION, SCHEDULE AND QUANTITIES TO CCWD 7 DAYS PRIOR TO ANY DEWATERING OPERATIONS.
- CONTRACTORS MUST BE PROVIDED WITH DHR FLYERS/FACT SHEETS ON BUILDING'S TURTLES.

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

JASON E. RUD  
 Date: 05/03/2023 License No. 41578

DRAWN BY:	MMD	JOB NO.:	210300PP	DATE:	02/15/23
CHECK BY:	JER	FIELD CREW:	BH/BJ		
1	03/31/23	CITY / WATERSHED COMMENTS	MMD		
2					
3					
NO.	DATE	DESCRIPTION	BY		

Lot	Block	Total Lot Area (sq. ft.)	Yard Area (sq. ft.)	Septic Area (sq. ft.)	Building Pad Area (sq. ft.)	Proposed Building Pad 4' Above Unsuitable (sq. ft.)	Garage Floor Elevation	Proposed Low Floor Elev.	Proposed Low Opening	Lowest Floor Elevation	Determining Factor	Low Floor		Building Type	Custom Graded	
												Boring #	Boring Elevation			
1	1	903,973	279,865	3,981	10,000	NA	NA	NA	NA	NA	NA	3	906.01	904.8	NA	NA
												4	906.85	904.2		
												5	909.09	905.1		
												6	906.00	903.0		
												7	904.86	902.9		
												8	907.47	905.6		
												9	909.32	906.7		
												10	911.91	907.4		
												11	905.16	905.2		
												12	905.58	905.1		
												13	908.04	905.4		
												14	905.35	904.4		
												15	910.91	907.4		
												16	908.24	904.7		
												17	904.46	903.6		
												18	907.05	905.1		
												19	906.67	905.1		
												25	906.13	904.6		
												31	906.98	905.6		
												32	910.81	NONE		
												33	906.66	NONE		
												34	906.66	904.3		
												35	903.87	902.5		
												36	904.38	902.7		
												37	905.11	902.8		
												38	904.80	902.8		
												39	904.19	902.5		
												20	906.84	905.3	W.O.	NO
2	1	97,676	55,927	8,346	10,000	4,835	915.2	907.5	907.5	906.8	PER LOW AREA 2	21	906.79	905.3		
												22	907.51	905.7		
												23	905.71	904.4		
												24	905.59	903.9		
												1	906.80	904.6	WO	NO
												2	905.50	903.8		
												26	910.22	905.2		
												27	909.62	905.0		
												28	907.42	903.8		
												29	908.86	905.4		
												30	908.50	904.7		
												GEO 1	901.50	896.5		
3	1	170,959	66,767	8,117	10,000	4,645	914.7	907.0	907.0	907.0	PER SB-27	1	906.80	904.6	WO	NO



**E. G. RUD & SONS, INC.**  
 EST. 1977 Professional Land Surveyors  
 6776 Lake Drive NE, Suite 110  
 Lino Lakes, MN 55014  
 Tel. (651) 361-8200 Fax (651) 361-8701

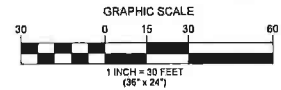
NORTH

**GENERAL NOTES**

1. THE INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF EXISTING UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO TYPE AND LOCATION OF UTILITIES AS NECESSARY TO AVOID DAMAGE TO THESE UTILITIES.
2. CALL "811" FOR EXISTING UTILITIES LOCATIONS PRIOR TO ANY EXCAVATIONS.
3. THE CONTRACTOR SHALL FIELD VERIFY SIZE, ELEVATION, AND LOCATION OF EXISTING UTILITIES AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO THE START OF INSTALLATIONS.
4. INSTALLATIONS SHALL CONFORM TO THE CITY STANDARD SPECIFICATIONS AND DETAIL PLATES.
5. STORAGE OF MATERIALS OR EQUIPMENT SHALL NOT BE ALLOWED ON PUBLIC STREETS OR WITHIN PUBLIC RIGHT-OF-WAY.
6. NOTIFY CITY AND COON CREEK WATERSHED DISTRICT (CCWD) A MINIMUM OF 48 HOURS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
7. ALL ELECTRIC, TELEPHONE, AND GAS EXTENSIONS INCLUDING SERVICE LINES SHALL BE CONSTRUCTED TO THE APPROPRIATE UTILITY COMPANY SPECIFICATIONS. ALL UTILITY DISCONNECTIONS SHALL BE COORDINATED WITH THE APPROPRIATE UTILITY COMPANY.

**MISCELLANEOUS NOTES**

1. SEPTIC AND WELL DESIGN BY OTHERS.
2. SITE TOPOGRAPHY PROVIDED BY OTHERS.



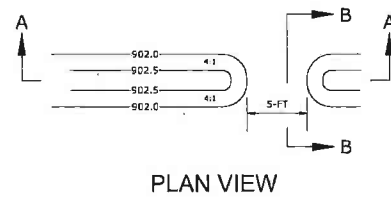
8778 LAKE DRIVE  
SUITE 110  
LINO LAKES, MN 55014  
PHONE: (651) 361-8210  
FAX: (651) 361-8701

NO.	DATE	DESCRIPTION
1	03/12/23	CHECK BY: CWP   JOB NO: 22-2067   DATE: 02-23-2023
2	05/05/23	RFC COMMENTS: SOIL BORING INFORMATION GATHERED FOREBAY ADDED; REMOVE EX. CULVERT
3		
4		
5		
6		

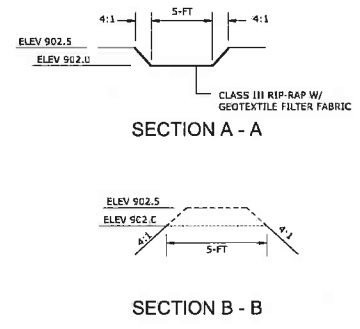
I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.  
*Adam Ginkel*  
ADAM GINKEL  
DATE: 05.05.2023 LIC. NO. 43663

**TOBY'S TRAILS**  
CITY OF HAM LAKE, MN  
**UTILITY PLAN & DETAILS**  
PREPARED FOR: RICHARD AND DIANE SYLVESTER

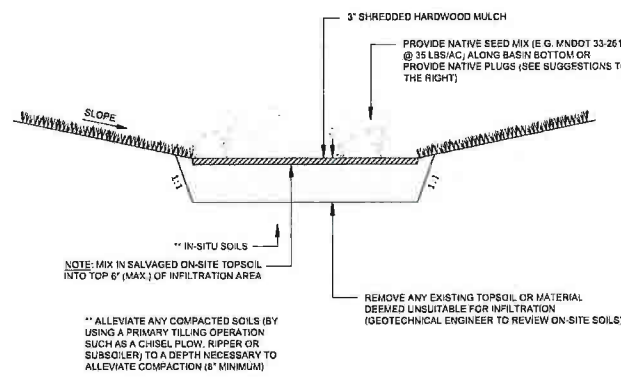
SHEET  
**C1.1**



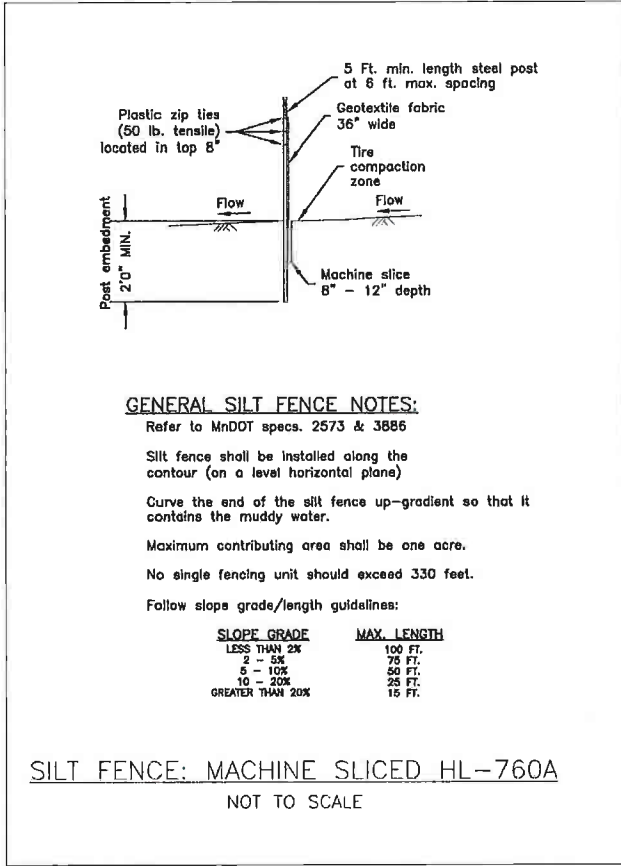
**RIP-RAP OVERFLOWS**  
N.T.S.



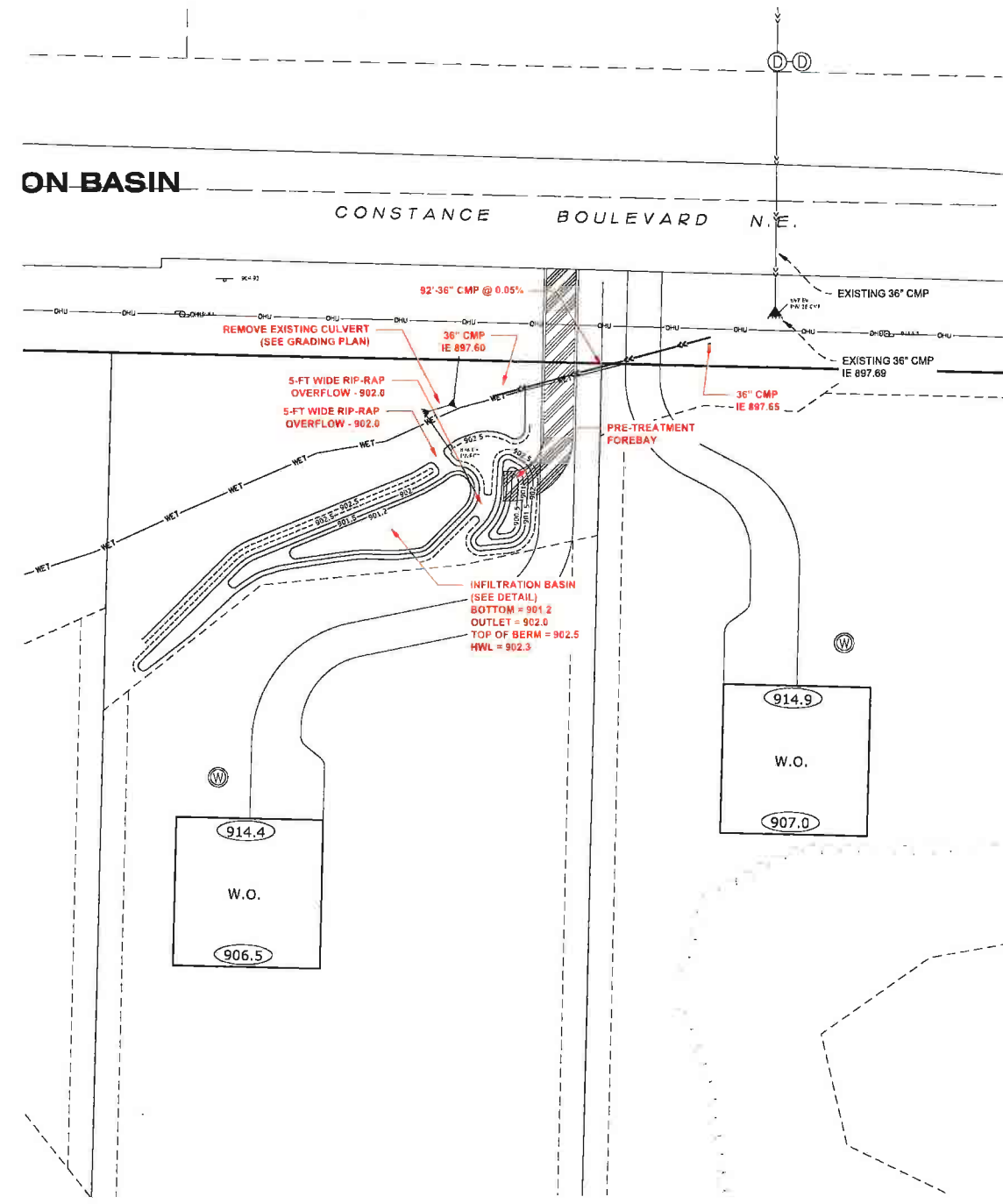
- NOTES:**
1. USE LOW-IMPACT EARTH-MOVING EQUIPMENT (WIDE TRACK OR MARSH TRACK EQUIPMENT, OR LIGHT-EQUIPMENT WITH TURF-TYPE TIRES) IN BASIN.
  2. NO MINING OF SANDY SOILS ALLOWED BELOW BASIN.
  3. PERFORM SOILS CORRECTION IN BASIN AS NECESSARY.
  4. AFTER SITE GRADING, LEAVE BASIN THREE (3) INCHES HIGHER THAN FINISHED GRADE.
  5. PROVIDE BIOROLLS OR EQUIVALENT AROUND BASIN BOTTOM.
  6. PROTECT BASIN FROM RUN-OFF DURING REMAINDER OF CONSTRUCTION ACTIVITIES.
  7. KEEP BASIN OFF-LINE UNTIL SITE HAS BEEN STABILIZED.
  8. ONCE SITE HAS BEEN STABILIZED, EXCAVATE BASIN TO FINAL GRADE.



**INFILTRATION BASIN**  
N.T.S.



Common Name	Scientific Name	Common Name	Scientific Name
For Sage	<i>Carex vulpinoidea</i>	Jack Pine Wood	<i>Eupatorium maculatum</i>
Sweet Black Eyed Susan	<i>Rudbeckia subtomentosa</i>	Ironweed	<i>Veronica fasciculata</i>
Common Elderberry	<i>Sambucus canadensis</i>	Liatris spicata	<i>Liatris spicata</i>
Blue Flag Iris	<i>Iris versicolor</i>	Boneset	<i>Eupatorium perfoliatum</i>
Swamp Milkweed	<i>Asclepias incarnata</i>	River Birch	<i>Betula nigra</i>
Redstart Delphinium	<i>Delphinium</i>	Highbush Cranberry	<i>Viburnum trilobum</i>



4.2 TERMINATION OF COVERAGE (MINN. R. 7090)
4.3 PERMITS MUST SUBMIT A NOT WITHIN 30 DAYS AFTER ALL TERMINATION CONDITIONS LISTED IN SECTION 13 ARE COMPLETE. (MINN. R. 7090)
4.4 PERMITS MUST SUBMIT A NOT WITHIN 30 DAYS AFTER SELLING OR OTHERWISE LEGALLY TRANSFERRING THE ENTIRE SITE, INCLUDING PERMIT RESPONSIBILITY FOR ROADS (E.G., STREET SWEEPING) AND STORMWATER INFRASTRUCTURE FINAL CLEAN OUT, OR TRANSFERRING PORTIONS OF A SITE TO ANOTHER PARTY, THE PERMITTEES' COVERAGE UNDER THIS PERMIT TERMINATES AT MIDNIGHT ON THE SUBMISSION DATE OF THE NOT. (MINN. R. 7090)
4.5 PERMITS MUST TERMINATE PERMIT COVERAGE PRIOR TO COMPLETION OF ALL CONSTRUCTION ACTIVITY IF THEY MEET ALL OF THE FOLLOWING CONDITIONS:
A. CONSTRUCTION ACTIVITY HAS CEASED FOR AT LEAST 90 DAYS; AND
B. AT LEAST 80 PERCENT [BY AREA] OF ALL ORIGINALLY PROPOSED CONSTRUCTION ACTIVITY HAS BEEN COMPLETED AND PERMANENT COVER HAS BEEN ESTABLISHED ON THOSE AREAS; AND
C. ON AREAS WHERE CONSTRUCTION ACTIVITY IS NOT COMPLETE, PERMANENT COVER HAS BEEN ESTABLISHED; AND
D. THE SITE COMPLIES WITH ITEM 13.3 THROUGH 13.7.
AFTER PERMIT COVERAGE IS TERMINATED UNDER THIS ITEM, ANY SUBSEQUENT DEVELOPMENT ON THE REMAINING PORTIONS OF THE SITE WILL REQUIRE PERMIT COVERAGE IF THE SUBSEQUENT DEVELOPMENT ITSELF OR AS PART OF THE REMAINING COMMON PLAN OF DEVELOPMENT OR SALE WILL RESULT IN LAND DISTURBING ACTIVITIES OF ONE (1) OR MORE ACRES IN SIZE. (MINN. R. 7090)
4.6 PERMITS MAY TERMINATE COVERAGE UPON MPCA APPROVAL AFTER SUBMITTING INFORMATION DOCUMENTING THE OWNER CANCELED THE PROJECT. (MINN. R. 7090)
6.1 SWPPP AMENDMENTS (MINN. R. 7090)
6.2 ONE OF THE INDIVIDUALS DESCRIBED IN ITEM 21.2 A OR ITEM 21.2 B OR ANOTHER QUALIFIED INDIVIDUAL MUST COMPLETE ALL SWPPP CHANGES, CHANGES INVOLVING THE USE OF A LESS STRINGENT BMP MUST INCLUDE A JUSTIFICATION DESCRIBING HOW THE REPLACEMENT BMP IS EFFECTIVE FOR THE SITE CHARACTERISTICS. (MINN. R. 7090)
6.3 PERMITS MUST AMEND THE SWPPP TO INCLUDE ADDITIONAL OR MODIFIED BMPs AS NECESSARY TO CORRECT PROBLEMS IDENTIFIED BY THE SWPPP. WHEN THERE IS A CHANGE IN DESIGN, CONSTRUCTION, OPERATION, MAINTENANCE, WEATHER OR SEASONAL CONDITIONS HAVING A SIGNIFICANT EFFECT ON THE DISCHARGE OF POLLUTANTS TO SURFACE WATERS OR GROUNDWATER. (MINN. R. 7090)
6.4 PERMITS MUST AMEND THE SWPPP TO INCLUDE ADDITIONAL OR MODIFIED BMPs AS NECESSARY TO CORRECT PROBLEMS IDENTIFIED BY INSPECTIONS OR INVESTIGATIONS WHENEVER INSPECTIONS BY THE SITE OWNER OR OPERATOR, USEPA OR MPCA OFFICIALS INDICATE THE SWPPP IS NOT EFFECTIVE IN ELIMINATING OR SIGNIFICANTLY MINIMIZING THE DISCHARGE OF POLLUTANTS TO SURFACE WATERS OR GROUNDWATER OR THE DISCHARGES ARE CAUSING WATER QUALITY STANDARDS TO EXCEED AS E.G., SUDDEN CONDITIONS AS DEFINED IN MINN. R. 7050.0210, SUBP. 2) OR THE SWPPP IS NOT CONSISTENT WITH THE OBJECTIVES OF A USEPA APPROVED TMDL. (MINN. R. 7050.0210)
7.1 BMP SELECTION AND INSTALLATION (MINN. R. 7090)
7.2 PERMITS MUST SELECT, INSTALL, AND MAINTAIN THE BMPs IDENTIFIED IN THE SWPPP AND IN THIS PERMIT IN AN APPROPRIATE AND FUNCTIONAL MANNER AND IN ACCORDANCE WITH RELEVANT MANUFACTURER SPECIFICATIONS AND ACCEPTED ENGINEERING PRACTICES. (MINN. R. 7090)
8.1 EROSION PREVENTION PRACTICES (MINN. R. 7090)
8.2 BEFORE WORK BEGINS, PERMITS MUST DELINEATE THE LOCATION OF AREAS NOT TO BE DISTURBED. (MINN. R. 7090)
8.3 PERMITS MUST MINIMIZE THE NEED FOR DISTURBANCE OF PORTIONS OF THE PROJECT WITH STEEP SLOPES, WHEN STEEP SLOPES MUST BE DISTURBED, PERMITS MUST USE TECHNIQUES SUCH AS PHASING AND STABILIZATION PRACTICES DESIGNED FOR STEEP SLOPES (E.G., SLOPE GRADING AND TERRACING). (MINN. R. 7090)
8.4 PERMITS MUST STABILIZE ALL EXPOSED SOIL AREAS, INCLUDING STOCKPILES. STABILIZATION MUST BE INITIATED IMMEDIATELY TO LIMIT EROSION AND CONSTRUCTION OF TEMPORARY OR PERMANENT STABILIZATION COVER ON ANY PORTION OF THE SITE AND WILL NOT REQUIRE FOR A PERIOD EXCEEDING 7 CALENDAR DAYS. STABILIZATION MUST BE COMPLETED NO LATER THAN 7 CALENDAR DAYS AFTER THE CONSTRUCTION ACTIVITY HAS CEASED. STABILIZATION IS NOT REQUIRED ON CONSTRUCTED SURFACES, PARKING LOTS AND SIMILAR SURFACES. STABILIZATION IS NOT REQUIRED ON TEMPORARY STOCKPILES WITHOUT SIGNIFICANT SILT, CLAY OR ORGANIC COMPONENTS (E.G., CLEAN AGGREGATE STOCKPILES, DEMOLITION CONCRETE STOCKPILES, SAND STOCKPILES) BUT PERMITS MUST PROVIDE SEDIMENT CONTROL AT THE BASE OF THE STOCKPILE. (MINN. R. 7090)
8.5 FOR PUBLIC WATERS THAT THE MINNESOTA DNR HAS PROHIBITED WORK IN WATER RESTRICTIONS DURING SPECIFIED FISH SPAWNING TIME FRAMES, PERMITS MUST COMPLETE STABILIZATION OF ALL EXPOSED SOIL AREAS WITHIN 200 FEET OF THE WATER'S EDGE, AND THAT DRAIN TO THESE WATERS, WITHIN 24 HOURS DURING THE RESTRICTION PERIOD. (MINN. R. 7090)
8.6 PERMITS MUST STABILIZE THE NORMAL WETTED PERIMETER OF THE LAST 200 LINEAR FEET OF TEMPORARY OR PERMANENT DRAINAGE DITCHES OR SWALES THAT DRAIN WATER FROM THE SITE WITHIN 24 HOURS AFTER CONNECTING TO A SURFACE WATER OR PROPERTY EDGE. PERMITS MUST COMPLETE STABILIZATION OF REMAINING PORTIONS OF TEMPORARY OR PERMANENT DITCHES OR SWALES WITHIN 7 CALENDAR DAYS AFTER CONNECTING TO A SURFACE WATER OR PROPERTY EDGE AND CONSTRUCTION IN THAT PORTION OF THE DITCH TEMPORARILY OR PERMANENTLY CEASES. (MINN. R. 7090)
8.7 TEMPORARY OR PERMANENT DITCHES OR SWALES BEING USED AS A SEDIMENT CONTAINMENT SYSTEM DURING CONSTRUCTION (WITH PROPERLY DESIGNED DITCH-DITCH CHECKS, BIO RILLS, SILT DIKES, ETC.) DO NOT NEED TO BE STABILIZED. PERMITS MUST STABILIZE THESE AREAS WITHIN 24 HOURS AFTER THE SEDIMENT CONTAINMENT SYSTEM CEASES. (MINN. R. 7090)
8.8 PERMITS MUST NOT USE MULCH, HYDROMULCH, TACKIFIER, POLYACRYLAMIDE OR SIMILAR EROSION PREVENTION PRACTICES WITHIN ANY PORTION OF THE NORMAL WETTED PERIMETER OF A TEMPORARY OR PERMANENT DRAINAGE DITCH OR SWALE SECTION WITH A CONTINUOUS SLOPE OF LESS THAN 2 PERCENT. (MINN. R. 7090)
8.9 PERMITS MUST PROVIDE TEMPORARY OR PERMANENT ENERGY DISSIPATION AT ALL PIPE OUTLETS WITHIN 24 HOURS AFTER CONNECTION TO A SURFACE WATER OR PERMANENT STORMWATER TREATMENT SYSTEM. (MINN. R. 7090)
8.10 PERMITS MUST NOT DISTURB MORE LAND (I.E., PHASING) THAN CAN BE EFFECTIVELY INSPECTED AND MAINTAINED IN ACCORDANCE WITH SECTION 11. (MINN. R. 7090)
9.1 SEDIMENT CONTROL PRACTICES (MINN. R. 7090)
9.2 PERMITS MUST ESTABLISH SEDIMENT CONTROL BMPs ON ALL DOWNGRADIENT PERIMETERS OF THE SITE AND DOWNGRADIENT AREAS WITHIN THE SITE, INCLUDING CURB AND GUTTER SYSTEMS. PERMITS MUST LOCATE SEDIMENT CONTROL PRACTICES UPGRADIENT OF ANY BUFFER ZONES. PERMITS MUST INSTALL SEDIMENT CONTROL PRACTICES BEFORE ANY UPGRADE LAND-DISTURBING ACTIVITIES BEGIN AND MUST KEEP THE SEDIMENT CONTROL PRACTICES IN PLACE UNTIL THEY ESTABLISH PERMANENT COVER. (MINN. R. 7090)
9.3 FOR DOWNGRADIENT SEDIMENT CONTROLS ARE OVERLOADED, BASED ON FREQUENT FAILURE OR EXCESSIVE MAINTENANCE REQUIREMENTS, PERMITS MUST INSTALL ADDITIONAL UPGRADE SEDIMENT CONTROL PRACTICES OR REDUNDANT BMPs TO ELIMINATE THE OVERLOADING AND AMEND THE SWPPP TO IDENTIFY THESE ADDITIONAL PRACTICES AS REQUIRED IN ITEM 6.3. (MINN. R. 7090)
9.4 TEMPORARY OR PERMANENT DRAINAGE DITCHES AND SEDIMENT BASINS DESIGNED AS PART OF A SEDIMENT CONTAINMENT SYSTEM (E.G., DITCHES WITH CHECK-CHECK DAMS) REQUIRE SEDIMENT CONTROL PRACTICES ONLY AS APPROPRIATE FOR SITE CONDITIONS. (MINN. R. 7090)
9.5 A FLOATING SILT CURTAIN PLACED IN THE WATER IS NOT A SEDIMENT CONTROL BMP TO SATISFY ITEM 9.2 EXCEPT WHEN WORKING ON A SHORELINE OR BELOW THE WATERLINE. IMMEDIATELY AFTER THE SHORT TERM CONSTRUCTION ACTIVITY (E.G., INSTALLATION OF RIP RAP ALONG THE SHORELINE) IN THAT AREA IS COMPLETE, PERMITS MUST INSTALL AN UPLAND PERIMETER CONTROL PRACTICE IF EXPOSED SOILS STILL DRAIN TO A SURFACE WATER. (MINN. R. 7090)
9.6 PERMITS MUST RE-INSTALL ALL SEDIMENT CONTROL PRACTICES ADJUSTED OR REMOVED TO ACCOMMODATE SHORT-TERM ACTIVITIES SUCH AS CLEARING OR GRUBBING, OR PASSAGE OF VEHICLES, IMMEDIATELY AFTER THE SHORT-TERM ACTIVITY IS COMPLETED. PERMITS MUST RE-INSTALL SEDIMENT CONTROL PRACTICES BEFORE THE NEXT PRECIPITATION EVENT EVEN IF THE SHORT-TERM ACTIVITY IS NOT COMPLETE. (MINN. R. 7090)
9.7 PERMITS MUST PROTECT ALL STORM DRAIN INLETS USING APPROPRIATE BMPs DURING CONSTRUCTION UNTIL THEY ESTABLISH PERMANENT COVER ON ALL AREAS WITH POTENTIAL FOR DISCHARGING TO THE INLET. (MINN. R. 7090)
9.8 PERMITS MAY REMOVE INLET PROTECTION FOR A PARTICULAR INLET IF A SPECIFIC SAFETY CONCERN (E.G., STREET FLOODING/FREEZING) IS IDENTIFIED BY THE PERMITS OR THE JURISDICTIONAL AUTHORITY (E.G., CITY/COUNTY/TOWNSHIP/MINNESOTA DEPARTMENT OF TRANSPORTATION ENGINEER); PERMITS MUST DOCUMENT THE NEED FOR REMOVAL IN THE SWPPP. (MINN. R. 7090)
9.9 PERMITS MUST PROVIDE SILT FENCE OR OTHER EFFECTIVE SEDIMENT CONTROLS AT THE BASE OF STOCKPILES ON THE DOWNGRADIENT PERIMETER. (MINN. R. 7090)
9.10 PERMITS MUST LOCATE STOCKPILES OUTSIDE OF NATURAL BUFFERS OR SURFACE WATERS, INCLUDING STORMWATER CONVEYANCES SUCH AS CURB AND GUTTER SYSTEMS UNLESS THERE IS A BYPASS IN PLACE FOR THE STORMWATER. (MINN. R. 7090)
9.11 PERMITS MUST INSTALL A VEHICLE TRACKING BMP TO MINIMIZE THE TRACK OUT OF SEDIMENT FROM THE CONSTRUCTION SITE OR ONTO PAVED ROADS WITHIN THE SITE. (MINN. R. 7090)
9.12 PERMITS MUST USE STREET SWEEPING IF VEHICLE TRACKING BMPs ARE NOT ADEQUATE TO PREVENT SEDIMENT TRACKING ONTO THE STREET. (MINN. R. 7090)
9.13 PERMITS MUST INSTALL TEMPORARY SEDIMENT BASINS AS REQUIRED IN SECTION 14. (MINN. R. 7090)
9.14 IN ANY AREAS OF THE SITE WHERE FINAL VEGETATIVE STABILIZATION WILL OCCUR, PERMITS MUST RESTRICT VEHICLE AND EQUIPMENT USE TO MINIMIZE SOIL COMPACTION. (MINN. R. 7090)
9.15 PERMITS MUST PRESERVE TOPSOIL ON THE SITE, UNLESS INFEASIBLE. (MINN. R. 7090)
9.16 PERMITS MUST DIRECT DISCHARGES FROM BMPs TO VEGETATED AREAS UNLESS INFEASIBLE. (MINN. R. 7090)
9.17 PERMITS MUST PRESERVE A 50 FOOT NATURAL BUFFER OR, IF A BUFFER IS INFEASIBLE ON THE SITE, PROVIDE REDUNDANT DOUBLE BUFFER SURFACE WATER. PERMITS MUST LOCATE BUFFER ZONES WITHIN 50 FEET OF THE PROJECT'S EARTH DISTURBANCES AND STORMWATER FLOWS TO THE SURFACE WATER. PERMITS MUST INSTALL PERIMETER SEDIMENT CONTROLS AT LEAST 5 FEET APART UNLESS LIMITED BY LACK OF AVAILABLE SPACE. NATURAL BUFFERS ARE NOT REQUIRED ADJACENT TO ROAD DITCHES, COUNTY DITCHES, TOWNSHIP DITCHES, CONVEYANCE CHANNELS, STORM DRAIN INLETS, AND SEDIMENT BASINS; IF PRESERVING THE BUFFER IS INFEASIBLE, PERMITS MUST DOCUMENT THE REASONS IN THE SWPPP. SHEET PILING IS A REDUNDANT PERIMETER CONTROL. IF INSTALLED IN A MANNER THAT RETAINS ALL STORMWATER. (MINN. R. 7090)
9.18 PERMITS MUST USE POLYMERS, FLOCCULANTS, OR OTHER SEDIMENTATION TREATMENT CHEMICALS IN ACCORDANCE WITH ACCEPTED ENGINEERING PRACTICES, DOSING SPECIFICATIONS AND SEDIMENT REMOVAL DESIGN SPECIFICATIONS PROVIDED BY THE MANUFACTURER OR SUPPLIER. THE PERMITS MUST USE CONVENTIONAL EROSION AND SEDIMENT CONTROLS PRIOR TO CHEMICAL ADDITION AND MUST DIRECT TREATED STORMWATER TO A SEDIMENT CONTROL SYSTEM FOR FILTRATION OR SETTLEMENT OF THE FLOC PRIOR TO DISCHARGE. (MINN. R. 7090)
10.1 DEWATERING AND BASIN DRAINING (MINN. R. 7090)
10.2 PERMITS MUST DISCHARGE TURBID OR SEDIMENT-LOADED WATERS RELATED TO DEWATERING OR BASIN DRAINING (E.G., PUMP DISCHARGES, TRENCH DITCH CUTS FOR DRAINAGE) TO A TEMPORARY OR PERMANENT SEDIMENT BASIN OR THE PROJECT SITE UNLESS INFEASIBLE. PERMITS MAY DEWATER TO SURFACE WATERS IF THEY VISUALLY CHECK TO ENSURE ADEQUATE TREATMENT HAS BEEN OBTAINED AND NUISANCE CONDITIONS (SEE MINN. R. 7050.0210 SUBP. 2) WILL NOT RESULT FROM THE DISCHARGE. IF PERMITS CANNOT DISCHARGE THE WATER TO A SEDIMENTATION BASIN PRIOR TO ENTERING A SURFACE WATER, PERMITS MUST TREAT IT IN THE IMMEDIATE VICINITY OF THE DISCHARGE DOES NOT ADVERSELY AFFECT THE SURFACE WATER OR DOWNSTREAM PRIORITIES. (MINN. R. 7050.0210)
10.3 PERMITS MUST DISCHARGE WATER CONTAINING OIL OR GREASE, THEY MUST USE AN OIL-WATER SEPARATOR OR SOLUBLE FILTRATION DEVICE (E.G., CARTRIDGE FILTERS, ADSORBENTS PADS) PRIOR TO DISCHARGE. (MINN. R. 7090)
10.4 PERMITS MUST DISCHARGE ALL WATER FROM DEWATERING OR BASIN DRAINING ACTIVITIES IN A MANNER THAT DOES NOT CAUSE EROSION OR SCOUR IN THE IMMEDIATE VICINITY OF DISCHARGE POINTS OR INUNDATION OF WETLANDS IN THE IMMEDIATE VICINITY OF DISCHARGE POINTS THAT CAUSE SIGNIFICANT ADVERSE IMPACT TO THE WETLAND. (MINN. R. 7090)
10.5 IF PERMITS USE FILTERS WITH BACKWASH WATER, THEY MUST HAUL THE BACKWASH WATER AWAY FOR DISPOSAL, RETURN THE BACKWASH WATER TO THE BEGINNING OF THE TREATMENT PROCESS, OR INCORPORATE THE BACKWASH WATER INTO THE SITE IN A MANNER THAT DOES NOT CAUSE EROSION. (MINN. R. 7090)
11.1 INSPECTIONS AND MAINTENANCE (MINN. R. 7090)
11.2 PERMITS MUST ENSURE A TRAINED PERSON, AS IDENTIFIED IN ITEM 21.2.B, WILL INSPECT THE ENTIRE CONSTRUCTION SITE AT LEAST ONCE EVERY SEVEN (7) DAYS DURING ACTIVE CONSTRUCTION AND WITHIN 24 HOURS AFTER A RAINFALL EVENT GREATER THAN 1/2 INCH IN 24 HOURS. (MINN. R. 7090)
11.3 PERMITS MUST INSPECT AND MAINTAIN ALL PERMANENT STORMWATER TREATMENT BMPs. (MINN. R. 7090)
11.4 PERMITS MUST INSPECT ALL EROSION PREVENTION AND SEDIMENT CONTROL BMPs AND POLLUTION PREVENTION MANAGEMENT MEASURES TO ENSURE INTEGRITY AND EFFECTIVENESS. PERMITS MUST REPAIR, REPLACE OR SUPPLEMENT ALL NONFUNCTIONAL BMPs WITH FUNCTIONAL BMPs BY THE END OF THE NEXT BUSINESS DAY AFTER DISCOVERY UNLESS ANOTHER TIME FRAME IS SPECIFIED IN ITEM 11.5 OR 11.6. PERMITS MAY TAKE ADDITIONAL TIME IF FIELD CONDITIONS PREVENT ACCESS TO THE AREA. (MINN. R. 7090)
11.5 DURING EACH INSPECTION, PERMITS MUST INSPECT SURFACE WATERS, INCLUDING DRAINAGE DITCHES AND CONVEYANCE SYSTEMS BUT NOT CURB AND GUTTER SYSTEMS, FOR EVIDENCE OF EROSION AND SEDIMENT DEPOSITION. PERMITS MUST REMOVE ALL DELTAS AND SEDIMENT DEPOSITED IN SURFACE WATERS, INCLUDING DRAINAGE WAYS, TRENCH BASINS, AND OTHER DRAINAGE SYSTEMS AND REPAIR THE AREAS WHERE SEDIMENT REMOVAL RESULTS IN EXPOSED SOIL. PERMITS MUST COMPLETE REMOVAL AND STABILIZATION WITHIN SEVEN (7) CALENDAR DAYS OF DISCOVERY UNLESS PRECLUDED BY LEGAL, REGULATORY, OR PHYSICAL ACCESS CONSTRAINTS. PERMITS MUST USE ALL REASONABLE EFFORTS TO OBTAIN ACCESS TO THE AREA. PERMITS MUST TAKE PLACE WITHIN SEVEN (7) DAYS OF OBTAINING ACCESS. PERMITS ARE RESPONSIBLE FOR CONTACTING ALL LOCAL, REGIONAL, STATE AND FEDERAL AUTHORITIES AND RECEIVING ANY APPLICABLE PERMITS, PRIOR TO CONDUCTING ANY WORK IN SURFACE WATERS. (MINN. R. 7090)
11.6 PERMITS MUST INSPECT CONSTRUCTION SITE VEHICLE EXIT LOCATIONS, STREETS AND CURB AND GUTTER SYSTEMS WITHIN AND ADJACENT TO THE PROJECT FOR SEDIMENTATION FROM EROSION OR TRACKED SEDIMENT FROM VEHICLES. PERMITS MUST REMOVE SEDIMENT FROM ALL PAVED SURFACES WITHIN ONE (1) CALENDAR DAY OF DISCOVERY OR, IF APPLICABLE, WITHIN A SHORTER TIME TO AVOID ANY SAFETY HAZARD TO USERS OF PUBLIC STREETS. (MINN. R. 7090)
11.7 PERMITS MUST NOT OPERATE ANY SWPPP-RELATED PERMITTER CONTROL DEVICES WHEN THEY BECOME NONFUNCTIONAL OR THE SEDIMENT REACHES 1/2 OF THE HEIGHT OF THE DEVICE. (MINN. R. 7090)
11.8 PERMITS MUST DRAIN TEMPORARY AND PERMANENT SEDIMENTATION BASINS AND REMOVE THE SEDIMENT WHEN THE DEPTH OF SEDIMENT COLLECTED IN THE BASIN REACHES 1/2 THE STORAGE VOLUME. (MINN. R. 7090)
11.9 PERMITS MUST ENSURE THAT AT LEAST ONE INDIVIDUAL PRESENT ON THE SITE (OR AVAILABLE TO THE PROJECT SITE IN THREE (3) CALENDAR DAYS) IS TRAINED IN THE JOB DUTIES DESCRIBED IN ITEM 21.2.B. (MINN. R. 7090)
11.10 PERMITS MUST ADJUST THE INSPECTION SCHEDULE TO ITEM 11.2 AS FOLLOWS:
A. INSPECTIONS OF AREAS WITH PERMANENT COVER CAN BE DEFERRED TO ONCE PER MONTH, EVEN IF CONSTRUCTION ACTIVITY CONTINUES ON OTHER PORTIONS OF THE SITE; OR
B. WHERE SITES HAVE PERMANENT COVER ON ALL EXPOSED SOIL AND NO CONSTRUCTION ACTIVITY IS OCCURRING ANYWHERE ON THE SITE, INSPECTIONS CAN BE REDUCED TO ONCE PER MONTH AND, AFTER 12 MONTHS, MAY BE SUSPENDED COMPLETELY UNTIL CONSTRUCTION ACTIVITY RESUMES. THE MPCA MAY REQUIRE INSPECTIONS TO RESUME IF CONDITIONS WARRANT; OR
C. WHERE CONSTRUCTION ACTIVITY HAS BEEN SUSPENDED DUE TO FROZEN GROUND CONDITIONS, INSPECTIONS MAY BE SUSPENDED. INSPECTIONS MUST RESUME WITHIN 24 HOURS OF RUNOFF OCCURRING, OR UPON RESUMING CONSTRUCTION, WHICHEVER COMES FIRST. (MINN. R. 7090)
11.11 PERMITS MUST RECORD ALL INSPECTIONS AND MAINTENANCE ACTIVITIES WITHIN 24 HOURS OF BEING CONDUCTED AND THESE RECORDS MUST BE RETAINED WITH THE SWPPP. THESE RECORDS MUST INCLUDE:
A. DATE AND TIME OF INSPECTIONS, AND
B. NAME OF PERSONS CONDUCTING INSPECTIONS, AND
C. ACCURATE FINDINGS OF INSPECTIONS, INCLUDING THE SPECIFIC LOCATION WHERE CORRECTIVE ACTIONS ARE NEEDED; AND
D. CORRECTIVE ACTIONS TAKEN (INCLUDING DATES, TIMES, AND PARTY COMPLETING MAINTENANCE ACTIVITIES); AND
E. DATE OF ALL RAINFALL EVENTS GREATER THAN 1/2 INCHES IN 24 HOURS, AND THE AMOUNT OF RAINFALL FOR EACH EVENT. PERMITS MUST OBTAIN RAINFALL AMOUNTS BY EITHER A PROPERLY MAINTAINED RAIN GAUGE INSTALLED ON-SITE, A WEATHER STATION, OR FROM A RECALIBRATED CONTAINER TO PREVENT FLOODS OR OTHER DISCHARGE. STORAGE AND DISPOSAL OF HAZARDOUS WASTE MATERIALS MUST BE IN COMPLIANCE WITH MINN. R. CH 7045 INCLUDING SECONDARY CONTAINMENT AS APPLICABLE. (MINN. R. 7090)
12.5 PERMITS MUST PROPERLY STORE, COLLECT AND DISPOSE SOLID WASTE IN COMPLIANCE WITH MINN. R. CH 7035. (MINN. R. 7090)
12.6 PERMITS MUST POSITION PORTABLE TOILETS SO THEY ARE SECURE AND WILL NOT TIP OR BE KNOCKED OVER. PERMITS MUST PROPERLY DISPOSE SANITARY WASTE IN ACCORDANCE WITH MINN. R. CH 7041. (MINN. R. 7041)
12.7 PERMITS MUST TAKE REASONABLE STEPS TO PREVENT THE DISCHARGE OF SPILLED OR LEAKED CHEMICALS, INCLUDING FUEL, FROM ANY AREA WHERE CHEMICALS OR FUEL WILL BE LOADED OR UNLOADED INCLUDING THE USE OF DRIP PANS OR ADSORBENTS UNLESS INFEASIBLE. PERMITS MUST ENSURE ADEQUATE SUPPLIES ARE AVAILABLE AT ALL TIMES TO CLEAN UP DISCHARGED MATERIALS AND THAT AN APPROPRIATE DISPOSAL METHOD IS AVAILABLE FOR RECOVERED SPILLED MATERIALS. PERMITS MUST REPORT AND CLEAN UP SPILLS IMMEDIATELY AS REQUIRED BY MINN. STAT. 115.0511, USING DRY CLEAN UP MEASURES WHERE POSSIBLE. (MINN. STAT. 115.0511)
12.8 PERMITS MUST LIMIT VEHICLE EXTERIOR WASHING AND EQUIPMENT TO A DEFINED AREA OF THE SITE. PERMITS MUST CONTAIN RUNOFF FROM THE WASHING AREA IN A SEDIMENT BASIN OR OTHER SIMILARLY EFFECTIVE CONTROLS AND MUST DISPOSE WASTE FROM THE WASHING ACTIVITY PROPERLY. PERMITS MUST PROPERLY USE AND STORE SOAPS, DETERGENTS, OR SOLVENTS.
12.9 PERMITS MUST PROVIDE EFFECTIVE CONTAINMENT FOR ALL LIQUID AND SOLID WASTES GENERATED BY WASHOUT OPERATIONS (E.G., CONCRETE, STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS AND OTHER CONSTRUCTION MATERIALS) RELATED TO THE CONSTRUCTION ACTIVITY. PERMITS MUST PREVENT LIQUID AND SOLID WASHOUT WASTES FROM CONTACTING THE GROUND AND MUST DESIGN THE CONTAINMENT SO IT DOES NOT RESULT IN RUNOFF FROM THE WASHOUT OPERATIONS OR AREAS. PERMITS MUST PROPERLY DISPOSE LIQUID AND SOLID WASTES IN COMPLIANCE WITH MPCA RULES. PERMITS MUST INSTALL A SIGN INDICATING THE LOCATION OF THE WASHOUT FACILITY. (MINN. R. 7035, MINN. R. 7090)
13.1 PERMIT TERMINATION CONDITIONS (MINN. R. 7090)
13.2 PERMITS MUST COMPLETE ALL CONSTRUCTION ACTIVITY AND MUST INSTALL PERMANENT COVER OVER ALL AREAS PRIOR TO SUBMITTING THE NOT. VEGETATIVE COVER MUST CONSIST OF A UNIFORM PERENNIAL VEGETATION WITH A DENSITY OF 80 PERCENT OF ITS SPECIES PRODUCTION, AND THE VEGETATION MUST BE THE FUNCTION OF A SPECIFIC AREA DICTATES NO VEGETATION, SUCH AS IMPERVIOUS SURFACES OR THE BASE OF A SAND FILTER. (MINN. R. 7090)
13.3 PERMITS MUST CLEAN THE PERMANENT STORMWATER TREATMENT SYSTEM OF ANY ACCUMULATED SEDIMENT AND MUST ENSURE THE SYSTEM MEETS ALL APPLICABLE REQUIREMENTS IN SECTION 15 THROUGH 19 AND IS OPERATING AS DESIGNED. (MINN. R. 7090)
13.4 PERMITS MUST REMOVE ALL SEDIMENT FROM CONVEYANCE SYSTEMS PRIOR TO SUBMITTING THE NOT. (MINN. R. 7090)
13.5 PERMITS MUST REMOVE ALL TEMPORARY SYNTHETIC EROSION PREVENTION AND SEDIMENT CONTROL BMPs PRIOR TO SUBMITTING THE NOT. PERMITS MAY LEAVE BMPs DESIGNED TO DECOMPOSE ON-SITE IN PLACE. (MINN. R. 7090)
13.6 FOR RESIDENTIAL CONSTRUCTION ONLY, PERMIT COVERAGE TERMINATES ON INDIVIDUAL LOTS IF THE STRUCTURES ARE FINISHED AND TEMPORARY EROSION PREVENTION AND DOWNGRADIENT PERIMETER CONTROL IS COMPLETE, THE RESIDENCE SELLS TO THE HOMEOWNER, AND THE PERMITTEE DISTRIBUTES THE MPCA'S HOMEOWNER FACT SHEET TO THE HOMEOWNER. (MINN. R. 7090)
13.7 FOR CONSTRUCTION PROJECTS ON AGRICULTURAL LAND (E.G., PIPELINES ACROSS CROPLAND), PERMITS MUST RETURN THE DISTURBED LAND TO ITS PRECONSTRUCTION AGRICULTURAL USE PRIOR TO SUBMITTING THE NOT. (MINN. R. 7090)
14.1 TEMPORARY SEDIMENT BASINS (MINN. R. 7090)
14.2 WHERE TEN (10) OR MORE ACRES OF DISTURBED SOIL DRAIN TO A COMMON LOCATION, PERMITS MUST PROVIDE A TEMPORARY SEDIMENT BASIN TO PREVENT THE FLOW OF THE RUNOFF FROM THE BASIN'S DRAINAGE AREA. (MINN. R. 7090)
14.3 THE TEMPORARY BASIN MUST PROVIDE LIVE STORAGE FOR A CALCULATED VOLUME OF RUNOFF FROM A TWO (2)-YEAR, 24-HOUR STORM FROM EACH ACRE DRAINING TO THE BASIN OR 1 800 CUBIC FEET OF LIVE STORAGE PER ACRE DRAINING, WHICHEVER IS GREATER. (MINN. R. 7090)
14.4 WHERE PERMITS HAVE NOT CALCULATED THE TWO (2)-YEAR, 24-HOUR STORM RUNOFF AMOUNT, THE TEMPORARY BASIN MUST PROVIDE 3 800 CUBIC FEET OF LIVE STORAGE FROM EACH ACRE OF THE BASIN'S DRAINAGE AREA. (MINN. R. 7090)
14.5 PERMITS MUST DESIGN BASIN OUTLETS TO PREVENT SHORT-CIRCUITING AND THE DISCHARGE OF FLOATING DEBRIS. (MINN. R. 7090)
14.6 PERMITS MUST DESIGN THE OUTLET STRUCTURE TO WITHDRAW WATER FROM THE SURFACE TO MINIMIZE THE DISCHARGE OF POLLUTANTS. PERMITS MAY TEMPORARILY SUSPEND THE USE OF A SURFACE WITHDRAWAL MECHANISM DURING FROZEN CONDITIONS. THE BASIN MUST INCLUDE A STABILIZED EMERGENCY OVERFLOW TO PREVENT FAILURE OF POND INTEGRITY. (MINN. R. 7090)
14.7 PERMITS MUST PROVIDE ENERGY DISSIPATION FOR THE BASIN OUTLET WITHIN 24 HOURS AFTER CONNECTION TO A SURFACE WATER. (MINN. R. 7090)
14.8 PERMITS MUST LOCATE TEMPORARY BASINS OUTSIDE OF SURFACE WATERS AND ANY BUFFER ZONE REQUIRED IN ITEM 23.11. (MINN. R. 7090)
14.9 PERMITS MUST CONSTRUCT THE TEMPORARY BASINS PRIOR TO DISTURBING 10 OR MORE ACRES OF SOIL DRAINING TO A COMMON LOCATION. (MINN. R. 7090)
14.10 WHERE A TEMPORARY SEDIMENT BASIN MEETING THE REQUIREMENTS OF ITEM 14.3 THROUGH 14.5 IS INFEASIBLE, PERMITS MUST INSTALL EFFECTIVE SEDIMENT CONTROLS SUCH AS SMALLER SEDIMENT BASINS AND/OR SEDIMENT TRAPS, SILT FENCES, VEGETATIVE STRIPS, OR OTHER EROSION CONTROL MEASURES TO PREVENT POLLUTANTS FROM ENTERING PUBLIC SPACE. IN DETERMINING WHETHER INSTALLING A SEDIMENT BASIN IS INFEASIBLE, PERMITS MUST CONSIDER PUBLIC SAFETY AND MAY CONSIDER FACTORS SUCH AS SITE SLOPE, AND AVAILABLE AREA ON-SITE. PERMITS MUST DOCUMENT THIS DETERMINATION OF INFEASIBILITY IN THE SWPPP. (MINN. R. 7090)
15.1 PERMANENT STORMWATER TREATMENT SYSTEM (MINN. R. 7090)
15.2 PERMITS MUST DESIGN THE PROJECT SO ALL STORMWATER DISCHARGED FROM THE PROJECT DURING AND AFTER CONSTRUCTION, ACTIVITIES DOES NOT CAUSE A VIOLATION OF STATE WATER QUALITY STANDARDS, INCLUDING NUISANCE CONDITIONS, EROSION IN RECEIVING CHANNELS OR ON DOWNSTREAM PROPERTIES, OR A SIGNIFICANT ADVERSE IMPACT TO WETLANDS CAUSED BY REDUCTION OR DECREASE OF FLOW. (MINN. R. 7090)
15.3 PERMITS MUST DESIGN AND CONSTRUCT A PERMANENT STORMWATER TREATMENT SYSTEM TO TREAT THE WATER QUALITY VOLUME IF THE PROJECT'S ULTIMATE DEVELOPMENT REPLACES VEGETATION AND/OR OTHER PERVIOUS SURFACES CREATING A NET INCREASE OF ONE (1) OR MORE ACRES OF CUMULATIVE IMPERVIOUS SURFACE. (MINN. R. 7090)
15.4 PERMITS MUST CALCULATE THE WATER QUALITY VOLUME AS ONE (1) INCH TIMES THE NET INCREASE OF IMPERVIOUS SURFACES CREATED BY THE PROJECT. (MINN. R. 7090)
15.5 PERMITS MUST FIRST CONSIDER VOLUME REDUCTION PRACTICES ON-SITE (E.G., INFILTRATION OR OTHER) WHEN DESIGNING THE PERMANENT STORMWATER TREATMENT SYSTEM. IF THIS PERMIT PROHIBITS INFILTRATION AS DESCRIBED IN ITEM 16.14 THROUGH ITEM 16.21, PERMITS MAY CONSIDER A WET SEDIMENTATION BASIN, FILTRATION BASIN OR REGIONAL BASIN. THIS PERMIT DOES NOT CONSIDER WET SEDIMENTATION BASINS AND FILTRATION SYSTEMS TO BE VOLUME REDUCTION PRACTICES. (MINN. R. 7090)
15.6 FOR PROJECTS WHERE THE FULL VOLUME REDUCTION REQUIREMENT CANNOT BE MET ON-SITE, (E.G., THE SITE HAS INFILTRATION PROHIBITIONS), PERMITS MUST DOCUMENT THE REASONS IN THE SWPPP. (MINN. R. 7090)
15.7 PERMITS MUST DISCHARGE THE WATER QUALITY VOLUME TO A PERMANENT STORMWATER TREATMENT SYSTEM PRIOR TO DISCHARGE TO A SURFACE WATER. PERMITS MAY INCORPORATE PRACTICES THAT DO NOT INCLUDE MAN-MADE DRAINAGE SYSTEMS THAT CONVEY STORMWATER TO A PERMANENT STORMWATER TREATMENT SYSTEM. (MINN. R. 7090)
15.8 WHERE THE PROXIMITY TO BEDROCK PRECLUDES THE INSTALLATION OF ANY OF THE PERMANENT STORMWATER TREATMENT PRACTICES REQUIRED BY SECTIONS 16 THROUGH 19, PERMITS MUST INSTALL OTHER TREATMENT SUCH AS GRASSED SWALES, SMALLER PONDS, OR GRIT CHAMBERS, PRIOR TO THE DISCHARGE OF STORMWATER TO SURFACE WATERS. (MINN. R. 7090)
15.9 FOR LINEAR PROJECTS WHERE PERMITS CANNOT TREAT THE ENTIRE WATER QUALITY VOLUME WITHIN THE EXISTING RIGHT-OF-WAY, PERMITS MUST MAKE A REASONABLE ATTEMPT TO TREAT ADDITIONAL RIGHT-OF-WAY, EASEMENT OR OTHER PERMISSIBLE TREATMENT DURING THE PROJECT PLANNING PROCESS. DOCUMENTATION OF THESE ATTEMPTS MUST BE IN THE SWPPP. PERMITS MUST STILL CONSIDER VOLUME REDUCTION PRACTICES FIRST AS DESCRIBED IN ITEM 15.5. IF PERMITS CANNOT OBTAIN ADDITIONAL RIGHT-OF-WAY, EASEMENT OR OTHER PRACTICES, THEY MUST MAXIMIZE THE TREATMENT OF THE WATER QUALITY VOLUME PRIOR TO DISCHARGE TO SURFACE WATERS. (MINN. R. 7090)
16.1 INFILTRATION SYSTEMS (MINN. R. 7090)
16.2 INFILTRATION OPTIONS INCLUDE, BUT ARE NOT LIMITED TO: INFILTRATION BASINS, INFILTRATION TRENCHES, RAINWATER GARDENS, BIORETENTION AREAS WITHOUT UNDERDRAINS, SWALES WITH IMPERMEABLE CHECK DAMS, AND NATURAL DEPRESSIONS. IF PERMITS USE ANY OF THESE OPTIONS TO TREAT THE WATER QUALITY VOLUME, THEY MUST INCORPORATE THE DESIGN PARAMETERS IN ITEM 16.3 THROUGH ITEM 16.21. PERMITS MUST FOLLOW THE INFILTRATION PROHIBITION IN ITEM 16.14 ANYTIME AN INFILTRATION SYSTEM IS DESIGNED, INCLUDING THOSE NOT REQUIRED BY THIS PERMIT. (MINN. R. 7090)
16.3 PERMITS MUST DESIGN INFILTRATION SYSTEMS SUCH THAT PRE-EXISTING HYDROLOGIC CONDITIONS OF WETLANDS IN THE VICINITY ARE NOT IMPACTED (E.G., INUNDATION OR BREACHING A PERCHED WATER TABLE SUPPORTING A WETLAND). (MINN. R. 7090)
16.4 PERMITS MUST NOT EXCAVATE INFILTRATION SYSTEMS TO FINAL GRADE, OR WITHIN THREE (3) FEET OF FINAL GRADE, UNTIL THE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED AND THE WATER QUALITY VOLUME HAS BEEN TREATED. PERMITS MUST INCORPORATE THE DESIGN PARAMETERS IN ITEM 16.3 THROUGH ITEM 16.21. PERMITS MUST FOLLOW THE INFILTRATION PROHIBITION IN ITEM 16.14 ANYTIME AN INFILTRATION SYSTEM IS DESIGNED, INCLUDING THOSE NOT REQUIRED BY THIS PERMIT. (MINN. R. 7090)
16.5 PERMITS MUST DESIGN INFILTRATION SYSTEMS SUCH THAT PRE-EXISTING HYDROLOGIC CONDITIONS OF WETLANDS IN THE VICINITY ARE NOT IMPACTED (E.G., INUNDATION OR BREACHING A PERCHED WATER TABLE SUPPORTING A WETLAND). (MINN. R. 7090)
16.6 PERMITS MUST NOT EXCAVATE INFILTRATION SYSTEMS TO FINAL GRADE, OR WITHIN THREE (3) FEET OF FINAL GRADE, UNTIL THE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED AND THE WATER QUALITY VOLUME HAS BEEN TREATED. PERMITS MUST INCORPORATE THE DESIGN PARAMETERS IN ITEM 16.3 THROUGH ITEM 16.21. PERMITS MUST FOLLOW THE INFILTRATION PROHIBITION IN ITEM 16.14 ANYTIME AN INFILTRATION SYSTEM IS DESIGNED, INCLUDING THOSE NOT REQUIRED BY THIS PERMIT. (MINN. R. 7090)
16.7 PERMITS MUST DESIGN INFILTRATION SYSTEMS SUCH THAT PRE-EXISTING HYDROLOGIC CONDITIONS OF WETLANDS IN THE VICINITY ARE NOT IMPACTED (E.G., INUNDATION OR BREACHING A PERCHED WATER TABLE SUPPORTING A WETLAND). (MINN. R. 7090)
16.8 PERMITS MUST DESIGN THE INFILTRATION SYSTEM TO DISCHARGE ALL STORMWATER (INCLUDING STORMWATER IN EXCESS OF THE WATER QUALITY VOLUME) ROUTED TO THE SYSTEM THROUGH THE UPPERMOST SOIL SURFACE OR ENGINEERED MEDIA SURFACE WITHIN 48 HOURS. PERMITS MUST ROUTE ADDITIONAL FLOWS THAT CANNOT INFILTRATE WITHIN 48 HOURS TO BYPASS THE SYSTEM THROUGH A STABILIZED DISCHARGE POINT. (MINN. R. 7090)
16.9 PERMITS MUST PROVIDE A MEANS TO VISUALLY VERIFY THE INFILTRATION SYSTEM IS DISCHARGING THROUGH THE SOIL SURFACE OR FILTER MEDIA SURFACE OR UNDER DRAINAGE. (MINN. R. 7090)
16.10 PERMITS MUST PROVIDE AT LEAST ONE SOIL BORING, TEST PIT OR INFILTRATEMETER TEST IN THE LOCATION OF THE INFILTRATION PRACTICE FOR DETERMINING INFILTRATION RATES. (MINN. R. 7090)
16.11 FOR DESIGN PURPOSES, PERMITS MUST DIVIDE FIELD MEASURED INFILTRATION RATES BY 2 AS A SAFETY FACTOR OR PERMITS CAN USE SOIL-BORING RESULTS WITH THE INFILTRATION RATE CHART IN THE MINNESOTA STORMWATER MANUAL TO DETERMINE DESIGN INFILTRATION RATES. WHEN SOIL BORINGS INDICATE TYPE A SOILS, PERMITS SHOULD PERFORM FIELD MEASUREMENTS TO VERIFY THE RATE IS NOT ABOVE 6.3 INCHES PER HOUR. THIS PERMIT PROHIBITS INFILTRATION IF THE FIELD MEASURED INFILTRATION RATE IS ABOVE 8.3 INCHES PER HOUR. (MINN. R. 7090)
16.12 PERMITS MUST EMPLOY APPROPRIATE ON-SITE TESTING ENSURE A MINIMUM OF THREE (3) FEET OF SEPARATION FROM THE SEASONALLY SATURATED SOILS (OR FROM BEDROCK) AND THE BOTTOM OF THE PROPOSED INFILTRATION SYSTEM. (MINN. R. 7090)
16.13 PERMITS MUST DESIGN A MAINTENANCE ACCESS, TYPICALLY EIGHT (8) FEET WIDE, FOR THE INFILTRATION SYSTEM. (MINN. R. 7090)
16.14 THIS PERMIT PROHIBITS PERMITS FROM CONSTRUCTING INFILTRATION SYSTEMS THAT RECEIVE RUNOFF FROM VEHICLE FUELING AND MAINTENANCE AREAS INCLUDING CONSTRUCTION OF INFILTRATION SYSTEMS NOT REQUIRED BY THIS PERMIT. (MINN. R. 7090)
16.15 THIS PERMIT PROHIBITS PERMITS FROM CONSTRUCTING INFILTRATION SYSTEMS WHERE INFILTRATING STORMWATER MAY MOBILIZE HIGH LEVELS OF CONTAMINANTS IN SOIL OR GROUNDWATER. PERMITS MUST EITHER COMPLETE THE MPCA'S CONTAMINATION SCREENING CHECKLIST OR CONDUCT THEIR OWN ASSESSMENT TO DETERMINE THE SUITABILITY FOR INFILTRATION. PERMITS MUST RETAIN THE CHECKLIST OR ASSESSMENT WITH THE SWPPP FOR MORE INFORMATION AND TO ACCESS THE MPCA'S 'CONTAMINATION SCREENING CHECKLIST' SEE THE MINNESOTA STORMWATER MANUAL. (MINN. R. 7090)
16.16 THIS PERMIT PROHIBITS PERMITS FROM CONSTRUCTING INFILTRATION SYSTEMS IN AREAS WHERE SOIL INFILTRATION RATES ARE FIELD MEASURED AT MORE THAN 8.3 INCHES PER HOUR UNLESS THEY AMEND SOILS TO SLOW THE INFILTRATION RATE BELOW 8.3 INCHES PER HOUR. (MINN. R. 7090)
16.17 THIS PERMIT PROHIBITS PERMITS FROM CONSTRUCTING INFILTRATION SYSTEMS IN AREAS WITH LESS THAN THREE (3) FEET OF SEPARATION DISTANCE FROM THE BOTTOM OF THE INFILTRATION SYSTEM TO THE ELEVATION OF THE INSTANTANEOUSLY SATURATED SOILS OR THE TOP OF BEDROCK. (MINN. R. 7090)
16.18 THIS PERMIT PROHIBITS PERMITS FROM CONSTRUCTING INFILTRATION SYSTEMS IN AREAS OF PREDOMINATELY HYDROLOGIC SOIL GROUP TYPE D SOILS (CLAY). (MINN. R. 7090)
16.19 THIS PERMIT PROHIBITS PERMITS FROM CONSTRUCTING INFILTRATION SYSTEMS WITH A DRINKING WATER SUPPLY MANAGEMENT AREA (DWMA), AS DEFINED IN MINN. R. 4726.01 SUBP. 13. (MINN. R. 7090)
16.20 THIS PERMIT PROHIBITS PERMITS FROM CONSTRUCTING INFILTRATION SYSTEMS IN AREAS WITH A DRINKING WATER SUPPLY MANAGEMENT AREA (DWMA) CLASSIFIED AS MODERATE VULNERABILITY OR VERY HIGH VULNERABILITY AS DEFINED BY THE MINNESOTA DEPARTMENT OF HEALTH. OR
16.21 THIS PERMIT PROHIBITS PERMITS FROM CONSTRUCTING INFILTRATION SYSTEMS WITH A DRINKING WATER SUPPLY MANAGEMENT AREA (DWMA) CLASSIFIED AS MODERATE VULNERABILITY OR VERY HIGH VULNERABILITY UNLESS A REGULATED MSA PERMITTEE PERFORMED OR APPROVED A HIGHER LEVEL OF ENGINEERING REVIEW SUFFICIENT TO PROVIDE A FUNCTIONING TREATMENT SYSTEM AND TO PREVENT ADVERSE IMPACTS TO GROUNDWATER.
SEE 'HIGHER LEVEL OF ENGINEERING REVIEW' IN THE MINNESOTA STORMWATER MANUAL FOR MORE INFORMATION. (MINN. R. 7090)
16.20 THIS PERMIT PROHIBITS PERMITS FROM CONSTRUCTING INFILTRATION SYSTEMS IN AREAS WITHIN 1 000 FEET UPGRADE OR 100 FEET DOWNGRADE OF ACTIVE KARST FEATURES. (MINN. R. 7090)
16.21 THIS PERMIT PROHIBITS PERMITS FROM CONSTRUCTING INFILTRATION SYSTEMS IN AREAS THAT RECEIVE RUNOFF FROM THE FOLLOWING INDUSTRIAL FACILITIES NOT AUTHORIZED TO INFILTRATE STORMWATER UNDER THE NPDES STORMWATER PERMIT FOR INDUSTRIAL ACTIVITIES: AUTOMOBILE REPAIR SHOPS, SCRAP RECYCLING AND WASTE RECYCLING FACILITIES, HAZARDOUS WASTE TREATMENT, STORAGE, OR DISPOSAL FACILITIES, OR AIR TRANSPORTATION FACILITIES THAT CONDUCT DEICING ACTIVITIES. (MINN. R. 7090)
17.1 FILTRATION SYSTEMS (MINN. R. 7090)
17.2 FILTRATION OPTIONS INCLUDE, BUT ARE NOT LIMITED TO: SAND FILTERS WITH UNDERDRAINS, BIOfILTRATION AREAS, SWALES USING UNDERDRAINS WITH IMPERMEABLE CHECK DAMS AND UNDERGROUND SAND FILTERS. IF PERMITS UTILIZE A FILTRATION SYSTEM TO MEET THE PERMANENT STORMWATER TREATMENT REQUIREMENTS OF THIS PERMIT, THEY MUST COMPLY WITH ITEMS 17.3 THROUGH 17.11. (MINN. R. 7090)
17.3 PERMITS MUST NOT INSTALL FILTER MEDIA UNTIL THEY CONSTRUCT AND FULLY STABILIZE THE CONTRIBUTING DRAINAGE AREA UNLESS THEY PROVIDE RIGOROUS EROSION PREVENTION AND SEDIMENT CONTROLS (E.G., DIVERSION BERMS) TO KEEP SEDIMENT AND RUNOFF COMPLETELY AWAY FROM THE FILTRATION AREA. (MINN. R. 7090)
17.4 PERMITS MUST DESIGN FILTRATION SYSTEMS TO REMOVE AT LEAST 80 PERCENT OF TSS. (MINN. R. 7090)
17.5 PERMITS MUST USE A PRE-TREATMENT DEVICE SUCH AS A VEGETATED FILTER STRIP, SMALL SEDIMENTATION BASIN, WATER QUALITY INLET, FOREBAY OR HYDROCYCLIC SEPARATOR TO REMOVE SETTLEABLE SOLIDS, FLOCCULANTS, AND OILS AND GREASE FROM THE RUNOFF, TO THE MAXIMUM EXTENT PRACTICABLE BEFORE RUNOFF ENTERS THE FILTRATION SYSTEM. (MINN. R. 7090)
17.6 PERMITS MUST DESIGN FILTRATION SYSTEMS TO TREAT A WATER QUALITY VOLUME (CALCULATED AS AN INSTANTANEOUS VOLUME) OF ONE (1) INCH OF RUNOFF, OR ONE (1) INCH MINUS THE VOLUME OF STORMWATER TREATED BY ANOTHER SYSTEM ON THE SITE, FROM THE NET INCREASE OF IMPERVIOUS SURFACES CREATED BY THE PROJECT. (MINN. R. 7090)
17.7 PERMITS MUST DESIGN THE FILTRATION SYSTEM TO DISCHARGE ALL STORMWATER (INCLUDING STORMWATER IN EXCESS OF THE WATER QUALITY VOLUME) ROUTED TO THE SYSTEM THROUGH THE UPPERMOST SOIL SURFACE OR ENGINEERED MEDIA SURFACE WITHIN 48 HOURS. ADDITIONAL FLOWS THAT THE SYSTEM CANNOT FILTER WITHIN 48 HOURS MUST BYPASS THE SYSTEM OR DISCHARGE THROUGH AN EMERGENCY OVERFLOW. (MINN. R. 7090)
17.8 PERMITS MUST DESIGN THE FILTRATION SYSTEM TO PROVIDE A MEANS TO VISUALLY VERIFY THE SYSTEM IS DISCHARGING THROUGH THE SOIL SURFACE OR FILTER MEDIA WITHIN 48 HOURS. (MINN. R. 7090)
17.9 PERMITS MUST EMPLOY APPROPRIATE ON-SITE TESTING TO ENSURE A MINIMUM OF THREE (3) FEET OF SEPARATION FROM THE SEASONALLY SATURATED SOILS (OR FROM BEDROCK) AND THE BOTTOM OF THE PROPOSED FILTRATION SYSTEM. (MINN. R. 7090)
17.10 PERMITS MUST ENSURE THAT FILTRATION SYSTEMS WITH LESS THAN THREE (3) FEET OF SEPARATION BETWEEN SEASONALLY SATURATED SOILS OR FROM BEDROCK ARE CONSTRUCTED WITH AN IMPERMEABLE LINER. (MINN. R. 7090)
17.11 THE PERMITS MUST DESIGN A MAINTENANCE ACCESS, TYPICALLY EIGHT (8) FEET WIDE, FOR THE FILTRATION SYSTEM. (MINN. R. 7090)
18.1 WET SEDIMENTATION BASIN (MINN. R. 7090)
18.2 PERMITS USING A WET SEDIMENTATION BASIN TO MEET THE PERMANENT STORMWATER TREATMENT REQUIREMENTS OF THIS PERMIT MUST INCORPORATE THE DESIGN PARAMETERS IN ITEM 18.3 THROUGH 18.10. (MINN. R. 7090)
18.3 PERMITS MUST DESIGN THE BASIN TO PROVIDE A PERMANENT VOLUME OF 1 800 CUBIC FEET OF STORAGE BELOW THE OUTLET PIPE FOR EACH ACRE THAT DRAINS TO THE BASIN. THE BASIN'S PERMANENT VOLUME MUST REACH A MINIMUM DEPTH OF AT LEAST THREE (3) FEET AND MUST HAVE A NET DEPTH GREATER THAN 10 FEET. PERMITS MUST CONFIGURE THE BASIN TO MINIMIZE SCOUR OR RESUSPENSION OF SOLIDS. (MINN. R. 7090)
18.4 PERMITS MUST DESIGN THE BASIN TO PROVIDE LIVE STORAGE FOR A WATER QUALITY VOLUME (CALCULATED AS AN INSTANTANEOUS VOLUME) OF ONE (1) INCH OF RUNOFF, OR ONE (1) INCH MINUS THE VOLUME OF STORMWATER TREATED BY ANOTHER SYSTEM ON THE SITE, FROM THE NET INCREASE IN IMPERVIOUS SURFACES CREATED BY THE PROJECT. (MINN. R. 7090)
18.5 PERMITS MUST DESIGN BASIN OUTLETS TO PREVENT SHORT-CIRCUITING AND THE DISCHARGE OF FLOATING DEBRIS. BASIN OUTLETS MUST HAVE ENERGY DISSIPATION. (MINN. R. 7090)
18.6 PERMITS MUST DESIGN THE BASIN TO INCLUDE A STABILIZED EMERGENCY OVERFLOW TO ACCOMMODATE STORM EVENTS IN EXCESS OF THE BASIN'S HYDRAULIC DESIGN. (MINN. R. 7090)
18.7 PERMITS MUST DESIGN THE BASIN TO INCLUDE A STABILIZED EMERGENCY OVERFLOW TO ACCOMMODATE STORM EVENTS IN EXCESS OF THE BASIN'S HYDRAULIC DESIGN. (MINN. R. 7090)
18.8 PERMITS MUST DESIGN A MAINTENANCE ACCESS, TYPICALLY EIGHT (8) FEET WIDE, FOR THE BASIN. (MINN. R. 7090)
18.9 PERMITS MUST LOCATE THE BASIN TO PROVIDE LIVE STORAGE FOR A WATER QUALITY VOLUME (CALCULATED AS AN INSTANTANEOUS VOLUME) OF ONE (1) INCH OF RUNOFF, OR ONE (1) INCH MINUS THE VOLUME OF STORMWATER TREATED BY ANOTHER SYSTEM ON THE SITE, FROM THE NET INCREASE IN IMPERVIOUS SURFACES CREATED BY THE PROJECT. (MINN. R. 7090)
18.10 PERMITS MUST DESIGN BASINS USING AN IMPERMEABLE LINER IF LOCATED WITHIN ACTIVE KARST TERRAIN. (MINN. R. 7090)
19.1 REGIONAL WET SEDIMENTATION BASIN (MINN. R. 7090)
19.2 WHEN THE ENTIRE WATER QUALITY VOLUME CANNOT BE RETAINED ON-SITE, PERMITS CAN USE OR CREATE REGIONAL WET SEDIMENTATION BASINS PROVIDED THEY ARE CONSTRUCTED BASINS, NOT A NATURAL WETLAND OR WATER BODY. (WETLANDS USED AS REGIONAL BASINS MUST BE MITIGATED FOR, SEE SECTION 22). THE OWNER MUST ENSURE THE REGIONAL BASIN FORMS TO ALL REQUIREMENTS FOR A REGIONAL BASIN AS DESCRIBED IN ITEMS 18.3 THROUGH 18.10 AND MUST BE LARGE ENOUGH TO ACCOUNT FOR THE ENTIRE AREA THAT DRAINS TO THE REGIONAL BASIN. PERMITS MUST VERIFY THAT THE REGIONAL BASIN WILL DISCHARGE AT NO MORE THAN 5.66 CFS PER ACRE OF SURFACE AREA OF THE BASIN AND MUST PROVIDE A LIVE STORAGE VOLUME OF ONE INCH TIMES ALL THE IMPERVIOUS SURFACE AREA OF THE BASIN. PERMITS CANNOT SIGNIFICANTLY DEGRADE WATERWAYS BETWEEN THE PROJECT AND THE REGIONAL BASIN. THE OWNER MUST OBTAIN WRITTEN

**PROJECT NAME**

TOBY'S TRAILS

**PROJECT LOCATION**

16220 NAPLES ST NE  
HAM LAKE, MN 55304  
ANOKA COUNTY

LATITUDE: 45.26503  
LONGITUDE: -93.18670

**DEVELOPER**

RICHARD AND DIANE SYLVESTER  
16220 NAPLES ST NE  
HAM LAKE, MN 55304

CONTACT PHONE: DICK 763.220.1247  
DIANE 763.242.8896  
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DICK.SYLVESTER@HOTMAIL.COM

**GENERAL CONTRACTOR**

TBD

**NARRATIVE - PERMANENT STORMWATER TREATMENT SYSTEMS**

ONE INFILTRATION BASIN IS PROPOSED TO MEET STORMWATER MANAGEMENT REQUIREMENTS. SEE "STORMWATER DRAINAGE REPORT" FOR FURTHER DISCUSSION AND INFORMATION.

**SITE IMPERVIOUS AREAS**

	BEFORE CONSTRUCTION	AFTER CONSTRUCTION
TOTAL ANALYZED AREA	26.78% ACRES	
TOTAL ESTIMATED IMPERVIOUS	0.39 ACRES	0.71 ACRES
TOTAL ESTIMATED PERVIOUS	26.39 ACRES	26.07 ACRES

**TOTAL DISTURBED AREA**

2.4 ACRES

**SITE MAP WITH EXISTING AND FINAL GRADES AND DESIGN CALCULATIONS**

SEE "STORMWATER DRAINAGE REPORT" FOR EXISTING AND PROPOSED AREA MAPS, DRAINAGE DRAINAGE AREA BOUNDARIES, DIRECTIONS OF FLOW, AND DISCHARGE POINTS WHERE STORMWATER LEAVES THE SITE

**RECEIVING WATERS WITHIN ONE MILE**

NAME OF WATER BODY	TYPE OF WATER BODY	SPECIAL WATER	IMPAIRED WATER
UNNAMED WETLANDS	WETLAND	NO	NO
COON CREEK (AN UNIMPAIRED BRANCH)	DITCH	NO	NO

**BUFFER TO SURFACE WATER**

YES  NO  N/A IF THE SITE DRAINS TO A SURFACE WATER, IS A 50-FT NATURAL BUFFER ADJACENT TO THE SURFACE WATER PRESERVED?

NOTE: NATURAL BUFFERS ARE NOT REQUIRED ADJACENT TO ROAD DITCHES, JUDICIAL DITCHES, COUNTY DITCHES, STORMWATER CONVEYANCE CHANNELS, STORM DRAIN INLETS, AND SEDIMENT BASINS.

A) THERE IS A WETLAND ON THE SITE FROM WHICH A 50-FT NATURAL BUFFER CANNOT BE PRESERVED. REDUNDANT SEDIMENT CONTROL MEASURES ARE PROVIDED IN THOSE LOCATIONS.

**TEMPORARY SEDIMENTATION BASINS**

YES  NO  N/A IF TEN (10) OR MORE ACRES OF DISTURBED SOIL DRAIN TO A COMMON LOCATION, IS A TEMPORARY SEDIMENT BASIN PROVIDED FOR TREATMENT OF THE RUNOFF BEFORE IT LEAVES THE CONSTRUCTION SITE OR ENTERS SURFACE WATERS?

A) GIVEN THE SIZE OF THE ANTICIPATED DISTURBED AREA, THIS IS NOT APPLICABLE.

**INFILTRATION FEASIBILITY**

YES  NO  N/A ARE THERE ANY INFILTRATION RESTRICTIONS FOR THE SITE (SEE 16.14 THROUGH 16.21)?

A) THE SITE HAS HIGH SOILS (SANDS) AND INFILTRATION IS FEASIBLE. THE WATER TABLE IS FAIRLY HIGH SO INFILTRATION IS NOT FEASIBLE IN ALL LOCATIONS.

**ADDITIONAL STORMWATER MITIGATION MEASURES**

YES  NO ARE THERE ANY STORMWATER MITIGATION MEASURES PER:

- ENVIRONMENTAL REVIEW DOCUMENT?
- ENDANGERED SPECIES REVIEW?
- ARCHAEOLOGICAL REVIEW?
- OTHER LOCAL, STATE OR FEDERAL REVIEW?

IF YES TO ANY OF THE ABOVE, DESCRIBE THE MITIGATION MEASURES FOR PURPOSES OF THIS PERMIT. MITIGATION MEASURES MEANS ACTIONS NECESSARY TO AVOID, MINIMIZE, OR MITIGATE FOR IMPACTS RELATED TO EROSION PREVENTION, SEDIMENT CONTROL, THE PERMANENT STORMWATER TREATMENT SYSTEM, POLLUTION PREVENTION MANAGEMENT MEASURES AND DISCHARGES ASSOCIATED WITH THE PROJECT'S CONSTRUCTION ACTIVITY (MNN. R. 7050)

**DOCUMENTATION OF TRAINED INDIVIDUALS**

A. INDIVIDUAL WHO PREPARED THE SWPPP:

ADAM GINKEL  
PLOWE ENGINEERING, INC.  
8776 LAKE DRIVE  
LINO LAKES, MN 55014  
(651) 351-8234  
adam@plowe.com

B. INDIVIDUAL(S) OVERSEEING IMPLEMENTATION OF, REVISING AND/OR AMENDING THE SWPPP AND INDIVIDUALS PERFORMING INSPECTIONS FOR THE PROJECT. ONE OF THESE INDIVIDUALS MUST BE AVAILABLE FOR AN ON-SITE INSPECTION WITHIN 72 HOURS UPON REQUEST BY THE MPCA. (MNN. R. 7050)

NAME \_\_\_\_\_  
COMPANY \_\_\_\_\_  
ADDRESS 1 \_\_\_\_\_  
ADDRESS 2 \_\_\_\_\_  
PHONE \_\_\_\_\_  
EMAIL \_\_\_\_\_

**TBD - WHEN INFORMATION BECOMES AVAILABLE, CONTRACTOR TO PROVIDE INFORMATION TO CITY OF HAM LAKE AND CCWD & UPDATED SWPPP ACCORDINGLY**

C. INDIVIDUAL(S) PERFORMING OR SUPERVISING THE INSTALLATION, MAINTENANCE AND REPAIR OF BMPs. (MNN. R. 7050)

NAME \_\_\_\_\_  
COMPANY \_\_\_\_\_  
ADDRESS 1 \_\_\_\_\_  
ADDRESS 2 \_\_\_\_\_  
PHONE \_\_\_\_\_  
EMAIL \_\_\_\_\_

**TBD - WHEN INFORMATION BECOMES AVAILABLE, CONTRACTOR TO PROVIDE INFORMATION TO CITY OF HAM LAKE AND CCWD & UPDATED SWPPP ACCORDINGLY**

**LONG TERM OPERATION AND MAINTENANCE OF PERMANENT STORMWATER FACILITIES**

THE PROPOSED STORMWATER MANAGEMENT FEATURE FOR THIS SITE INCLUDES ONE INFILTRATION BASIN - THIS WILL BE OPERATED AND MAINTAINED BY THE CITY OF HAM LAKE

**REVEGETATION SPECIFICATIONS**

ITEM	MNDOT SPECIFICATION/NOTES
SOD	3878
SEED	3876
* FOR TURF ESTABLISHMENT	
COMMERCIAL TURF	MNDOT MIX 25-131 (220 LBS/ACRE)
RESIDENTIAL TURF	MNDOT MIX 25-131 (120 LBS/ACRE)
TEMPORARY FALL COVER	MNDOT MIX 21-112 (100 LBS/ACRE)
SPRING/SUMMER SOIL-BUILDING COVER	MNDOT MIX 21-111 (100 LBS/ACRE)
1-2 YEARS COVER	MNDOT MIX 22-111 (30.5 LBS/ACRE)
2-5 YEARS COVER	MNDOT MIX 22-112 (40 LBS/ACRE)
MULCH	3882 (TYPE 1 - DISC ANCHORED)
HYDROMULCH	3884
FERTILIZER	3881
WOOD FIBER BLANKET	3885 (CATEGORY 2)

\* MOW A MINIMUM OF RESIDENTIAL TURF - ONCE PER 2 WEEKS COMMERCIAL TURF - ONCE PER 4 WEEKS

\*\* SEEDED AREAS SHALL BE EITHER MULCHED OR COVERED BY FIBROUS BLANKETS TO PROTECT SEEDS AND LIMIT EROSION

**QUANTITIES - ESTIMATED QUANTITIES FOR EROSION AND SEDIMENT CONTROL MEASURES**

TYPE	QTY	UNIT
SILT FENCE		LINEAR FEET
BIO-ROLLS		EACH
RIP-RAP W/ GEO-FABRIC		CUBIC YARDS
CATCH BASIN INLET PROTECTION		EACH
STABILIZED (SODDED) OVERFLOW		EACH
EROSION CONTROL BLANKET		SQUARE YARDS
SEED & MULCH (GENERAL)		ACRE
ROCK CONSTRUCTION ENTRANCE		EACH

**NARRATIVE - TIMING FOR INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES**

- A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN AND SWPPP MUST BE AVAILABLE ON THE PROJECT SITE AT ALL TIMES
- CONTRACTOR SHALL INSTALL SILT FENCE AS SHOWN ON PLAN
- ADDITIONAL SILT FENCE MAY BE NECESSARY IF LOCAL CONDITIONS REQUIRE
- CONTRACTOR SHALL MAINTAIN SILT FENCE, INCLUDING THE REMOVAL OF ACCUMULATED SEDIMENT, THROUGH COMPLETION OF BUILDING CONSTRUCTION
- SILT FENCE SHALL REMAIN IN PLACE UNTIL THE SITE HAS BEEN STABILIZED
- CONTRACTOR SHALL INSTALL A ROCK CONSTRUCTION ENTRANCE AT ALL LOCATIONS WHERE CONSTRUCTION TRAFFIC WILL ENTER/EXIT SITE
- CONTRACTOR TO INSTALL TREE PROTECTION FENCING AS APPLICABLE
- CONTRACTOR SHALL PERFORM SITE GRADING ON AN AREA-BY-AREA BASIS TO MINIMIZE UNSTABILIZED AREAS
- CONTRACTOR MUST IMMEDIATELY INITIATE STABILIZATION OF EXPOSED SOIL AREAS, AS DESCRIBED IN ITEM 4 OF THE PERMIT, AND COMPLETE THE STABILIZATION WITHIN SEVEN (7) CALENDAR DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE TEMPORARILY OR PERMANENTLY CEASES
- CONTRACTOR TO PROVIDE TEMPORARY SEDIMENTATION BASINS AS REQUIRED IN SECTION 14.1 THROUGH 14.10
- CONTRACTOR TO SHALL PAY SPECIAL ATTENTION TO ADJACENT PROPERTY LINES TO ENSURE THE EROSION CONTROL PRACTICES IMPACT IN THOSE AREAS PREVENT MIGRATION OF SEDIMENT ONTO ADJACENT PROPERTIES
- ALL EROSION AND SEDIMENT CONTROL MEASURES SHOWN ON THE PLANS OR IMPLEMENTED IN THE FIELD SHALL BE IN ACCORDANCE WITH THE CITY AND NPDES PHASE II PERMIT REQUIREMENTS
- CONTRACTOR TO PROVIDE ADDITIONAL SILT FENCE, BIOROLLS, EROSION CONTROL BLANKET, OR OTHER APPROVED EQUAL FOR ANY SLOPES THAT APPEAR TO BE FAILING
- CONTRACTOR TO STABILIZE SOIL STOCKPILES; STABILIZATION SHALL BE INITIATED IMMEDIATELY
- CONTRACTOR SHALL FINAL GRADE SWALE AREAS UPON STABILIZATION OF UPSTREAM AREAS
- CONTRACTOR SHALL BE RESPONSIBLE TO SWEEP/SCRAPE ADJACENT STREETS WHEN MATERIALS OR DEBRIS HAVE WASHED/LOWED ONTO ADJACENT STREETS OR AS DIRECTED BY CITY
- COORDINATE SMALL UTILITIES INSTALLATIONS (GAS, PHONE, ELECTRIC, CABLE, FIBEROPTIC, ETC.) AFTER CURB & GUTTER INSTALLATION

IF DEWATERING IS REQUIRED, THE CONTRACTOR SHALL APPLY FOR A MIN DNR DEWATERING PERMIT AND PROVIDE WELL-FIELD LOCATIONS, RATES, DISCHARGE LOCATIONS, SCHEDULE AND QUANTITIES TO CCWD A MINIMUM OF SEVEN (7) DAYS PRIOR TO DEWATERING OPERATIONS.

**NPDES DEFINITIONS**

"BEST MANAGEMENT PRACTICES (BMPs)" MEANS THE MOST EFFECTIVE AND PRACTICABLE MEANS OF EROSION PREVENTION AND SEDIMENT CONTROL AND WATER QUALITY MANAGEMENT PRACTICES THAT ARE THE MOST EFFECTIVE AND PRACTICABLE MEANS OF CONTROL, PREVENT, AND MINIMIZE DEGRADATION OF SURFACE WATER, INCLUDING AVOIDANCE OF IMPACTS, CONSTRUCTION PHASING, MINIMIZING THE LENGTH OF TIME SOIL AREAS ARE EXPOSED, PROHIBITION, POLLUTION PREVENTION THROUGH GOOD HOUSEKEEPING, AND OTHER MANAGEMENT PRACTICES PUBLISHED BY STATE OR DESIGNATED AREA-WIDE PLANNING AGENCIES. (MNN. R. 7050)

"CONSTRUCTION ACTIVITY" MEANS ACTIVITIES INCLUDING CLEARING, GRADING, AND EXCAVATING THAT RESULT IN LAND DISTURBANCE OF EQUAL TO OR GREATER THAN ONE ACRE INCLUDING THE DISTURBANCE OF LESS THAN ONE ACRE OF TOTAL LAND AREA THAT IS PART OF A LARGER COMMON PLAN OF DEVELOPMENT OR SALE IF THE LARGER COMMON PLAN WILL ULTIMATELY DISTURB EQUAL TO OR GREATER THAN ONE ACRE. THIS INCLUDES A DISTURBANCE TO THE LAND THAT RESULTS IN A CHANGE IN THE TOPOGRAPHY, EXISTING SOIL COVER, BOTH VEGETATIVE AND NONVEGETATIVE, OR THE EXISTING SOIL TOPOGRAPHY THAT MAY RESULT IN ACCELERATED STORMWATER RUNOFF THAT MAY LEAD TO SOIL EROSION AND MOVEMENT OF SEDIMENT. CONSTRUCTION ACTIVITY DOES NOT INCLUDE A DISTURBANCE TO THE LAND OF LESS THAN FIVE ACRES FOR THE PURPOSE OF ROUTINE MAINTENANCE PERFORMED TO MAINTAIN THE ORIGINAL LINE AND GRADE, HYDRAULIC CAPACITY, AND ORIGINAL PURPOSE OF THE FACILITY. ROUTINE MAINTENANCE DOES NOT INCLUDE ACTIVITIES SUCH AS REPAIRS, REPLACEMENT AND OTHER TYPES OF NON-ROUTINE MAINTENANCE. PAVEMENT REHABILITATION THAT DOES NOT DISTURB THE UNDERLYING SOILS (E.G., MILL AND OVERLAY (M/O) IS NOT CONSTRUCTION ACTIVITY. (MNN. R. 7050)

"DEWATERING" MEANS THE REMOVAL OF SURFACE OR GROUND WATER TO DRY AND/OR SOLIDIFY A CONSTRUCTION SITE TO ENABLE CONSTRUCTION ACTIVITY. DEWATERING MAY REQUIRE A MINNESOTA DEPARTMENT OF NATURAL RESOURCES WATER APPROPRIATION PERMIT AND, IF DEWATERING WATER IS CONTAMINATED, DISCHARGE OF SUCH WATER MAY REQUIRE AN INDIVIDUAL MPCA NPDES/SIDES PERMIT. (MNN. R. 7050)

"EROSION PREVENTION" MEANS MEASURES EMPLOYED TO PREVENT EROSION SUCH AS SOIL STABILIZATION PRACTICES, PERMANENT COVER OR CONSTRUCTION PHASING. (MNN. R. 7050)

"GENERAL CONTRACTOR" MEANS THE PARTY WHO SIGNS THE CONSTRUCTION CONTRACT WITH THE OWNER TO CONSTRUCT THE ENTIRE PROJECT DESCRIBED IN THE FINAL PLANS AND SPECIFICATIONS. WHERE THE CONSTRUCTION PROJECT INVOLVES MORE THAN ONE CONTRACTOR, THE GENERAL CONTRACTOR IS THE PARTY RESPONSIBLE FOR MANAGING THE ENTIRE PROJECT ON BEHALF OF THE OWNER. IN SOME CASES, THE OWNER IS THE GENERAL CONTRACTOR. IN THESE CASES, THE OWNER SIGNS THE PERMIT APPLICATION AS THE OPERATOR AND BECOMES THE SOLE PERMITTEE. (MNN. R. 7050)

"GROUNDWATER" MEANS THE WATER CONTAINED BELOW THE SURFACE OF THE EARTH IN THE SATURATED ZONE INCLUDING, WITHOUT LIMITATION, ALL WATERS WHETHER UNDER CONFINED, UNCONFINED, OR PERCHED CONDITIONS, IN NEAR SURFACE UNCONSOLIDATED SEDIMENT OR REGolith OR IN ROCK FORMATIONS DEEPER UNDERGROUND. (MNN. R. 7050)

"HOMEOWNER FACT SHEET" MEANS AN MPCA FACT SHEET AVAILABLE ON THE MPCA CONSTRUCTION STORMWATER WEBSITE FOR PERMITTEES TO GIVE TO HOMEOWNERS AT THE TIME OF SALE. (MNN. R. 7050)

"INFEASIBLE" MEANS NOT TECHNOLOGICALLY POSSIBLE OR NOT ECONOMICALLY PRACTICABLE AND ACHIEVABLE IN LIGHT OF THE BEST INDUSTRY PRACTICES. (MNN. R. 7050)

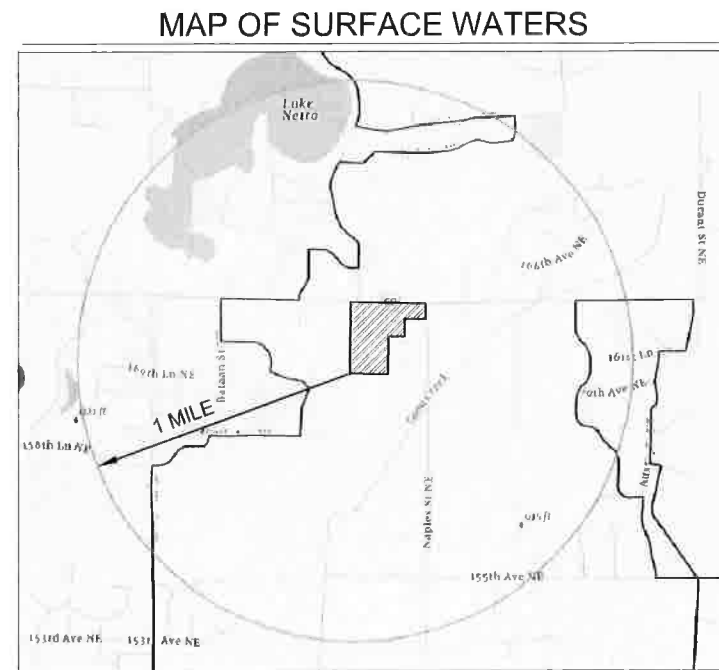
"INITIATED IMMEDIATELY" MEANS TAKING AN ACTION TO COMMENCE SOIL STABILIZATION AS SOON AS PRACTICABLE, BUT NO LATER THAN THE END OF THE WORK DAY, FOLLOWING THE DAY WHEN THE LAND-DISTURBING ACTIVITIES TEMPORARILY OR PERMANENTLY CEASE. IF THE PERMITTEES KNOW THAT CONSTRUCTION WORK ON THAT PORTION OF THE SITE WILL BE TEMPORARILY CEASED FOR 14 OR MORE ADDITIONAL CALENDAR DAYS OR 7 CALENDAR DAYS WHERE ITEM 23 IS APPLIED, PERMITTEES CAN INITIATE STABILIZATION BY A. PREPARING THE SOIL FOR VEGETATIVE OR NON-VEGETATIVE STABILIZATION, OR B. APPLYING MULCH OR OTHER NON-VEGETATIVE PRODUCT TO THE EXPOSED SOIL AREA, OR C. SEEDING OR PLANTING THE EXPOSED AREA, OR D. STARTING ANY OF THE ACTIVITIES IN A - C ON A PORTION OF THE AREA TO BE STABILIZED, BUT NOT ON THE ENTIRE AREA, OR E. FINALIZING ARRANGEMENTS TO HAVE STABILIZATION PRODUCT FULLY INSTALLED IN COMPLIANCE WITH THE APPLICABLE DEADLINE FOR COMPLETING STABILIZATION. (MNN. R. 7050)

"IMPERVIOUS SURFACE" MEANS A CONSTRUCTED HARD SURFACE THAT EITHER PREVENTS OR RETARDS THE ENTRY OF WATER INTO THE SOIL AND CAUSES WATER TO RUN OFF THE SURFACE IN GREATER QUANTITIES AND AT AN INCREASED RATE OF FLOW THAN PRIOR TO DEVELOPMENT. EXAMPLES INCLUDE ROOFS, SIDEWALKS, DRIVEWAYS, PARKING LOTS, AND CONCRETE, ASPHALT, OR GRAVEL ROADS. BRIDGES OVER SURFACE WATERS ARE CONSIDERED IMPERVIOUS SURFACES. (MNN. R. 7050)

"NATURAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NIDES)" MEANS THE PROGRAM FOR ISSUING, MODIFYING, REVOKING, REISSUING, TERMINATING, MONITORING, AND ENFORCING PERMITS UNDER THE CLEAN WATER ACT, AS AMENDED (33 U.S.C. 1251 ET SEQ SECTION 1342 AND 40 CFR PARTS 122, 123, 124 AND 450). (MNN. R. 7050)

"NATURAL BUFFER" MEANS AN AREA OF UNDISTURBED COVER SURROUNDING SURFACE WATERS WITHIN WHICH CONSTRUCTION ACTIVITIES ARE RESTRICTED, NATURAL BUFFER INCLUDES THE VEGETATION, EXPOSED ROCK, OR BARREN GROUND THAT EXISTS PRIOR TO COMMENCEMENT OF EARTH-DISTURBING ACTIVITIES. (MNN. R. 7050)

"NOTICE OF TERMINATION (NOT)" MEANS THE FORM (ELECTRONIC OR PAPER) REQUIRED FOR TERMINATING COVERAGE UNDER THE CONSTRUCTION GENERAL PERMIT. (MNN. R. 7050)



THERE ARE NO IMPAIRED OR SPECIAL WATERS WITHIN ONE (1) MILE OF THE PROJECT SITE.

**PLOWE ENGINEERING, INC.**  
5776 LAKE DRIVE  
SUITE 110  
LINO LAKES, MN 55014  
PHONE: (651) 361-8210  
FAX: (651) 361-8701

NO.	DATE	DESCRIPTION
1	02-23-2023	
2	02-23-2023	
3	02-23-2023	
4	02-23-2023	
5	02-23-2023	
6	02-23-2023	

DATE: 05-26-2023  
L.I.C. NO. 43963  
ADAM GINKEL


PREPARED FOR: RICHARD AND DIANE SYLVESTER  
**TOBY'S TRAILS**  
CITY OF HAM LAKE, MN  
**SWPPP**

SHEET  
**C2.2**

of four structures allowed on a given lot: a *dwelling unit*; a *garage (attached or detached with a maximum size of 3000 square feet)*; an *Accessory Building (freestanding)*; and a *yard shed (under 200 square feet)*. If a *garage* was originally attached to a *dwelling unit*, and has since been converted to become living space in the *dwelling unit*, then that portion so used shall no longer be deemed a *garage*.

Up to two *Accessory Buildings* and a single *yard shed* may be constructed on a Residential Land Use lot which is more than (1) acre and less than ten (10) acres in the R-1, R-A and PUD zoning districts, under the conditions outlined below. One *Accessory Building* may be located in and meet the "Front Yard Setback" size and location requirements, and one *Accessory Building* may be located in and meet the "Side or Rear Yard" size and location requirements outlined below; or, two *Accessory buildings* may be located within the Side or Rear Yard, and subject to the sizes shown in the table under Article 9-370.1, Size Limitations. It is the intention of this code that for Residential Land Uses in the R-1 and PUD districts, for lots which are more than one (1) acre and less than ten (10) acres, there shall be a maximum of five structures allowed on a given lot: a *dwelling unit*; a *garage (attached or detached with a maximum size of 3000 square feet)*; two *Accessory Buildings (freestanding)*; and a *yard shed (under 200 square feet)*.

Provided, that for lots in the R-1, R-A, and PUD districts which are 10 acres or more in size, deviation from these standards may be permitted in the discretion of the City Council on a case-by-case basis.

 **9-370.1 Size Limitations** An *Accessory Building* shall be no more than one story in height, and the following size limitations shall apply to *Accessory Buildings*:

Lot size	Maximum Accessory Building Size*	
	Front Yard Setback**	Side or Rear Yard Setback***
One acre or less	676 sq. ft.	1000 sq. ft.
1+ acre to 2.5 acres****	720 sq. ft.	1500 sq. ft.
2.5+ acres to 5 acres	800 sq. ft.	2400 sq. ft. <u>unless approved by City Council</u>
5+ acres to 10 acres	1200 sq. ft.	3000 sq. ft. <u>unless approved by City Council</u>
<u>10+ acres</u>	5000 sq. ft. <u>unless approved by City Council</u>	

\* Sizes shown are the maximum allowable square feet at foundation level.

\*\* The "Front Yard Setback" is the area between the front of the dwelling unit (primary residential structure) and the street right of way. For all lot sizes, *Accessory Buildings* constructed in this area must also be constructed with the building materials outlined below and be architecturally compatible with the dwelling unit

\*\*\* The "Side or Rear Yard Setback" is the area that lies away from the road right of way and behind the front yard setback.

\*\*\*\* For lots greater than one acre and up to 2.5 acres, the size limits shown may be combined to allow one *Accessory Building* in the Side or Rear Yard Setback up to 2250 square feet, and with no additional *Accessory Building* existing or allowed in the Front Yard Setback.

**9-370.2 Building Materials** For lots which are 5 acres or less in size, the outside surface materials of all *Accessory Buildings* shall, as closely as practical, match the color, texture and style of the like surfaces on the dwelling unit. For lots which are more than 5 acres in size, all *Accessory Buildings* in the Front Yard Setback shall match the dwelling unit as outlined above. Pole-type construction shall be permitted only on lots exceeding 5 acres and only in the Side or Rear Yard Setback.

**9-370.3 Height Restriction** For lots which are less than 5 acres in size, the maximum height of an *Accessory Building* shall be equal to the height of the *dwelling unit*, or 25 feet, whichever is less.

**9-370.4 Setbacks and Building Codes** The locations and building standards for *Accessory Buildings* and *yard sheds* shall be as found in setback standards and the building code for other structures, except that the rear yard setback for *Accessory Buildings* shall be ten feet.

**9-370.5 Submittal Requirements** In addition to building plans, The *Zoning Officer* may require the submission of a scaled site plan, rendering or pictorial representations, and other data deemed necessary by the *Zoning Officer*.

**9-370.6 Usage** *Accessory Buildings* and *yard sheds* shall be used only for purposes related to the residential use of the parcel, and shall not be used for the conducting of any business or the storage of any business-related property, such as business equipment, business inventory or business supplies, unless approved by the City Council per Article 9-350.3.

**9-370.7 Farm Buildings** A *Farm Building* is a structure located on land zoned R-A, which is not a *dwelling unit*. No *Farm Building*



All sewage generated in the City shall be treated either in a Minnesota Pollution Control Agency-permitted facility, or in an SSTS that meets the requirements of this code.

No person shall install, alter, repair or operate an SSTS except in compliance with this code. No person shall cover any portion of any SSTS which is being constructed, altered or repaired unless in compliance with written inspection policies as developed and maintained from time to time by the City's Building Official. No activity which constitutes construction, alteration or repair of an SSTS or Holding Tank shall commence unless the plans for the activity have been first approved by the City's building official, and without a permit having been issued by the City's building official for the activity. Any structural activity, such as remodeling, which will add effluent to an SSTS, shall be considered activity which constitutes construction, alteration or repair of an SSTS. For the purposes of this Code, a person responsible for violations hereof shall include the contractor performing any activity, and shall also include the owner(s) of the parcel upon which the activity is being performed. New SSTS construction that is not compliant with this code, or other work on a system that is not compliant with this code shall be brought into compliance within seven days after written notification from the Building Official, unless a different deadline is specified in the notice.

**11-450.3 Use of Non-Standard Systems**

Non-Standard Systems shall be used only when the use of a Standard System is infeasible, and when used, shall be constructed in accord with all applicable rules and regulations.

**11-450.4 Required SSTS Compliance Inspections**

An SSTS compliance inspection (meaning an inspection by a person or entity licensed by the Minnesota Pollution Control Agency to determine compliance with minimum construction standards) shall be required in the following circumstances:

- a) For a new or replacement SSTS;
- b) When altering an existing structure to add a bedroom;
- \* c) When a parcel having an Existing System undergoes development, subdivision by platting or lot split.

If an SSTS is found to be noncompliant with minimum construction codes, notice thereof shall be sent by regular US Mail to the property owner.

**11-450.5 Inspections and Pumping Required**

**A. Inspections**

Every SSTS shall be inspected at least one time in every three years, provided, that in order to spread the time for review of inspection reports

detailed in the City's then current Local Surface Water Management Plan shall be observed.

**A. Trees** During construction of roads, other infrastructure, and lot grading, Contractor will mark all trees identified in the Tree Preservation Plan that will not be affected by construction activity. Identification shall be done in a manner that will clearly identify each tree, through delineation of gross lot areas or a perimeter around individual trees with visible tape or temporary fencing that extends either outside of the drip line of all trees within the protected area, or that extends for the entire "critical root zone" of each tree within the protected area, whichever distance is greatest. The critical root zone is that area that lies within a radius obtained when the tree diameter at a height 4.5 feet above ground level is measured in inches, and one foot of lineal distance from the trunk is provided for each inch of diameter. No spikes, nails or other objects shall be driven into the bark or trunk of any tree in the process of delineating the protected area. During construction activity involving the pouring of concrete, care shall be taken to avoid spillage of excess concrete or cement that could affect the health of trees.

**B. Erosion and Sediment Control** All stormwater runoff shall be contained in desiltation ponds prior to discharge into any watershed. Proper erosion control measures shall be taken to insure that stormwater runoff does not carry silt material onto public roads or adjoining properties during or after construction.

**C. Drainage** Each plat shall have a positive drainage discharge into a local watershed, in a manner which is designed according to accepted engineering principals using a 100-year storm event as the guideline for runoff control.

**D. Ponding** Each pond constructed for siltation or stormwater containment shall include signage prohibiting trespassing within the drainage easement area. No such pond shall be represented to lot purchasers as being available to the adjoining landowner for recreational purposes or landscaping.

**E. Driveways**

**1) New Dwellings or Structures**

Driveways on all lots containing or proposed for new residential dwellings or new structures shall be limited to 30 feet in width on City streets and 24 feet on cul-de-sacs (see Article 11-730), and shall be paved with either concrete or bituminous surfacing, in accord with standards or specifications to be established by the City Engineer. The paving requirements may be reduced by the

City's Building Official, after conferring with the City's engineer, to a length of 30 feet from the paved portion of the abutting public street if there is a showing of a special circumstance, such as inordinately long driveway length, which makes literal compliance with this provision unfair or unreasonable.



## **2) Existing Dwellings or Structures**

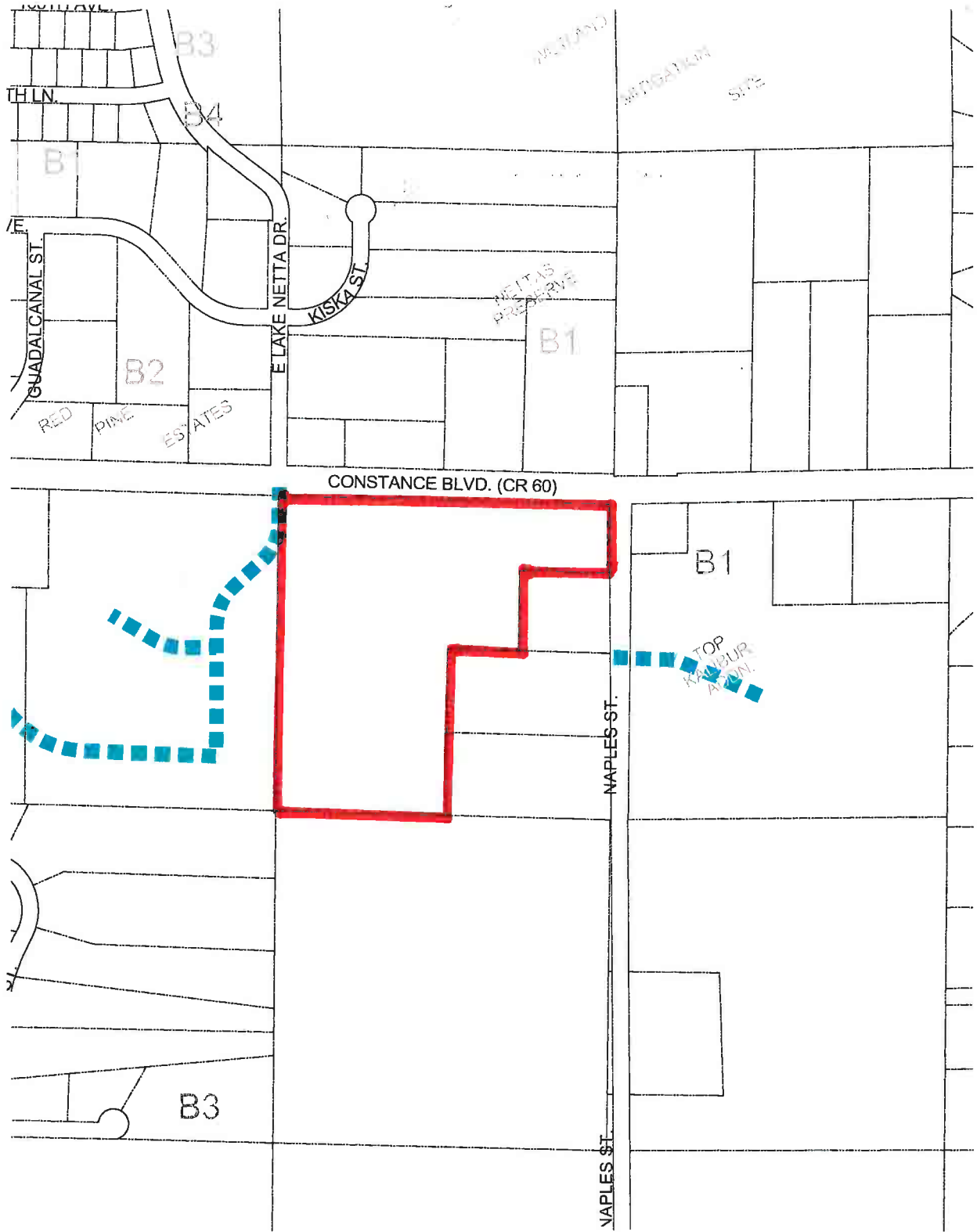
For any remodeling or other project that requires a building permit, a condition of issuance of the building permit shall be the paving of any existing unpaved or inadequately paved driveway serving garages or accessory buildings on the parcel. If the parcel contains an existing driveway having adequate pavement, and the property owner agrees to abandon any other unpaved driveways and take access solely from the paved driveway, then no additional paving shall be required. Notwithstanding the foregoing, the Building Official, after conferring with the City's engineer, may shorten the paving requirement to a length of 30 feet from the paved portion of the abutting public street if there is a showing of a special circumstance, such as inordinately long driveway length, which makes literal compliance with this provision unfair or unreasonable. The Building Official may also eliminate paving needs under the following circumstances:

- a) Because of particular topographic conditions, the existence of the driveway poses no immediate threat of erosion that could affect the public road, and poses no immediate threat of siltation flowing onto the public road; or
- b) The driveway is not intended to be used more often than once monthly, and topographic and vegetative conditions are present that are likely to inhibit or preclude erosion or siltation from developing if the limited usage is observed; and
- c) The property owner consents in writing to a license, in recordable form, as follows:

### **Driveway License Agreement**

**Agreement**, made this \_\_\_ day of \_\_\_\_\_, \_\_\_\_\_,  
between the City of Ham Lake, Minnesota ("City") and  
\_\_\_\_\_  
("Owner");

### **Recitals**



Future Thoroughfare

1" = 600'



**Tradewell Soil Testing  
18330 Dahlia Street NW  
Cedar, MN 55011**

April 10<sup>th</sup>, 2023

RFC Engineering  
13635 Johnson Street NE  
Ham Lake, MN 55304  
Attention: Tom Collins

Dear Mr. Collins:

As a licensed site evaluator who conducted the soil borings in Toby's Trail, for Richard & Diane Sylvester, I found the following: Each boring has at least 12" of natural, undisturbed and unmottled soil. In order to design and install a standard soil treatment system according to MN Chapter 7080 Code, at least 12" of natural soil with no signs of mottling is required. Therefore, each of the proposed lots will support 2 "standard" septic systems within the 7,500 square feet septic area as shown on the Grading Plan.

Sincerely,

A handwritten signature in black ink, appearing to read "Mark Tradewell". The signature is fluid and cursive, with the first name "Mark" being more prominent and the last name "Tradewell" following in a similar style.

Mark Tradewell  
MPCA #307

## Tom Collins

---

**From:** Abbey Lee <alee@cooncreekwd.org>  
**Sent:** Monday, June 12, 2023 10:04 AM  
**To:** Diane Sylvester  
**Cc:** Tom Collins; Jennifer Bohr  
**Subject:** RE: Toby's Trails (P23-028) Review Timeline Extension

Hi Diane,

Yes, I had copied Tom Collins on the email indicating that that we will be recommending approval at the June 26 Board Meeting. Nothing further is required.

Thanks,

### Abbey Lee

Watershed Development Manager

763.258.7928 direct  
763.755.0975 office

13632 Van Buren NE  
Ham Lake, MN 55304  
[www.cooncreekwd.org](http://www.cooncreekwd.org)



Attn: New electronic submittals (except TA and Wetland Applications) should be sent through our new online application at the following link: [Online Application](#). You will be instructed on how to submit any additional materials that may be requested by District staff. If submittal instructions are not followed, it will not be considered a submittal. This is in an effort to ensure submittals are not missed and are processed in a timely manner.

---

**From:** Diane Sylvester <diane.sylvester@hotmail.com>  
**Sent:** Thursday, June 8, 2023 2:20 PM  
**To:** Abbey Lee <alee@cooncreekwd.org>  
**Subject:** RE: Toby's Trails (P23-028) Review Timeline Extension

Abbey, Were you able to give Tom Collins Ham Lake city engineer any assurance that our project, Toby's Trails will be recommended for approval to Board on June 26<sup>th</sup>? Anything you can do to expedite this process is appreciated.  
Thank You Diane Sylvester

Sent from [Mail](#) for Windows

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**From:** [Abbey Lee](#)  
**Sent:** Tuesday, May 30, 2023 3:43 PM  
**To:** [Diane Sylvester](#); [Erin Edison](#); [Adam Ginkel](#)  
**Cc:** [Tom Collins](#)  
**Subject:** RE: Toby's Trails (P23-028) Review Timeline Extension

Hi Diane,

Yes, we have everything we need to continue with review. The extension was because the deadline for this project was going to be before we could present the project in front of our Board of Managers for approval. It is scheduled for approval at the June 26 Board Meeting.

I have copied the City on this email.

Thanks,

**Abbey Lee**

Watershed Development Manager

763.258.7928 direct

763.755.0975 office

13632 Van Buren NE

Ham Lake, MN 55304

[www.cooncreekwd.org](http://www.cooncreekwd.org)



Attn: New electronic submittals (except TA and Wetland Applications) should be sent through our new online application at the following link: [Online Application](#). You will be instructed on how to submit any additional materials that may be requested by District staff. If submittal instructions are not followed, it will not be considered a submittal. This is in an effort to ensure submittals are not missed and are processed in a timely manner.

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**From:** Diane Sylvester <[diane.sylvester@hotmail.com](mailto:diane.sylvester@hotmail.com)>

**Sent:** Tuesday, May 30, 2023 7:53 AM

**To:** Erin Edison <[eedison@cooncreekwd.org](mailto:eedison@cooncreekwd.org)>; Adam Ginkel <[adam@plowe.com](mailto:adam@plowe.com)>

**Cc:** Abbey Lee <[alee@cooncreekwd.org](mailto:alee@cooncreekwd.org)>

**Subject:** RE: Toby's Trails (P23-028) Review Timeline Extension

Hi Erin,

Thank you for the email on Friday. To confirm, you have everything needed to proceed with your review? Do we have a preliminary approval during this review period so we can move forward with the City of Ham Lake?

Thanks,

Diane

Sent from [Mail](#) for Windows

---

**From:** [Erin Edison](#)

**Sent:** Friday, May 26, 2023 2:13 PM

**To:** [diane.sylvester@hotmail.com](mailto:diane.sylvester@hotmail.com); [Adam Ginkel](#)

**Cc:** [Abbey Lee](#)

**Subject:** Toby's Trails (P23-028) Review Timeline Extension

Good afternoon,

In accordance with MN state statute 15.99 Subd. 3. (g), the Coon Creek Watershed District is extending our decision making period for the Toby's Trails project application (PAN P-23-028) an additional 60 days to allow additional time for staff to review resubmitted materials.



Please let me know if you have any questions.

Thank you,

**Erin Edison, CMWPIT**

Watershed Development Coordinator

763.392.8875 direct

763.334.0192 cell

763.755.0975 office

13632 Van Buren NE

Ham Lake, MN 55304

[www.cooncreekwd.org](http://www.cooncreekwd.org)

Attn: New electronic submittals (except TA and Wetland Applications) should be sent through our new online application at the following link: **Online Application**. You will be instructed on how to submit any additional materials that may be requested by District staff. If submittal instructions are not followed, it will not be considered a submittal. This is in an effort to ensure submittals are not missed and are processed in a timely manner.



Minnesota Department of Natural Resources  
Division of Ecological & Water Resources  
500 Lafayette Road, Box 25  
St. Paul, MN 55155-4025

April 17, 2023

Correspondence # MCE 2023-00012

Wayne Jacobson  
Jacobson Environmental, PLLC

RE: Natural Heritage Review of the proposed Toby's Trails,  
T32N R23W Section 15; Anoka County

Dear Wayne Jacobson,

As requested, the [Minnesota Natural Heritage Information System](#) has been reviewed to determine if the proposed project has the potential to impact any rare species or other significant natural features. Based on the project details provided with the request, the following rare features may be impacted by the proposed project:

#### *Ecologically Significant Areas*

- The Minnesota Biological Survey considered the forested area on the west side of the proposed project for a Site of Biodiversity Significance. It was determined to be *Below* the minimum biodiversity threshold for statewide significance. This area, however, may have conservation value at the local level as habitat for native plants and animals, corridors for animal movements, buffers surrounding higher quality natural areas, or as areas with high potential for restoration of native habitat. As such, indirect impacts from surface runoff or the spread of invasive species should be considered during project design and implementation.

#### *State-listed Species*

- Blanding's turtles (*Emydoidea blandingii*), a state-listed threatened species, have been reported in the vicinity of the proposed project. Blanding's turtles use upland areas up to and over a mile distant from wetlands, waterbodies, and watercourses. Uplands are used for nesting, basking, periods of dormancy, and traveling between wetlands. Factors believed to contribute to the decline of this species include collisions with vehicles, wetland drainage and degradation, and the development of upland habitat. Any added fatality can be detrimental to populations of

Blanding's turtles, as these turtles have a low reproduction rate that depends upon a high survival rate to maintain population levels.

For additional information, see the [Blanding's turtle fact sheet](#), which describes the habitat use and life history of this species. The fact sheet also provides two lists of recommendations for avoiding and minimizing impacts to this rare turtle. **Refer to the first list of recommendations for your project.** If greater protection for turtles is desired, the second list of additional recommendations can also be implemented. The use of [erosion control](#) blanket shall be limited to 'bio-netting' or 'naturalnetting' types, and specifically not products containing plastic mesh netting or other plastic components. Also be aware that hydro-mulch products may contain small synthetic (plastic) fibers to aid in its matrix strength. These loose fibers could potentially re-suspend and make their way into Public Waters. As such, please review mulch products and not allow any materials with synthetic (plastic) fiber additives in areas that drain to Public Waters.

The [Blanding's turtle flyer](#) should be given to all contractors working in the area. If Blanding's turtles are encountered on site, remember Minnesota's Endangered Species Statute (*Minnesota Statutes*, section 84.0895) and associated Rules (*Minnesota Rules*, part 6212.1800 to 6212.2300 and 6134) prohibit the take of threatened or endangered species without a permit. If turtles are in imminent danger, they must be moved by hand out of harm's way, otherwise they are to be left undisturbed. Report any sightings to the [DNR Nongame Specialist](#), Erica Hoaglund at 651-259-5772 or [Erica.Hoaglund@state.mn.us](mailto:Erica.Hoaglund@state.mn.us).

- Please visit the [DNR Rare Species Guide](#) for more information on the habitat use of these species and recommended measures to avoid or minimize impacts. For further assistance with these species, please contact the appropriate [DNR Regional Nongame Specialist](#) or [Regional Ecologist](#).

#### *Federally Protected Species*

- To ensure compliance with federal law, conduct a federal regulatory review using the U.S. Fish and Wildlife Service's (USFWS) online [Information for Planning and Consultation \(IPaC\) tool](#).

#### *Environmental Review and Permitting*

- Please include a copy of this letter and the MCE-generated Final Project Report in any state or local license or permit application. Please note that measures to avoid or minimize disturbance to the above rare features may be included as restrictions or conditions in any required permits or licenses.

The Natural Heritage Information System (NHIS), a collection of databases that contains information about Minnesota's rare natural features, is maintained by the Division of Ecological and Water Resources, Department of Natural Resources. The NHIS is continually updated as new information becomes available, and is the most complete source of data on Minnesota's rare or otherwise significant

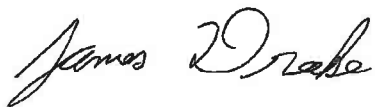
species, native plant communities, and other natural features. However, the NHIS is not an exhaustive inventory and thus does not represent all of the occurrences of rare features within the state. Therefore, ecologically significant features for which we have no records may exist within the project area. If additional information becomes available regarding rare features in the vicinity of the project, further review may be necessary.

For environmental review purposes, the results of this Natural Heritage Review are valid for one year; the results are only valid for the project location and project description provided with the request. If project details change or the project has not occurred within one year, please resubmit the project for review within one year of initiating project activities.

The Natural Heritage Review does not constitute project approval by the Department of Natural Resources. Instead, it identifies issues regarding known occurrences of rare features and potential impacts to these rare features. Visit the [Natural Heritage Review website](#) for additional information regarding this process, survey guidance, and other related information. For information on the environmental review process or other natural resource concerns, you may contact your [DNR Regional Environmental Assessment Ecologist](#).

Thank you for consulting us on this matter and for your interest in preserving Minnesota's rare natural resources.

Sincerely,

A handwritten signature in cursive script that reads "James Drake".

James Drake  
Natural Heritage Review Specialist  
[James.F.Drake@state.mn.us](mailto:James.F.Drake@state.mn.us)

Cc: Melissa Collins



**Anoka County**  
**TRANSPORTATION DIVISION**

Highway

Jennifer Bohr  
City of Ham Lake  
15544 Central Ave NE  
Ham Lake, MN 55304

March 21, 2023

RE: Preliminary Plat – Toby's Trails

Dear Jennifer,

We have reviewed the Preliminary Plat for Toby's Trails to be located south of CR 60 (Constance Boulevard NE) and west of Naples Street NE within the City of Ham Lake, and I offer the following comments:

- The existing right of way along CR 60 is 60 feet south of centerline which should be adequate for future reconstruction purposes.
  - As proposed, the plat will introduce two new access points onto CR 60, which would be allowed since access to a City Street is not feasible. The right of access should be dedicated to Anoka County along CR 60 with exception for the two proposed access points.
  - Internal site grading shall not commence until the requested ACHD Engineering plan approvals are received and the applicable permits from ACHD and all other agencies with jurisdiction are issued. If there will be any utility relocation on CR 60, it will be required to be completed by the City/developer as a part of the ACHD Engineering Plan Review process.
- 
- Please note that no plantings or private signs will be permitted within the county right of way and care must be exercised when locating private signs, building, structures, plantings, berms, etc. outside of the county right of way, so as not to create any new sight obstructions for this section of CR 60.

ACHD would like to work with local governments in promoting compatibility between land use and the county highway system. It should be recognized that residential land uses located adjacent to County highways often results in complaints about traffic noise. Existing and/or future traffic noise from CR 60 could exceed noise standards established by the Minnesota Pollution Control Agency (MPCA), the U.S. Department of Housing and Urban Development, and the U.S. Department of Transportation. Minnesota Rule 7030.0030 states that municipalities are responsible for taking all reasonable measures to prevent land use activities listed in the MPCA's Noise Area Classification (NAC) where establishment of the land use would result in violations of established noise standards. It is advised that the City and the Developer assess the noise situation for this development as it is proposed to be located directly adjacent to CR 60 and take the level of action deemed necessary to minimize the impact of any highway noise by incorporating the appropriate noise mitigation elements into the design and phasing of this plat as applicable.

Our Passion Is Your Safe Way Home

1440 Bunker Lake Boulevard N.W. ▲ Andover, MN 55304-4005  
Office: 763-324-3100 ▲ Fax: 763-324-3020 ▲ [www.anokacounty.us/highway](http://www.anokacounty.us/highway)

Affirmative Action / Equal Opportunity Employer

The ACHD Engineering Plan Review process will apply to this site. The following items should be submitted to Brandon Ulvenes, Engineer I, [Brandon.Ulvenes@co.anoka.mn.us](mailto:Brandon.Ulvenes@co.anoka.mn.us) (checklist and payment information are available on our website: <https://www.anokacountymn.gov/4072/Development-Review>):

- Utility relocation plans
- Traffic Control plans
- Grading and erosion control plans
- Drainage calculations – Note that the post-developed rate/volume of runoff must not exceed the pre-developed rate/volume of runoff for the 10-year critical design storm
- ACHD Design Requirements Checklist
- Engineering plan review fee (estimated at \$150.00)

Following completion of the ACHD Engineering Plan Review process, the contractor(s) who will be completing any work within the county right of way must begin the ACHD Permit process. One permit for Work within the County Right of Way (\$150.00) and two Access Permits (\$175.00 each) must be obtained prior to the commencement of any construction. License permit bonding, methods of construction, design details, work zone traffic control, restoration requirements and follow-up inspections are typical elements of the permitting process. Contact Sue Burgmeier via phone at 763.324.3176 or via email at [HighwayPermits@co.anoka.mn.us](mailto:HighwayPermits@co.anoka.mn.us) for further information and to coordinate the ACHD Permit process.

Thank you for the opportunity to comment. Feel free to contact me if you have any questions regarding this review.

Sincerely,



Logan Keehr  
Traffic Engineering Technician

xc: CR 60/Plats+Developments/2023  
Jerry Auge, Assistant County Engineer  
Jorge Bernal, Traffic Engineering Manager  
David Zieglmeyer, County Surveyor  
Sean Thiel, Signals Manager  
Sue Burgmeyer, Traffic Engineering Technician  
Brandon Ulvenes, Engineer I

## Tom Collins

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**From:** Logan Keehr <Logan.Keehr@co.anoka.mn.us>  
**Sent:** Wednesday, March 22, 2023 1:16 PM  
**To:** Tom Collins  
**Cc:** mdavich@egrud.com  
**Subject:** Toby's Trails

Hi Tom.

I talked with Matt about the right of access that we requested in our letter.

Our response letter is what we would prefer to see but we are not demanding them to dedicate the access to us.

I realize there is the possibility to divide Lot 1 further so dedicating the access to us could complicate that process.

Let me know if you have any questions.

Logan Keehr, E.I.T.  
Traffic Engineering Technician  
Anoka County Highway Department  
1440 Bunker Lake Boulevard NW  
Andover, MN 55304  
Direct: 763.324.3183  
[Logan.Keehr@co.anoka.mn.us](mailto:Logan.Keehr@co.anoka.mn.us)

NOTICE: Unless restricted by law, email correspondence to and from Anoka County government offices may be public data subject to the Minnesota Data Practices Act and/or may be disclosed to third parties.

**CITY OF HAM LAKE  
PLANNING COMMISSION REQUEST APPLICATION  
INSPECTION REPORT**

MTG DATE: June 26, 2023

INSPECTION ISSUED TO: Jonathan Fisher

APPLICANT/CONTACT: HFN Properties, LLC/Jeff Stalberger

TELEPHONE NUMBER: 612-799-1471/stally68@msn.com

BUSINESS/PLAT NAME: Hidden Forest East 4<sup>th</sup> Add

ADDRESS/LOCATION OF INSPECTION: North/NW of 14743 Stutz St NE and  
North of 14678 Packard St NE

APPLICATION FOR: Preliminary Plat & Rezoning

RECOMMENDATION: \_\_\_\_\_

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\_\_\_\_\_

DATE: \_\_\_\_\_

PLANNING COMMISSIONER SIGNATURE: \_\_\_\_\_





# CITY OF HAM LAKE

## PLANNING REQUEST

15544 Central Avenue NE

Ham Lake, MN 55304

Phone (763) 434-9555 Fax (763) 235-1697

Date of Application 2-15-23

Date of Receipt \_\_\_\_\_

Receipt # \_\_\_\_\_

Meeting Appearance Dates:

Planning Commission 6-26-23

City Council \_\_\_\_\_

Please check request(s):

Metes & Bounds Conveyance

Commercial Building Permit

Sketch Plan

Certificate of Occupancy

Preliminary Plat Approval\*

Home Occupation Permit

Final Plat Approval

Conditional Use Permit (New)\*

Rezoning\*

Conditional Use Permit (Renewal)

Multiple Dog License\*

Other \_\_\_\_\_

*\*NOTE: Advisory Signage is required for land use alterations and future road connections. This application also requires a Public Hearing. Such fees shall be deducted from deposit.*

Development/Business Name: HFN Properties, LLC

Address/Location of property: EAST OF LEXINGTON - Hidden Forest EAST 4<sup>th</sup> ADD.

Legal Description of property: \_\_\_\_\_

PIN # 24-32-23-44-0001, 25-32-23-12-0002  
25-32-23-11-0002 + 0008 Current Zoning R-A Proposed Zoning R-1

Notes: 22 single family residential lots and 3 out lots

Applicant's Name: JEFFREY A. STALBERGER

Business Name: HFN Properties, LLC

Address 17404 WARD LK. DR. NE

City ANDOVER State MN. Zip Code 55304

Phone 612-799-1471 Cell Phone \_\_\_\_\_ Fax \_\_\_\_\_

Email address STALLY68@MSN.COM

*You are advised that the 60-day review period required by Minnesota Statutes Chapter 15.99 does not begin to run until all of the required items have been received by the City of Ham Lake.*

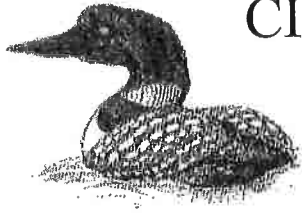
SIGNATURE

DATE 2-8-2023

**- FOR STAFF USE ONLY -**

ACTION BY: Planning Commission \_\_\_\_\_  
City Council \_\_\_\_\_

PROPERTY TAXES CURRENT YES NO



# CITY OF HAM LAKE

15544 Central Avenue NE  
Ham Lake, Minnesota 55304  
(763) 434-9555  
Fax (763) 434-9599

NOTICE OF PUBLIC HEARING  
CITY OF HAM LAKE  
COUNTY OF ANOKA  
STATE OF MINNESOTA

TAKE NOTICE, that pursuant to the requirements of Minnesota Law, a public hearing shall be held before the Ham Lake Planning Commission on Monday, June 26, 2023 at 6:01 p.m. at the City Hall located at 15544 Central Avenue NE for the purpose of considering the application of Jeff Stalberger, HFN Properties, LLC, requesting preliminary plat approval and rezoning of portions of land from R-A (Rural Single Family Residential) to R-1 (Single Family Residential) of the development of Hidden Forest East 4th Addition (22 single family residential lots and 3 out lots) located in Sections 24 and 25, parcels of certain land situated in the City of Ham Lake, Anoka County, Minnesota and which are described as follows to wit:

OUTLOT A, HIDDEN FOREST EAST THIRD ADDITION, Anoka County, Minnesota.  
AND

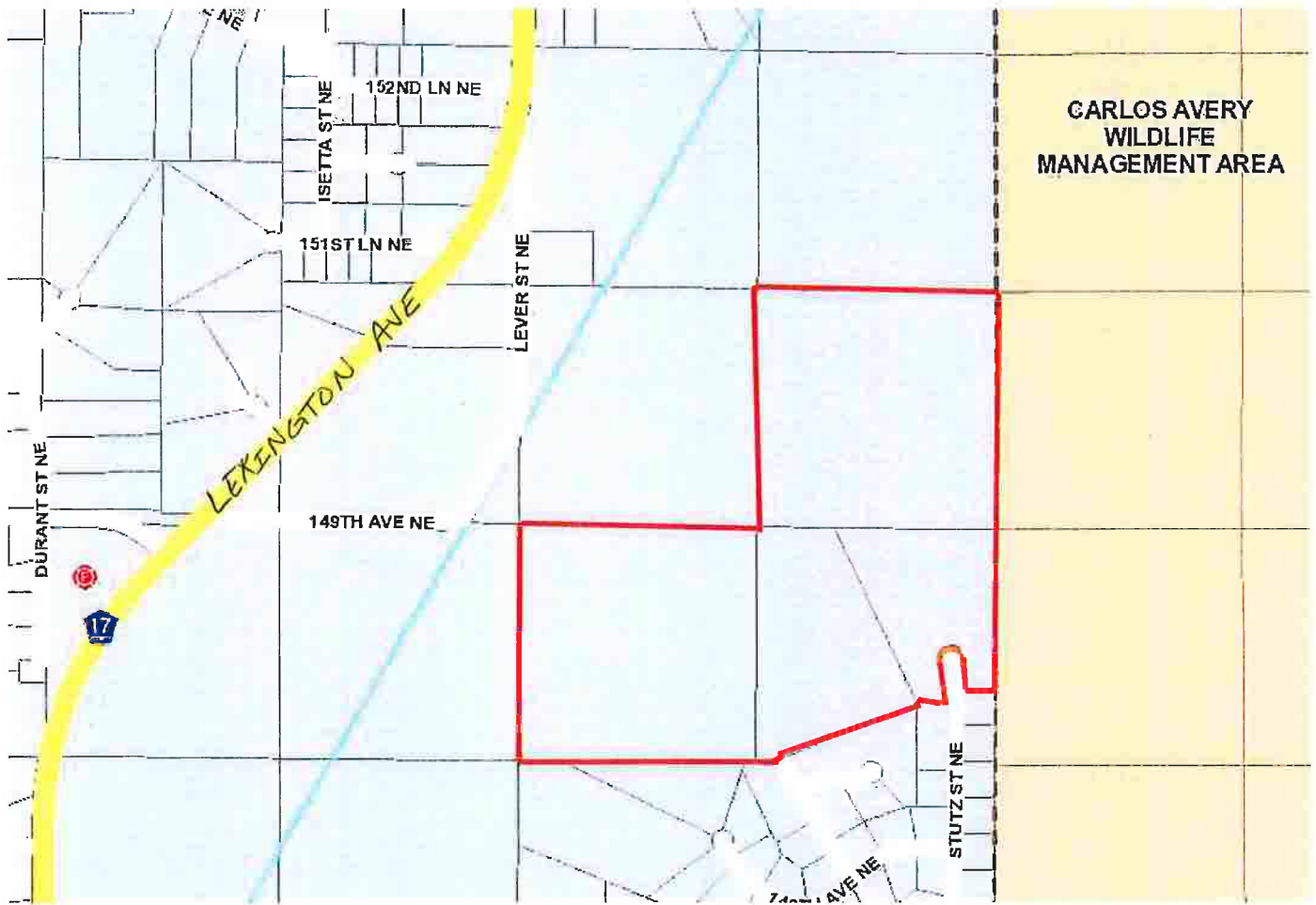
Tracts A and B, REGISTERED LAND SURVEY NO. 290, Anoka County, Minnesota.  
AND

The Southeast Quarter of the Southeast Quarter of Section 24, Township 32, Range 23,  
Anoka County, Minnesota.

At such hearing both written and oral comments will be heard.

DATED: June 16, 2023

Jennifer Bohr  
Zoning & Building Clerk  
City of Ham Lake



Hidden Forest East 4<sup>th</sup> Addition



## Memorandum

Date: June 22, 2023  
To: Planning Commissioners  
From: Tom Collins, City Engineer *TPC*  
Subject: Hidden Forest East 4<sup>th</sup> Addition

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**Introduction:**

The proposed 22 lot residential development is located on 112.96 acres, which includes parcels 24-32-23-44-0001, 25-32-23-11-0002, 25-32-23-11-0008 (Outlot A - Hidden Forest East 3<sup>rd</sup> Addition) and 25-32-23-12-0002. The parcels are currently a mixed zoning of Rural Single Family Residential (R-A) and Single Family Residential (R-1) and the proposed zoning is all Single Family Residential. The mixed zoning is a result of that portion of the attached RLS 290 outside of the plat of Hidden Forest East Third Addition being rezoned to R-1 because it was included in the legal description provided by the surveyor on the Certificate of Title when the Third Addition was platted. A 400-scale aerial photo, 400 scale half-section maps and a 600 scale zoning map are attached.

**Discussion:**

The Title Sheet, Preliminary Plat, Livability Plan, Livability Chart and Floodplain Exhibit received April 11<sup>th</sup> and the Grading, Erosion Control and Tree Protection Plan, Title Sheet, Notes & Legend, Plan Profile, Pond Outlets, Intersection and C-D-S Details, Details, SWPPP and Stormwater Drainage Report received May 16<sup>th</sup> address prior review comments. Outlots A, B and C will need to be conveyed to adjacent properties.

Per correspondence with Public Works Superintendent John Witkowski, it is recommended that parkland dedication fees be collected rather than the dedication of parkland or trail easement. This development will have access to the 27.12-acre park within the Hidden Forest East Park Addition thru the streets of Hidden Forest East 2<sup>nd</sup> and 3<sup>rd</sup> Additions to the south.

An Encroachment Agreement will be required due to the Lot 10, Block 1 septic crossing the drainage and utility easement. FEMA Letter of Map Amendments are required for Lots 1, 2, 3, 5, 6 and 7 of Block 1, and Lots 2 and Lot 3 of Block 3.

The Soil Boring Test Report confirms that there is adequate area for a primary and secondary septic system for all three lots. The attached April 10<sup>th</sup> Tradewell septic certification certifies that the lots will support two standard septic systems in accordance with Minnesota Rules 7080.

A rare species survey was required with the DNR Natural Heritage Review because of the potential for the proposed project to negatively impact state-listed threatened or endangered species. The rare species survey found the presence of threatened vascular plants of black huckleberry. The project impacts eight non-fruiting black huckleberry stems and avoids 43 non-

fruiting huckleberry stems. Per the attached June 13<sup>th</sup> email, the Developer has agreed to allow the DNR access to salvage and relocate the eight black huckleberry plants at least two weeks before grading impacts and has agreed to pay \$40,000 for the management of the existing black huckleberry population. The DNR is drafting a Permit. In addition, Blanding's Turtles have been reported in the vicinity of the proposed project and may be encountered on site. If during construction Blanding's Turtles are encountered they are to be moved by hand out of harm's way, otherwise they are to be left undisturbed.

The preliminary plat was granted contingent approval at the April 26<sup>th</sup> Coon Creek Watershed District (CCWD) Board of Managers meeting, per the attached Notice of Permit Application Status. In addition to paying the \$20,450 performance escrow, the Developer needs to provide proof of the NPDES/MPCA Construction Stormwater permit, submit verification of the Wetland Bank Credit Withdrawal and submit the DNR Takings Permit prior to the CCWD Permit issuance. Construction cannot commence until the CCWD Permit is issued.

The Stutz Street temporary cul-de-sac right-of-way that was built with Hidden Forest East 3<sup>rd</sup> Addition that is proposed to be vacated is included in the yard area for Lot 1, Block 2. This will require that the vacation be completed and recorded before the plat is recorded.

**Recommendations:**

It is recommended that the Preliminary Plat of Hidden Forest East 4<sup>th</sup> Addition be recommended for approval to the City Council.

# REGISTERED LAND SURVEY NO. 290


CITY OF HAM LAKE  
COUNTY OF ANOKA  
SEC. 25, T. 32, R. 23

I, Jason E. Rud, hereby certify that, in accordance with the provisions of Minnesota Statutes, Section 508.47, I have surveyed the following described property situated in the County of Anoka, State of Minnesota:

The Northeast Quarter except the South Half, Section 25, Township 32, Range 23.



I hereby certify that this Registered Land Survey was prepared by me or under my direct supervision; that I am a duly Licensed Land Surveyor under the laws of the State of Minnesota and that this Registered Land Survey is a correct representation of said parcel of land.

Dated this 9<sup>th</sup> day of July, 2021.

  
Jason E. Rud, Licensed Land Surveyor  
Minnesota License No. 41578

CITY COUNCIL, CITY OF HAM LAKE, MINNESOTA

We do hereby certify that on the 6<sup>th</sup> day of July, 2021, the City Council of the City of Ham Lake, Minnesota, has approved this Registered Land Survey.

 Mayor  Clerk


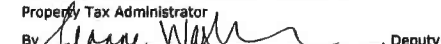
ANOKA COUNTY SURVEYOR

Pursuant to Minnesota Statutes, Section 389.09, Subd. 1, this Registered Land Survey has been reviewed and approved this 22<sup>nd</sup> day of July, 2021.

  
David M. Ziegemeier, Anoka County Surveyor

COUNTY AUDITOR/TREASURER

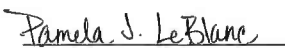
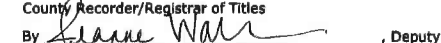
Pursuant to Minnesota Statutes, Section 508.47, Subd. 4, taxes payable in the year 2021 on the land hereinbefore described have been paid. Also, pursuant to Minnesota Statutes, Section 272.12, there are no delinquent taxes and transfer entered this 22<sup>nd</sup> day of July, 2021.

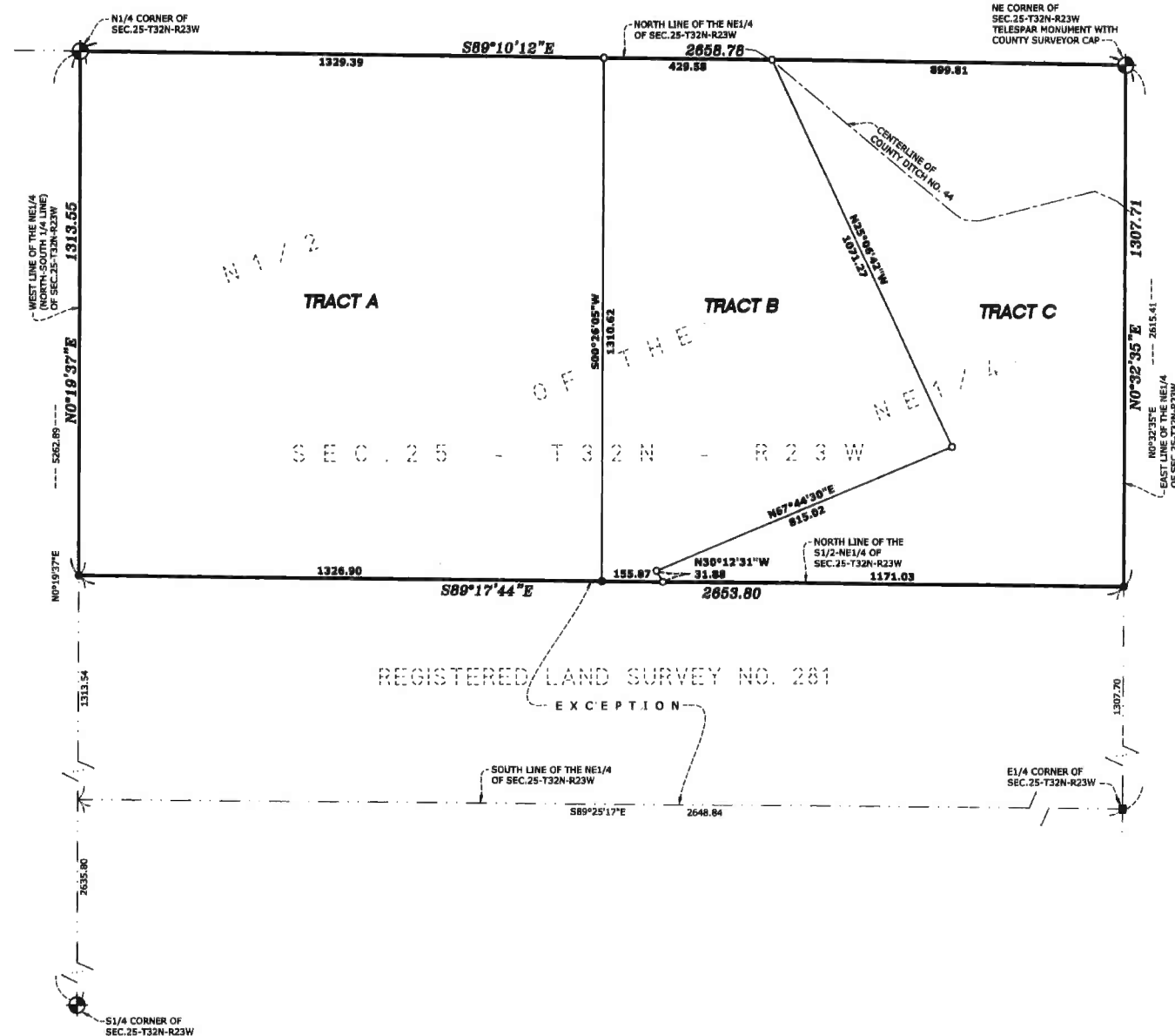
  
Pamela S. LeBlanc  
Property Tax Administrator  
By  Deputy

COUNTY RECORDER/REGISTRAR OF TITLES

COUNTY OF ANOKA, STATE OF MINNESOTA

I hereby certify that this REGISTERED LAND SURVEY NO. 290 was filed in the office of the County Recorder/Registrar of Titles for public record on this 22<sup>nd</sup> day of July, 2021, at 12:16 o'clock P.M. and was duly recorded as Document Number 590855.001.

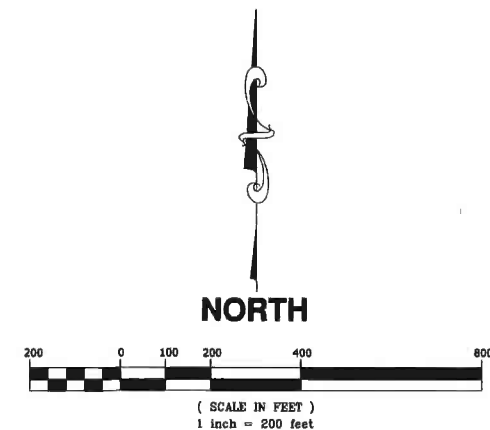
  
Pamela S. LeBlanc  
County Recorder/Registrar of Titles  
By  Deputy



### LEGEND

- DENOTES 1/2 INCH BY 14 INCH IRON PIPE SET MARKED BY RLS NO. 41578
- DENOTES FOUND 1/2 INCH IRON PIPE MARKED RLS 41578
- ⊕ DENOTES ANOKA COUNTY CAST IRON MONUMENT, UNLESS OTHERWISE SHOWN
- DENOTES FOUND CONCRETE MONUMENT

FOR THE PURPOSES OF THIS REGISTERED LAND SURVEY THE WEST LINE OF THE NORTHEAST QUARTER OF SECTION 25, TOWNSHIP 32 NORTH, RANGE 23 WEST, IS ASSUMED TO HAVE A BEARING OF NORTH 00 DEGREES 19 MINUTES 37 SECONDS EAST.



\$510

1" = 400'

LEVER ST

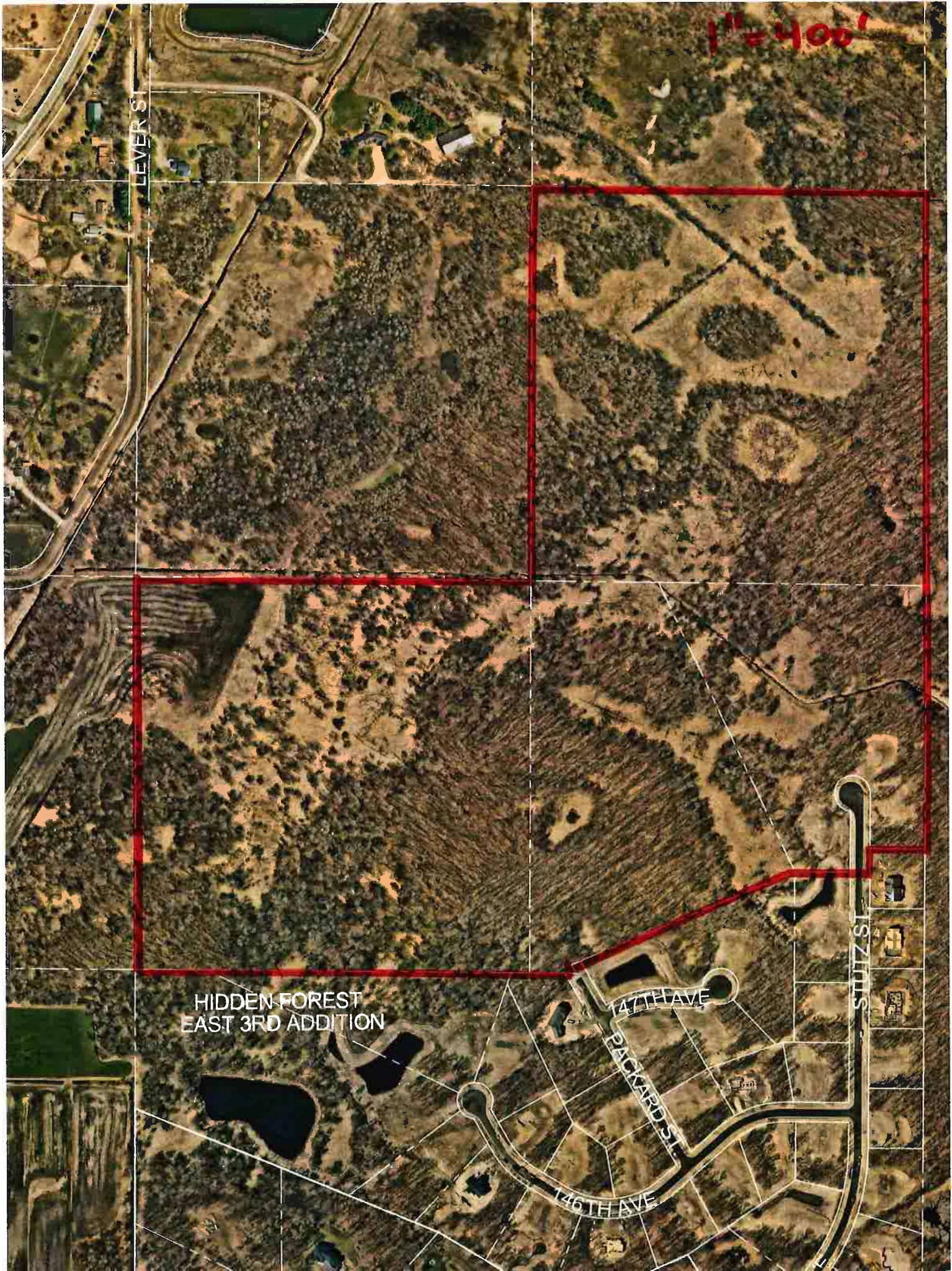
HIDDEN FOREST  
EAST 3RD ADDITION

147TH AVE

PACKARD ST

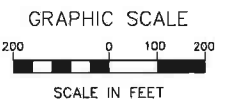
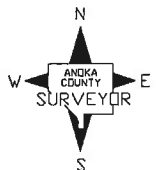
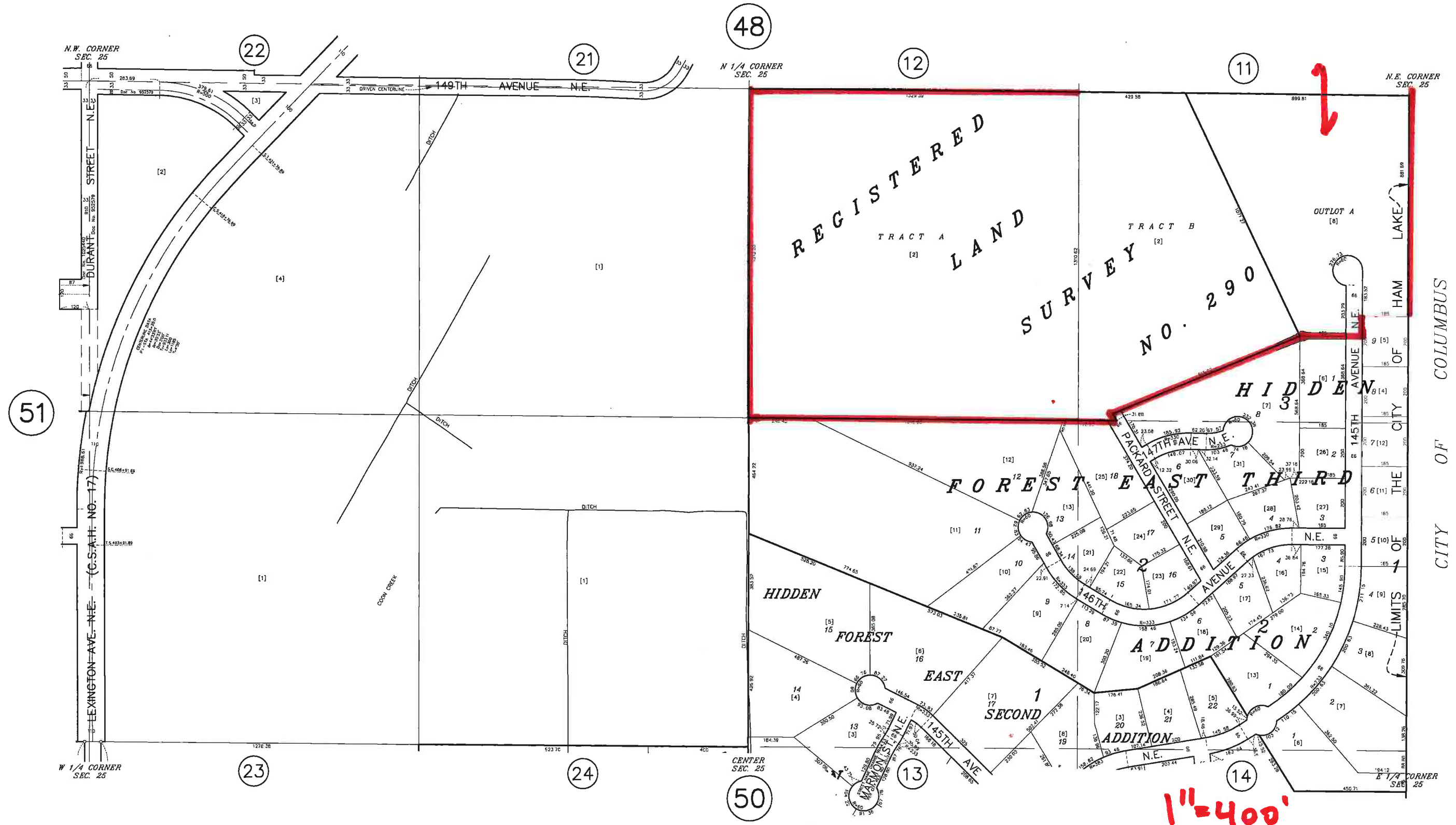
146TH AVE

STUTZ ST



# N 1/2 SECTION 25, T. 32, R. 23

CITY OF HAM LAKE



ANOKA COUNTY  
SURVEYOR'S OFFICE  
ROOM 224  
2100 3RD AVENUE  
ANOKA, MN 55303  
(763) 324-3200

QUARTER QUARTER INDEX

22	21	12	11
23	24	13	14
32	31	42	41
33	34	43	44

NORTH HALF OF SECTION

SOUTH HALF OF SECTION

PROPERTY IDENTIFICATION NUMBER

Section Number	Township Number	Range Number	Quarter Number	Specific Parcel
XX	XX	XX	XX	XXXX

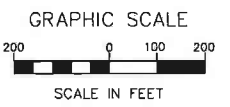
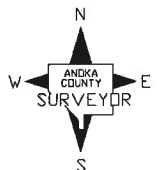
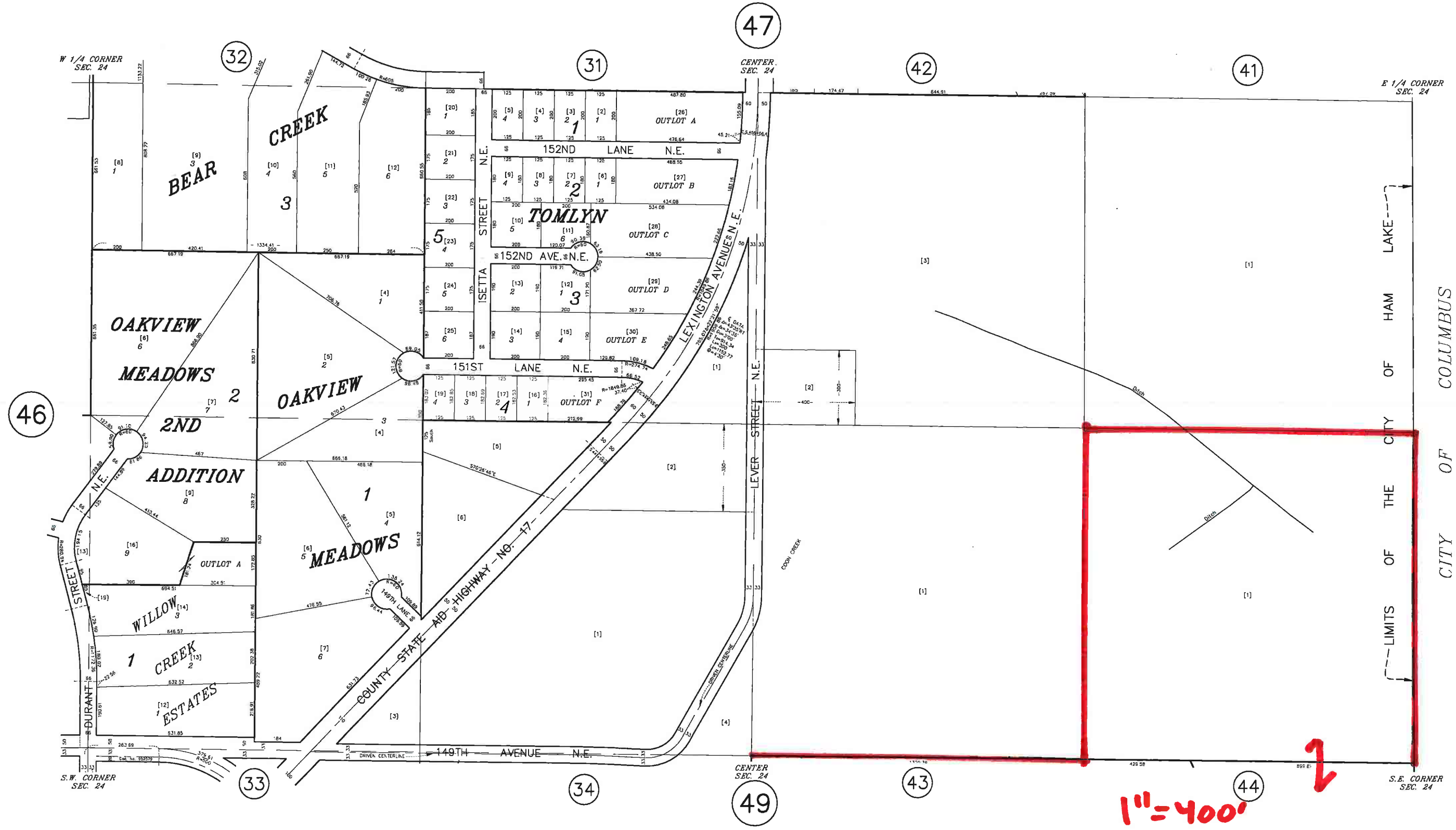
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EXAMPLE OF PIN NUMBER: 25-32-23-13-0001

THIS IS A COMPILATION OF RECORDS AS THEY APPEAR IN THE ANOKA COUNTY OFFICES AFFECTING THE AREA SHOWN. THIS DRAWING IS TO BE USED ONLY FOR REFERENCE PURPOSES AND THE COUNTY IS NOT RESPONSIBLE FOR ANY INACCURACIES HEREIN CONTAINED.



# S 1/2 SECTION 24, T. 32, R. 23

## CITY OF HAM LAKE



ANOKA COUNTY  
SURVEYOR'S OFFICE  
ROOM 224  
2100 3RD AVENUE  
ANOKA, MN 55303  
(763) 324-3200

QUARTER QUARTER INDEX

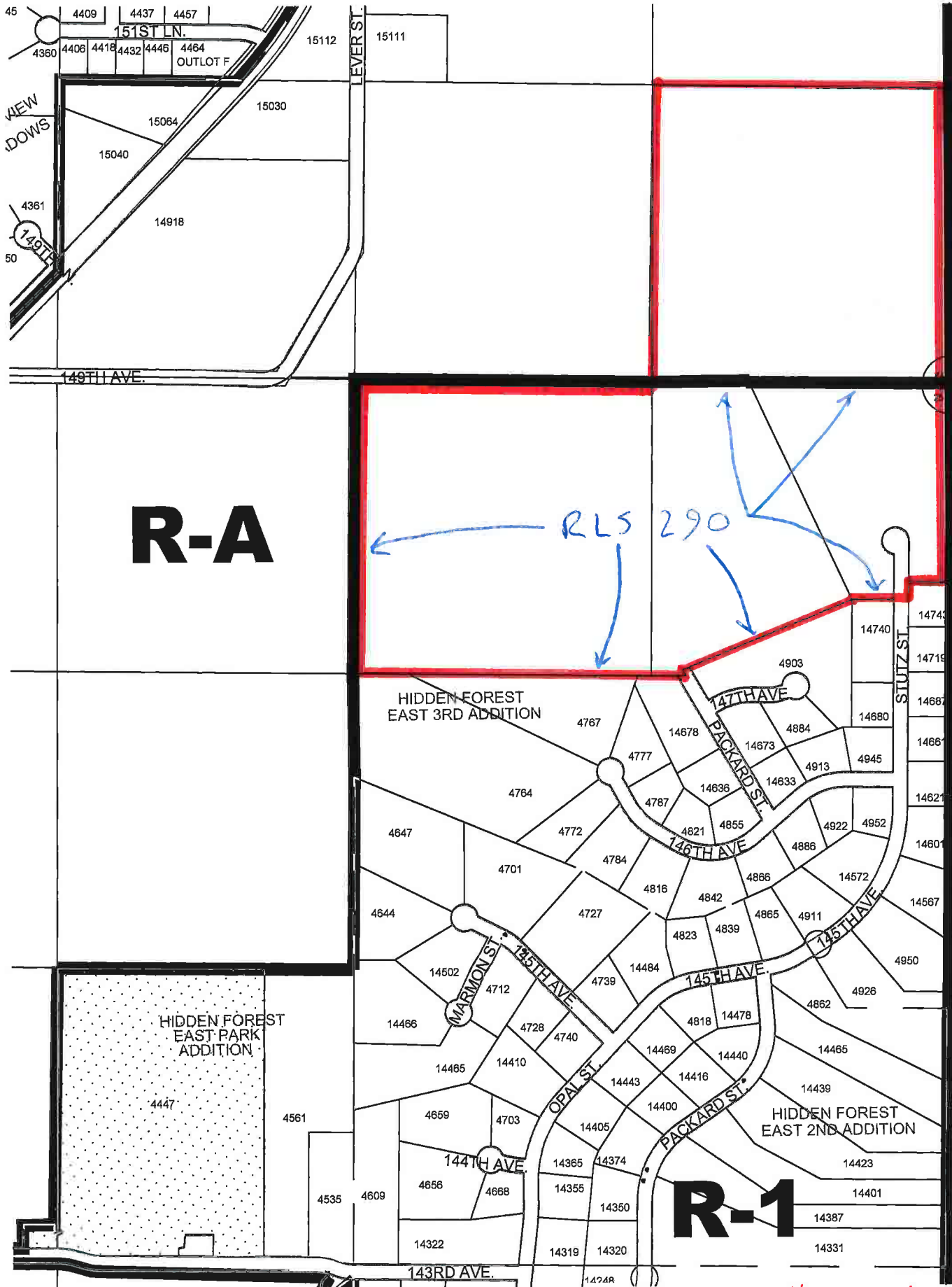
22	21	12	11	} NORTH HALF OF SECTION
23	24	13	14	
32	31	42	41	} SOUTH HALF OF SECTION
33	34	43	44	

PROPERTY IDENTIFICATION NUMBER

Section Number	Township Number	Range Number	Quarter Number	Specific Parcel
XX	XX	XX	XX	XXXX

SPECIFIC PARCEL NUMBERS ARE IN BRACKETS: [1]  
EXAMPLE OF PIN NUMBER: 24-32-23-33-0013

THIS IS A COMPILATION OF RECORDS AS THEY APPEAR IN THE ANOKA COUNTY OFFICES AFFECTING THE AREA SHOWN. THIS DRAWING IS TO BE USED ONLY FOR REFERENCE PURPOSES AND THE COUNTY IS NOT RESPONSIBLE FOR ANY INACCURACIES HEREIN CONTAINED.



**R-A**

HIDDEN FOREST  
EAST 3RD ADDITION

HIDDEN FOREST  
EAST PARK  
ADDITION

HIDDEN FOREST  
EAST 2ND ADDITION

**R-1**

RLS 290

1" = 600'

# TITLE SHEET

~of~ HIDDEN FOREST EAST 4TH ADDITION

~for~ HFN PROPERTIES, LLC.  
17404 WARD LAKE DRIVE NW  
ANDOVER, MN 55304  
(612) 799-1471

## VICINITY MAP

PART OF SECS. 24 AND 25, TWP. 32, RNG. 23




ANOKA COUNTY, MINNESOTA  
(NO SCALE)

## SHEET INDEX

T1	TITLE SHEET
2-3	PRELIMINARY PLAT
4-8	GRADING PLAN
9-13	LIVABILITY PLAN
14-15	LIVABILITY CHART
16	FLOODPLAIN EXHIBIT
C1.1 - C1.6	PLAN / PROFILES
C2.1 - C2.3	DETAILS & NOTES
C3.1 - C3.2	STORMWATER POLLUTION PREVENTION PLAN

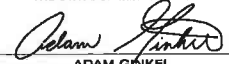
PONDING CALCULATIONS  
AND STORM SEWER DESIGN BY  
FLOWE ENGINEERING, INC.



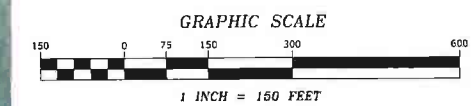
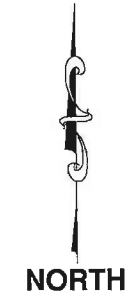
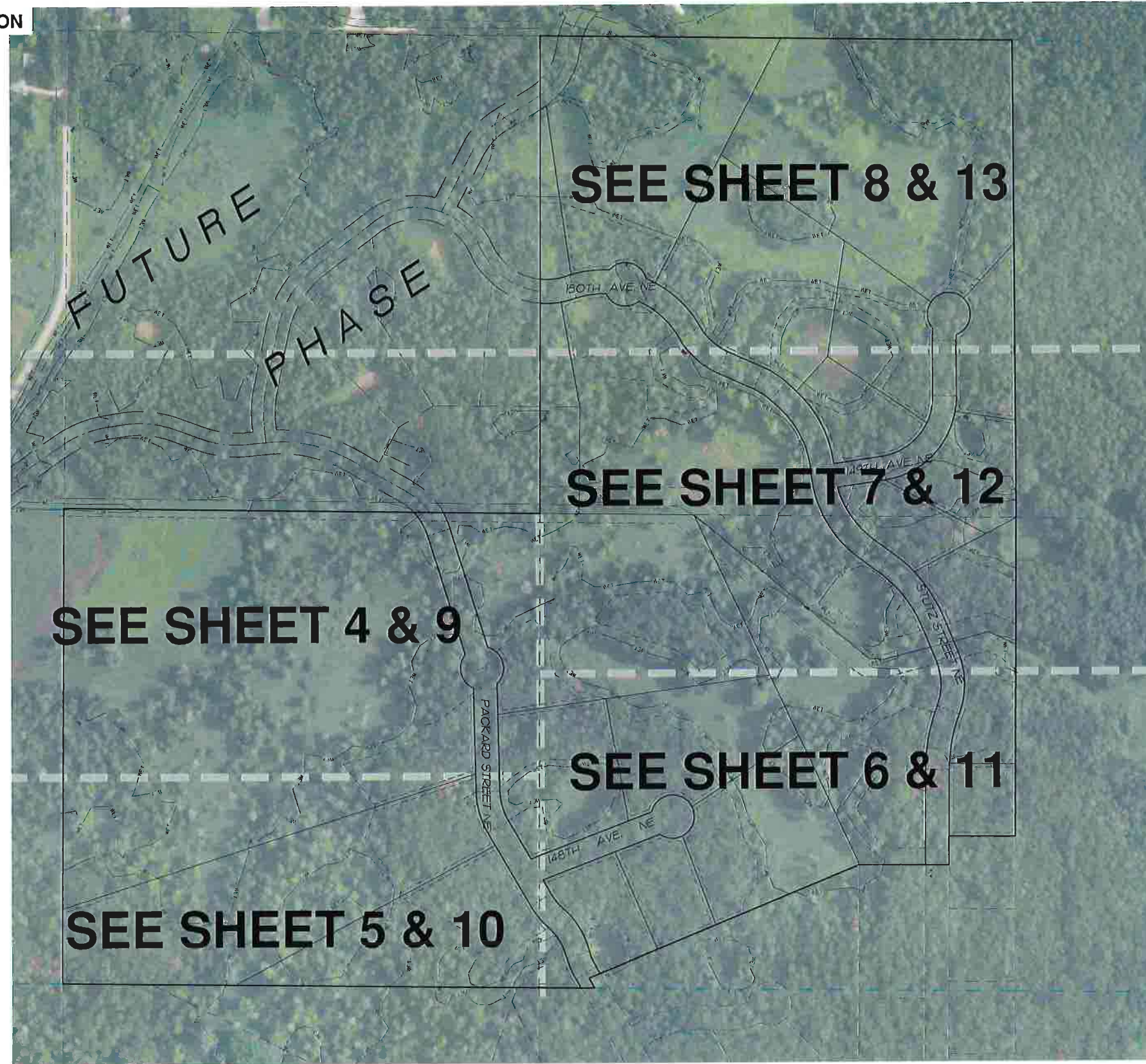
**PLOWE**  
ENGINEERING, INC.  
6776 LAKE DRIVE  
SUITE 110  
LINO LAKES, MN 55014

SITE PLANNING & ENGINEERING PHONE: (651) 361-8210  
FAX: (651) 361-8701


I HEREBY CERTIFY THAT THE STORMWATER  
MANAGEMENT AND DRAINAGE REPORT FOR THIS  
PLAN 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.



ADAM GINKEL  
DATE: 04.11.2023 LIC. NO. 43963



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

  
JASON E. RUD  
Date: 04/11/2023 License No. 41578

DRAWN BY:	MMD	JOB NO.	210452PP	DATE:	02/15/23
CHECK BY:	JER	FIELD CREW:	DT, CT		
1	03/17/23	CITY / WATERSHED COMMENTS:	MMD		
2	04/11/23	CITY / WATERSHED COMMENTS:	MMD		
3					
4					
NO.	DATE	DESCRIPTION	BY		



**E. G. RUD & SONS, INC.**  
EST. 1977  
Professional Land Surveyors  
6776 Lake Drive NE, Suite 110  
Lino Lakes, MN 55014  
Tel. (651) 361-8200 Fax (651) 361-8701

# PRELIMINARY PLAT

~of~ HIDDEN FOREST EAST 4TH ADDITION  
 ~for~ HFN PROPERTIES, LLC.  
 17404 WARD LAKE DRIVE NW  
 ANDOVER, MN 55304  
 (612) 799-1471

## VICINITY MAP

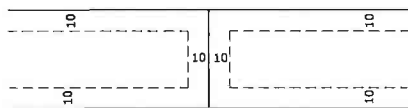
PART OF SECS. 24 AND 25, TWP. 32, RNG. 23



ANKOKA COUNTY, MINNESOTA  
 (NO SCALE)

## TYPICAL EASEMENTS

(NOT TO SCALE)



BEING 10 FEET IN WIDTH ADJOINING RIGHT OF WAY LINES  
 AND 10 FEET IN WIDTH ADJOINING LOT LINES UNLESS  
 OTHERWISE SHOWN.

## LEGEND

- DENOTES ANOKA COUNTY CAST IRON MONUMENT
- DENOTES LIDAR CONTOURS (2' INTERVAL)
- DENOTES DRAINAGE AND UTILITY EASEMENT
- DENOTES BUILDING SETBACK LINE
- DENOTES WETLAND LINE DELINEATED BY KJOLHAUG ENVIRONMENTAL SERVICES INC.
- DENOTES WETLAND BUFFER LINE
- DENOTES APPROXIMATE FEMA FLOOD ZONE A LINE FROM FEMA FLOOD INSURANCE RATE MAP NO. 27003C035E PANEL NO. 0355 SUFFIX E, EFFECTIVE DATE DECEMBER 16TH, 2015.
- DENOTES PLANT SPECIES LOCATED BY STANTEC CONSULTING SERVICES, INC.
- DENOTES WETLAND FILL
- DENOTES EXISTING AREA 1' ABOVE MOTTLING
- DENOTES ADJACENT PARCEL OWNER INFORMATION (PER ANOKA COUNTY TAX INFORMATION)

## NOTES

- Bearings shown are on Anoka County datum.
- Parcel ID Number: 24-32-23-44-0001  
 25-32-23-12-0002  
 25-32-23-11-0002  
 25-32-23-11-0008

OWNERS: HFN PROPERTIES, LLC  
 KNOLL FAMILY LIMITED PARTNERSHIP  
 BEXELL, REBECCA M

## DEVELOPMENT DATA

- TOTAL SITE AREA = 112.96± ACRES
- OUTLOT AREA = 2.35± ACRES
- 22 PROPOSED SINGLE FAMILY LOTS
- 3 PROPOSED OUTLOTS
- AVERAGE LOT SIZE = 5.03± ACRES
- MINIMUM STREET FRONTAGE = 200 FEET
- MINIMUM LOT SIZE = 1.00 ACRES (INCLUDING HALF OF STREET ROW)
- PROPOSED ZONING = R-1
- BUILDING SETBACKS: FRONT = 30 FEET, SIDE = 10 FEET, REAR = 50 FEET, COUNTY ROAD = 50 FEET

MATCHLINE: SEE SHEET 3

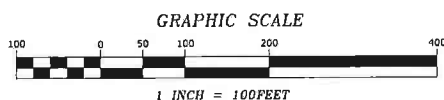
## PROPERTY DESCRIPTION

OUTLOT A, HIDDEN FOREST EAST THIRD ADDITION, Anoka County, Minnesota.  
 AND  
 Tracts A and B, REGISTERED LAND SURVEY NO. 290, Anoka County, Minnesota.  
 AND  
 The Southeast Quarter of the Southeast Quarter of Section 24, Township 32, Range 23, Anoka County, Minnesota

DRAWN BY: MMD	JOB NO: 210452PP	DATE: 02/15/23
CHECK BY: JER	FIELD CREW: DT \ CT	
1 03/17/23	CITY / WATERSHED COMMENTS	MMD
2 04/11/23	CITY / WATERSHED COMMENTS	MMD
3		
4		
NO.	DATE	DESCRIPTION

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

JASON E. RUD  
 Date: 4/11/2023 License No. 41578



**E. G. RUD & SONS, INC.**  
 EST. 1877  
 Professional Land Surveyors  
 6776 Lake Drive NE, Suite 110  
 Lino Lakes, MN 55014  
 Tel. (651) 361-8200 Fax (651) 361-8701

NORTH

# PRELIMINARY PLAT

~of~ HIDDEN FOREST EAST 4TH ADDITION  
 ~for~ HFN PROPERTIES, LLC.  
 17404 WARD LAKE DRIVE NW  
 ANDOVER, MN 55304  
 (612) 799-1471

## VICINITY MAP

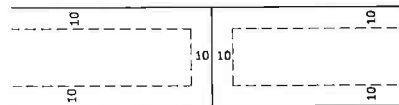
PART OF SECS. 24 AND 25, TWP. 32, RNG. 23



ANOKA COUNTY, MINNESOTA  
 (NO SCALE)

## TYPICAL EASEMENTS

(NOT TO SCALE)



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 AND 10 FEET IN WIDTH ADJOINING LOT LINES UNLESS  
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## LEGEND

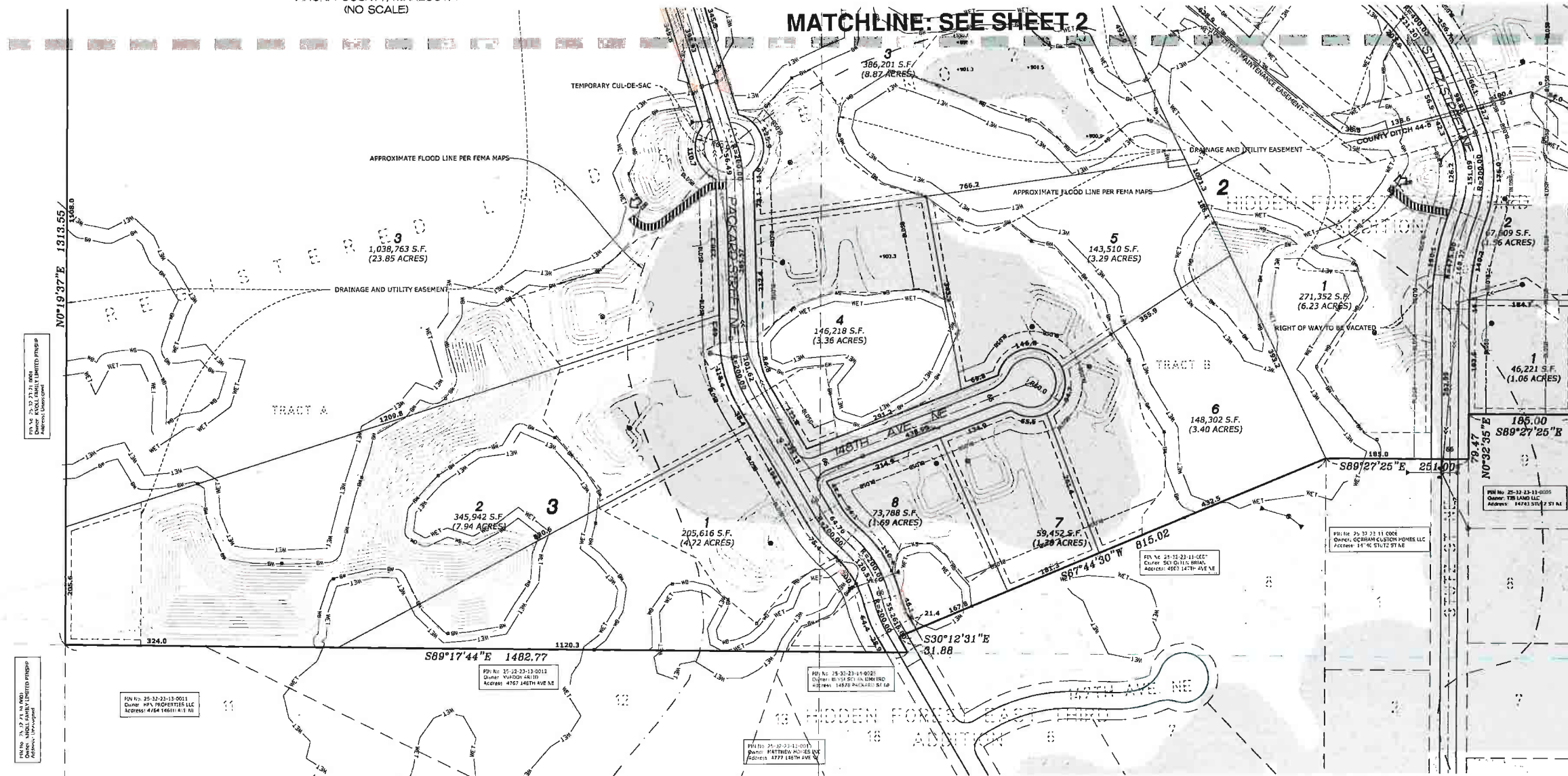
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- DENOTES EXISTING AREA 1' ABOVE MOTTLING
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- Parcel ID Number: 24-32-23-44-0001  
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 25-32-23-11-0002  
 25-32-23-11-0008

OWNERS: HFN PROPERTIES, LLC  
 KNOLL FAMILY LIMITED PTNSHP  
 BEXELL, REBECCA M

MATCHLINE: SEE SHEET 2



## DEVELOPMENT DATA

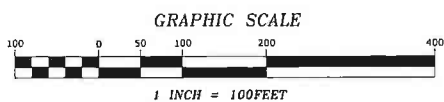
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I hereby certify that this survey, plan or report was prepared by me or under my direct supervision and that I am a duly Registered Land Surveyor under the laws of the State of Minnesota.

JASON E. RUD  
 Date: 04/11/2023 License No. 41578



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 Professional Land Surveyors  
 6776 Lake Drive NE, Suite 110  
 Lino Lakes, MN 55014  
 Tel. (651) 361-8200 Fax (651) 361-8701

NO	DATE	DESCRIPTION	BY
1	03/17/23	CITY / WATERSHED COMMENTS	MMD
2	04/11/23	CITY / WATERSHED COMMENTS	MMD
3			
4			

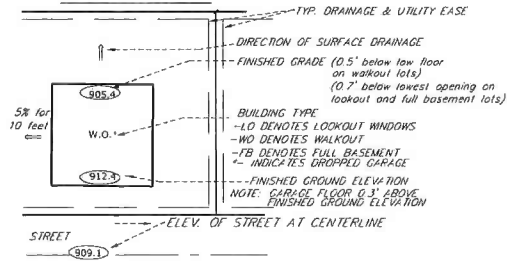
NORTH



# GRADING, EROSION CONTROL AND TREE PROTECTION PLAN

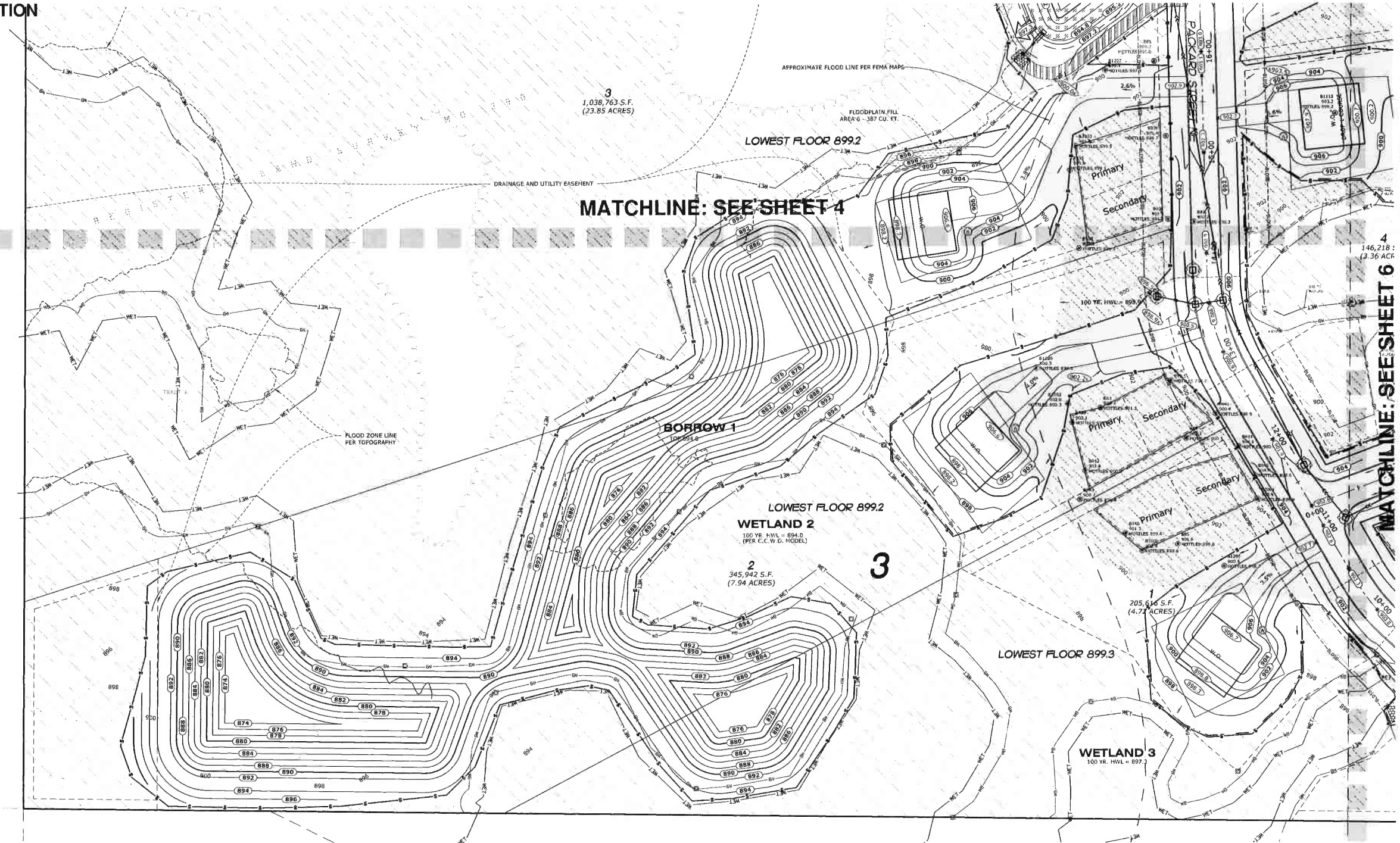
~of~ HIDDEN FOREST EAST 4TH ADDITION  
 ~for~ HFN PROPERTIES, LLC.  
 17404 WARD LAKE DRIVE NW  
 ANDOVER, MN 55304  
 (612) 799-1471

## TYPICAL LOT



## LEGEND

- ⊙ DENOTES SOIL BORING BY TRADEWELL SOIL TESTING
- ⊕ DENOTES PIEZOMETER OR PENETRATION BORING BY BRAUN INTERTEC, LLC
- ⊕ DENOTES EMERGENCY OVERFLOW ELEVATION
- ⊕ DENOTES EXISTING SPOT ELEVATION
- WET DENOTES WET LAND
- DENOTES EXISTING 2 FOOT CONTOUR
- DENOTES PROPOSED 2 FOOT CONTOURS
- WET DENOTES WETLAND DELINEATED BY KJOLHAUG ENVIRONMENTAL SERVICES COMPANY.
- DENOTES EASEMENT LINE
- DENOTES SETBACK LINE
- DENOTES PROPOSED STORM SEWER
- DENOTES PROPOSED SILT / TREE PROTECTION FENCE
- DENOTES BIO ROLL TO BE INSTALLED INSIDE SILT FENCE ADJACENT TO WETLAND
- DENOTES DIRECTION OF DRAINAGE
- ⊕ DENOTES PROPOSED SPOT ELEVATION
- ⊕ DENOTES PROPOSED CENTERLINE ELEVATION
- ⊕ DENOTES PROPOSED WELL LOCATION
- DENOTES AREA 1' ABOVE MOTTLES
- DENOTES WETLAND / VEGETATIVE BUFFER
- DENOTES WETLAND / VEGETATIVE BUFFER SIGN
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- DENOTES C.C.W.D. FLOOD ZONE LINE PER TOPOGRAPHY
- DENOTES TREE PRESERVATION AREA
- DENOTES 12' POND ACCESS
- DENOTES FLOODPLAIN FILL
- DENOTES WETLAND FILL
- DENOTES COMPENSATORY STORAGE AREA



## LOT GRADING NOTES

- PAD CONTOURS SHOWN ARE FOR DEMONSTRATION PURPOSES.
- HOUSE TYPES AND GRADING THAT VARY FROM WHAT IS PROPOSED ON THE GRADING PLAN, REQUIRE A PLAN REVIEW BY THE CITY OF HAIN LAKE.
- SILT FENCE TO BE INSTALLED BY BUILDER PRIOR TO HOUSE CONSTRUCTION
- THERE IS TO BE NO GRADING WITHIN 15' STARS

## EROSION CONTROL / REVEGETATION SPECS.

1. PRIOR TO ROUGH GRADING, INSTALL SILT STOP FENCE IN LOCATIONS SHOWN. ADDITIONAL SILT STOP FENCE WILL BE REQUIRED WHERE LOCAL CONDITIONS REQUIRE. INSTALL TREE PROTECTION AS DEEMED NECESSARY BY THE CITY FORESTER PRIOR TO ANY GRADING.
2. ANY GRADING SHALL PROCEED ON AN AREA BY AREA BASIS TO MINIMIZE UNCOMPLETED AREAS.
3. AS EACH AREA OUTSIDE THE STREET IS GRADED, PROVIDE NATIVE TOPSOIL, SEED, AND MULCH ANCHORED WITH A STRAIGHT SET DISC WITHIN SEVEN DAYS AFTER ROUGH GRADING.
4. MAINTAIN AND REPAIR SILT STOP FENCES (INCLUDING REMOVAL OF ACCUMULATED SILT) UNTIL VEGETATION IS ESTABLISHED.
5. SEE "STORM WATER POLLUTION PREVENTION PLAN" FOR ADDITIONAL EROSION CONTROL NOTES AND SITE SEQUENCING.

## FLOODPLAIN FILL NOTES

- (COON CREEK WATERSHED FLOODPLAIN FILL)
- FLOODPLAIN FILL WETLAND 1A BASIN = 9,949 CU/FT
  - COMPENSATORY STORAGE = 26,444 CU/FT
  - (COMPENSATORY STORAGE PROVIDED IN BORROW AREA 2 BETWEEN 898 AND 897 ELEVATION)
  - FLOODPLAIN FILL IN WETLAND 1 BASIN = 4,000 CU/FT
  - COMPENSATORY STORAGE = 5,167 CU/FT
  - (COMPENSATORY STORAGE PROVIDED IN POND 1 BETWEEN 894 AND 895.2)

## TREE PROTECTION NOTES

- TREE PROTECTION LIMITS TO BE MARKED IN FIELD PRIOR TO ANY TREE CLEARING ACTIVITY.
- SILT / TREE PROTECTION FENCE TO BE INSTALLED AT CONSTRUCTION LIMIT LINE.
- CARE IS TO BE TAKEN TO AVOID CONSTRUCTION ACTIVITY OR CONSTRUCTION VEHICLE TRAFFIC WITHIN THE DRIP LINE OF TREES IN THE TREE PROTECTION ZONE.
- FIELD DECISIONS WILL BE MADE ON LOCATION OF TREE PROTECTION LIMITS TO PRESERVE SIGNIFICANT TREES.
- SOME TREES AND DEAD FALL ARE TO BE CLEARED. THIS MAY BE DONE PRIOR TO INSTALLATION OF SILT / TREE PROTECTION FENCE. GRUBBING OF STUMPS WILL OCCUR AFTER EROSION CONTROL MEASURES ARE INSTALLED.

## WETLAND FILL NOTES

- WETLAND FILL AREA = 12,659 SQ. FT

## NOTES

- BEARINGS SHOWN ARE ON ANOKA COUNTY DATUM.
- TOTAL LOT AREAS ARE CALCULATED TO STREET CENTERLINE PER ORDINANCE.
- 2 FOOT CONTOUR INTERVAL (AND 89)
- CONTOURS SHOWN ARE PER MIXED LIDAR DISTRIBUTION AND FIELD VERIFICATION
- ALL MATCH POINTS AND PAVEMENT PATCHES TO BE SAWCUT AT FULL DEPTH.
- TURF AREA TO BE SEEDING WITHIN 7 DAYS AFTER COMPLETION OF ROUGH GRADING OR INACTIVITY.
- SEE PRELIMINARY PLAN / PROFILE SHEETS FOR STORM SEWER RIMS, INVERTS, AND SIZES.
- TRADEWELL SOIL TESTING COMPLETED SEPTIC SOIL BORINGS ON AND ADJACENT TO THE SITE IN 2003. THESE BORING LOCATIONS AND ELEVATIONS SHOWN ARE TAKEN FROM THE PRELIMINARY GRADING DRAINAGE AND EROSION CONTROL PLANS OF WILDERNESS PRESERVE DATED 04/07/05.
- BRAUN INTERTEC COMPLETED PENETRATION BORINGS AND SET PIEZOMETERS ON AND ADJACENT TO THE SITE IN 2003, AND READ THE PIEZOMETERS ON 05/03 AND 08/03. PIEZOMETERS WERE FIELD LOCATED AND ADDITIONAL READINGS WERE TAKEN ON 10/16. PENETRATION BORING LOCATIONS AND ELEVATIONS SHOWN ARE TAKEN FROM THE PRELIMINARY GRADING DRAINAGE AND EROSION CONTROL PLANS OF WILDERNESS PRESERVE DATED 04/07/05.
- BRAUN INTERTEC IS MONITORING SITE GROUND WATER ELEVATIONS WITH PIEZOMETERS FOR LOTS 5-11, BLOCK 1 AND LOT 2, BLOCK 2. ANTICIPATED GROUND WATER ELEVATIONS ARE BASED ON PRELIMINARY INFORMATION AND ARE SUBJECT TO REVISION.
- ALL PIPE ARROWS UNDER 48" PROVIDED WITH TRASH GUARDS
- PROVIDE CLASS III RIPRAP WITH FILTER FABRIC FOR ALL PIPE OUTLETS. INSTALL 6" OF TOPSOIL ON RIPRAP IN WETLAND BUFFERS AND SEED WITH SEED MIX HINOT 33-261.
- IF DEWATERING IS REQUIRED, THE CONTRACTOR SHALL APPLY FOR A MN DNR DEWATERING PERMIT AND WILL PROVIDE WET-FIELD LOCATIONS, RATES, DISCHARGE LOCATION, SCHEDULE AND QUANTITIES TO CCWD 7 DAYS PRIOR TO ANY DEWATERING OPERATIONS.
- CONTRACTORS MUST BE PROVIDED WITH DNR FLYERS/ FACT SHEETS ON BLANDING'S TURTLES.
- DISTURBED SOILS AND STOCKPILES WILL BE TEMPORARILY OR PERMANENTLY STABILIZED WITHIN 24 HOURS AFTER CONSTRUCTION ACTIVITY IN THAT AREA HAS TEMPORARILY OR PERMANENTLY CEASED

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

JASON E. RUD  
 Date: 05/16/2023 License No. 41578

DRAWN BY:	MMD	JOB NO.:	210452PP	DATE:	02/15/23
CHECK BY:	JER	FIELD CREW:	DT / CT		
1	03/17/23	CITY / WATERSHED COMMENTS	MMD		
2	05/16/23	CITY / WATERSHED COMMENTS	CMR		
3	05/16/23	CITY / WATERSHED COMMENTS	CMR		
4					
NO.	DATE	DESCRIPTION	BY		

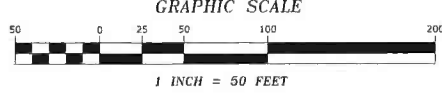
PONDING CALCULATIONS AND STORM SEWER DESIGN BY PLOWE ENGINEERING, INC.

**PLOWE ENGINEERING, INC.**  
 6776 LAKE DRIVE SUITE 110 LINO LAKES, MN 55014  
 PHONE: (651) 361-8210 FAX: (651) 361-8701

SITE PLANNING & ENGINEERING

I HEREBY CERTIFY THAT THE STORMWATER MANAGEMENT AND DRAINAGE REPORT FOR THIS PLAN 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.

*Adam Ginkel*  
 ADAM GINKEL  
 DATE: 05.16.2023 LIC. NO. 43963



**E. G. RUD & SONS, INC.**  
 EST. 1977  
 Professional Land Surveyors  
 6776 Lake Drive NE, Suite 110  
 Lino Lakes, MN 55014  
 Tel. (651) 361-8200 Fax (651) 361-8701

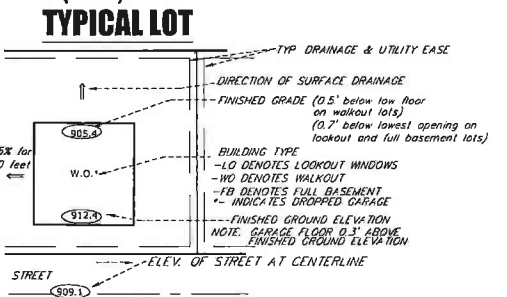
MATCHLINE: SEE SHEET 6

NORTH

# GRADING, EROSION CONTROL AND TREE PROTECTION PLAN

MATCHLINE: SEE SHEET 7

~of~ HIDDEN FOREST EAST 4TH ADDITION  
 ~for~ HFN PROPERTIES, LLC.  
 17404 WARD LAKE DRIVE NW  
 ANDOVER, MN 55304  
 (612) 799-1471



- LEGEND**
- ⊙ DENOTES SOIL BORING BY TRADEWELL SOIL TESTING
  - ⊕ DENOTES PIEZOMETER OR PENETRATION BORING BY BRAUN INTERTEC, INC.
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  - DENOTES FLOODPLAIN FILL
  - DENOTES WETLAND FILL
  - DENOTES COMPENSATORY STORAGE AREA

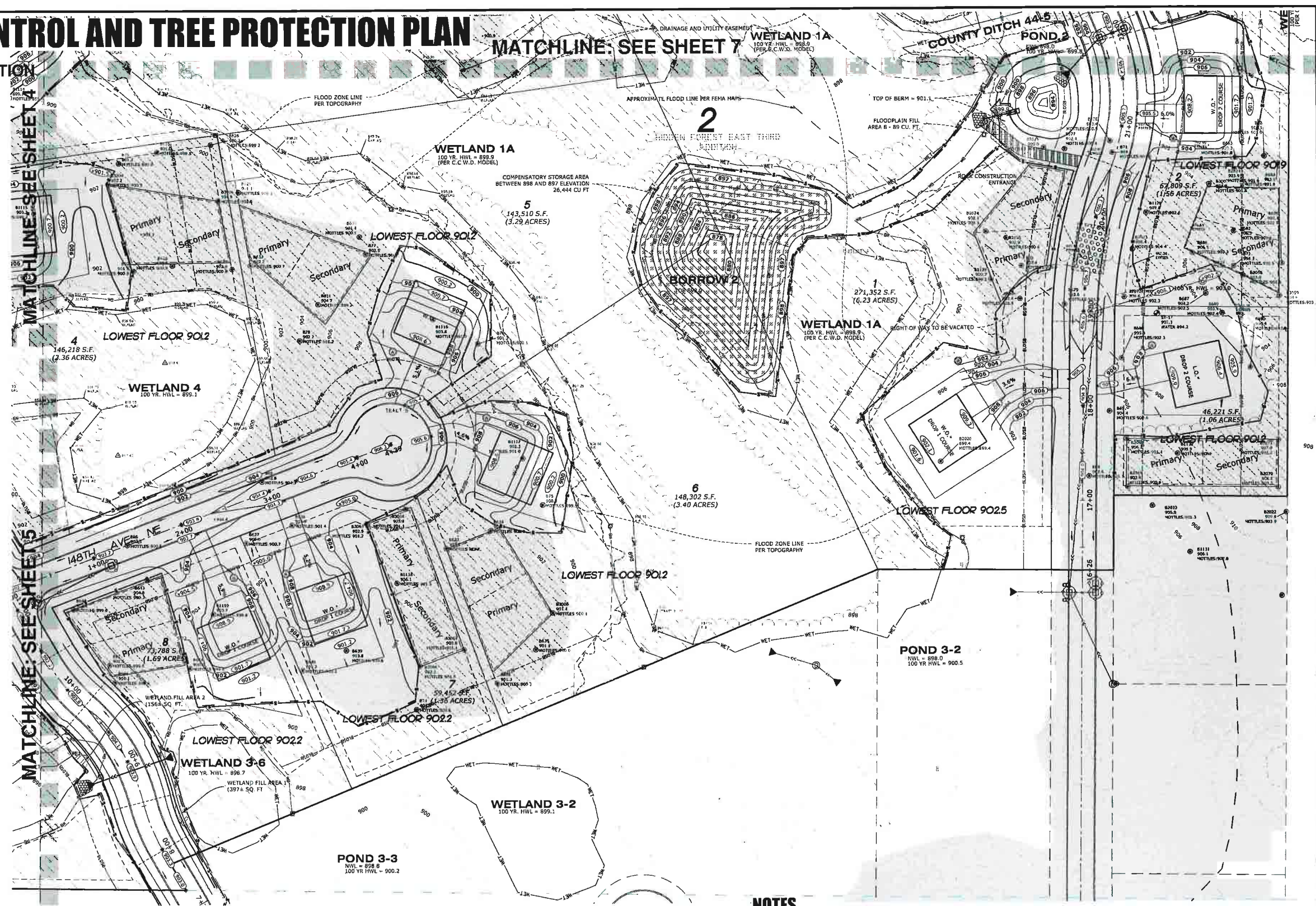
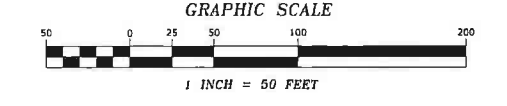
PONDING CALCULATIONS AND STORM SEWER DESIGN BY PLOWE ENGINEERING, INC.

**PLOWE ENGINEERING, INC.**  
 6776 LAKE DRIVE  
 SUITE 110  
 LINO LAKES, MN 55014

SITE PLANNING & ENGINEERING  
 PHONE: (651) 361-8210  
 FAX: (651) 361-8701

I HEREBY CERTIFY THAT THE STORMWATER MANAGEMENT AND DRAINAGE REPORT FOR THIS PLAN 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.

*Adam Gunkel*  
 ADAM GUNKEL  
 DATE: 05.16.2023 LIC. NO. 43963



## EROSION CONTROL / REVEGETATION SPECS.

- PRIOR TO ROUGH GRADING, INSTALL SILT STOP FENCE IN LOCATIONS SHOWN. ADDITIONAL SILT STOP FENCE WILL BE REQUIRED WHERE LOCAL CONDITIONS REQUIRE. INSTALL TREE PROTECTION AS DEEMED NECESSARY BY THE CITY FORESTER PRIOR TO ANY GRADING.
- ANY GRADING SHALL PROCEED ON AN AREA BY AREA BASIS TO MINIMIZE UNCOMPLETED AREAS.
- AS EACH AREA OUTSIDE THE STREET IS GRADED, PROVIDE NATIVE TOPSOIL, SEED, AND MULCH ANCHORED WITH A STRAIGHT SET DISC WITHIN SEVEN DAYS AFTER ROUGH GRADING.
- MAINTAIN AND REPAIR SILT STOP FENCES (INCLUDING REMOVAL OF ACCUMULATED SILT) UNTIL VEGETATION IS ESTABLISHED.
- SEE "STORM WATER POLLUTION PREVENTION PLAN" FOR ADDITIONAL EROSION CONTROL NOTES AND SITE SEQUENCING.

## LOT GRADING NOTES

- PAD CONTOURS SHOWN ARE FOR DEMONSTRATION PURPOSES.
- HOUSE TYPES AND GRADING THAT VARY FROM WHAT IS PROPOSED ON THE GRADING PLAN REQUIRE A PLAN REVIEW BY THE CITY OF HAM LAKE.
- SILT FENCE TO BE INSTALLED BY BUILDER PRIOR TO HOUSE CONSTRUCTION. THERE IS TO BE NO GRADING WITHIN ISTS AREAS.

## TREE PROTECTION NOTES

- TREE PROTECTION LIMITS TO BE MARKED IN FIELD PRIOR TO ANY TREE CLEARING ACTIVITY.
- SILT / TREE PROTECTION FENCE TO BE INSTALLED AT CONSTRUCTION LIMIT LINE.
- CARE IS TO BE TAKEN TO AVOID CONSTRUCTION ACTIVITY OR CONSTRUCTION VEHICLE TRAFFIC WITHIN THE DRIP LINE OF TREES IN THE TREE PROTECTION ZONE.
- FIELD DECISIONS WILL BE MADE ON LOCATION OF TREE PROTECTION LIMITS TO PRESERVE SIGNIFICANT TREES.
- SOME TREES AND DEAD FALL ARE TO BE CLEARED. THIS MAY BE DONE PRIOR TO INSTALLATION OF SILT / TREE PROTECTION FENCE. GRUBBING OF STUMPS WILL OCCUR AFTER EROSION CONTROL MEASURES ARE INSTALLED.

## FLOODPLAIN FILL NOTES

- (COON CREEK WATERSHED FLOODPLAIN FILL)
- FLOODPLAIN FILL WETLAND 1A BASIN - 9,949 CU/FT COMPENSATORY STORAGE = 26,444 CU/FT (COMPENSATORY STORAGE PROVIDED IN BORROW AREA 2 BETWEEN 898 AND 897 ELEVATION)
- FLOODPLAIN FILL IN WETLAND 1 BASIN = 4,000 CU/FT COMPENSATORY STORAGE = 5,167 CU/FT (COMPENSATORY STORAGE PROVIDED IN POND 1 BETWEEN NWL AND 895.2)

## NOTES

- BEARINGS SHOWN ARE ON ANCKA COUNTY DATUM.
- TOTAL LOT AREAS ARE CALCULATED TO STREET CENTERLINE PER ORDINANCE.
- 2 FOOT CONTOUR INTERVAL (NAVD 85)
- CONTOURS SHOWN ARE PER MINGED LIDAR DISTRIBUTION AND FIELD VERIFICATION
- ALL MATCH POINTS AND PAVEMENT PATCHES TO BE SAWCUT AT FULL DEPTH.
- TURF AREA TO BE SEED WITH 7 DAYS AFTER COMPLETION OF ROUGH GRADING OR INACTIVITY.
- SEE PRELIMINARY PLAN / PROFILE SHEETS FOR STORM SEWER RIMS, INVERTS, AND SIZES.
- TRADWELL SOIL TESTING COMPLETED SEPTIC SOIL BORINGS ON AND ADJACENT TO THE SITE IN 2003. THESE BORING LOCATIONS AND ELEVATIONS SHOWN ARE TAKEN FROM THE PRELIMINARY GRADING DRAINAGE AND EROSION CONTROL PLANS OF WILDERNESS PRESERVE DATED 04/07/05. IN DECEMBER OF 2020 TRADEWELL PERFORMED ADDITIONAL SEPTIC BORINGS THAT WERE FIELD LOCATED BY E.G. RUD AND SONS, INC.
- BRAUN INTERTEC COMPLETED PENETRATION BORINGS AND SET PIEZOMETERS ON AND ADJACENT TO THE SITE IN 2003, AND READ THE PIEZOMETERS ON 06/03 AND 08/03. PIEZOMETERS WERE FIELD LOCATED AND ADDITIONAL READINGS WERE TAKEN ON 10/16. PENETRATION BORING LOCATIONS AND ELEVATIONS SHOWN ARE TAKEN FROM THE PRELIMINARY GRADING DRAINAGE AND EROSION CONTROL PLANS OF WILDERNESS PRESERVE DATED 04/07/05.
- BRAUN INTERTEC IS MONITORING SITE GROUNDWATER ELEVATIONS WITH PIEZOMETERS FOR LOTS 5-11, BLOCK 1 AND LOT 2, BLOCK 2. ANTICIPATED GROUNDWATER ELEVATIONS ARE BASED ON PRELIMINARY INFORMATION AND ARE SUBJECT TO REVISION.
- ALL PIPE APRONS UNDER 48" PROVIDED WITH TRASH GUARDS
- PROVIDE CLASS III RIPRAP WITH FILTER FABRIC FOR ALL PIPE OUTLETS. INSTALL 6" OF TOPSOIL ON RIPRAP IN WETLAND BUFFERS AND SEED WITH SEED MIX HINDOT 33-261.
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- CONTRACTORS MUST BE PROVIDED WITH DNR FLYERS/ FACT SHEETS ON BLANDING'S TURTLES.
- DISTURBED SOILS AND STOCKPILES WILL BE TEMPORARILY OR PERMANENTLY STABILIZED WITHIN 24 HOURS AFTER CONSTRUCTION ACTIVITY IN THAT AREA HAS TEMPORARILY OR PERMANENTLY CEASED.

## WETLAND FILL NOTES

WETLAND FILL AREA = 12,659 SQ FT

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

*Jason E. Rud*  
 JASON E. RUD  
 Date: 05/16/2023 License No. 41578

NO.	DATE	DESCRIPTION	BY
1	03/17/23	CITY / WATERSHED COMMENTS	HMD
2	04/11/23	CITY / WATERSHED COMMENTS	HMD
3	05/16/23	CITY / WATERSHED COMMENTS	CHB
4			

**E.G. RUD & SONS, INC.**  
 EST. 1977  
 Professional Land Surveyors  
 6776 Lake Drive NE, Suite 110  
 Lino Lakes, MN 55014  
 Tel. (651) 361-8200 Fax (651) 361-8701

NORTH

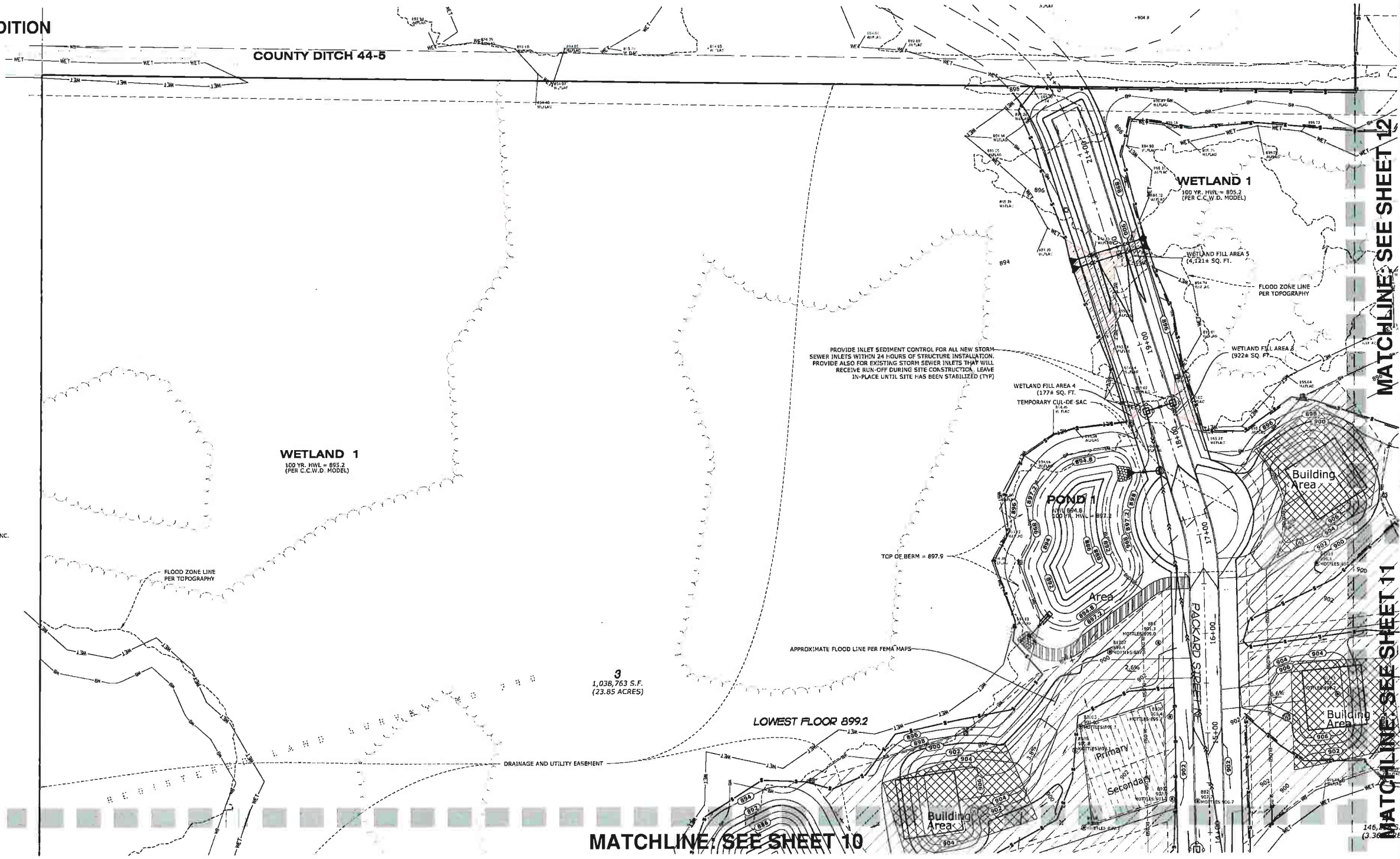






# LIVABILITY PLAN

~of~ HIDDEN FOREST EAST 4TH ADDITION  
 ~for~ HFN PROPERTIES, LLC.  
 17404 WARD LAKE DRIVE NW  
 ANDOVER, MN 55304  
 (612) 799-1471

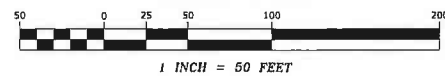


## LEGEND

- ⊙ DENOTES SOIL BORING BY TRADEWELL SOIL TESTING
- ⊕ DENOTES PIEZOMETER OR PENETRATION BORING BY BRAUN INTERTEC, INC.
- x 512.26 DENOTES EXISTING SPOT ELEVATION
- WET DENOTES WET LAND
- DENOTES EXISTING 2 FOOT CONTOUR
- - - DENOTES PROPOSED 2 FOOT CONTOURS
- WET DENOTES WETLAND DELINEATED BY KUJHAUG ENVIRONMENTAL SERVICES COMPANY.
- DENOTES EASEMENT LINE
- DENOTES SETBACK LINE
- DENOTES PROPOSED STORM SEWER
- DENOTES PROPOSED SILT / TREE PROTECTION FENCE
- DENOTES DIRECTION OF DRAINAGE
- ⊙ DENOTES PROPOSED WELL LOCATION
- DENOTES WETLAND/ VEGETATIVE BUFFER
- ⊕ DENOTES WETLAND/ VEGETATIVE BUFFER SIGN
- ⊕ DENOTES PLANT SPECIES LOCATED BY STANTEC CONSULTING SERVICES, INC.
- ▨ DENOTES PROPOSED BUILDING PAD AREA
- ▨ DENOTES PROPOSED YARD AREA
- ▨ DENOTES PROPOSED SEPTIC AREA
- ▨ DENOTES 12' POND ACCESS

PONDING CALCULATIONS AND STORM SEWER DESIGN BY  
 PLOWE ENGINEERING, INC.  
 6778 LAKE DRIVE SUITE 110 LINO LAKES, MN 55014  
 PHONE: (651) 361-8210 FAX: (651) 361-8701  
 I HEREBY CERTIFY THAT THE STORMWATER MANAGEMENT AND DRAINAGE REPORT FOR THIS PLAN 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.  
 ADAM GINKEL  
 DATE: 04.11.2023 LIC. NO. 439663

GRAPHIC SCALE



## NOTES

- BEARINGS SHOWN ARE ON ANOKA COUNTY DATUM.
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I hereby certify that this survey, plan or report was prepared by me or under my direct supervision and that I am a duly Registered Land Surveyor under the laws of the State of Minnesota.

JASON E. RUD  
 Date: 04/11/2023 License No. 41578

DRAWN BY: MMD	JOB NO: 210452PP	DATE: 02/15/23	
CHECK BY: JER	FIELD CREW: DT, CT		
1	03/17/23	CITY / WATERSHED COMMENTS	MMD
2	04/11/23	CITY / WATERSHED COMMENTS	MMD
3			
4			
NO.	DATE	DESCRIPTION	BY

NORTH

MATCHLINE SEE SHEET 12

MATCHLINE SEE SHEET 11

MATCHLINE SEE SHEET 10

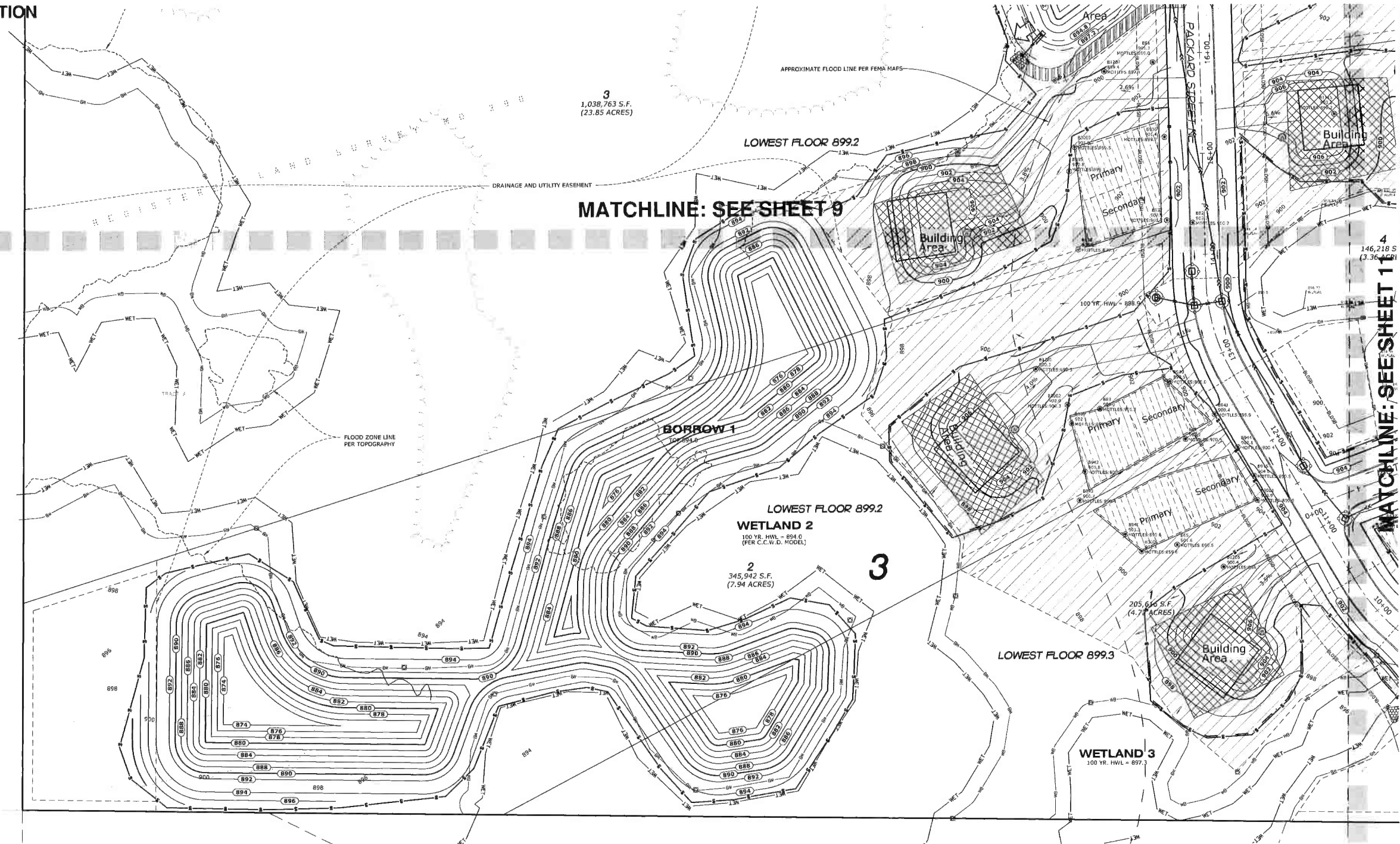
**E.G. RUD & SONS, INC.**  
 Professional Land Surveyors  
 6776 Lake Drive NE, Suite 110  
 Lino Lakes, MN 55014  
 Tel. (651) 361-8200 Fax (651) 361-8701

# LIVABILITY PLAN

~of~ HIDDEN FOREST EAST 4TH ADDITION  
 ~for~ HFN PROPERTIES, LLC.  
 17404 WARD LAKE DRIVE NW  
 ANDOVER, MN 55304

## LEGEND

- ⊙ DENOTES SOIL BORING BY TRADEWELL SOIL TESTING
- ⊕ DENOTES PIEZOMETER OR PENETRATION BORING BY BRAUN INTERTEC, INC.
- x 912.36 DENOTES EXISTING SPOT ELEVATION
- WET DENOTES WET LAND
- DENOTES EXISTING 2 FOOT CONTOUR
- DENOTES PROPOSED 2 FOOT CONTOURS
- WET DENOTES WETLAND DELINEATED BY KJULHAUG ENVIRONMENTAL SERVICES COMPANY.
- DENOTES EASEMENT LINE
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- ▨ DENOTES PROPOSED SEPTIC AREA
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## NOTES

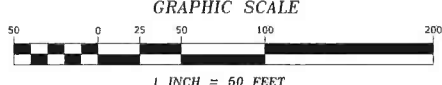
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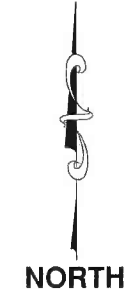
*Jason E. Rud*  
 JASON E. RUD  
 Date: 04/11/2023 License No. 41578

DRAWN BY: HMD	JOB NO: 2104528P	DATE: 02/15/23
CHECK BY: JER	FIELD CREW: DT, CT	
1	03/17/23	CITY / WATERSHED COMMENTS HMD
2	04/11/23	CITY / WATERSHED COMMENTS HMD
3		
4		
NO.	DATE	DESCRIPTION

PONDING CALCULATIONS AND STORM SEWER DESIGN BY  
 PLOWE ENGINEERING, INC.  
 6776 LAKE DRIVE SUITE 110 LINO LAKES, MN 55014  
 PHONE: (651) 361-8210 FAX: (651) 361-8701  
**PLOWE ENGINEERING, INC.**  
 6776 LAKE DRIVE SUITE 110 LINO LAKES, MN 55014  
 PHONE: (651) 361-8210 FAX: (651) 361-8701  
 I HEREBY CERTIFY THAT THE STORMWATER MANAGEMENT AND DRAINAGE REPORT FOR THIS PLAN 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.  
*Adam Ginkel*  
 ADAM GINKEL  
 DATE: 04.11.2023 LIC. NO. 439863

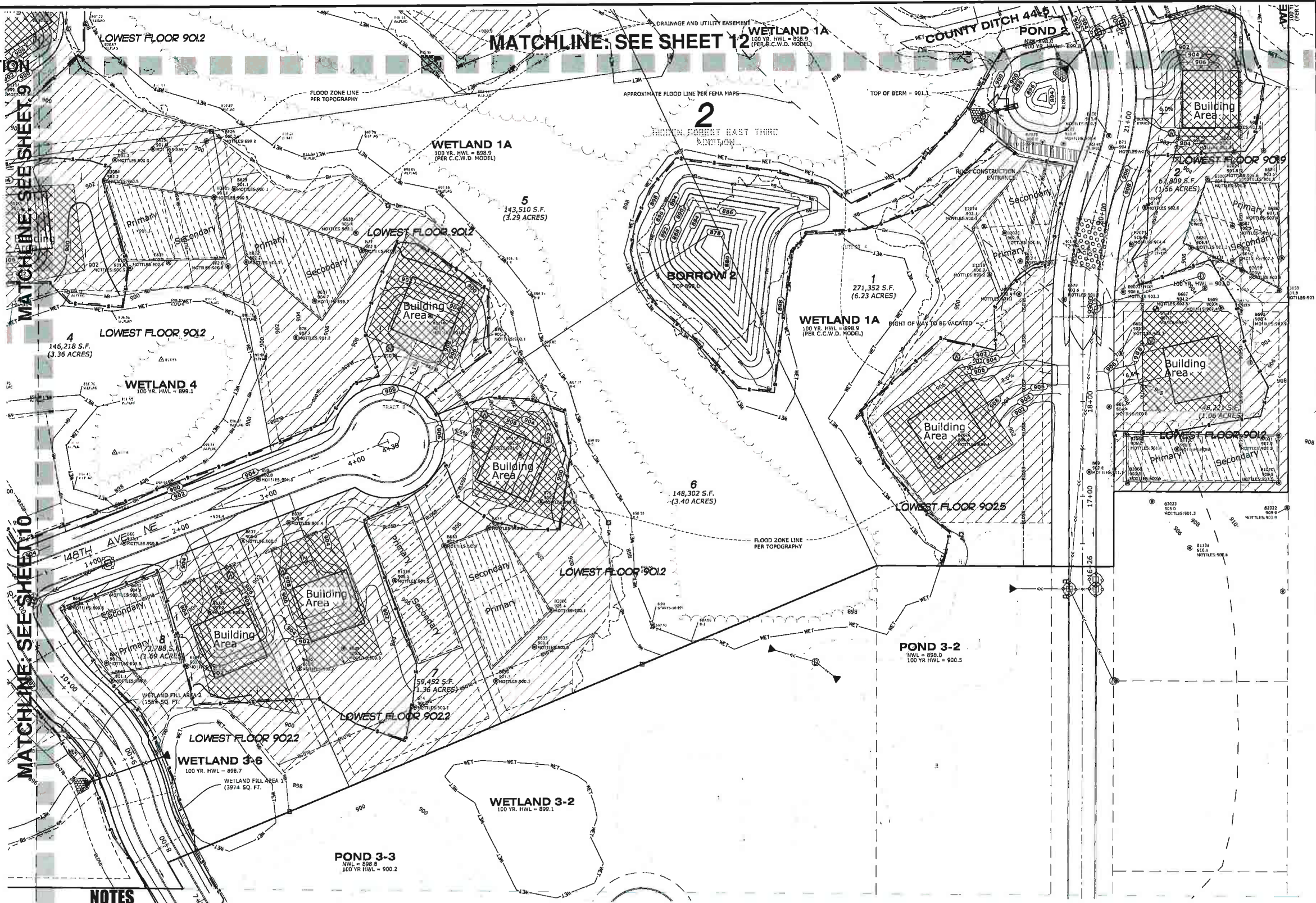


**E.G. RUD & SONS, INC.**  
 EST. 1977  
 Professional Land Surveyors  
 6776 Lake Drive NE, Suite 110  
 Lino Lakes, MN 55014  
 Tel. (651) 361-8200 Fax (651) 361-8701



# LIVABILITY PLAN

~of~ HIDDEN FOREST EAST 4TH ADDITION  
 ~for~ HFN PROPERTIES, LLC.  
 17404 WARD LAKE DRIVE NW  
 ANDOVER, MN 55304



## LEGEND

- ⊙ DENOTES SOIL BORING BY TRADEWELL SOIL TESTING
- ⊕ DENOTES PIEZOMETER OR PENETRATION BORING BY BRAUN INTERTEC, INC.
- x 92.36 DENOTES EXISTING SPOT ELEVATION
- WET DENOTES WET LAND
- DENOTES EXISTING 2 FOOT CONTOUR
- - - DENOTES PROPOSED 2 FOOT CONTOURS
- WET DENOTES WETLAND DELINEATED BY KJULHAUG ENVIRONMENTAL SERVICES COMPANY.
- DENOTES EASEMENT LINE
- DENOTES SETBACK LINE
- DENOTES PROPOSED STORM SEWER
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- DENOTES DIRECTION OF DRAINAGE
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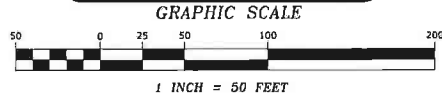
*Adam Ginkel*  
 ADAM GINKEL  
 DATE: 04.11.2023 LIC. NO. 43893

## NOTES

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*Jason E. Rud*  
 JASON E. RUD  
 Date: 04/11/2023 License No. 41578



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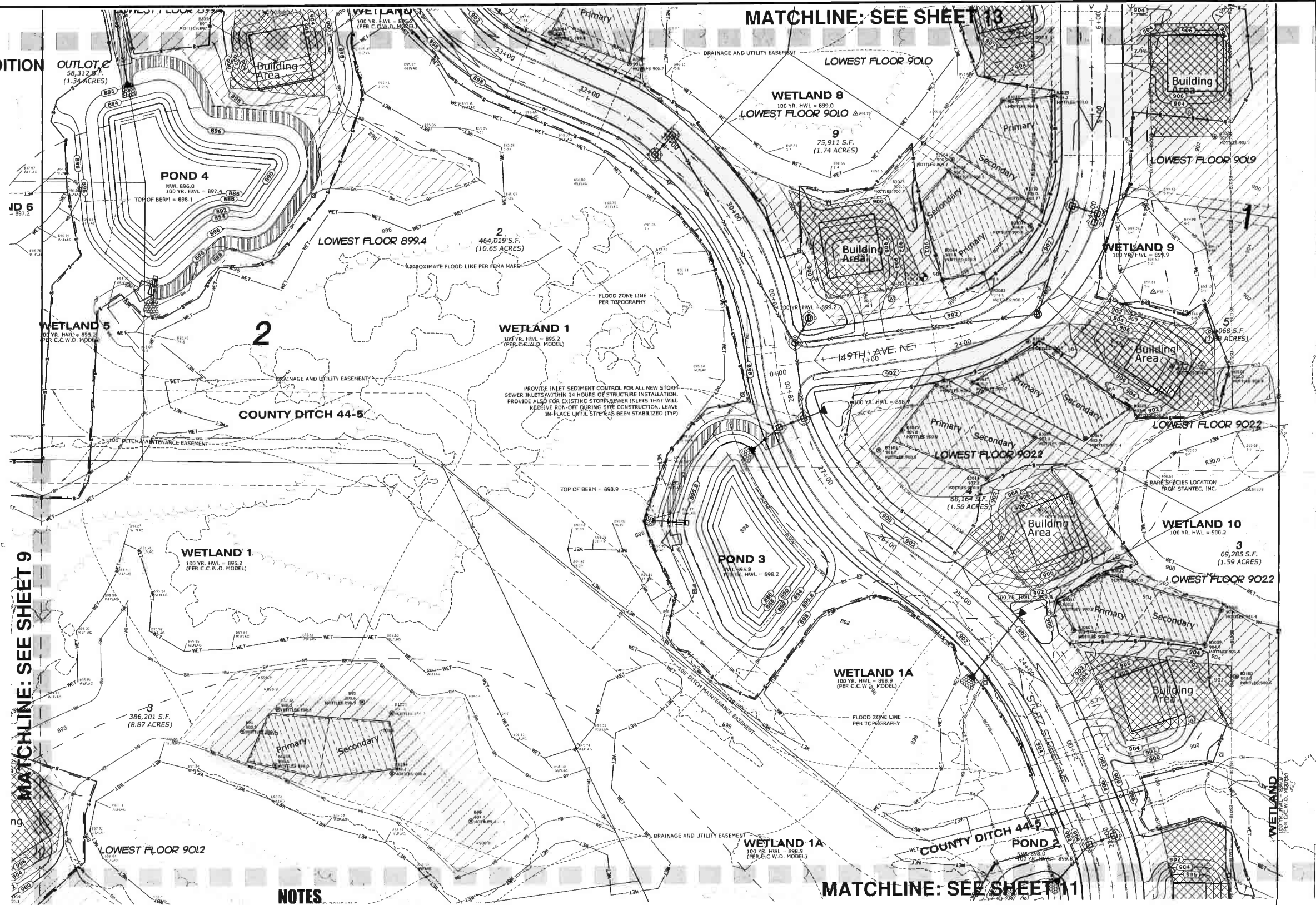
DRAWN BY:	MMD	JOB NO.:	210452PP	DATE:	02/15/23
CHECK BY:	JER	FIELD CREW:	DT \ CT		
1	03/17/23	CITY / WATERSHED COMMENTS	MMD		
2	04/11/23	CITY / WATERSHED COMMENTS	MMD		
3					
4					
NO.	DATE	DESCRIPTION	BY		

NORTH

# LIVABILITY PLAN

~of~ HIDDEN FOREST EAST 4TH ADDITION  
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MATCHLINE: SEE SHEET 13



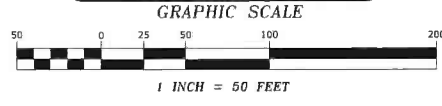
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- ⊙ DENOTES PROPOSED WELL LOCATION
- ⊕ DENOTES WETLAND / VEGETATIVE BUFFER
- ⊕ DENOTES WETLAND / VEGETATIVE BUFFER SIGN
- ⊕ DENOTES PLANT SPECIES LOCATED BY STANTEC CONSULTING SERVICES, INC.
- ▨ DENOTES PROPOSED BUILDING PAD AREA
- ▨ DENOTES PROPOSED YARD AREA
- ▨ DENOTES PROPOSED SEPTIC AREA
- ▨ DENOTES 12' POND ACCESS

MATCHLINE: SEE SHEET 9

MATCHLINE: SEE SHEET 11

PONDING CALCULATIONS AND STORM SEWER DESIGN BY  
**PLOWE ENGINEERING, INC.**  
 6778 LAKE DRIVE SUITE 110 LINO LAKES, MN 55014  
 PHONE: (651) 361-8210 FAX: (651) 361-8701  
 I HEREBY CERTIFY THAT THE STORMWATER MANAGEMENT AND DRAINAGE REPORT FOR THIS PLAN 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.  
**ADAM GINKEL**  
 DATE: 04.11.2023 LIC. NO. 43963



## NOTES

- BEARINGS SHOWN ARE ON ANOKA COUNTY DATUM.
- TOTAL LOT AREAS ARE CALCULATED TO STREET CENTERLINE PER ORDINANCE.
- 2 FOOT CONTOUR INTERVAL (NAVD 88)
- CONTOURS SHOWN ARE PER HINGED LIDAR DISTRIBUTION AND FIELD VERIFICATION
- ALL MATCH POINTS AND PAVEMENT PATCHES TO BE SAWCUT AT FULL DEPTH.
- TURF AREA TO BE SEEDED WITHIN 7 DAYS AFTER COMPLETION OF ROUGH GRADING OR INACTIVITY.
- SEE PRELIMINARY PLAN / PROFILE SHEETS FOR STORM SEWER RIMS, INVERTS, AND SIZES.
- TRADEWELL SOIL TESTING COMPLETED SEPTIC SOIL BORINGS ON AND ADJACENT TO THE SITE IN 2003. THESE BORING LOCATIONS AND ELEVATIONS SHOWN ARE TAKEN FROM THE PRELIMINARY GRADING DRAINAGE AND EROSION CONTROL PLANS OF WILDERNESS PRESERVE DATED 04/07/05.
- TRADEWELL PERFORMED ADDITIONAL SEPTIC BORINGS THAT WERE FIELD LOCATED BY E.G. RUD AND SONS, INC.
- BRAUN INTERTEC COMPLETED PENETRATION BORINGS AND SET PIEZOMETERS ON AND ADJACENT TO THE SITE IN 2003, AND READ THE PIEZOMETERS ON 05/03 AND 05/03. PIEZOMETERS WERE FIELD LOCATED AND ADDITIONAL READINGS WERE TAKEN ON 10/16. PENETRATION BORING LOCATIONS AND ELEVATIONS SHOWN ARE TAKEN FROM THE PRELIMINARY GRADING DRAINAGE AND EROSION CONTROL PLANS OF WILDERNESS PRESERVE DATED 04/07/05.
- BRAUN INTERTEC IS MONITORING SITE GROUND WATER ELEVATIONS WITH PIEZOMETERS FOR LOTS 5-11, BLOCK 1 AND LOT 2, BLOCK 2. ANTICIPATED GROUNDWATER ELEVATIONS ARE BASED ON PRELIMINARY INFORMATION AND ARE SUBJECT TO REVISION.
- ALL PIPE APRONS UNDER 48" PROVIDED WITH TRASH GUARDS
- PROVIDE CLASS III RIPRAP WITH FILTER FABRIC FOR ALL PIPE OUTLETS. INSTALL 6" OF TOPSOIL ON RIPRAP IN WETLAND BUFFERS AND SEED WITH SEED MIX W/NOT 33-261.
- IF DEWATERING IS REQUIRED, THE CONTRACTOR SHALL APPLY FOR A MN DNR DEWATERING PERMIT AND WILL PROVIDE WELL-FIELD LOCATIONS, RATES, DISCHARGE LOCATION, SCHEDULE AND QUANTITIES TO CCWD 7 DAYS PRIOR TO ANY DEWATERING OPERATIONS.
- CONTRACTORS MUST BE PROVIDED WITH DNR FLYERS/ FACT SHEETS ON BLANDING'S TURTLES.

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

**JASON E. RUD**  
 Date: 04/11/2023 License No. 41578

DRAWN BY:	HMD	JOB NO.:	210452PP	DATE:	02/15/23
CHECK BY:	JER	FIELD CREW:	DT, CT		
1	03/17/23		CITY / WATERSHED COMMENTS	HMD	
2	04/11/23		CITY / WATERSHED COMMENTS	HMD	
3					
4					
INC.	DATE		DESCRIPTION	BY	

**E. G. RUD & SONS, INC.**  
 EST. 1977  
 Professional Land Surveyors  
 6776 Lake Drive NE, Suite 110  
 Lino Lakes, MN 55014  
 Tel. (651) 361-8200 Fax (651) 361-8701

NORTH

# LIVABILITY PLAN

~of~ HIDDEN FOREST EAST 4TH ADDITION  
 ~for~ HFN PROPERTIES, LLC.  
 17404 WARD LAKE DRIVE NW  
 ANDOVER, MN 55304  
 (612) 799-1471



## LEGEND

- ⊙ DENOTES SOIL BORING BY TRADEWELL SOIL TESTING
- ⊕ DENOTES PIEZOMETER OR PENETRATION BORING BY BRAUN INTERTEC, INC.
- 552.34 DENOTES EXISTING SPOT ELEVATION
- WET DENOTES WET LAND
- DENOTES EXISTING 2 FOOT CONTOUR
- - - DENOTES PROPOSED 2 FOOT CONTOURS
- WET DENOTES WETLAND DELINEATED BY KJOLHAUG ENVIRONMENTAL SERVICES COMPANY.
- DENOTES EASEMENT LINE
- - - DENOTES SETBACK LINE
- DENOTES PROPOSED STORM SEWER
- DENOTES PROPOSED SILT / TREE PROTECTION FENCE
- DENOTES DIRECTION OF DRAINAGE
- ⊙ DENOTES PROPOSED WELL LOCATION
- WET DENOTES WETLAND/ VEGETATIVE BUFFER
- DENOTES WETLAND/ VEGETATIVE BUFFER SIGN
- DENOTES PLANT SPECIES LOCATED BY STANTEC CONSULTING SERVICES, INC.
- ▨ DENOTES PROPOSED BUILDING PAD AREA
- ▨ DENOTES PROPOSED YARD AREA
- ▨ DENOTES PROPOSED SEPTIC AREA
- ▨ DENOTES 12' POND ACCESS

PONDING CALCULATIONS AND STORM SEWER DESIGN BY PLOWE ENGINEERING, INC.

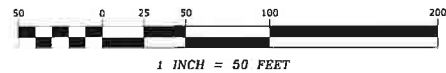
**PLOWE ENGINEERING, INC.**  
 8778 LAKE DRIVE  
 SUITE 110  
 LINO LAKES, MN 55014

SITE PLANNING & ENGINEERING  
 PHONE: (651) 361-8210  
 FAX: (651) 361-8701

I HEREBY CERTIFY THAT THE STORMWATER MANAGEMENT AND DRAINAGE REPORT FOR THIS PLAN 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.

*Adam Ginkel*  
 ADAM GINKEL  
 DATE: 04.11.2023 LIC. NO. 43963

GRAPHIC SCALE



## NOTES

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- BRAUN INTERTEC COMPLETED PENETRATION BORINGS AND SET PIEZOMETERS ON AND ADJACENT TO THE SITE IN 2003, AND READ THE PIEZOMETERS ON 06/03 AND 06/03. PIEZOMETERS WERE FIELD LOCATED AND ADDITIONAL READINGS WERE TAKEN ON 10/16. PENETRATION BORING LOCATIONS AND ELEVATIONS SHOWN ARE TAKEN FROM THE PRELIMINARY GRADING DRAINAGE AND EROSION CONTROL PLANS OF WILDERNESS PRESERVE DATED 04/07/05.
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- CONTRACTORS MUST BE PROVIDED WITH DNR FLYERS/ FACT SHEETS ON BLANDING'S TURTLES.

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

*Jason E. Rud*  
 JASON E. RUD  
 Date: 04/11/2023 License No. 41578

DRAWN BY: MMD	JOB NO: 210452PP	DATE: 02/15/23
CHECK BY: JER	FIELD CREW: DT \ CT	
1	03/17/23	CITY / WATERSHED COMMENTS MMD
2	04/11/23	CITY / WATERSHED COMMENTS MMD
3		
4		
NO.	DATE	DESCRIPTION BY

NORTH

**E. G. RUD & SONS, INC.**  
 EST. 1977  
 Professional Land Surveyors  
 6776 Lake Drive NE, Suite 110  
 Lino Lakes, MN 55014  
 Tel. (651) 361-8200 Fax (651) 361-8701

# LIVABILITY CHART

~of~ HIDDEN FOREST EAST 4TH ADDITION  
 ~for~ HFN PROPERTIES, LLC.  
 17404 WARD LAKE DRIVE NW  
 ANDOVER, MN 55304  
 (612) 799-1471

**Livability Standards**  
 All residential lots shall contain at least 29,500 square feet of land which lies above the 100 year flood contour. Of this 29,500 square feet, the following additional requirements must be present:

**A. ISTS Area** Each lot must contain at least 7,500 square feet of contiguous area which is reserved for both the ISTS originally constructed and a future ISTS. The ISTS Area need not be contiguous to the Eligible Building Area or the Yard Area, but the entire ISTS Area must exist at an elevation at least one foot above Unsuitable Soils, and must contain Undisturbed Soils or soils which meet the requirements of Rule 7050 of the Minnesota Pollution Control Agency for ISTS construction standards. The ISTS Area may be irregular in shape, provided they do not encroach into areas reserved by easement or otherwise for roadway, drainage or utility purposes, and provided that all of the area can be reasonably used for ISTS construction without the need for variances.

**B. Eligible Building Area** Each lot shall contain at least 1,000 square feet of contiguous land which lies at an elevation at least four feet above Unsuitable Soils. The Eligible Building Area may not be irregular in shape, and should be generally rectangular or oval, with no peninsulas, narrow necks or peninsulas. Eligible Building Areas may not encroach into any areas reserved by easement or otherwise for roadway, drainage or utility purposes. Fill may be used to create Eligible Building Area.

**C. Yard Area** Each lot shall contain at least 12,000 contiguous square feet which:

- i) Lies above the 100 year flood contour, and
- ii) Lies at least one foot above soils unsuitable for the intended usage of the Yard Area, and
- iii) Is contiguous to the Eligible Building Area for a distance of at least fifty percent of the linear perimeter of the Eligible Building Area.

Yard Areas may encroach into the dedicated easement area which lies at a distance of ten feet from the perimeter of the lot, and may encroach into areas reserved by easement or otherwise for other public utility purposes, but may not encroach into any other area reserved by dedication or otherwise for road or drainage purposes, any may not encroach into any areas within the 100 year flood contour or into designated wetlands. Yard Areas may be irregular in shape except within thirty feet of the locations where the Yard Area is contiguous to the Eligible Building Area, at which locations the Yard Area shall be a logical extension or expansion of the generally rectangular or oval shape of the Eligible Building Area. Fill may be used to create Yard Area.


**D. Building Pad Area** The entire Building Pad must lie within the Eligible Building Area, and shall meet the separation requirements for the Eligible Building Area.

**E. Low Floor Elevations**

- i) For walkout ceilings, the low floor elevation shall be at least one foot above the 100 year flood contour, but, notwithstanding the 100 year flood contour, not less than one foot above unsuitable soils, as determined by the City's engineer.
- ii) For other designs, the low floor elevation shall be at least one foot above the 100 year flood contour, but, notwithstanding the 100 year flood contour, not less than one foot above unsuitable soils, as determined by the City's engineer.

Lot	Block	Total Lot Area (sq. ft.)	Yard Area (sq. ft.)	Septic Area (sq. ft.)	Building Pad Area (sq. ft.)	Proposed Building Pad 4' Above Unsuitable (sq. ft.)	Garage Floor Elevation	Proposed Low Floor Elev.	Proposed Low Opening	Lowest Floor Elevation	Highest	Low Floor	Boring #	Boring Elevation	Mottles Elevation	Building Type	Custom Graded	
											Anticipated Groundwater Elevation	Determining Factor						
1	1	46,221	17,925	8,117	10,088	8,450	910.2	903.9	907.1	901.2	898.2	Anticipated Groundwater	ST-17	907.3	894.2 (W)	L O *	NO	
													69	902.6	901.1	DROP		
													688	905.3	902.3	2 COURSE		
													689	903.4	902.4			
													690	906.4	903.9			
													691	904.4	900.6			
													1130	908.9	NONE			
													2068	903.8	900.6			
													2069	906.1	901.4			
													2070	908.5	903.5			
													2071	907.9	903.2			
2	1	67,809	22,631	8,068	10,188	5,005	908.5	902.2	902.2	901.9	898.2	PER	72	903.1	901.9	W.O.*	NO	
													73	904.3	902.5	DROP		
													HWL	681	906.5	902.3	2 COURSE	
													682	906.3	901.1			
													683	903.3	901.8			
													684	903.5	901.8			
													686	907.1	902.4			
													1129	907.8	902.6			
													2024	903.9	901.6			
													2072	906.6	902.3			
													2073	908.4	904.4			
													3007	904.9	901.6			
													3058	903.8	902.6			
													3059	904.8	903.1			
3	1	69,285	16,779	8,140	10,244	5,016	908.8	902.5	902.5	902.2	898.2	PER	2100	902.0	900.6	W.O.*	NO	
													3008	903.9	901.4	DROP		
													HWL	3009	904.6	901.1	2 COURSE	
													3010	902.1	900.6			
													3011	902.1	900.3			
													3012	903.8	901.0			
4	1	68,164	28,556	7,973	10,198	6,710	909.5	902.5	902.5	902.2	898.2	PER	2101	901.7	900.5	W.O.*	NO	
													3013	901.3	900.5	DROP		
													HWL	3014	902.2	900.9	1 COURSE	
													3015	901.8	900.0			
													3016	903.5	900.2			
													3057	903.1	901.3			
5	1	82,068	27,475	7,991	10,643	4,963	908.8	902.5	902.5	902.2	895.2	PER	2102	902.0	900.9	W.O.*	NO	
													3017	905.2	900.2	DROP		
													HWL	3018	903.7	900.7	2 COURSE	
													3019	902.9	901.4			
													3020	902.6	901.3			
													3021	903.1	901.3			
6	1	72,915	42,727	8,088	10,200	5,580	908.2	901.9	905.1	901.9	895.7	PER	2103	901.1	899.9	L O *	NO	
													3032	901.4	901.1	DROP		
													HWL	3033	905.7	901.7	2 COURSE	
													3034	902.4	900.6			
													3035	901.9	900.6			
													3036	901.9	900.7			
7	1	435,652	116,509	8,163	10,616	4,169	907.0	900.0	900.0	898.7	895.7	Anticipated Groundwater	ST-103	896.1	882.2 (W)	W.O.*	NO	
													2106	901.6	900.6	DROP		
													3037	899.1	898.6	1 COURSE		
													HWL	3038	904.2	900.4		
													3039	903.1	900.4			
													3040	901.4	900.1			
													3041	901.7	900.2			
8	1	104,430	17,309	7,720	11,054	4,036	907.6	901.3	901.3	901.0	895.7	PER	2104	900.9	899.7	W.O.*	NO	
													3027	901.3	900.3	DROP		
													HWL	3028	903.1	900.3	2 COURSE	
													3029	904.3	901.0			
													3030	905.0	902.7			
9	1	75,912	17,614	7,975	10,190	4,879	908.0	901.0	901.0	901.0	895.2	PER	ST-104	901.4	882.2 (W)	W.O.*	NO	
													3022	900.5	899.5	DROP		
													HWL	3023	901.8	900.7	1 COURSE	
													3024	900.8	899.8			
													3025	902.2	900.7			
													3026	901.6	900.6			
													3031	904.8	900.6			
10	1	216,509	29,089	8,021	10,514	4,533	907.7	900.0	900.0	898.7	894.4	PER	ST-02	901.4	891.4(W)	W.O.	NO	
													2105	900.0	899.0			
													3042	901.8	900.3			
													3043	901.3	900.2			
													3044	900.1	899.0			
													3045	896.7	896.7			
11	1	296,172	19,803	7,773	10,047	3,574	907.0	900.0	900.0	898.7	894.4	PER	ST-101	903.2	891.0(W)	W.O.*	NO	
													2108	900.8	899.8	DROP		
													HWL	3046	900.8	900.0	1 COURSE	
													3047	902.9	900.7			
													3048	902.8	900.6			
													3049	902.7	900.0			
													3050	902.4	900.4			
													3051	902.9	900.6			
OUTLOT A		16,505																
OUTLOT B		27,554																
OUTLOT C		58,312																

PONDING CALCULATIONS AND STORM SEWER DESIGN BY  
 PLOWE ENGINEERING, INC.



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 6776 LAKE DRIVE SUITE 110  
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# LIVABILITY CHART

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Lot	Block	Total Lot Area (sq. ft.)	Yard Area (sq. ft.)	Septic Area (sq. ft.)	Building Pad Area (sq. ft.)	Proposed Building Pad 4 Above Unsuitable (sq. ft.)	Garage Floor Elevation	Proposed Low Floor Elev.	Proposed Low Opening	Lowest Floor Elevation	Highest		Boring #	Boring Elevation	Mottles Elevation	Building Type	Custom Graced
											Anticipated Groundwater Elevation	Low Floor Determining Factor					
1	2	271,352	39,434	7,800	10,000	7,410	909.6	902.6	902.6	902.5	898.2	PER	70	903.4	900.9	W.O.*	NO
												POND 3-2	71	904.1	901.6	DROP	
												HWL	677	902.4	900.4	1 COURSE	
													678	903.4	900.9		
													679	903.6	901.9		
													880	902.4	901.1		
													1128	900.7	899.2		
													2025	902.9	900.6		
													2026	899.4	899.4		
													2074	902.1	900.3		
													2075	900.9	899.9		
2	2	464,019	40,511	7,829	10,105	4,307	907.5	900.5	900.5	899.4	894.4	PER	2107	901.9	900.6	W.O.*	NO
												POND 4	3052	902.7	900.7	DROP	
												HWL	3053	901.3	900.3	1 COURSE	
													3054	900.5	899.4		
													3055	901.8	900.1		
													3056	897.2	897.2		
3	2	386,202	60,099	8,668	10,818	7,054	908.2	901.2	901.2	901.2	898.2	Anticipated	89	901.1	899.6	W.O.*	NO
												Groundwater	90	900.6	898.9	DROP	
													91	900.9	899.4	1 COURSE	
													1114	899.1	898.3		
													1232	900.3	898.6		
													1233	900.5	899.3		
													1234	900.1	898.8		
													1235	900.5	899.0		
4	2	146,218	31,785	8,176	10,451	4,571	908.2	901.2	901.2	901.2	898.2	Anticipated	79	901.2	900.0	W.O.*	NO
												Groundwater	80	901.9	900.9	DROP	
													88	902.8	901.3	1 COURSE	
													625	901.0	899.5		
													626	900.2	899.2		
													627	902.0	900.8		
													628	902.2	900.9		
													1115	903.2	899.2		
													3094	902.2	900.5		
													3095	901.8	900.5		
5	2	143,510	38,280	8,457	10,343	5,425	908.9	901.2	901.2	901.2	898.2	Anticipated	76	901.3	900.1	W.O.*	NO
												Groundwater	77	902.5	900.3	DROP	
													78	902.2	901.2		
													629	901.1	900.1		
													630	901.4	900.1		
													631	904.7	899.2		
													632	902.2	900.7		
													1116	903.9	901.0		
6	2	148,302	28,840	8,901	10,022	5,188	908.9	901.2	901.2	901.2	898.2	Anticipated	75	900.9	899.9	W.O.*	NO
												Groundwater	633	907.2	NO ME		
													634	904.8	900.0		
													635	901.1	900.0		
													636	901.3	900.3		
													1117	902.3	901.0		
													3096	901.4	900.1		
7	2	56,452	33,529	8,117	10,340	5,601	909.2	902.2	902.2	902.2	898.2	PER	74	901.8	900.6	W.O.*	NO
												POND 3-3	637	905.0	900.7	DROP	
												HWL	638	903.6	901.4	1 COURSE	
													639	903.8	900.6		
													640	901.2	900.2		
													1118	906.1	901.5		
8	2	73,788	19,431	8,230	10,442	6,039	909.2	902.2	902.2	902.2	898.2	PER	66	902.3	900.6	W.O.*	NO
												POND 3-3	87	901.3	899.5	DROP	
												HWL	641	901.1	899.6	1 COURSE	
													642	903.1	899.6		
													643	904.8	900.3		
													644	900.8	899.8		
													1119	903.7	898.6		
1	3	205,616	45,667	8,041	10,000	5,944	907.0	899.3	899.3	899.3	896.2	PER	85	901.6	899.8	W.O.*	NO
												WETLANDS	943	900.7	899.4		
												HWL	944	902.1	900.4		
													945	904.0	899.8		
													946	901.3	899.6		
													1205	900.4	899.7		
													3000	901.4	899.6		
													3001	903.9	899.9		
2	3	345,942	50,609	7,978	11,065	4,847	906.8	896.2	899.2	899.2	896.2	Anticipated	82	902.2	900.7	W.O.*	NO
												Groundwater	83	902.3	901.3	DROP	
													84	903.2	900.5		
													939	902.1	899.9		
													940	899.6	898.0		
													941	900.4	898.9		
													942	901.8	900.3		
													943	900.7	899.4		
													1206	900.3	899.5		
													3002	902.0	900.3		
3	3	1,038,763	35,991	8,217	11,065	7,384	906.9	899.2	899.2	899.2	896.2	Anticipated	81	901.3	899.0	W.O.*	NO
												Groundwater	935	900.8	899.1	DROP	
												1 FOND 1	936	901.4	899.7		
												HWL	937	902.9	901.2		
													938	900.1	899.1		
													1207	899.4	887.1		

# FLOODPLAIN EXHIBIT

~of~ HIDDEN FOREST EAST 4TH ADDITION  
 ~for~ HFN PROPERTIES, LLC.  
 17404 WARD LAKE DRIVE NW  
 ANDOVER, MN 55304



## WETLAND FILL NOTES

WETLAND FILL AREA = 12,659 SQ. FT.

## FLOODPLAIN FILL NOTES

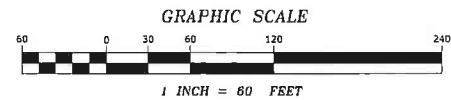
(COON CREEK WATERSHED FLOODPLAIN FILL)

FLOODPLAIN FILL WETLAND 1A BASIN = 9,949 CU/FT  
 COMPENSATORY STORAGE = 26,444 CU/FT  
 (COMPENSATORY STORAGE PROVIDED IN BORROW AREA 2 BETWEEN 898 AND 897 ELEVATION)

FLOODPLAIN FILL IN WETLAND 1 BASIN = 4,000 CU/FT  
 COMPENSATORY STORAGE = 5,167 CU/FT  
 (COMPENSATORY STORAGE PROVIDED IN POND 1 BETWEEN NWL AND 895.2)

## LEGEND

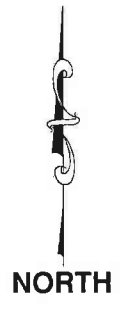
- 892.79 DENOTES EXISTING SPOT ELEVATION
- WETLAND DENOTES WETLAND
- EXISTING 2 FOOT CONTOUR DENOTES EXISTING 2 FOOT CONTOUR
- PROPOSED 2 FOOT CONTOUR DENOTES PROPOSED 2 FOOT CONTOUR
- WETLAND DELIMITED BY KOJHAUG ENVIRONMENTAL SERVICES COMPANY DENOTES WETLAND DELIMITED BY KOJHAUG ENVIRONMENTAL SERVICES COMPANY
- BASEMENT LINE DENOTES BASEMENT LINE
- SETBACK LINE DENOTES SETBACK LINE
- PROPOSED STORM SEWER DENOTES PROPOSED STORM SEWER
- PROPOSED SILT / TREE PROTECTION FENCE DENOTES PROPOSED SILT / TREE PROTECTION FENCE
- BIG ROLL TO BE INSTALLED INSIDE SILT FENCE ADJACENT TO WETLAND DENOTES DIRECTION OF DRAINAGE
- PROPOSED WELL LOCATION DENOTES PROPOSED WELL LOCATION
- AREA 1 ABOVE MOTTLES DENOTES AREA 1 ABOVE MOTTLES
- WETLAND / VEGETATIVE BUFFER DENOTES WETLAND / VEGETATIVE BUFFER
- VEGETATIVE BUFFER SIGN DENOTES VEGETATIVE BUFFER SIGN
- RIPRAP (RIPRAP TO BE VEGETATED IN WETLAND BUFFER) DENOTES RIPRAP (RIPRAP TO BE VEGETATED IN WETLAND BUFFER)
- PROPOSED STORM SEWER INLET PROTECTION DENOTES PROPOSED STORM SEWER INLET PROTECTION
- PLANT SPECIES LOCATED BY STANTEC CONSULTING SERVICES, INC DENOTES PLANT SPECIES LOCATED BY STANTEC CONSULTING SERVICES, INC
- APPROXIMATE FEMA FLOOD ZONE A LINE FROM FEMA FLOOD INSURANCE RATE MAP NO. 230001333E PANEL NO. 0355 SUFFIX E, EFFECTIVE DATE DECEMBER 16TH, 2015. DENOTES APPROXIMATE FEMA FLOOD ZONE A LINE FROM FEMA FLOOD INSURANCE RATE MAP NO. 230001333E PANEL NO. 0355 SUFFIX E, EFFECTIVE DATE DECEMBER 16TH, 2015.
- C.C.W.D. FLOOD ZONE LINE PER TOPOGRAPHY DENOTES C.C.W.D. FLOOD ZONE LINE PER TOPOGRAPHY
- 12' POND ACCESS DENOTES 12' POND ACCESS
- FLOODPLAIN FILL DENOTES FLOODPLAIN FILL
- WETLAND FILL DENOTES WETLAND FILL
- COMPENSATORY STORAGE AREA DENOTES COMPENSATORY STORAGE AREA



**E. G. RUD & SONS, INC.**  
 EST. 1877  
 Professional Land Surveyors  
 6776 Lake Drive NE, Suite 110  
 Lino Lakes, MN 55014  
 Tel. (651) 361-8200 Fax (651) 361-8701  
 www.egrud.com

I hereby certify that this survey, plan or report was prepared by me or under my direct supervision and that I am a duly Registered Land Surveyor under the laws of the State of Minnesota.  
 JASON E. RUD  
 Date: 04/11/2023 License No. 41578

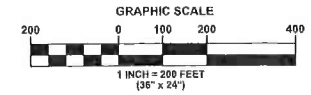
DRAWN BY: MMD	JOB NO: 210452PP	DATE: 03/17/23
CHECK BY: JER	FIELD CREW: DT, CT	
1 03/17/23	CITY / WATERSHED COMMENTS	MMD
2 04/11/23	CITY / WATERSHED COMMENTS	MMD
3		
4		
NO. DATE	DESCRIPTION	BY



# HIDDEN FOREST EAST FOURTH ADDITION

## TITLE SHEET, NOTES & LEGEND

### HAM LAKE, MINNESOTA



**PLOWE ENGINEERING, INC.**

6776 LAKE DRIVE  
SUITE 110  
LINO LAKES, MN 55014  
PHONE: (651) 361-8210  
FAX: (651) 361-8701

DRAWN BY: AG  
CHECK BY: CWP  
JOB NO: 22-2043  
DATE: 02/15/23

#### OWNER & DEVELOPER

HFV PROPERTIES, LLC  
17404 WARD LAKE DR NW  
ANDOVER, MN 55304  
(612) 799-1471

#### ENGINEER

PLOWE ENGINEERING, INC.  
6776 LAKE DR STE 110  
LINO LAKES, MN 55014  
651-361-8210

#### SURVEYOR

EG RUDS LAND SURVEYING, INC.  
6776 LAKE DR STE 110  
LINO LAKES, MN 55014  
651-361-8200

#### GENERAL NOTES

1. THE INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF EXISTING UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO TYPE AND LOCATION OF UTILITIES AS NECESSARY TO AVOID DAMAGE TO THESE UTILITIES.
2. CALL "811" FOR EXISTING UTILITIES LOCATIONS PRIOR TO ANY EXCAVATIONS.
3. THE CONTRACTOR SHALL FIELD VERIFY SIZE, ELEVATION, AND LOCATION OF EXISTING UTILITIES AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO THE START OF INSTALLATIONS.
4. INSTALLATIONS SHALL CONFORM TO THE CITY STANDARD SPECIFICATIONS AND DETAIL PLATES.
5. STORAGE OF MATERIALS OR EQUIPMENT SHALL NOT BE ALLOWED ON PUBLIC STREETS OR WITHIN PUBLIC RIGHT-OF-WAY.
6. NOTIFY CITY AND COON CREEK WATERSHED DISTRICT (CCWD) A MINIMUM OF 48 HOURS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
7. ALL ELECTRIC, TELEPHONE, AND GAS EXTENSIONS INCLUDING SERVICE LINES SHALL BE CONSTRUCTED TO THE APPROPRIATE UTILITY COMPANY SPECIFICATIONS. ALL UTILITY DISCONNECTIONS SHALL BE COORDINATED WITH THE APPROPRIATE UTILITY COMPANY.

#### STORM SEWER NOTES

1. FIELD VERIFY SIZE, ELEVATION, AND LOCATION OF EXISTING STORM SEWER AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO ANY INSTALLATIONS.
2. STORM SEWER SHALL BE:
  - (a) REINFORCED CONCRETE PIPE (RCP) ANSI C76 WITH R-4 GASKETS.
  - (b) HDPE PIPE SHALL MEET THE REQUIREMENTS OF AASHTO M294, TYPE S WITH WATERTIGHT CONNECTIONS. USE SAND/GRANULAR MATERIAL FOR BACKFILLING AND COMPACTION OF HDPE/PVC PIPE IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM 2321.
3. DO NOT BACKFILL CATCH BASINS UNTIL FABRIC WRAP IS INSPECTED BY CITY.
4. TRASH GUARDS ARE REQUIRED FOR ALL FLARED-END SECTIONS LESS THAN 48" IN DIAMETER.
5. PROVIDE CLASS III RIP-RAP W/ FILTER FABRIC AT ALL PIPE OUTLETS.
6. THE LAST THREE SECTION OF CONCRETE PIPE, INCLUDING APRON, FOR CONCRETE PIPES LESS THAN 48" IN DIAMETER.
7. STORM SEWER LENGTHS INCLUDE THE LAYING LENGTH OF THE FLARED-END SECTION. LAYING LENGTH OF FLARED-END SECTION TO BE DEDUCTED FROM PAYMENT LENGTH OF PIPE.
8. ARCH PIPE JOINTS MUST BE WRAPPED WITH FABRIC OR OTHER PROTECTION TO PREVENT SEDIMENT FROM ENTERING PIPE.
9. SEE SHEET C2.1 FOR STRUCTURE SCHEDULE.

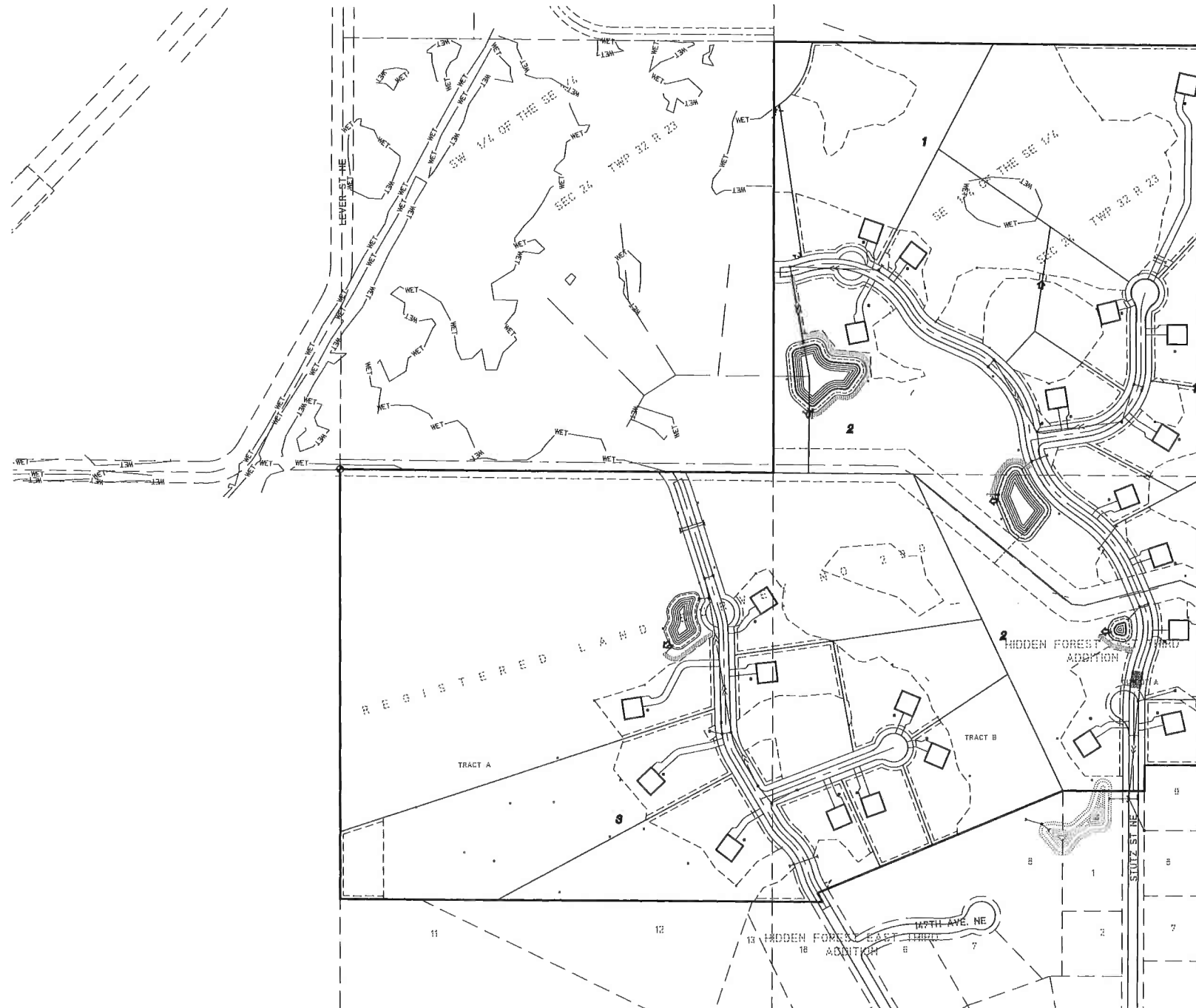
#### CURB & BITUMINOUS NOTES

1. REMOVAL AND DISPOSAL OF EXISTING STREET MATERIALS AS REQUIRED FOR CONSTRUCTION IS CONSIDERED INCIDENTAL.
2. ALL MATCH POINTS AND PAVEMENT PATCHES TO BE SAW-CUT AT FULL DEPTH.
3. RESTORE DISTURBED STREET TO EXISTING OR BETTER SECTION.
4. BACKFILLING OF CURB IS INCIDENTAL TO CURB INSTALLATION.

#### MISCELLANEOUS NOTES

1. SEPTIC AND WELL DESIGN BY OTHERS.
2. SITE TOPOGRAPHY PROVIDED BY OTHERS.

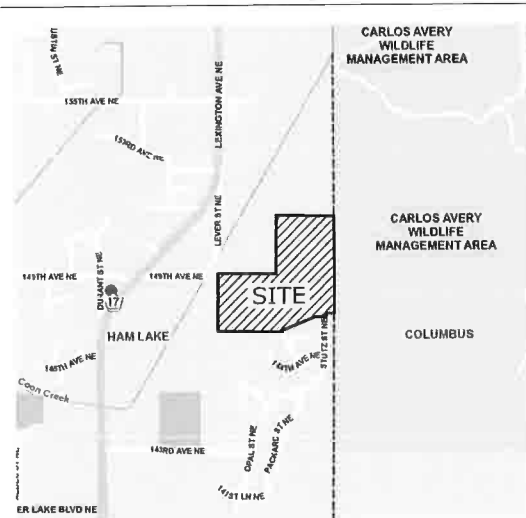
AN MPCA NPDES CONSTRUCTION PERMIT IS REQUIRED PRIOR TO THE START OF CONSTRUCTION



#### LEGEND

- |  |                                  |  |                                      |
|--|----------------------------------|--|--------------------------------------|
|  | EXISTING STORM SEWER             |  | PROPOSED STORM SEWER PIPE            |
|  | EXISTING STORM MANHOLE           |  | PROPOSED STORM MANHOLE               |
|  | EXISTING CATCH BASIN             |  | PROPOSED CATCH BASIN                 |
|  | EXISTING FLARED-END SECTION      |  | PROPOSED FLARED-END SECTION          |
|  | EXISTING DELINEATED WETLAND EDGE |  | PROPOSED RIP-RAP                     |
|  | WETLAND BUFFER                   |  | WETLAND BUFFER SIGNAGE               |
|  | WETLAND BUFFER SIGNAGE           |  | PROPOSED SPOT ELEVATION (GUTTERLINE) |

#### VICINITY MAP



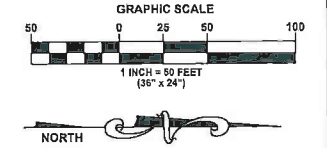
#### SHEET INDEX

T1	TITLE SHEET, NOTES & LEGEND
SHEETS 1-3	PRELIMINARY PLAT
SHEETS 4-8	GRADING, DRAINAGE & ESC PLAN
SHEETS 9-13	LIVABILITY PLAN
SHEETS 13-14	LIVABILITY CHART
C1.1 - C1.2	UTILITY PLAN
C2.1 - C2.3	DETAILS
C3.1 - C3.2	STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

I HEREBY CERTIFY THAT THIS PLAN 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.

ADAM GRICEL License No. 43983  
Date: 05/16/2023

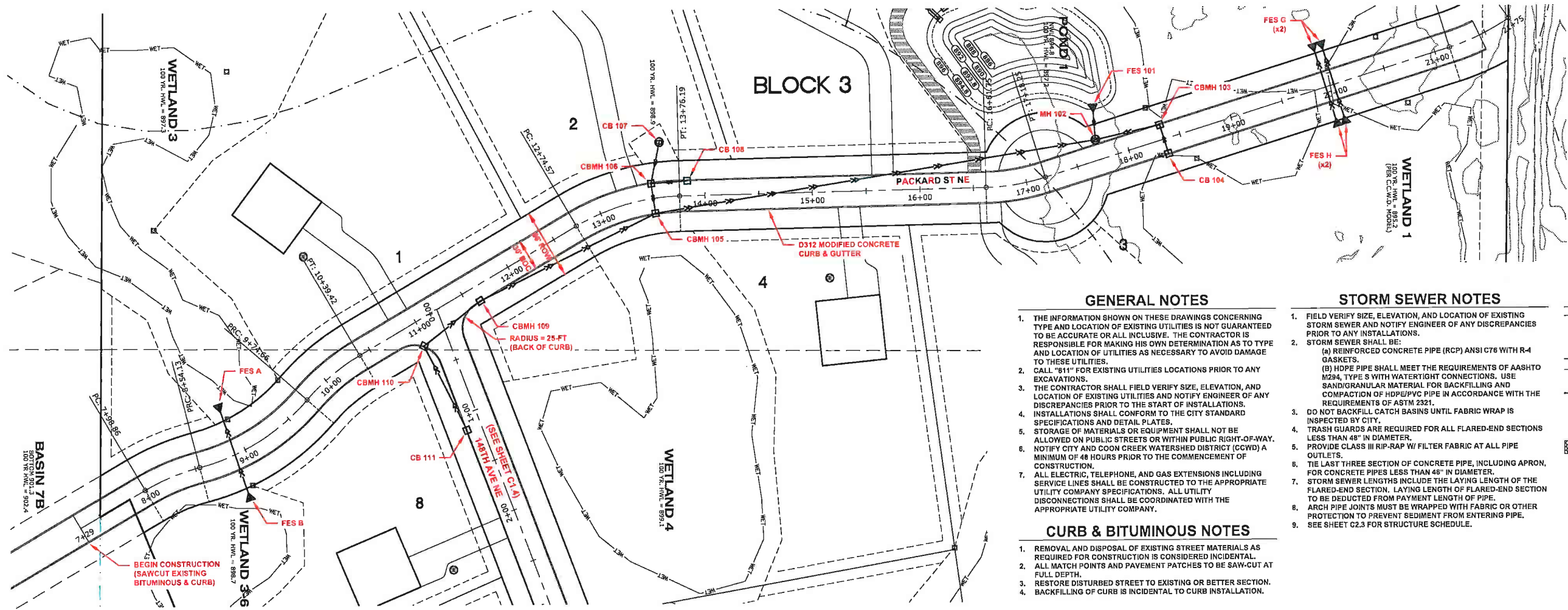
HIDDEN FOREST EAST FOURTH ADDITION  
CITY OF HAM LAKE, MINNESOTA  
TITLE SHEETS, NOTES & LEGEND  
PREPARED FOR: HFV PROPERTIES, LLC



6778 LAKE DRIVE  
SUITE 110  
LINO LAKES, MN 55014  
PHONE: (651) 361-8210  
FAX: (651) 361-8701

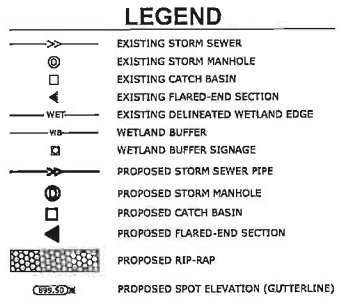
DRAWN BY: AG CHECK BY: CWP

JOB NO: 22-2043 DATE: 02/19/23

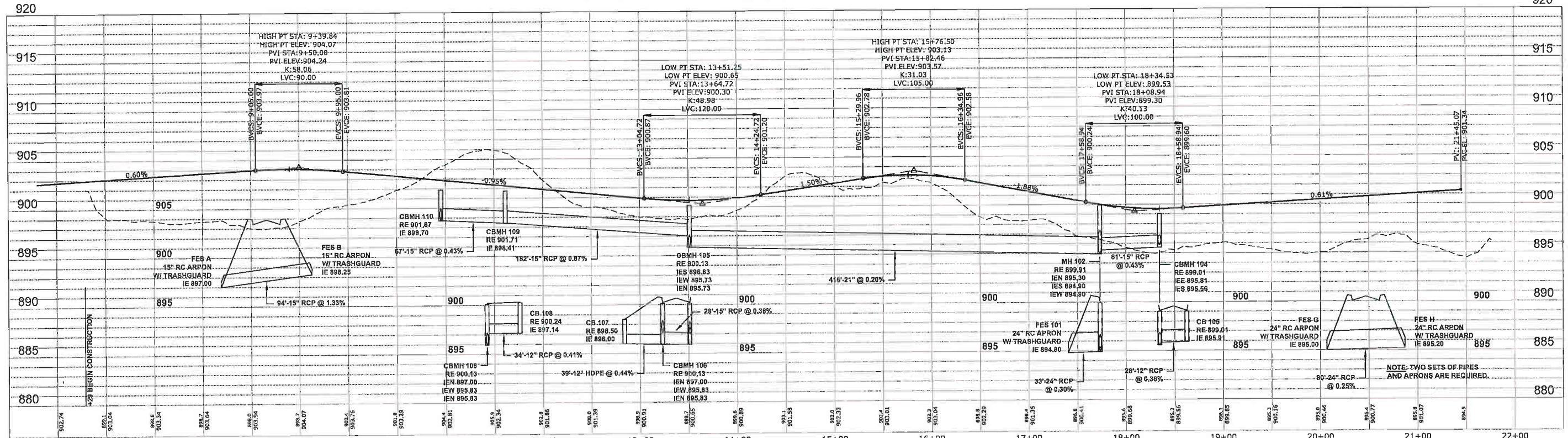


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## PACKARD STREET NE

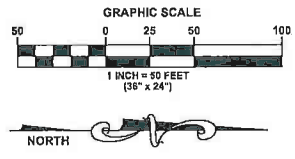
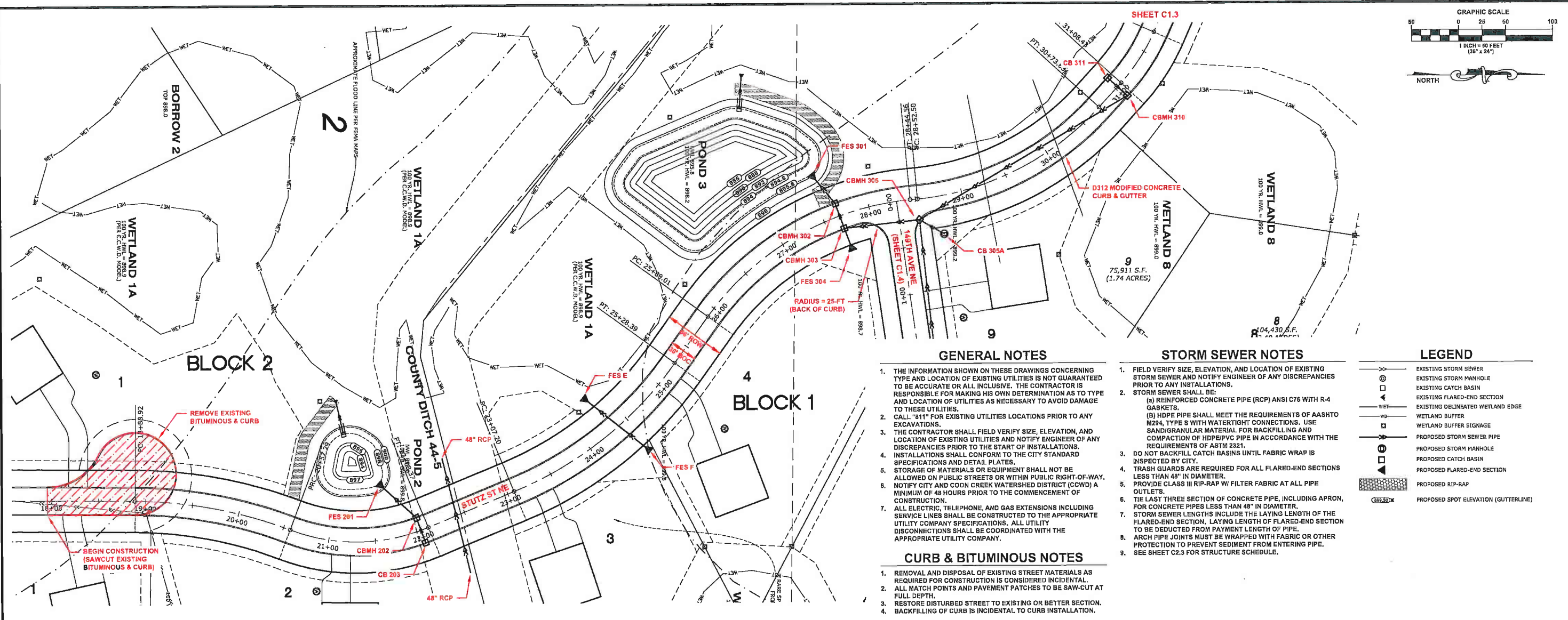


I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

ADAM GRANEL  
Date: 02/19/23 License No. 43983

HIDDEN FOREST EAST FOURTH ADDITION  
CITY OF HAM LAKE, MINNESOTA  
PLAN PROFILE - PACKARD ST NE  
PREPARED FOR: HFN PROPERTIES, LLC

SHEET  
**C1.1**



6776 LAKE DRIVE  
SUITE 110  
LINO LAKES, MN 55014

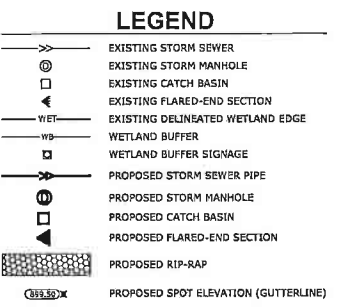
PHONE: (651) 361-0210  
FAX: (651) 361-8701

DRAWN BY: AG  
CHECK BY: CWP

JOB NO: 22-2043  
DATE: 02/19/23

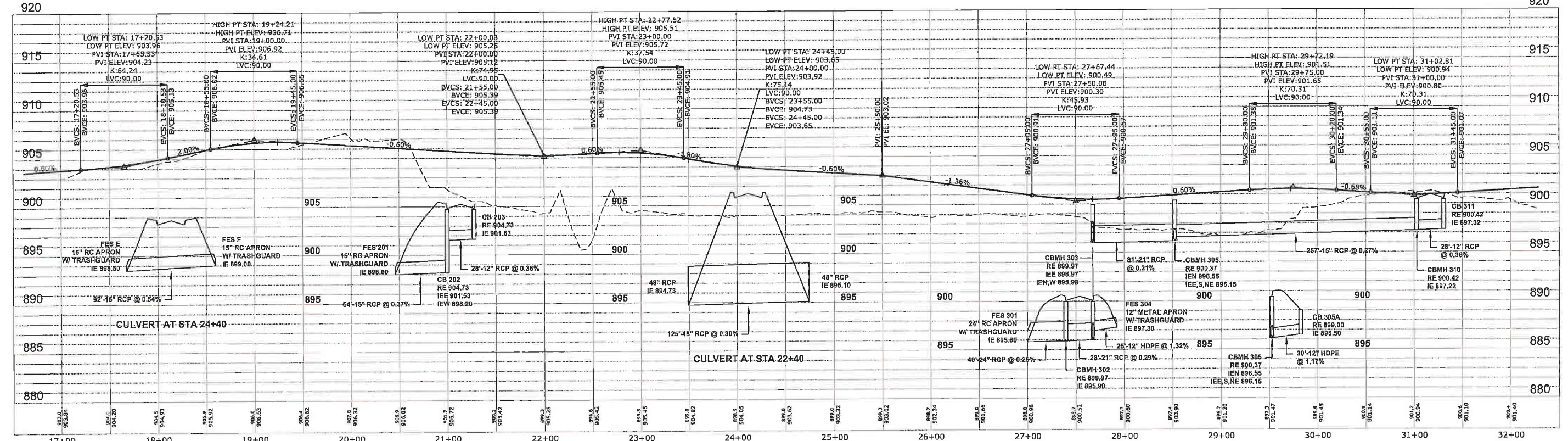
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  - SEE SHEET C2.3 FOR STRUCTURE SCHEDULE.



NO.	DATE	DESCRIPTION
1	4-11-23	REF. & CCWD COMMENTS
2		
3		
4		
5		
6		
7		
8		
9		

## STUTZ STREET NE

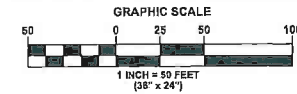


HIDDEN FOREST EAST FOURTH ADDITION  
CITY OF HAM LAKE, MINNESOTA  
PLAN PROFILE - STUTZ ST NE

I HEREBY CERTIFY THAT THIS PLAN 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.

ADAM GRINKEL License No. 49863  
Date: 05-16-2023

PREPARED FOR: HFN PROPERTIES, LLC



**PLOWE ENGINEERING, INC.**

6776 LAKE DRIVE  
SUITE 110  
LINO LAKES, MN 55014  
PHONE: (651) 361-8210  
FAX: (651) 361-8701

DRAWN BY: AG  
CHECK BY: CWP

JOB NO: 22-2043  
DATE: 02/15/23

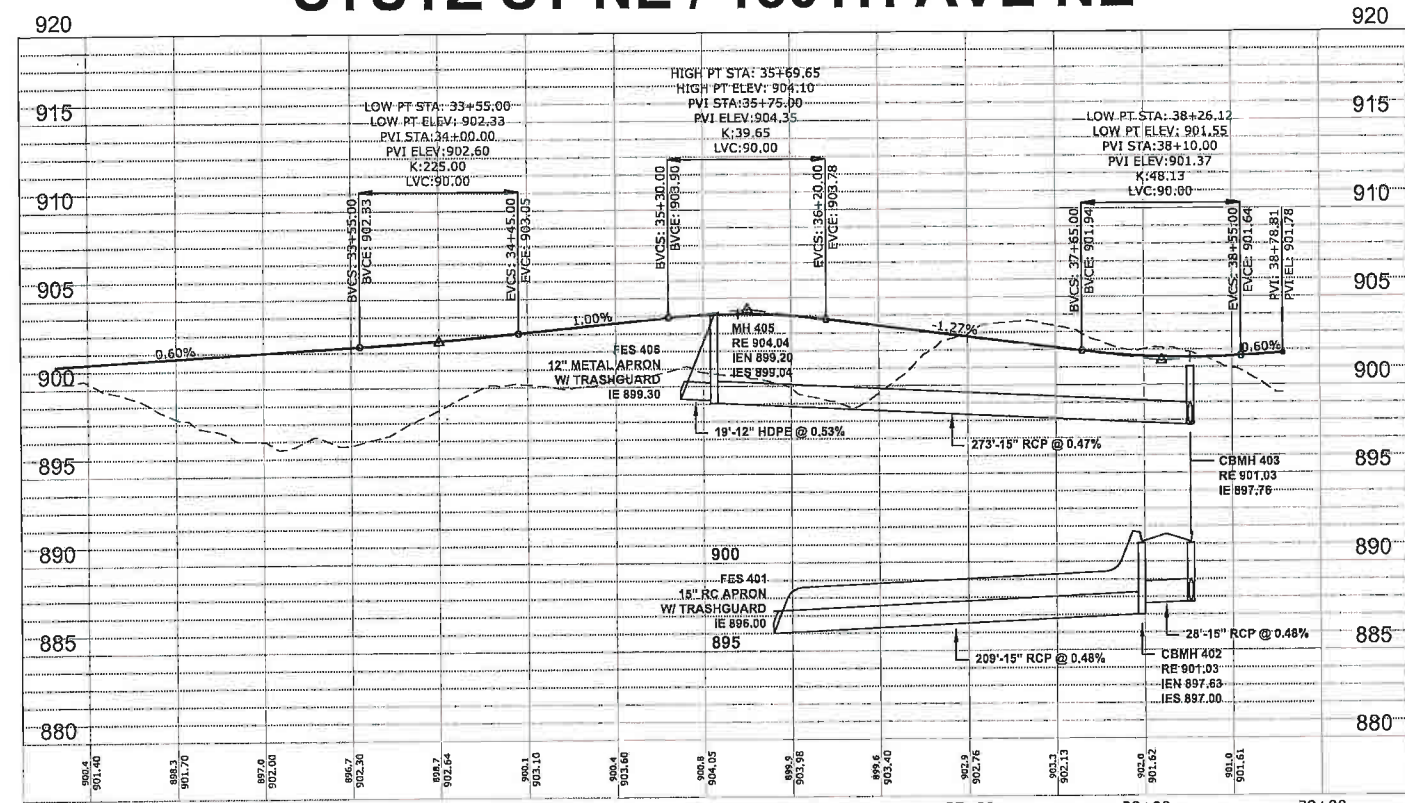
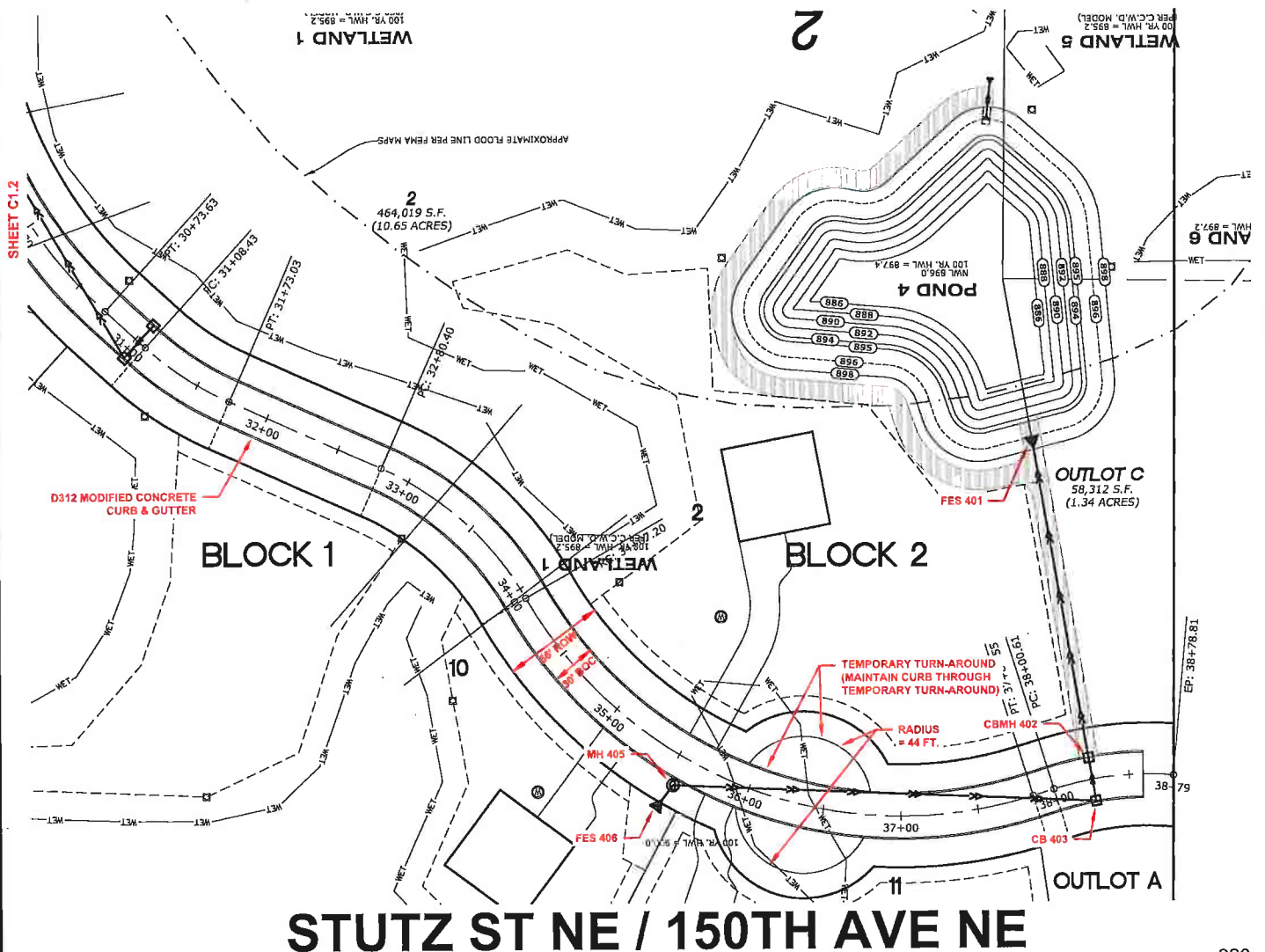
NO.	DATE	DESCRIPTION
1	4-11-23	IFC & CCWD COMMENTS
2		
3		
4		
5		
6		
7		
8		

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

ADAM GRAYES  
Date: 02/16/2023 License No. 43983

**HIDDEN FOREST EAST FOURTH ADDITION**  
CITY OF HAM LAKE, MINNESOTA  
**PLAN PROFILE - STUTZ ST & 150TH AVE**

SHEET  
**C1.3**



**GENERAL NOTES**

1. THE INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF EXISTING UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO TYPE AND LOCATION OF UTILITIES AS NECESSARY TO AVOID DAMAGE TO THESE UTILITIES.
2. CALL "811" FOR EXISTING UTILITIES LOCATIONS PRIOR TO ANY EXCAVATIONS.
3. THE CONTRACTOR SHALL FIELD VERIFY SIZE, ELEVATION, AND LOCATION OF EXISTING UTILITIES AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO THE START OF INSTALLATIONS. INSTALLATIONS SHALL CONFORM TO THE CITY STANDARD SPECIFICATIONS AND DETAIL PLATES.
4. STORAGE OF MATERIALS OR EQUIPMENT SHALL NOT BE ALLOWED ON PUBLIC STREETS OR WITHIN PUBLIC RIGHT-OF-WAY.
5. NOTIFY CITY AND COON CREEK WATERSHED DISTRICT (CCWD) A MINIMUM OF 48 HOURS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
6. ALL ELECTRIC, TELEPHONE, AND GAS EXTENSIONS INCLUDING SERVICE LINES SHALL BE CONSTRUCTED TO THE APPROPRIATE UTILITY COMPANY SPECIFICATIONS. ALL UTILITY DISCONNECTIONS SHALL BE COORDINATED WITH THE APPROPRIATE UTILITY COMPANY.

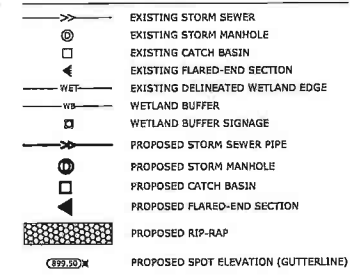
**CURB & BITUMINOUS NOTES**

1. REMOVAL AND DISPOSAL OF EXISTING STREET MATERIALS AS REQUIRED FOR CONSTRUCTION IS CONSIDERED INCIDENTAL.
2. ALL MATCH POINTS AND PAVEMENT PATCHES TO BE SAW-CUT AT FULL DEPTH.
3. RESTORE DISTURBED STREET TO EXISTING OR BETTER SECTION.
4. BACKFILLING OF CURB IS INCIDENTAL TO CURB INSTALLATION.

**STORM SEWER NOTES**

1. FIELD VERIFY SIZE, ELEVATION, AND LOCATION OF EXISTING STORM SEWER AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO ANY INSTALLATIONS.
2. STORM SEWER SHALL BE:
  - (A) REINFORCED CONCRETE PIPE (RCP) ANSI C78 WITH R-4 GASKETS.
  - (B) HDPE PIPE SHALL MEET THE REQUIREMENTS OF AASHTO M284, TYPE S WITH WATERTIGHT CONNECTIONS. USE SAND/GRANULAR MATERIAL FOR BACKFILLING AND COMPACTION OF HDPE/PPVC PIPE IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM 2321.
3. DO NOT BACKFILL CATCH BASINS UNTIL FABRIC WRAP IS INSPECTED BY CITY.
4. TRASH GUARDS ARE REQUIRED FOR ALL FLARED-END SECTIONS LESS THAN 48" IN DIAMETER.
5. PROVIDE CLASS III RIP-RAP W/ FILTER FABRIC AT ALL PIPE OUTLETS.
6. TIE LAST THREE SECTION OF CONCRETE PIPE, INCLUDING APRON, FOR CONCRETE PIPES LESS THAN 48" IN DIAMETER.
7. STORM SEWER LENGTHS INCLUDE THE LAYING LENGTH OF THE FLARED-END SECTION. LAYING LENGTH OF FLARED-END SECTION TO BE DEDUCTED FROM PAYMENT LENGTH OF PIPE.
8. ARCH PIPE JOINTS MUST BE WRAPPED WITH FABRIC OR OTHER PROTECTION TO PREVENT SEDIMENT FROM ENTERING PIPE.
9. SEE SHEET C2.3 FOR STRUCTURE SCHEDULE.

**LEGEND**



**GENERAL NOTES**

1. THE INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF EXISTING UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO TYPE AND LOCATION OF UTILITIES AS NECESSARY TO AVOID DAMAGE TO THESE UTILITIES.
2. CALL "811" FOR EXISTING UTILITIES LOCATIONS PRIOR TO ANY EXCAVATIONS.
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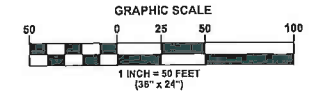
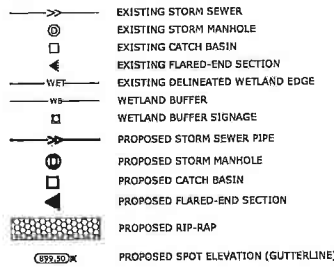
**CURB & BITUMINOUS NOTES**

1. REMOVAL AND DISPOSAL OF EXISTING STREET MATERIALS AS REQUIRED FOR CONSTRUCTION IS CONSIDERED INCIDENTAL.
2. ALL MATCH POINTS AND PAVEMENT PATCHES TO BE SAW-CUT AT FULL DEPTH.
3. RESTORE DISTURBED STREET TO EXISTING OR BETTER SECTION.
4. BACKFILLING OF CURB IS INCIDENTAL TO CURB INSTALLATION.

**STORM SEWER NOTES**

1. FIELD VERIFY SIZE, ELEVATION, AND LOCATION OF EXISTING STORM SEWER AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO ANY INSTALLATIONS.
2. STORM SEWER SHALL BE:
  - (a) REINFORCED CONCRETE PIPE (RCP) ANSI C76 WITH R-4 GASKETS.
  - (b) HDPE PIPE SHALL MEET THE REQUIREMENTS OF AASHTO M294, TYPE S WITH WATERTIGHT CONNECTIONS. USE SAND/GRANULAR MATERIAL FOR BACKFILLING AND COMPACTION OF HDPE/PVC PIPE IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM 2321.
3. DO NOT BACKFILL CATCH BASINS UNTIL FABRIC WRAP IS INSPECTED BY CITY.
4. TRASH GUARDS ARE REQUIRED FOR ALL FLARED-END SECTIONS LESS THAN 48" IN DIAMETER.
5. PROVIDE CLASS III RIP-RAP W/ FILTER FABRIC AT ALL PIPE OUTLETS.
6. TIE LAST THREE SECTION OF CONCRETE PIPE, INCLUDING APRON, FOR CONCRETE PIPES LESS THAN 48" IN DIAMETER.
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8. ARCH PIPE JOINTS MUST BE WRAPPED WITH FABRIC OR OTHER PROTECTION TO PREVENT SEDIMENT FROM ENTERING PIPE.
9. SEE SHEET C2.3 FOR STRUCTURE SCHEDULE.

**LEGEND**



6778 LAKE DRIVE  
SUITE 110  
LINO LAKES, MN 55014  
PHONE: (651) 381-8210  
FAX: (651) 381-8701

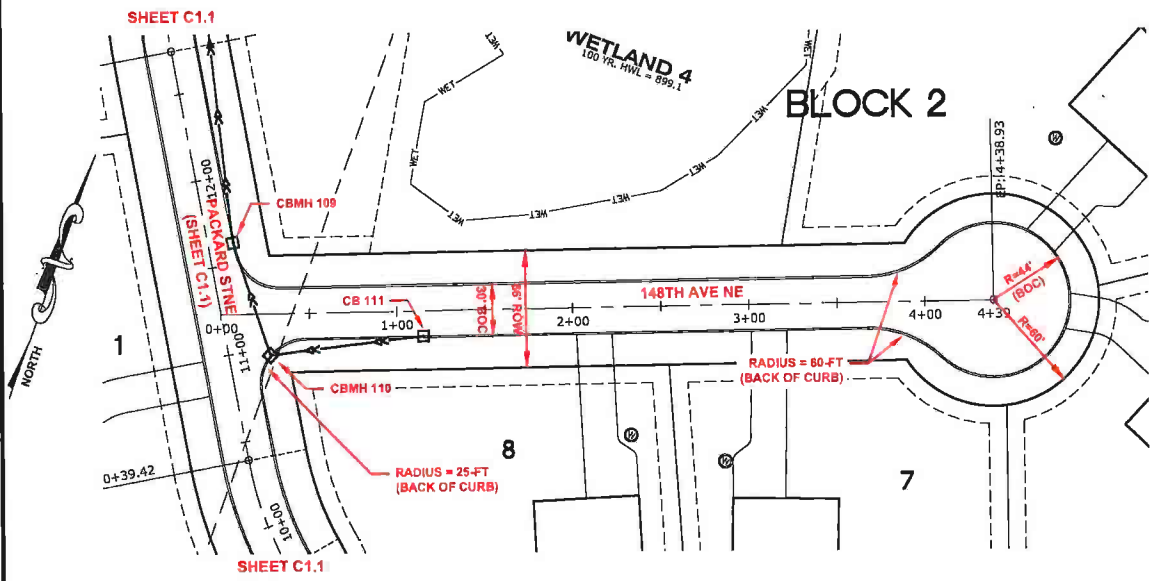
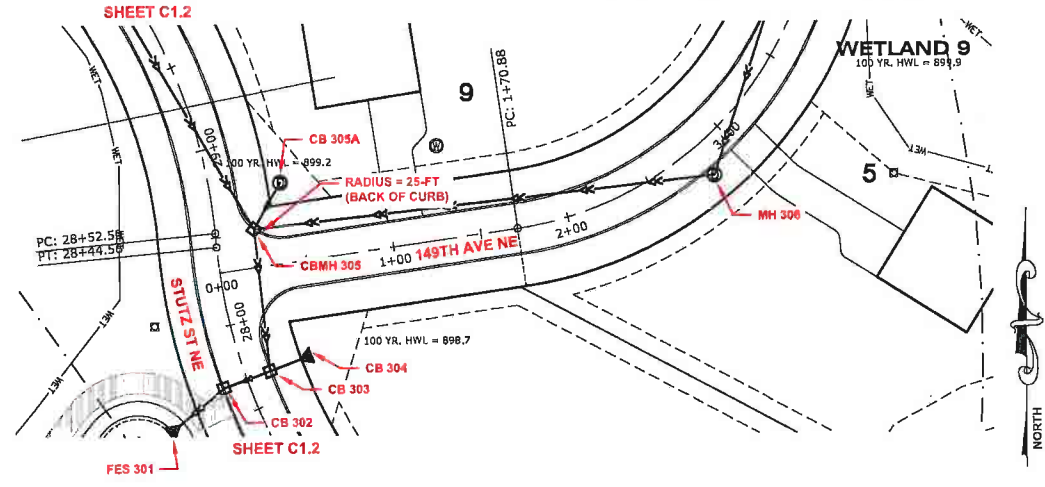
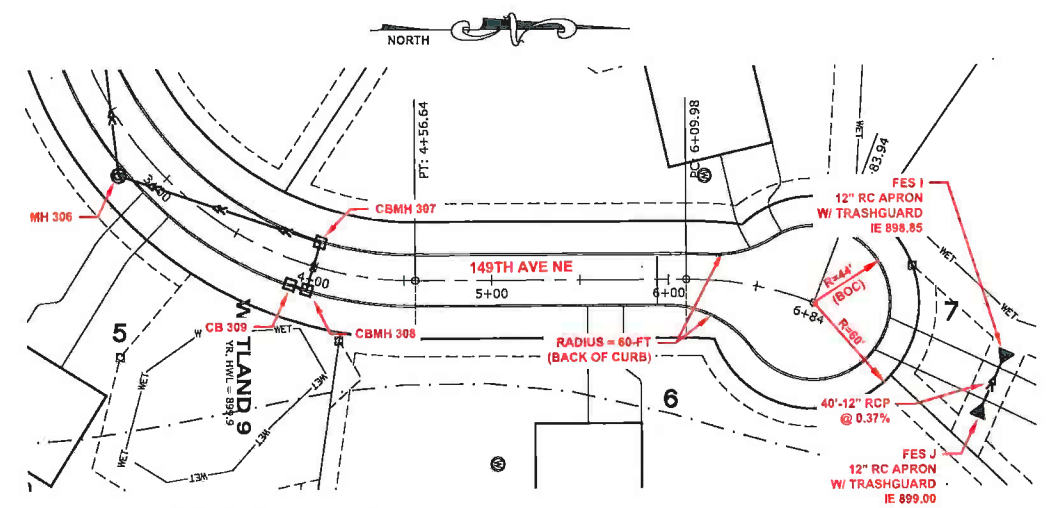
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CHECK BY: CWP

JOB NO: 22-2043  
DATE: 02/16/23

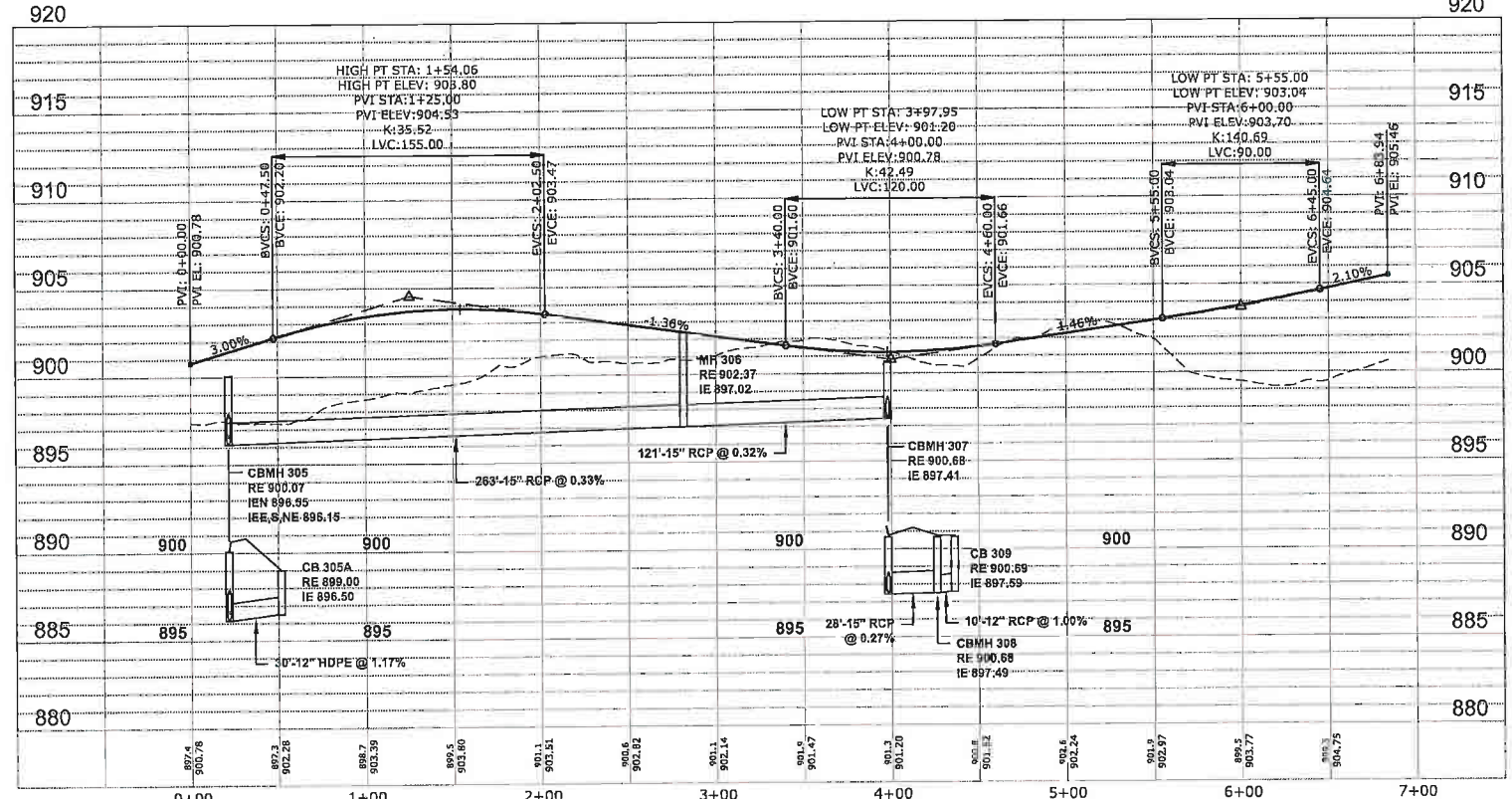
NO	DATE	DESCRIPTION
1	4-11-23	REC & CCWD COMMENTS
2		
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I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

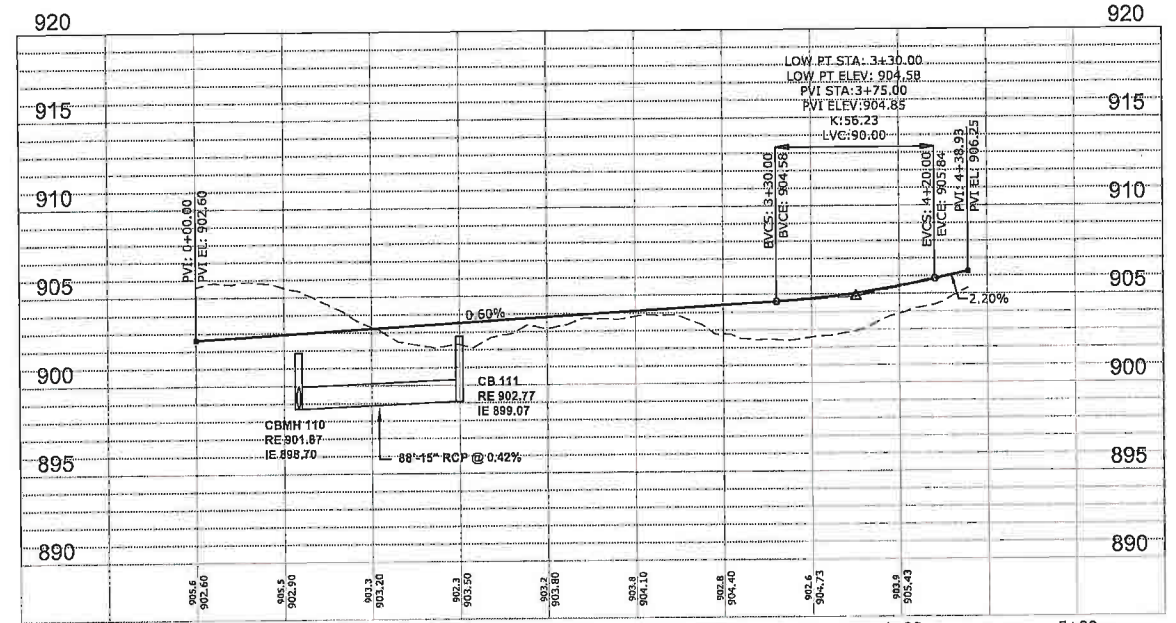
ADAM GRINDEL  
Date: 05/16/2023 License No. 43963



**149TH AVE NE**



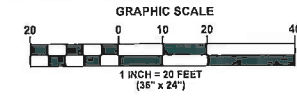
**148TH AVE NE**



**HIDDEN FOREST EAST FOURTH ADDITION  
CITY OF HAM LAKE, MINNESOTA  
PLAN PROFILE - 148TH & 149TH AVE NE**







**PLOWE**  
ENGINEERING, INC.

6778 LAKE DRIVE  
SUITE 110  
LINO LAKES, MN 55014  
PHONE: (951) 381-8210  
FAX: (951) 381-8701

DRAWN BY: AG  
CHECK BY: CWP

JOB NO: 22-2043  
DATE: 02/15/23

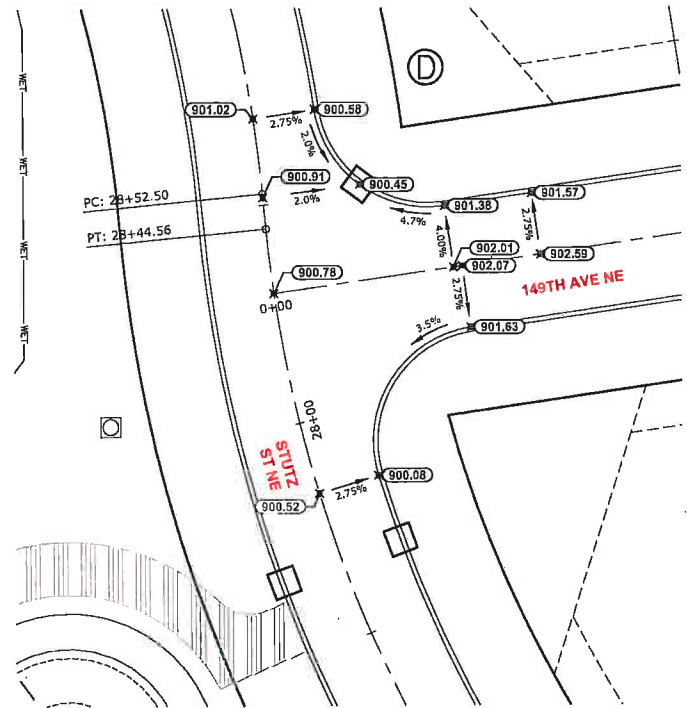
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I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

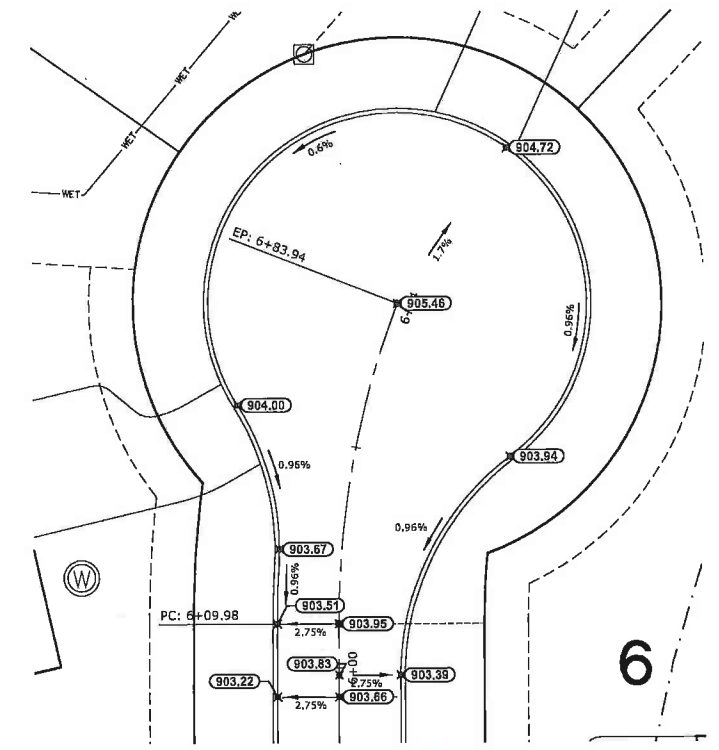
ADAM GRUNDEL  
Date: 05.16.2023 License No. 43963

**HIDDEN FOREST EAST FOURTH ADDITION**  
CITY OF HAM LAKE, MINNESOTA  
**INTERSECTION AND C-D-S DETAILS**

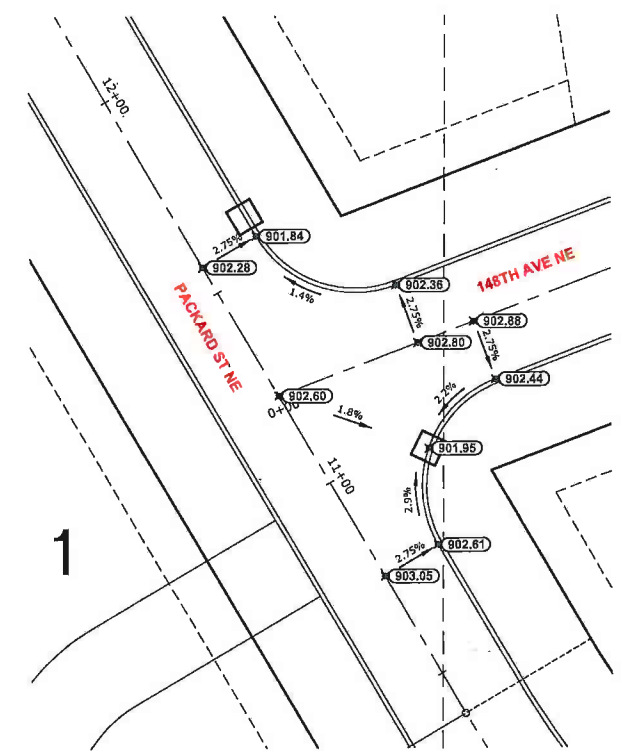
SHEET  
**C1.6**



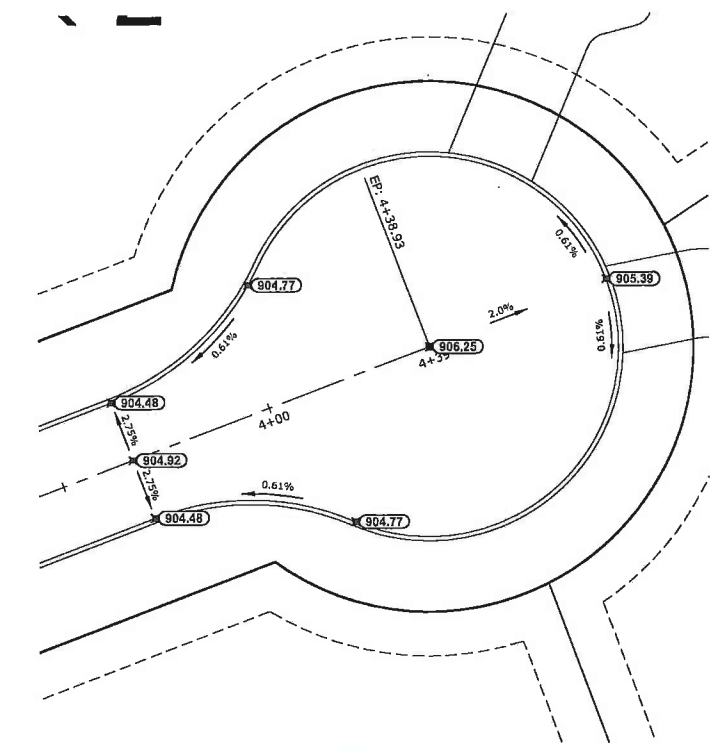
**INTERSECTION - STUTZ & 149TH**



**149TH AVE CUL-DE-SAC**



**INTERSECTION - PACKARD & 148TH**



**148TH AVE CUL-DE-SAC**



**PLOWE**  
ENGINEERING, INC.

6776 LAKE DRIVE  
SUITE 110  
LINO LAKES, MN 55014

PHONE: (651) 361-0210  
FAX: (651) 361-8701

DRAWN BY: AG CHECK BY: CWP

JOB NO.: 22-2043 DATE: 02/15/23

NO.	DATE	DESCRIPTION
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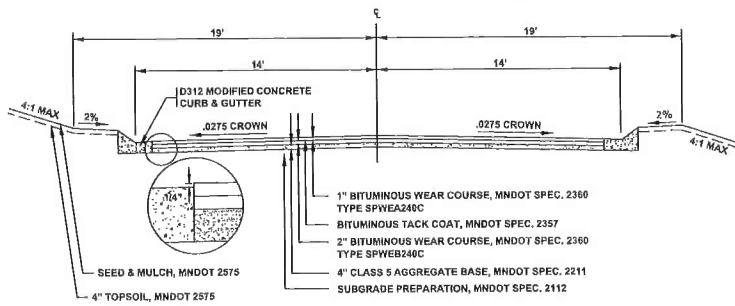
I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA

ADAM GIMKEL License No. 45963  
Date: 05/16/2023

**HIDDEN FOREST EAST FOURTH ADDITION**  
CITY OF HAM LAKE, MINNESOTA  
**DETAILS**  
PREPARED FOR: HFN PROPERTIES, LLC

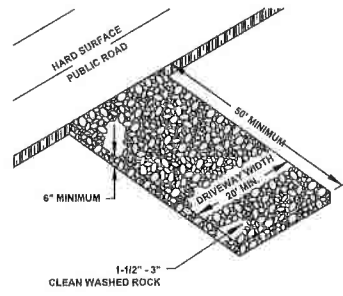
SHEET  
**C2.1**

C-L TO T/C = -0.19  
C-L TO GUT = -0.44  
C-L TO C.B. RIM = -0.52  
(C.B. RIM 1" BELOW GUT)



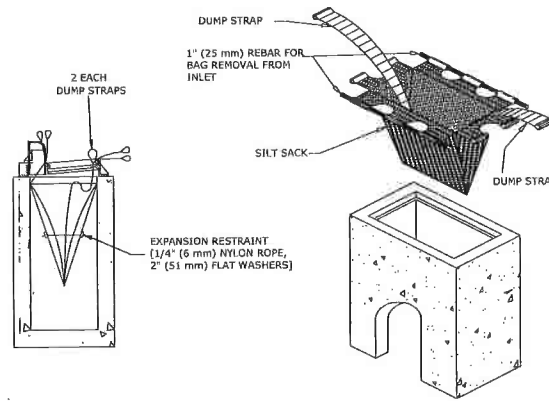
### TYPICAL STREET SECTION (7-TON)

N.T.S.



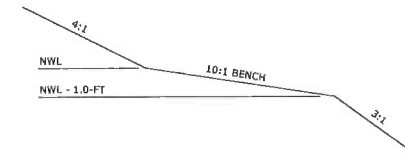
### ROCK CONSTRUCTION EXIT

N.T.S.



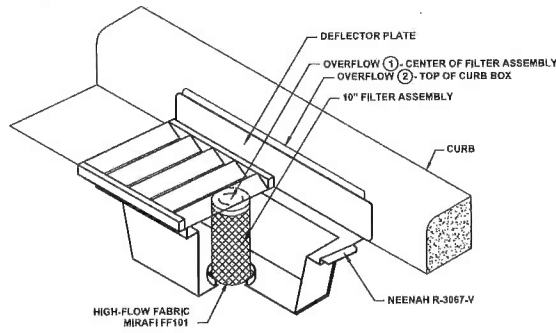
### SILT SACK

N.T.S.



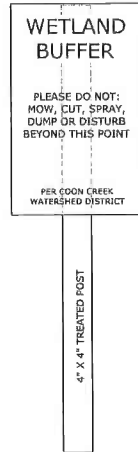
### TYPICAL POND SECTION

N.T.S.



### WIMCO INLET PROTECTION

N.T.S.

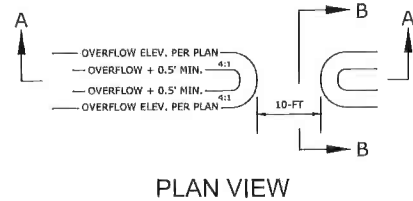


EXAMPLE ONLY - TO BE APPROVED BY CITY OF HAM LAKE AND COON CREEK WATERSHED DISTRICT

### WETLAND BUFFER SIGNAGE

N.T.S.

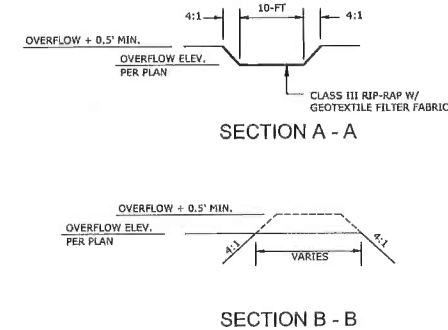
- MONUMENT**
- CONSISTS OF A POST AND A SIGN
- WETLAND BUFFER SIGNS**
- MOUNTED FLUSH WITH TOP OF POST
  - FASTENED WITH NON-REMOVABLE SCREWS OR RIVETS
  - SIZE: 12" H x 6" W ALUMINUM SHALL BE 3052-H38 R 6061-T6 ALLOY
  - GAUGE SHALL BE 0.080
- POST MATERIALS**
- 4" x 4" SQUARE
  - TREATED WOOD OR OTHER CITY-APPROVED MATERIAL
- COLOR**
- SHALL BE GREEN LETTERS ON WHITE BACKGROUND
- POST INSTALLATION**
- MOUNTED TO A HEIGHT OF FOUR FEET ABOVE GRADE
  - SET AT LEAST 42 INCHES INTO GROUND
  - INSTALLED AT EACH LOT LINE WHERE IT CROSSES A WETLAND BUFFER WITH A MAXIMUM SPACING OF 300 FEET BETWEEN SIGNS
  - PLACE ADDITIONAL POSTS/SIGNS AS NECESSARY TO FOLLOW BUFFER



### PLAN VIEW

### RIP-RAP OVERFLOWS

N.T.S.



### SECTION A - A

### SECTION B - B

### STORM SEWER STRUCTURE SCHEDULE

#	SIZE	CASTING	#	SIZE	CASTING
102	48" DIA.	NEENAH R-1733	305	60" DIA.	NEENAH R-3246-C
103	48" DIA.	NEENAH R-3246-C	305A	MNDOT TYPE G	NEENAH R-2577
104	2' x 3'	NEENAH R-3246-C	306	48" DIA.	NEENAH R-1733
105	48" DIA.	NEENAH R-3246-C	307	48" DIA.	NEENAH R-3246-C
106	48" DIA.	NEENAH R-3246-C	308	48" DIA.	NEENAH R-3246-C
107	MNDOT TYPE G	NEENAH R-2577	309	2' x 3'	NEENAH R-3246-C
108	2' x 3'	NEENAH R-3246-C	310	48" DIA.	NEENAH R-3246-C
109	48" DIA.	NEENAH R-3246-C	311	2' x 3'	NEENAH R-3246-C
110	48" DIA.	NEENAH R-3246-C			
111	2' x 3'	NEENAH R-3246-C	402	48" DIA.	NEENAH R-3246-C
			403	48" DIA.	NEENAH R-3246-C
202	48" DIA.	NEENAH R-3246-C	405	48" DIA.	NEENAH R-1733
203	2' x 3'	NEENAH R-3246-C			
302	48" DIA.	NEENAH R-3246-C			
303	48" DIA.	NEENAH R-3246-C			



SITE PLANNING & ENGINEERING

**PLOWE**  
ENGINEERING, INC.

6775 LAKE DRIVE  
SUITE 110  
LINO LAKES, MN 55014

PHONE: (651) 351-8210  
FAX: (651) 351-8701

DRAWN BY: AG CHECK BY: CWP

JOB NO: 22-2043 DATE: 02/16/23

NO.	DATE	DESCRIPTION
1	4-11-23	RFC & CCMD COMMENTS
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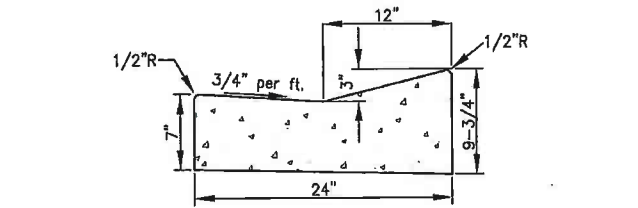
ADAM GRUBEL  
Date: 05/16/2022 License No. 43963

**HIDDEN FOREST EAST FOURTH ADDITION**  
CITY OF HAM LAKE, MINNESOTA  
**DETAILS**

PREPARED FOR: HFN PROPERTIES, LLC

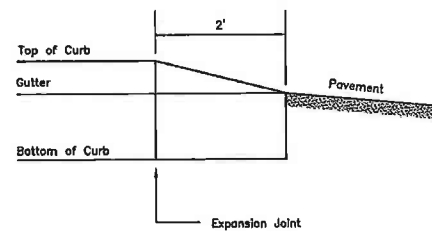
SHEET

**C2.2**



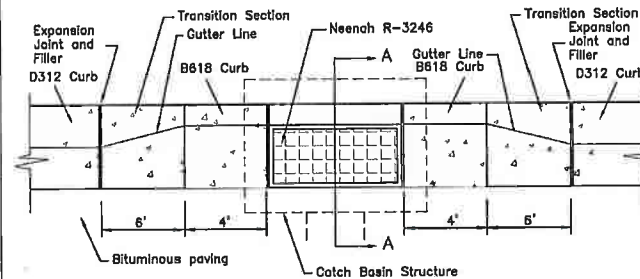
**D312 MODIFIED CONCRETE CURB AND GUTTER HL-355A**

NOT TO SCALE

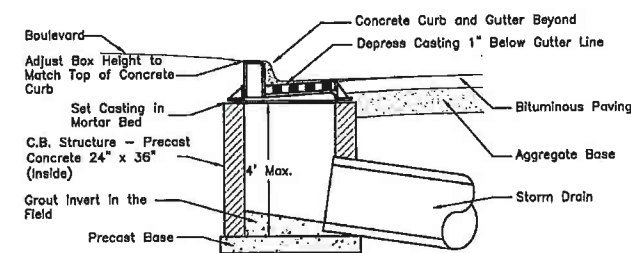


**CURB END DETAIL HL-380A**

NOT TO SCALE



**CATCH BASIN PLAN**

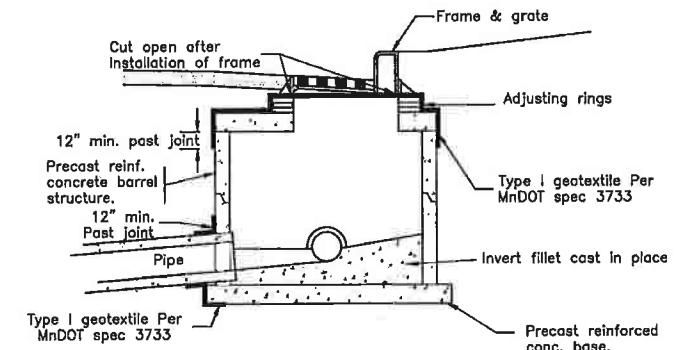


**SECTION A-A**

NOTE:  
1. 2 Min., 3 Max. Adjustment Rings  
2. Stagger on the adjustment rings not to exceed 3/4 inch total.

**RECTANGULAR CATCH BASIN HL-459B**

NOT TO SCALE

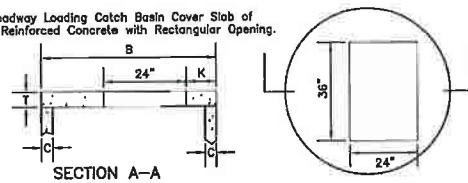


**SECTIONAL VIEW**

**FABRIC AROUND CATCH BASIN HL-463A1**

NOT TO SCALE

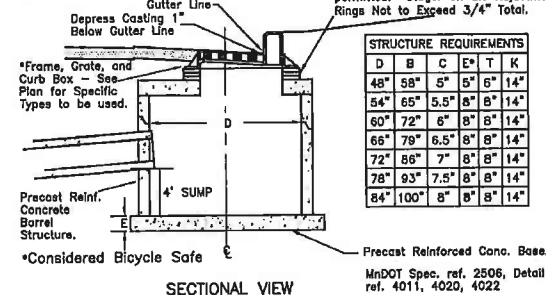
NOTE:  
HS20 Roadway Loading Catch Basin Cover Slab of Precast Reinforced Concrete with Rectangular Opening.



**SECTION A-A**

**PLAN OF COVER SLAB**

- Note:
- Steps needed for structure height greater than 4'.
  - Cover Slab to Rest on Bed of Mortar on Full Thickness of Structure Walls, not to Rest on Pipe Tongue or Groove.
  - Location of Structure as Shown in Plans.
  - See Plan for Box and Grate Type.



**SECTIONAL VIEW**

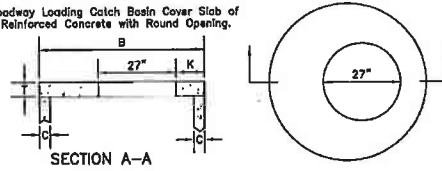
**RECTANGULAR INLET FOR ROUND MANHOLE HL-465A2**

NOT TO SCALE

STRUCTURE REQUIREMENTS					
D	B	C	E	T	K
48"	58"	5"	5"	6"	14"
54"	65"	5.5"	8"	8"	14"
60"	72"	6"	8"	8"	14"
66"	79"	6.5"	8"	8"	14"
72"	86"	7"	8"	8"	14"
78"	93"	7.5"	8"	8"	14"
84"	100"	8"	8"	8"	14"

4" SUMP  
Precast Reinforced Conc. Base.  
MnDOT Spec. ref. 2506, Detail ref. 4011, 4020, 4022

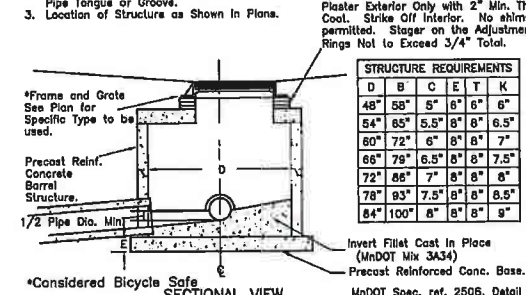
NOTE:  
HS20 Roadway Loading Catch Basin Cover Slab of Precast Reinforced Concrete with Round Opening.



**SECTION A-A**

**PLAN OF COVER SLAB**

- Note:
- Steps needed for structure height greater than 4'.
  - Cover Slab to Rest on Bed of Mortar on Full Thickness of Structure Walls, not to Rest on Pipe Tongue or Groove.
  - Location of Structure as Shown in Plans.



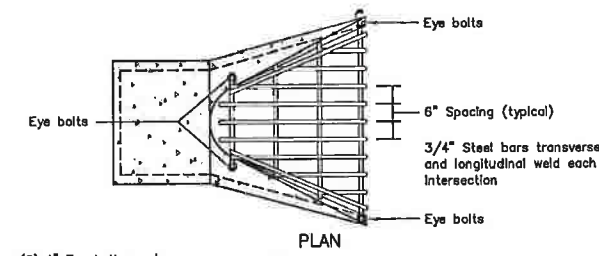
**SECTIONAL VIEW**

**ROUND MANHOLE HL-465C**

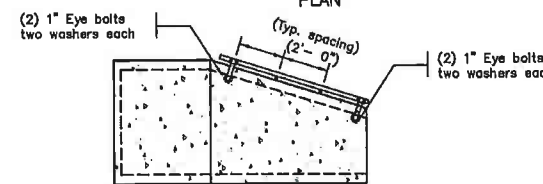
NOT TO SCALE

STRUCTURE REQUIREMENTS					
D	B	C	E	T	K
48"	58"	5"	5"	6"	8"
54"	65"	5.5"	8"	8"	8.5"
60"	72"	6"	8"	8"	7"
66"	79"	6.5"	8"	8"	7.5"
72"	86"	7"	8"	8"	8"
78"	93"	7.5"	8"	8"	8.5"
84"	100"	8"	8"	8"	9"

Invert Fillet Cast in Place (MnDOT Mix 3434)  
Precast Reinforced Conc. Base.  
MnDOT Spec. ref. 2506, Detail ref. 4011, 4020



**PLAN**



**ELEVATION**

- Note:
- Trash guard to be galvanized after fabrication
  - The size of each trash guard will vary to fit the apron size.
  - All bolts to be non-rusting stainless steel.
  - Weld all bolts to prevent entry after final storm sewer cleaning.
  - Round all steel bars such that ends are smooth and free of burrs.

**FOR PIPE DIAMETERS 30" AND SMALLER**

**RCP TRASH GUARD HL-466B**

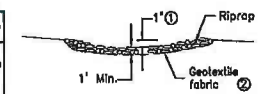
NOT TO SCALE

**TABLE OF QUANTITIES**  
Riprap at RCP Outlets

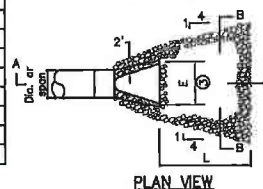
Dia. Pipe (in.)	L (ft.)	Class II	Class III	Class IV
		D <sub>50</sub> = 6"	D <sub>50</sub> = 9"	D <sub>50</sub> = 12"
Depth Riprap (Cu. Yd.)	Depth Riprap (Cu. Yd.)	Depth Riprap (Cu. Yd.)	Depth Riprap (Cu. Yd.)	Depth Riprap (Cu. Yd.)
12	8	3.0	4.4	5.9
15	8	3.2	4.8	6.4
18	10	4.3	6.4	8.5
21	10	4.7	7.1	9.4
24	12	6.2	9.2	12.3
27	12	6.6	9.9	13.2
30	14	8.2	12.3	16.4
36	16	10.6	15.8	21.1
42	18	12.5	18.7	24.9
48	20	14.8	22.2	29.6

**Riprap at RCPA Outlets**

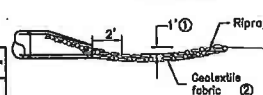
Span Pipe Arch (in.)	L (ft.)	Class II	Class III	Class IV
		D <sub>50</sub> = 6"	D <sub>50</sub> = 9"	D <sub>50</sub> = 12"
Depth Riprap (Cu. Yd.)	Depth Riprap (Cu. Yd.)	Depth Riprap (Cu. Yd.)	Depth Riprap (Cu. Yd.)	
22	10	4.1	6.1	8.1
28	12	5.7	8.5	11.3
36	14	7.5	11.2	14.9
43	16	9.5	14.3	19.0
51	18	11.3	16.9	22.5
58	20	13.2	19.8	26.4



**SEC. B-B**



**PLAN VIEW**



**SEC. A-A**

- Note:
- For pipes greater than or equal to 30" use 1.5'
  - Geotextile fabric, Spec. 3601. The fabric should cover the area of the riprap and extend under the culvert apron 3 feet.
  - Requirements for riprap size is shown in the plans.

**RIPRAP AT RCP OUTLETS HL-480A1**

NOT TO SCALE

**GENERAL NOTES**

1. THE INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF EXISTING UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO TYPE AND LOCATION OF UTILITIES AS NECESSARY TO AVOID DAMAGE TO THESE UTILITIES.
2. CALL "811" FOR EXISTING UTILITIES LOCATIONS PRIOR TO ANY EXCAVATIONS.
3. THE CONTRACTOR SHALL FIELD VERIFY SIZE, ELEVATION, AND LOCATION OF EXISTING UTILITIES AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO THE START OF INSTALLATIONS.
4. INSTALLATIONS SHALL CONFORM TO THE CITY STANDARD SPECIFICATIONS AND DETAIL PLATES.
5. STORAGE OF MATERIALS OR EQUIPMENT SHALL NOT BE ALLOWED ON PUBLIC STREETS OR WITHIN PUBLIC RIGHT-OF-WAY.
6. NOTIFY CITY AND COON CREEK WATERSHED DISTRICT (CCWD) A MINIMUM OF 48 HOURS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
7. ALL ELECTRIC, TELEPHONE, AND GAS EXTENSIONS INCLUDING SERVICE LINES SHALL BE CONSTRUCTED TO THE APPROPRIATE UTILITY COMPANY SPECIFICATIONS. ALL UTILITY DISCONNECTIONS SHALL BE COORDINATED WITH THE APPROPRIATE UTILITY COMPANY.

**STORM SEWER NOTES**

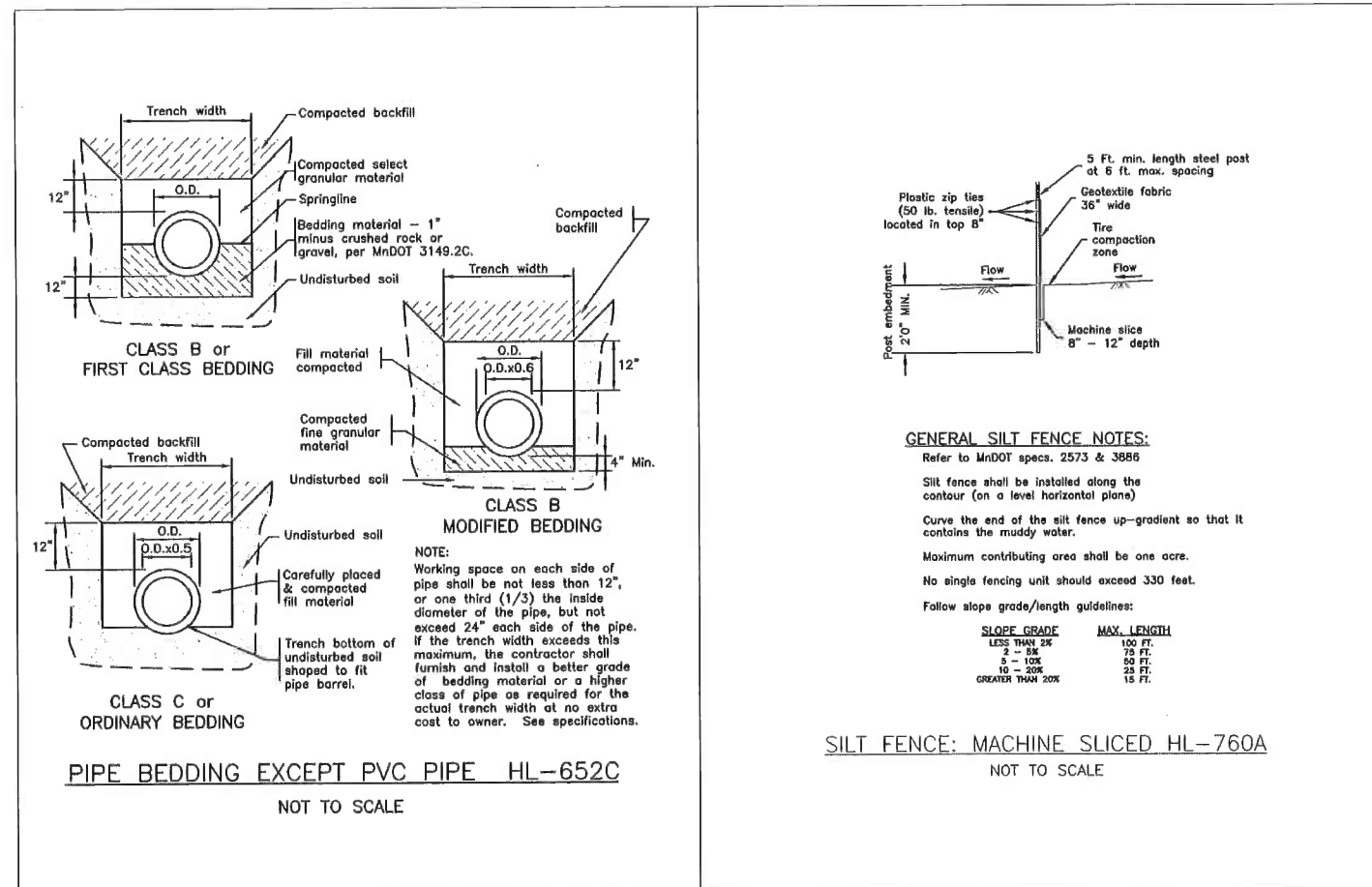
1. FIELD VERIFY SIZE, ELEVATION, AND LOCATION OF EXISTING STORM SEWER AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO ANY INSTALLATIONS.
2. STORM SEWER SHALL BE:
  - (A) REINFORCED CONCRETE PIPE (RCP) ANSI C76 WITH R-4 GASKETS.
  - (B) HDPE PIPE SHALL MEET THE REQUIREMENTS OF AASHTO M294, TYPE S WITH WATERTIGHT CONNECTIONS. USE SAND/GRANULAR MATERIAL FOR BACKFILLING AND COMPACTION OF HDPE/PVC PIPE IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM 2321.
3. DO NOT BACKFILL CATCH BASINS UNTIL FABRIC WRAP IS INSPECTED BY CITY.
4. TRASH GUARDS ARE REQUIRED FOR ALL FLARED-END SECTIONS LESS THAN 48" IN DIAMETER.
5. PROVIDE CLASS III RIP-RAP W/ FILTER FABRIC AT ALL PIPE OUTLETS.
6. TIE LAST THREE SECTION OF CONCRETE PIPE, INCLUDING APRON, FOR CONCRETE PIPES LESS THAN 48" IN DIAMETER.
7. STORM SEWER LENGTHS INCLUDE THE LAYING LENGTH OF THE FLARED-END SECTION. LAYING LENGTH OF FLARED-END SECTION TO BE DEDUCTED FROM PAYMENT LENGTH OF PIPE.
8. ARCH PIPE JOINTS MUST BE WRAPPED WITH FABRIC OR OTHER PROTECTION TO PREVENT SEDIMENT FROM ENTERING PIPE.
9. SEE SHEET C2.1 FOR STRUCTURE SCHEDULE.

**CURB & BITUMINOUS NOTES**

1. REMOVAL AND DISPOSAL OF EXISTING STREET MATERIALS AS REQUIRED FOR CONSTRUCTION IS CONSIDERED INCIDENTAL.
2. ALL MATCH POINTS AND PAVEMENT PATCHES TO BE SAW-CUT AT FULL DEPTH.
3. RESTORE DISTURBED STREET TO EXISTING OR BETTER SECTION.
4. BACKFILLING OF CURB IS INCIDENTAL TO CURB INSTALLATION.

**MISCELLANEOUS NOTES**

1. SEPTIC AND WELL DESIGN BY OTHERS.
2. SITE TOPOGRAPHY PROVIDED BY OTHERS.



7775 LAKE DRIVE  
 SUITE 110  
 LINO LAKES, MN 55914  
 PHONE: (651) 361-8210  
 FAX: (651) 361-8701

DRAWN BY: AS  
 CHECK BY: CWP  
 JOB NO: 22-2043  
 DATE: 02/15/23

NO.	DATE	DESCRIPTION
1	4-11-23	DIFF. & CCWD COMMENTS
2		
3		
4		
5		
6		
7		
8		

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.  
 ADAM CRANE  
 Date: 02/15/23 License No. 43863

HIDDEN FOREST EAST FOURTH ADDITION  
 CITY OF HAM LAKE, MINNESOTA  
 DETAILS  
 PREPARED FOR: HPN PROPERTIES, LLC

4.1 TERMINATION OF COVERAGE. [MINN. R. 7090]

- 4.2 PERMITTEES MUST SUBMIT A NOT WITHIN 30 DAYS AFTER ALL TERMINATION CONDITIONS LISTED IN SECTION 13 ARE COMPLETE. [MINN. R. 7090]
4.3 PERMITTEES MUST SUBMIT A NOT WITHIN 30 DAYS AFTER SELLING OR OTHERWISE LEGALLY TRANSFERRING THE ENTIRE SITE, INCLUDING PERMIT RESPONSIBILITY FOR ROADS (E.G., STREET SWEEPING) AND STORMWATER INFRASTRUCTURE FINAL CLEAN UP AND TRAFFIC CONTROL AT THE SITE TO ANOTHER PARTY. THE PERMITTEES' COVERAGE UNDER THIS PERMIT TERMINATES AT MIDNIGHT ON THE SUBMISSION DATE OF THE NOT. [MINN. R. 7090]
4.4 PERMITTEES MAY TERMINATE PERMIT COVERAGE PRIOR TO COMPLETION OF ALL CONSTRUCTION ACTIVITY IF THEY MEET ALL OF THE FOLLOWING CONDITIONS:
A. CONSTRUCTION ACTIVITY HAS CEASED FOR AT LEAST 90 DAYS; AND
B. AT LEAST 90 PERCENT (BY AREA) OF ALL ORIGINALLY PROPOSED CONSTRUCTION ACTIVITY HAS BEEN COMPLETED AND PERMANENT COVER HAS BEEN ESTABLISHED ON THOSE AREAS; AND
C. ON AREAS WHERE CONSTRUCTION ACTIVITY IS NOT COMPLETE, PERMANENT COVER HAS BEEN ESTABLISHED; AND
D. THE SITE COMPLIES WITH ITEM 13.3 THROUGH 13.7.

AFTER PERMIT COVERAGE IS TERMINATED UNDER THIS ITEM, ANY SUBSEQUENT DEVELOPMENT ON THE REMAINING PORTIONS OF THE SITE WILL REQUIRE PERMIT COVERAGE IF THE SUBSEQUENT DEVELOPMENT ITSELF OR AS PART OF THE REMAINING COMMON PLAN OF DEVELOPMENT OR SALE WILL RESULT IN LAND DISTURBING ACTIVITIES OF ONE (1) OR MORE ACRES IN SIZE. [MINN. R. 7090]

- 4.5 PERMITTEES MAY TERMINATE COVERAGE UPON MPCA APPROVAL AFTER SUBMITTING INFORMATION DOCUMENTING THE OWNER CANCELED THE PROJECT. [MINN. R. 7090]

6.1 SWPPP AMENDMENTS. [MINN. R. 7090]

- 6.2 ONE OF THE INDIVIDUALS DESCRIBED IN ITEM 21.2.A OR ITEM 21.2.B OR ANOTHER QUALIFIED INDIVIDUAL MUST COMPLETE ALL SWPPP CHANGES, CHANGES MAY BE MADE TO THE USE OF A LESS STRINGENT BMP MUST INCLUDE A JUSTIFICATION DESCRIBING HOW THE REPLACEMENT BMP IS EFFECTIVE FOR THE SITE CHARACTERISTICS. [MINN. R. 7090]
6.3 PERMITTEES MUST AMEND THE SWPPP TO INCLUDE ADDITIONAL OR MODIFIED BMPs AS NECESSARY TO CORRECT PROBLEMS IDENTIFIED OR ADDRESS SITUATIONS WHENEVER THERE IS A CHANGE IN DESIGN, CONSTRUCTION, OPERATION, MAINTENANCE, OR OTHER OPERATIONAL CONDITIONS HAVING A SIGNIFICANT EFFECT ON THE DISCHARGE OF POLLUTANTS TO SURFACE WATERS OR GROUNDWATER. [MINN. R. 7090]
6.4 PERMITTEES MUST AMEND THE SWPPP TO INCLUDE ADDITIONAL OR MODIFIED BMPs AS NECESSARY TO CORRECT PROBLEMS IDENTIFIED OR ADDRESS SITUATIONS WHENEVER INSPECTIONS OR INVESTIGATIONS BY THE SITE OWNER OR OPERATOR, USEPA OR MPCA OFFICIALS INDICATE THE SWPPP IS NOT EFFECTIVE IN ELIMINATING OR SIGNIFICANTLY MINIMIZING THE DISCHARGE OF POLLUTANTS TO SURFACE WATERS OR GROUNDWATER OR THE DISCHARGES ARE CAUSING WATER QUALITY STANDARD EXCEEDANCES (E.G., NUISANCE CONDITIONS AS DEFINED IN MINN. R. 7050.0210, SUBP. 2) OR THE SWPPP IS NOT CONSISTENT WITH THE OBJECTIVES OF A USEPA APPROVED TMDL. [MINN. R. 7050.0210]

7.1 BMP SELECTION AND INSTALLATION. [MINN. R. 7090]

7.2 PERMITTEES MUST SELECT, INSTALL, AND MAINTAIN THE BMPs IDENTIFIED IN THE SWPPP AND IN THIS PERMIT IN AN APPROPRIATE AND FUNCTIONAL MANNER AND IN ACCORDANCE WITH RELEVANT MANUFACTURER SPECIFICATIONS AND ACCEPTED ENGINEERING PRACTICES. [MINN. R. 7090]

8.1 EROSION PREVENTION PRACTICES. [MINN. R. 7090]

- 8.2 BEFORE WORK BEGINS, PERMITTEES MUST DELINEATE THE LOCATION OF AREAS NOT TO BE DISTURBED. [MINN. R. 7090]
8.3 PERMITTEES MUST MINIMIZE THE NEED FOR DISTURBANCE OF PORTIONS OF THE PROJECT WITH STEEP SLOPES. WHEN STEEP SLOPES MUST BE DISTURBED, PERMITTEES MUST USE TECHNIQUES SUCH AS PHASING AND STABILIZATION PRACTICES DESIGNED FOR STEEP SLOPES (E.G., SLOPE DRAINING AND TERRACING). [MINN. R. 7090]
8.4 PERMITTEES MUST STABILIZE ALL EXPOSED SOIL AREAS, INCLUDING STOCKPILES. STABILIZATION MUST BE INITIATED IMMEDIATELY TO LIMIT SOIL EROSION WHEN CONSTRUCTION OR TEMPORARILY CEASED ON ANY PORTION OF THE SITE AND WILL NOT RESUME FOR A PERIOD EXCEEDING 7 CALENDAR DAYS. STABILIZATION MUST BE COMPLETED NO LATER THAN 7 CALENDAR DAYS AFTER THE CONSTRUCTION ACTIVITY HAS CEASED. STABILIZATION IS NOT REQUIRED ON CONSTRUCTED BASE COMPONENTS OF ROADS, PARKING LOTS AND SIMILAR SURFACES. STABILIZATION IS NOT REQUIRED ON TEMPORARY STOCKPILES OR STOCKPILES OF SOILS, CLAY OR ORGANIC COMPONENTS (E.G., CLEAN AGGREGATE STOCKPILES, DEMOLITION CONCRETE STOCKPILES, SAND STOCKPILES) BUT PERMITTEES MUST PROVIDE SEDIMENT CONTROLS AT THE BASE OF THE STOCKPILE. [MINN. R. 7090]
8.5 FOR PUBLIC WATERS THAT THE MINNESOTA DNR HAS PROMULGATED "WORK IN WATER RESTRICTIONS" DURING SPECIFIC FISH SPAWNING TIME FRAMES, PERMITTEES MUST COMPLETE ALL WORK WITHIN 24 HOURS OF THE RESTRICTION PERIOD, MINN. R. 7090]
8.6 PERMITTEES MUST STABILIZE THE NORMAL WETTED PERIMETER OF THE LAST 200 LINEAR FEET OF TEMPORARY OR PERMANENT DRAINAGE DITCHES OR SWALES THAT DRAIN WATER FROM THE SITE WITHIN 24 HOURS AFTER CONNECTING TO A SURFACE WATER OR PROPERTY EDGE. PERMITTEES MUST COMPLETE STABILIZATION OF REMAINING PORTIONS OF TEMPORARY OR PERMANENT DITCHES OR SWALES WITHIN 7 CALENDAR DAYS AFTER CONNECTING TO A SURFACE WATER OR PROPERTY EDGE AND CONSTRUCTION IN THAT PORTION OF THE DITCH TEMPORARILY OR PERMANENTLY CEASES. [MINN. R. 7090]
8.7 TEMPORARY OR PERMANENT DITCHES OR SWALES BEING USED AS A SEDIMENT CONTAINMENT SYSTEM DURING CONSTRUCTION WITH PROPERLY DESIGNED ROCK-DITCH CHECKS, BIG ROLLS, SILT DIKES, ETC.) DO NOT NEED TO BE STABILIZED. PERMITTEES MUST STABILIZE THESE AREAS WITHIN 24 HOURS AFTER THEIR USE AS A SEDIMENT CONTAINMENT SYSTEM CEASES. [MINN. R. 7090]
8.8 PERMITTEES MUST NOT USE MULCH, HYDROMULCH, TACKIFIER, POLYACRYLAMIDE OR SIMILAR EROSION PREVENTION PRACTICES WITHIN AN EROSION CONTROL PERIMETER OF TEMPORARY OR PERMANENT DRAINAGE DITCH OR SWALE SECTION WITH A CONTINUOUS SLOPE OF GREATER THAN 2 PERCENT. [MINN. R. 7090]
8.9 PERMITTEES MUST PROVIDE TEMPORARY OR PERMANENT ENERGY DISSIPATION AT ALL PIPE OUTLETS WITHIN 24 HOURS AFTER CONNECTION TO A SURFACE WATER OR PERMANENT STORMWATER TREATMENT SYSTEM. [MINN. R. 7090]
8.10 PERMITTEES MUST NOT DISTURB MORE LAND (I.E., PHASING) THAN CAN BE EFFECTIVELY INSPECTED AND MAINTAINED IN ACCORDANCE WITH SECTION 11. [MINN. R. 7090]

9.1 SEDIMENT CONTROL PRACTICES. [MINN. R. 7090]

- 9.2 PERMITTEES MUST ESTABLISH SEDIMENT CONTROL BMPs ON ALL DOWNGRADIENT PERIMETERS OF THE SITE AND DOWNGRADIENT AREAS OF THE SITE THAT DRAIN TO ANY SURFACE WATER, INCLUDING CURB AND GUTTER SYSTEMS. PERMITTEES MUST LOCATE SEDIMENT CONTROL PRACTICES UPGRADIENT OF ANY BUFFER ZONES. PERMITTEES MUST INSTALL SEDIMENT CONTROL PRACTICES BEFORE ANY UPGRADIENT LAND-DISTURBING ACTIVITIES BEGIN AND MUST KEEP THE SEDIMENT CONTROL PRACTICES IN PLACE UNTIL THEY ESTABLISH PERMANENT COVER. [MINN. R. 7090]
9.3 IF DOWNGRADIENT SEDIMENT CONTROLS ARE OVERLOADED, BASED ON FREQUENT FAILURE OR EXCESSIVE MAINTENANCE REQUIREMENTS, PERMITTEES MUST INSTALL ADDITIONAL UPGRADIENT SEDIMENT CONTROL PRACTICES OR REDUNDANT BMPs TO PREVENT OVERLOADING AND AMEND THE SWPPP TO IDENTIFY THESE ADDITIONAL PRACTICES AS REQUIRED IN ITEM 6.3. [MINN. R. 7090]
9.4 TEMPORARY OR PERMANENT DRAINAGE DITCHES AND SEDIMENT BASINS DESIGNED AS PART OF A SEDIMENT CONTAINMENT SYSTEM (E.G., DITCHES WITH ROCK-CHECK DAMS) REQUIRE SEDIMENT CONTROL PRACTICES ONLY AS APPROPRIATE FOR SITE CONDITIONS. [MINN. R. 7090]
9.5 A FLOATING SILT CURTAIN PLACED IN THE WATER IS NOT A SEDIMENT CONTROL BMP TO SATISFY ITEM 9.2 EXCEPT WHEN WORKING ON A SHORING OR BELOW THE WATERLINE. IMMEDIATELY AFTER THE SHORT TERM CONSTRUCTION ACTIVITY (E.G., INSTALLATION OF RIP RAP ALONG THE SHORELINE) IN THAT AREA IS COMPLETE, PERMITTEES MUST INSTALL AN UPLAND PERIMETER CONTROL PRACTICE IF EXPOSED SOILS SILT DRAIN TO A SURFACE WATER. [MINN. R. 7090]
9.6 PERMITTEES MUST RE-INSTALL ALL SEDIMENT CONTROL PRACTICES ADJUSTED OR REMOVED TO ACCOMMODATE SHORT-TERM ACTIVITIES SUCH AS CLEARING OR GRUBBING, OR PASSAGE OF VEHICLES, IMMEDIATELY AFTER THE SHORT-TERM ACTIVITY IS COMPLETE. PERMITTEES MUST RE-INSTALL SEDIMENT CONTROL PRACTICES BEFORE THE NEXT PRECIPITATION EVENT EVEN IF THE SHORT-TERM ACTIVITY IS NOT COMPLETE. [MINN. R. 7090]
9.7 PERMITTEES MUST PROTECT ALL STORM DRAIN INLETS USING APPROPRIATE BMPs DURING CONSTRUCTION UNTIL THEY ESTABLISH PERMANENT COVER ON ALL AREAS WITH POTENTIAL FOR DISCHARGING TO THE INLET. [MINN. R. 7090]
9.8 PERMITTEES MAY REMOVE INLET PROTECTION FOR A PARTICULAR INLET IF A SPECIFIC SAFETY CONCERN (E.G. STREET FLOODING/FREEZING) IS IDENTIFIED BY THE PERMITTEE OR THE JURISDICTIONAL AUTHORITY (E.G., CITY/COUNTY/TOWNSHIP/MINNESOTA DEPARTMENT OF TRANSPORTATION ENGINEER). PERMITTEES MUST DOCUMENT THE NEED FOR REMOVAL IN THE SWPPP. [MINN. R. 7090]
9.9 PERMITTEES MUST PROVIDE SILT FENCE OR OTHER EFFECTIVE SEDIMENT CONTROLS AT THE BASE OF STOCKPILES ON THE DOWNGRADIENT PERIMETER. [MINN. R. 7090]
9.10 PERMITTEES MUST LOCATE STOCKPILES OUTSIDE OF NATURAL BUFFERS OR SURFACE WATERS, INCLUDING STORMWATER CONVEYANCES SUCH AS CURB AND GUTTER SYSTEMS UNLESS THERE IS A BYPASS IN PLACE FOR THE STORMWATER. [MINN. R. 7090]
9.11 PERMITTEES MUST INSTALL A VEHICLE TRACKING BMP TO MINIMIZE THE TRACK OUT OF SEDIMENT FROM THE CONSTRUCTION SITE OR ONTO PAVED ROADS WITHIN THE SITE. [MINN. R. 7090]
9.12 PERMITTEES MUST USE STREET SWEEPING IF VEHICLE TRACKING BMPs ARE NOT ADEQUATE TO PREVENT SEDIMENT TRACKING OUT TO THE STREET. [MINN. R. 7090]
9.13 PERMITTEES MUST INSTALL TEMPORARY SEDIMENT BASINS AS REQUIRED IN SECTION 14. [MINN. R. 7090]
9.14 IN ANY AREAS OF THE SITE WHERE FINAL VEGETATIVE STABILIZATION WILL OCCUR, PERMITTEES MUST RESTRICT VEHICLE AND EQUIPMENT USE TO MINIMIZE SOIL COMPACTION. [MINN. R. 7090]
9.15 PERMITTEES MUST PRESERVE TOPSOIL ON THE SITE, UNLESS INFEASIBLE. [MINN. R. 7090]
9.16 PERMITTEES MUST DIRECT DISCHARGES FROM BMPs TO VEGETATED AREAS UNLESS INFEASIBLE. [MINN. R. 7090]
9.17 PERMITTEES MUST PRESERVE A 50 FOOT NATURAL BUFFER OR, IF A BUFFER IS INFEASIBLE ON THE SITE, PROVIDE REDUNDANT (DOUBLE) PERIMETER SEDIMENT CONTROLS WHEN A SURFACE WATER IS LOCATED WITHIN 50 FEET OF THE PROJECT'S EARTH DISTURBANCES AND STORMWATER FLOWS TO THE SURFACE WATER. PERMITTEES MUST INSTALL PERIMETER SEDIMENT CONTROLS AT LEAST 5 FEET APART UNLESS LIMITED BY AN AVAILABLE SPACE. NATURAL BUFFERS ARE NOT REQUIRED ADJACENT TO ROAD DITCHES, JUDICIAL DITCHES, COUNTY DITCHES, STORMWATER CONVEYANCE CHANNELS, STORM DRAIN INLETS, AND SEDIMENT BASINS. IF PRESERVING THE BUFFER IS INFEASIBLE, PERMITTEES MUST DOCUMENT THE REASONS IN THE SWPPP, SHEET PILING IS A REDUNDANT PERIMETER CONTROL IF INSTALLED IN A MANNER THAT RETAINS ALL STORMWATER. [MINN. R. 7090]
9.18 PERMITTEES MUST USE POLYMERS, FLOCCULANTS, OR OTHER SEDIMENTATION TREATMENT CHEMICALS IN ACCORDANCE WITH ACCEPTED ENGINEERING PRACTICES, DOSING SPECIFICATIONS AND SEDIMENT REMOVAL DESIGN SPECIFICATIONS PROVIDED BY THE MANUFACTURER OR SUPPLIER. THE PERMITTEES MUST USE CONVENTIONAL EROSION AND SEDIMENT CONTROLS PRIOR TO CHEMICAL ADDITION AND MUST DIRECT TREATED STORMWATER TO A SEDIMENT CONTROL SYSTEM FOR FILTRATION OR SETTLEMENT OF THE FLOC PRIOR TO DISCHARGE. [MINN. R. 7090]

10.1 DEWATERING AND BASIN DRAINING. [MINN. R. 7090]

- 10.2 PERMITTEES MUST DISCHARGE TURBID OR SEDIMENT-LADEN WATERS RELATED TO DEWATERING OR BASIN DRAINING (E.G., PUMPED DISCHARGES, TRENCH/DITCH CUTS FOR DRAINAGE) TO A TEMPORARY OR PERMANENT SEDIMENT BASIN ON THE PROJECT SITE UNLESS AN AREA WHERE PERMITTEES MAY CONVERT A TEMPORARY SEDIMENT BASIN TO A PERMANENT BASIN AFTER CONSTRUCTION IS COMPLETE. THE TEMPORARY BASIN IS NO LONGER REQUIRED WHEN PERMANENT COVER HAS REDUCED THE ACREAGE OF DISTURBED SOIL TO LESS THAN TEN (10) ACRES DRAINING TO A COMMON LOCATION. [MINN. R. 7090]
10.3 THE TEMPORARY BASIN MUST PROVIDE LIVE STORAGE FOR A CALCULATED VOLUME OF RUNOFF FROM A TWO (2)-YEAR, 24-HOUR STORMWATER EVENT DRAINING TO THE BASIN OR 1,800 CUBIC FEET OF LIVE STORAGE PER ACRE DRAINING, WHICHEVER IS GREATER. [MINN. R. 7090]
10.4 WHERE PERMITTEES HAVE NOT CALCULATED THE TWO (2)-YEAR, 24-HOUR STORM RUNOFF AMOUNT, THE TEMPORARY BASIN MUST PROVIDE 3,600 CUBIC FEET OF LIVE STORAGE PER ACRE OF THE BASIN'S DRAINAGE AREA. [MINN. R. 7090]
10.5 PERMITTEES MUST DESIGN BASIN OUTLETS TO PREVENT SHORT-CIRCUITING AND THE DISCHARGE OF FLOATING DEBRIS. [MINN. R. 7090]
10.6 PERMITTEES MUST DESIGN THE OUTLET STRUCTURE TO WITHDRAW WATER FROM THE SURFACE TO MINIMIZE THE DISCHARGE OF POLUTANTS. PERMITTEES MAY TEMPORARILY SUSPEND THE USE OF A SURFACE WITHDRAWAL MECHANISM DURING FROZEN CONDITIONS. THE BASIN MUST INCLUDE A STABILIZED EMERGENCY OVERTFLOW TO PREVENT FAILURE OF POND INTEGRITY. [MINN. R. 7090]
10.7 PERMITTEES MUST PROVIDE ENERGY DISSIPATION FOR THE BASIN OUTLET WITHIN 24 HOURS AFTER CONNECTION TO A SURFACE WATER. [MINN. R. 7090]
10.8 PERMITTEES MUST LOCATE TEMPORARY BASINS OUTSIDE OF SURFACE WATERS AND ANY BUFFER ZONE REQUIRED IN ITEM 23.1.1. [MINN. R. 7090]
10.9 PERMITTEES MUST CONSTRUCT THE TEMPORARY BASINS PRIOR TO DISTURBING 0 OR MORE ACRES OF SOIL DRAINING TO A COMMON LOCATION. [MINN. R. 7090]
10.10 WHERE A TEMPORARY SEDIMENT BASIN MEETING THE REQUIREMENTS OF ITEM 14.3 THROUGH 14.3 IS INFEASIBLE, PERMITTEES MUST INSTALL EFFECTIVE SEDIMENT CONTROLS SUCH AS SMALLER SEDIMENT BASINS AND/OR SEDIMENT TRAPS, SILT FENCES, VEGETATIVE BUFFER STRIPS OR ANY APPROPRIATE COMBINATION OF MEASURES AS DESCRIBED BY INDIVIDUAL SITE CONDITIONS. IN DETERMINING WHETHER A SEDIMENT BASIN IS INFEASIBLE, PERMITTEES MUST CONSIDER PUBLIC SAFETY AND MAY CONSIDER FACTORS SUCH AS SITE SOILS, SLOPE, AND AVAILABLE AREA ON-SITE. PERMITTEES MUST DOCUMENT THIS DETERMINATION OF INFEASIBILITY IN THE SWPPP. [MINN. R. 7090]

11.1 INSPECTIONS AND MAINTENANCE. [MINN. R. 7090]

- 11.2 PERMITTEES MUST ENSURE A TRAINED PERSON, AS IDENTIFIED IN ITEM 21.2.B, WILL INSPECT THE ENTIRE CONSTRUCTION SITE AT LEAST ONCE EVERY SEVEN (7) DAYS DURING ACTIVE CONSTRUCTION AND WITHIN 24 HOURS AFTER A RAINFALL EVENT GREATER THAN 1/2 INCH IN 24 HOURS. [MINN. R. 7090]
11.3 PERMITTEES MUST INSPECT AND MAINTAIN ALL PERMANENT STORMWATER TREATMENT BMPs. [MINN. R. 7090]
11.4 PERMITTEES MUST INSPECT ALL EROSION PREVENTION AND SEDIMENT CONTROL BMPs AND POLLUTION PREVENTION MANAGEMENT MEASURES TO ENSURE INTEGRITY AND EFFECTIVENESS. PERMITTEES MUST REPAIR, REPLACE OR SUPPLEMENT ALL NONFUNCTIONAL BMPs WITH FUNCTIONAL BMPs BY THE END OF THE NEXT BUSINESS DAY AFTER DISCOVERY UNLESS ANOTHER TIME FRAME IS SPECIFIED IN ITEM 11.5 OR 11.6. PERMITTEES MAY TAKE ADDITIONAL TIME IF FIELD CONDITIONS PREVENT ACCESS TO THE BMP. [MINN. R. 7090]
11.5 DURING EACH INSPECTION, PERMITTEES MUST INSPECT SURFACE WATERS, INCLUDING DRAINAGE DITCHES AND CONVEYANCE SYSTEMS BUT NOT CURB AND GUTTER SYSTEMS, FOR EVIDENCE OF EROSION AND SEDIMENT DEPOSITION. PERMITTEES MUST REMOVE ALL DELTAS AND SEDIMENT DEPOSITED IN SURFACE WATERS, INCLUDING DRAINAGE WAYS, CATCH BASINS, AND OTHER DRAINAGE SYSTEMS AND RESTABILIZE THE AREAS WHERE SEDIMENT REMOVAL RESULTS IN EXPOSED SOIL. PERMITTEES MUST COMPLETE REMOVAL AND STABILIZATION WITHIN SEVEN (7) CALENDAR DAYS OF DISCOVERY UNLESS PRECLUDED BY LEGAL, REGULATORY, OR PHYSICAL ACCESS CONSTRAINTS. PERMITTEES MUST USE ALL REASONABLE EFFORTS TO OBTAIN ACCESS. IF PRECLUDED, REMOVAL AND STABILIZATION MUST TAKE PLACE WITHIN SEVEN (7) DAYS OF OBTAINING ACCESS. PERMITTEES ARE RESPONSIBLE FOR CONTACTING ALL LOCAL, REGIONAL, STATE AND FEDERAL AUTHORITIES AND RECEIVING ANY APPLICABLE PERMITS, PRIOR TO CONDUCTING ANY WORK IN SURFACE WATERS. [MINN. R. 7090]
11.6 PERMITTEES MUST INSPECT CONSTRUCTION SITE VEHICLE EXIT LOCATIONS, STREETS AND CURB AND GUTTER SYSTEMS WITHIN AND ADJACENT TO THE PROJECT FOR SEDIMENTATION FROM EROSION OR TRACKED SEDIMENT FROM VEHICLES. PERMITTEES MUST REPAIR OR REPLACE ALL PAVED SURFACES WITHIN ONE (1) CALENDAR DAY OF DISCOVERY OR, IF APPLICABLE, WITHIN A SHORTER TIME TO AVOID A SAFETY HAZARD TO USERS OF PUBLIC STREETS. [MINN. R. 7090]
11.7 PERMITTEES MUST REPAIR, REPLACE OR SUPPLEMENT ALL PERIMETER CONTROL DEVICES WHEN THEY BECOME NONFUNCTIONAL OR THE SEDIMENT REACHES 1/2 OF THE HEIGHT OF THE DEVICE. [MINN. R. 7090]
11.8 PERMITTEES MUST DRAIN TEMPORARY AND PERMANENT SEDIMENTATION BASINS AND REMOVE THE SEDIMENT WHEN THE DEPTH OF SEDIMENT COLLECTED IN THE BASIN REACHES 1/2 THE STORAGE VOLUME. [MINN. R. 7090]
11.9 PERMITTEES MUST ENSURE THAT AT LEAST ONE INDIVIDUAL PRESENT ON THE SITE (OR AVAILABLE TO THE PROJECT SITE IN THREE (3) CALENDAR DAYS) MUST BE TRAINED IN THE SWPPP. [MINN. R. 7090]
11.10 PERMITTEES MAY ADJUST THE INSPECTION SCHEDULE DESCRIBED IN ITEM 11.2 AS FOLLOWS:
A. INSPECTIONS OF AREAS WITH PERMANENT COVER CAN BE REDUCED TO ONCE PER MONTH, EVEN IF CONSTRUCTION ACTIVITY CONTINUES ON OTHER PORTIONS OF THE SITE; OR
B. WHERE SITES HAVE PERMANENT COVER ON ALL EXPOSED SOIL AND NO CONSTRUCTION ACTIVITY IS OCCURRING ANYWHERE ON THE SITE, INSPECTIONS CAN BE REDUCED TO ONCE PER MONTH AND, AFTER 12 MONTHS, MAY BE SUSPENDED COMPLETELY UNTIL CONSTRUCTION ACTIVITY RESUMES. THE MPCA MAY REQUIRE INSPECTIONS TO RESUME TEMPORARILY TO VERIFY THE EFFECTIVENESS OF THE SWPPP; OR
C. WHERE CONSTRUCTION ACTIVITY HAS BEEN SUSPENDED DUE TO FROZEN GROUND CONDITIONS, INSPECTIONS MAY BE SUSPENDED. INSPECTIONS MUST RESUME WITHIN 24 HOURS OF RAINFALL OCCURRING, OR UPON RESUMING CONSTRUCTION, WHICHEVER COMES FIRST. [MINN. R. 7090]
11.11 PERMITTEES MUST RECORD ALL INSPECTIONS AND MAINTENANCE ACTIVITIES WITHIN 24 HOURS OF BEING CONDUCTED AND THESE RECORDS MUST BE RETAINED WITH THE SWPPP. THESE RECORDS MUST INCLUDE:
A. DATE AND TIME OF INSPECTIONS; AND
B. NAME OF PERSONS CONDUCTING INSPECTIONS; AND
C. ACCURATE FINDINGS OF INSPECTIONS, INCLUDING THE SPECIFIC LOCATION WHERE CORRECTIVE ACTIONS ARE NEEDED; AND
D. CORRECTIVE ACTIONS TAKEN (INCLUDING DATES, TIMES, AND PARTY COMPLETING MAINTENANCE ACTIVITIES); AND
E. DATE OF ALL RAINFALL EVENTS GREATER THAN 1/2 INCHES IN 24 HOURS, AND THE AMOUNT OF RAINFALL FOR EACH EVENT. PERMITTEES MUST OBTAIN RAINFALL AMOUNTS BY EITHER A PROPERLY MAINTAINED RAIN GAUGE INSTALLED ON-SITE, A WEATHER STATION THAT IS WITHIN ONE (1) MILE OF YOUR LOCATION, OR A WEATHER REPORTING SYSTEM THAT PROVIDES SITE SPECIFIC RAINFALL DATA FROM RADAR SUMMARIES; AND
F. IF PERMITTEES OBSERVE A DISCHARGE DURING THE INSPECTION, THEY MUST RECORD AND SHOULD PHOTOGRAPH AND DESCRIBE THE NATURE OF THE DISCHARGE (I.E., COLOR, ODOR, SETTLED OR SUSPENDED SOLIDS, OIL SHEEN, AND OTHER OBVIOUS INDICATORS OF POLLUTANTS); AND
G. ANY AMENDMENTS TO THE SWPPP PROPOSED AS A RESULT OF THE INSPECTION MUST BE DOCUMENTED AS REQUIRED IN SECTION 6 WITHIN SEVEN (7) CALENDAR DAYS. [MINN. R. 7090]

12.1 POLLUTION PREVENTION MANAGEMENT MEASURES. [MINN. R. 7090]

- 12.2 PERMITTEES MUST PLACE BUILDING PRODUCTS AND LANDSCAPE MATERIALS UNDER COVER (E.G., PLASTIC SHEETING OR TEMPORARY ROOFS) OR PROTECT THEM BY SIMILARLY EFFECTIVE MEANS DESIGNED TO MINIMIZE CONTACT WITH STORMWATER. PERMITTEES ARE NOT REQUIRED TO COVER OR PROTECT PRODUCTS WHICH ARE EITHER NOT A SOURCE OF CONTAMINATION TO STORMWATER OR ARE DESIGNED TO BE EXPOSED TO STORMWATER. [MINN. R. 7090]
12.3 PERMITTEES MUST PLACE PESTICIDES, FERTILIZERS AND TREATMENT CHEMICALS UNDER COVER (E.G., PLASTIC SHEETING OR TEMPORARY ROOFS) OR PROTECT THEM BY SIMILARLY EFFECTIVE MEANS DESIGNED TO MINIMIZE CONTACT WITH STORMWATER. [MINN. R. 7090]
12.4 PERMITTEES MUST STORE HAZARDOUS MATERIALS AND TOXIC WASTE, INCLUDING OIL, DIESEL FUEL, GASOLINE, HYDRAULIC FLUIDS, PAINT SOLVENTS, PETROLEUM-BASED PRODUCTS, WOOD PRESERVATIVES, ADDITIVES, CURING COMPOUNDS, AND ACIDS IN SEALED CONTAINERS TO PREVENT SPILLS, LEAKS OR OTHER DISCHARGE. STORAGE AND DISPOSAL OF HAZARDOUS WASTE MATERIALS MUST BE IN COMPLIANCE WITH MINN. R. CH. 7045 INCLUDING SECONDARY CONTAINMENT AS REQUIRED. [MINN. R. 7090]
12.5 PERMITTEES MUST PROPERLY STORE, COLLECT AND DISPOSE SOLID WASTE IN COMPLIANCE WITH MINN. R. CH. 7035. [MINN. R. 7035]
12.6 PERMITTEES MUST POSITION PORTABLE TOILETS SO THEY ARE SECURE AND WILL NOT TIP OR BE KNOCKED OVER. PERMITTEES MUST PROPERLY DISPOSE SANITARY WASTE IN ACCORDANCE WITH MINN. R. CH. 7041. [MINN. R. 7041]
12.7 PERMITTEES MUST TAKE REASONABLE STEPS TO PREVENT THE DISCHARGE OF SPILLED OR LEAKED CHEMICALS, INCLUDING FUEL, FROM ANY AREA WHERE CHEMICALS OR FUEL WILL BE LOADED OR UNLOADED INCLUDING THE USE OF DRIP PANS OR ABSORBENTS UNLESS INFEASIBLE. PERMITTEES MUST ENSURE ADEQUATE SUPPLIES ARE AVAILABLE AT ALL TIMES TO CLEAN UP DISCHARGED MATERIALS AND THAT AN APPROPRIATE DISPOSAL METHOD IS AVAILABLE FOR RECOVERED SPILLED MATERIALS. PERMITTEES MUST REPORT AND CLEAN UP SPILLS IMMEDIATELY AS REQUIRED BY MINN. STAT. 115.051, USING DRY CLEAN UP MEASURES WHERE POSSIBLE. [MINN. STAT. 115.051]
12.8 PERMITTEES MUST LIMIT VEHICLE EXTERIOR WASHING AND EQUIPMENT TO A DEFINED AREA OF THE SITE. PERMITTEES MUST CONTAIN RUNOFF FROM THE WASHING AREA IN A SEDIMENT BASIN OR OTHER SIMILARLY EFFECTIVE CONTROLS AND MUST DISPOSE WASTE FROM THE WASHING ACTIVITY PROPERLY. PERMITTEES MUST PROPERLY USE AND STORE SOAPS, DETERGENTS, OR SOLVENTS. [MINN. R. 7090]
12.9 PERMITTEES MUST PROVIDE EFFECTIVE CONTAINMENT FOR ALL LIQUID AND SOLID WASTES GENERATED BY WASHOUT OPERATIONS (E.G., CONCRETE, STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS AND OTHER CONSTRUCTION MATERIALS) RELATED TO THE CONSTRUCTION ACTIVITY. PERMITTEES MUST PREVENT LIQUID AND SOLID WASHOUT WASTES FROM CONTACTING THE GROUND AND MUST DESIGN THE CONTAINMENT SO IT DOES NOT RESULT IN RUNOFF FROM THE WASHOUT OPERATIONS OR AREAS. PERMITTEES MUST PROPERLY DISPOSE LIQUID AND SOLID WASTES IN COMPLIANCE WITH MPCA RULES. PERMITTEES MUST INSTALL A SIGN INDICATING THE LOCATION OF THE WASHOUT FACILITY. [MINN. R. 7035, MINN. R. 7090]

13.1 PERMIT TERMINATION CONDITIONS. [MINN. R. 7090]

- 13.2 PERMITTEES MUST COMPLETE ALL CONSTRUCTION ACTIVITY AND MUST INSTALL PERMANENT COVER OVER ALL AREAS PRIOR TO SUBMITTING THE NOT. VEGETATIVE COVER MUST CONSIST OF A UNIFORM PERENNIAL VEGETATION WITH A DENSITY OF 70 PERCENT OF ITS EXPECTED FINAL GROWTH. VEGETATION IS NOT REQUIRED WHERE THE FUNCTION OF A SPECIFIC AREA DICTATES NO VEGETATION, SUCH AS IMPERVIOUS SURFACES OR THE BASE OF A SAND FILTER. [MINN. R. 7090]
13.3 PERMITTEES MUST CLEAN THE PERMANENT STORMWATER TREATMENT SYSTEM OR ANY UNCALCULATED SEDIMENT AND WASHOUT OPERATIONS AREAS. PERMITTEES MUST PROPERLY DISPOSE LIQUID AND SOLID WASTES IN COMPLIANCE WITH MPCA RULES. PERMITTEES MUST INSTALL A SIGN INDICATING THE LOCATION OF THE WASHOUT FACILITY. [MINN. R. 7035, MINN. R. 7090]
13.4 PERMITTEES MUST REMOVE ALL SEDIMENT FROM CONVEYANCE SYSTEMS PRIOR TO SUBMITTING THE NOT. [MINN. R. 7090]
13.5 PERMITTEES MUST REMOVE ALL TEMPORARY SYNTHETIC EROSION PREVENTION AND SEDIMENT CONTROL BMPs PRIOR TO SUBMITTING THE NOT. PERMITTEES MAY LEAVE BMPs DESIGNED TO DECOMPOSE ON-SITE IN PLACE. [MINN. R. 7090]
13.6 FOR RESIDENTIAL CONSTRUCTION ONLY, PERMIT COVERAGE TERMINATES ON INDIVIDUAL LOTS IF THE STRUCTURES ARE FINISHED AND TEMPORARY EROSION PREVENTION AND DOWNGRADIENT PERIMETER CONTROL IS COMPLETE. THE RESIDENCE SELLS TO THE HOMEOWNER, AND THE PERMITTEE DISTRIBUTES THE MPCA'S "HOMEOWNER FACT SHEET" TO THE HOMEOWNER. [MINN. R. 7090]
13.7 FOR CONSTRUCTION PROJECTS ON AGRICULTURAL LAND (E.G., PIPELINES ACROSS CROPLAND), PERMITTEES MUST RETURN THE DISTURBED LAND TO ITS PRECONSTRUCTION AGRICULTURAL USE PRIOR TO SUBMITTING THE NOT. [MINN. R. 7090]

14.1 TEMPORARY SEDIMENT BASINS. [MINN. R. 7090]

- 14.2 WHERE TEN (10) OR MORE ACRES OF DISTURBED SOIL DRAIN TO A COMMON LOCATION, PERMITTEES MUST PROVIDE A TEMPORARY SEDIMENT BASIN TO PROVIDE TREATMENT OF THE RUNOFF BEFORE IT LEAVES THE CONSTRUCTION SITE OR ENTERS SURFACE WATERS. PERMITTEES MAY CONVERT A TEMPORARY SEDIMENT BASIN TO A PERMANENT BASIN AFTER CONSTRUCTION IS COMPLETE. THE TEMPORARY BASIN IS NO LONGER REQUIRED WHEN PERMANENT COVER HAS REDUCED THE ACREAGE OF DISTURBED SOIL TO LESS THAN TEN (10) ACRES DRAINING TO A COMMON LOCATION. [MINN. R. 7090]
14.3 THE TEMPORARY BASIN MUST PROVIDE LIVE STORAGE FOR A CALCULATED VOLUME OF RUNOFF FROM A TWO (2)-YEAR, 24-HOUR STORMWATER EVENT DRAINING TO THE BASIN OR 1,800 CUBIC FEET OF LIVE STORAGE PER ACRE DRAINING, WHICHEVER IS GREATER. [MINN. R. 7090]
14.4 WHERE PERMITTEES HAVE NOT CALCULATED THE TWO (2)-YEAR, 24-HOUR STORM RUNOFF AMOUNT, THE TEMPORARY BASIN MUST PROVIDE 3,600 CUBIC FEET OF LIVE STORAGE PER ACRE OF THE BASIN'S DRAINAGE AREA. [MINN. R. 7090]
14.5 PERMITTEES MUST DESIGN BASIN OUTLETS TO PREVENT SHORT-CIRCUITING AND THE DISCHARGE OF FLOATING DEBRIS. [MINN. R. 7090]
14.6 PERMITTEES MUST DESIGN THE OUTLET STRUCTURE TO WITHDRAW WATER FROM THE SURFACE TO MINIMIZE THE DISCHARGE OF POLUTANTS. PERMITTEES MAY TEMPORARILY SUSPEND THE USE OF A SURFACE WITHDRAWAL MECHANISM DURING FROZEN CONDITIONS. THE BASIN MUST INCLUDE A STABILIZED EMERGENCY OVERTFLOW TO PREVENT FAILURE OF POND INTEGRITY. [MINN. R. 7090]
14.7 PERMITTEES MUST PROVIDE ENERGY DISSIPATION FOR THE BASIN OUTLET WITHIN 24 HOURS AFTER CONNECTION TO A SURFACE WATER. [MINN. R. 7090]
14.8 PERMITTEES MUST LOCATE TEMPORARY BASINS OUTSIDE OF SURFACE WATERS AND ANY BUFFER ZONE REQUIRED IN ITEM 23.1.1. [MINN. R. 7090]
14.9 PERMITTEES MUST CONSTRUCT THE TEMPORARY BASINS PRIOR TO DISTURBING 0 OR MORE ACRES OF SOIL DRAINING TO A COMMON LOCATION. [MINN. R. 7090]
14.10 WHERE A TEMPORARY SEDIMENT BASIN MEETING THE REQUIREMENTS OF ITEM 14.3 THROUGH 14.3 IS INFEASIBLE, PERMITTEES MUST INSTALL EFFECTIVE SEDIMENT CONTROLS SUCH AS SMALLER SEDIMENT BASINS AND/OR SEDIMENT TRAPS, SILT FENCES, VEGETATIVE BUFFER STRIPS OR ANY APPROPRIATE COMBINATION OF MEASURES AS DESCRIBED BY INDIVIDUAL SITE CONDITIONS. IN DETERMINING WHETHER A SEDIMENT BASIN IS INFEASIBLE, PERMITTEES MUST CONSIDER PUBLIC SAFETY AND MAY CONSIDER FACTORS SUCH AS SITE SOILS, SLOPE, AND AVAILABLE AREA ON-SITE. PERMITTEES MUST DOCUMENT THIS DETERMINATION OF INFEASIBILITY IN THE SWPPP. [MINN. R. 7090]

15.1 PERMANENT STORMWATER TREATMENT SYSTEM. [MINN. R. 7090]

- 15.2 PERMITTEES MUST DESIGN THE PROJECT SO ALL STORMWATER DISCHARGED FROM THE PROJECT DURING AND AFTER CONSTRUCTION ACTIVITIES DOES NOT CAUSE A VIOLATION OF STATE WATER QUALITY STANDARDS, INCLUDING NUISANCE CONDITIONS, EROSION IN RECEIVING CHANNELS OR ON DOWNSLOPE PROPERTIES, OR A SIGNIFICANT ADVERSE IMPACT TO WETLANDS CAUSED BY INUNDATION OR DECREASE OF FLOW. [MINN. R. 7090]
15.3 PERMITTEES MUST DESIGN AND CONSTRUCT A PERMANENT STORMWATER TREATMENT SYSTEM TO TREAT THE WATER QUALITY VOLUME IF THE PROJECT'S ULTIMATE DEVELOPMENT REPLACES VEGETATION AND/OR OTHER PVIOUS SURFACES CREATING A NET INCREASE OF ONE (1) OR MORE ACRES OF CUMULATIVE IMPERVIOUS SURFACE. [MINN. R. 7090]
15.4 PERMITTEES MUST CALCULATE THE WATER QUALITY VOLUME AS ONE (1) INCH TIMES THE NET INCREASE OF IMPERVIOUS SURFACES CREATED BY THE PROJECT. [MINN. R. 7090]
15.5 PERMITTEES MUST FIRST CONSIDER VOLUME REDUCTION PRACTICES ON-SITE (E.G., INFILTRATION OR OTHER) WHEN DESIGNING THE PERMANENT STORMWATER TREATMENT SYSTEM. IF THE PERMIT PROHIBITS INFILTRATION AS DESCRIBED IN ITEM 15.4 THROUGH ITEM 15.7, PERMITTEES MUST CONSIDER VOLUME REDUCTION PRACTICES FIRST AS DESCRIBED IN ITEM 15.5. IF PERMITTEES CANNOT OBTAIN ADDITIONAL RIGHT-OF-WAY, EASEMENT OR OTHER PERMISSION, THEY MUST MAXIMIZE THE TREATMENT OF THE WATER QUALITY VOLUME PRIOR TO DISCHARGE TO SURFACE WATERS. [MINN. R. 7090]
15.6 FOR PROJECTS WHERE THE FULL VOLUME REDUCTION REQUIREMENT CANNOT BE MET ON-SITE, (E.G., THE SITE HAS INFILTRATION PROHIBITIONS), PERMITTEES MUST DOCUMENT THE REASONS IN THE SWPPP. [MINN. R. 7090]
15.7 PERMITTEES MUST DISCHARGE THE WATER QUALITY VOLUME TO A PERMANENT STORMWATER TREATMENT SYSTEM PRIOR TO DISCHARGE TO A SURFACE WATER. FOR PURPOSES OF THIS ITEM, SURFACE WATERS DO NOT INCLUDE MAN-MADE DRAINAGE SYSTEMS THAT CONVEY STORMWATER TO A PERMANENT STORMWATER TREATMENT SYSTEM. [MINN. R. 7090]
15.8 WHERE THE PROXIMITY TO BEDROCK PRECLUDES THE INSTALLATION OF ANY OF THE PERMANENT STORMWATER TREATMENT PRACTICES REQUIRED BY SECTIONS 15 THROUGH 19, PERMITTEES MUST INSTALL OTHER TREATMENT SUCH AS GRASSED SWALES, SMALLER POUNDS, OR GRIT CHAMBERS, PRIOR TO THE DISCHARGE OF STORMWATER TO SURFACE WATERS. [MINN. R. 7090]
15.9 FOR LINEAR PROJECTS WHERE PERMITTEES CANNOT TREAT THE ENTIRE WATER QUALITY VOLUME WITHIN THE EXISTING RIGHT-OF-WAY, PERMITTEES MUST MAKE A REASONABLE ATTEMPT TO OBTAIN ADDITIONAL RIGHT-OF-WAY, EASEMENT OR OTHER PERMISSION FOR STORMWATER TREATMENT DURING THE PROJECT PLANNING PROCESS. DOCUMENTATION OF THESE ATTEMPTS MUST BE IN THE SWPPP. PERMITTEES MUST CONSIDER VOLUME REDUCTION PRACTICES FIRST AS DESCRIBED IN ITEM 15.5. IF PERMITTEES CANNOT OBTAIN ADDITIONAL RIGHT-OF-WAY, EASEMENT OR OTHER PERMISSION, THEY MUST MAXIMIZE THE TREATMENT OF THE WATER QUALITY VOLUME PRIOR TO DISCHARGE TO SURFACE WATERS. [MINN. R. 7090]

16.1 INFILTRATION SYSTEMS. [MINN. R. 7090]

- 16.2 INFILTRATION OPTIONS INCLUDE, BUT ARE NOT LIMITED TO: INFILTRATION BASINS, INFILTRATION TRENCHES, RAINWATER GARDENS, BIOTREATMENT AREAS WITHOUT UNDERDRAINS, SWALES WITH IMPERMEABLE CHECK DAMS, AND NATURAL DEPRESSIONS. IF PERMITTEES UTILIZE AN INFILTRATION SYSTEM TO MEET THE REQUIREMENTS OF THIS PERMIT, THEY MUST INCORPORATE THE DESIGN PARAMETERS IN ITEM 16.3 THROUGH ITEM 16.21. PERMITTEES MUST FOLLOW THE INFILTRATION PROVISIONS IN ITEM 16.4 ANYTIME AN INFILTRATION SYSTEM IS DESIGNED, INCLUDING THOSE NOT REQUIRED BY THIS PERMIT. [MINN. R. 7090]
16.3 PERMITTEES MUST DESIGN INFILTRATION SYSTEMS SUCH THAT PRE-EXISTING HYDROLOGIC CONDITIONS OF WETLANDS IN THE VICINITY ARE NOT IMPACTED (E.G., INUNDATION OR BREACHING A PERCHED WATER TABLE SUPPORTING A WETLAND). [MINN. R. 7090]
16.4 PERMITTEES MUST NOT EXCAVATE INFILTRATION SYSTEMS TO FINAL GRADE, OR WITHIN THREE (3) FEET OF FINAL GRADE, UNTIL THE CONTRIBUTING DRAINAGE AREA HAS BEEN CONSTRUCTED AND FULLY STABILIZED UNLESS THEY PROVIDE RIGOROUS EROSION PREVENTION AND SEDIMENT CONTROLS (E.G., DIVERSION BERMS) TO KEEP SEDIMENT AND RUNOFF COMPLETELY AWAY FROM THE INFILTRATION AREA. [MINN. R. 7090]
16.5 WHEN EXCAVATING AN INFILTRATION SYSTEM TO WITHIN THREE (3) FEET OF FINAL GRADE, PERMITTEES MUST STAKE OFF AND MARK THE AREA SO HEAVY CONSTRUCTION VEHICLES OR EQUIPMENT DO NOT COMPACT THE SOIL IN THE INFILTRATION AREA. [MINN. R. 7090]
16.6 PERMITTEES MUST USE A PRETREATMENT DEVICE SUCH AS A VEGETATED FILTER STRIP, FOREBAY, OR WATER QUALITY INLET (E.G., GRIT CHAMBER) TO REMOVE SOLIDS, FLOATING MATERIALS, AND OIL AND GREASE FROM THE RUNOFF, TO THE MAXIMUM EXTENT PRACTICABLE, BEFORE THE SYSTEM ROUTES STORMWATER TO THE INFILTRATION SYSTEM. [MINN. R. 7090]
16.7 PERMITTEES MUST DESIGN INFILTRATION SYSTEMS TO PROVIDE A WATER QUALITY VOLUME (CALCULATED AS AN INSTANTANEOUS VOLUME) OF ONE (1) INCH OF RUNOFF, OR ONE (1) INCH MINUS THE VOLUME OF STORMWATER TREATED BY ANOTHER SYSTEM ON THE SITE, FROM THE NET INCREASE OF IMPERVIOUS SURFACES CREATED BY THE PROJECT. [MINN. R. 7090]
16.8 PERMITTEES MUST DESIGN THE INFILTRATION SYSTEM TO DISCHARGE ALL STORMWATER (INCLUDING STORMWATER IN EXCESS OF THE WATER QUALITY VOLUME) ROUTED TO THE SYSTEM THROUGH THE UPPERMOST SOIL SURFACE OR ENGINEERED MEDIA SURFACE WITHIN 48 HOURS AFTER DISCHARGE. PERMITTEES MUST NOT ALLOW FLOWS THAT CANNOT INFILTRATE WITHIN 48 HOURS TO BYPASS THE SYSTEM THROUGH A STABILIZED DISCHARGE POINT. [MINN. R. 7090]
16.9 PERMITTEES MUST PROVIDE A MEANS TO VISUALLY VERIFY THE INFILTRATION SYSTEM IS DISCHARGING THROUGH THE SOIL SURFACE OR FILTER MEDIA SURFACE WITHIN 48 HOURS OR LESS. [MINN. R. 7090]
16.10 PERMITTEES MUST PROVIDE AT LEAST ONE SOIL BORING, TEST PIT OR INFILTRATER TEST IN THE LOCATION OF THE INFILTRATION PRACTICE FOR DETERMINING INFILTRATION RATES. [MINN. R. 7090]
16.11 FOR DESIGN PURPOSES, PERMITTEES MUST PROVIDE FIELD MEASURED INFILTRATION RATES BY 2 AS A SAFETY FACTOR OR PERMITTEES CAN USE SOIL BORING INFILTRATION RATE CHART IN THE MINNESOTA STORMWATER MANUAL TO DETERMINE DESIGN INFILTRATION RATES. WHEN SOIL BORINGS INDICATE TYPE A SOILS, PERMITTEES SHOULD PERFORM FIELD MEASUREMENTS TO VERIFY THE RATE IS NOT ABOVE 0.3 INCHES PER HOUR. THIS PERMIT PROHIBITS INFILTRATION IF THE FIELD MEASURED INFILTRATION RATE IS ABOVE 0.3 INCHES PER HOUR. [MINN. R. 7090]
16.12 PERMITTEES MUST EMPLOY APPROPRIATE ON-SITE TESTING TO ENSURE A MINIMUM OF THREE (3) FEET OF SEPARATION FROM THE SEASONALLY SATURATED SOILS (OR FROM BEDROCK) AND THE BOTTOM OF THE PROPOSED INFILTRATION SYSTEM. [MINN. R. 7090]
16.13 PERMITTEES MUST DESIGN A MAINTENANCE ACCESS, TYPICALLY EIGHT (8) FEET WIDE, FOR THE INFILTRATION SYSTEM. [MINN. R. 7090]
16.14 THIS PERMIT PROHIBITS PERMITTEES FROM CONSTRUCTING INFILTRATION SYSTEMS THAT RECEIVE RUNOFF FROM VEHICLE FUELING AND MAINTENANCE AREAS INCLUDING CONSTRUCTION OF INFILTRATION SYSTEMS NOT REQUIRED BY THIS PERMIT. [MINN. R. 7090]
16.15 THIS PERMIT PROHIBITS PERMITTEES FROM CONSTRUCTING INFILTRATION SYSTEMS WHERE INFILTRATING STORMWATER MAY MOBILIZE HIGH LEVELS OF CONTAMINANTS IN SOIL OR GROUNDWATER. PERMITTEES MUST EITHER COMPLETE THE MPCA'S CONTAMINATION SCREENING CHECKLIST OR CONDUCT THEIR OWN ASSESSMENT TO DETERMINE THE SUITABILITY OF INFILTRATION. PERMITTEES MUST RETAIN THE INFILTRATION RATE CHART IN THE SWPPP. FOR MORE INFORMATION AND TO ACCESS THE MPCA'S "CONTAMINATION SCREENING CHECKLIST" SEE THE MINNESOTA STORMWATER MANUAL. [MINN. R. 7090]
16.16 THIS PERMIT PROHIBITS PERMITTEES FROM CONSTRUCTING INFILTRATION SYSTEMS IN AREAS WHERE SOIL INFILTRATION RATES ARE FIELD MEASURED TO BE LESS THAN 0.3 INCHES PER HOUR UNLESS THEY AMEND SOILS TO SLOW THE INFILTRATION RATE BELOW 8.3 INCHES PER HOUR. [MINN. R. 7090]
16.17 THIS PERMIT PROHIBITS PERMITTEES FROM CONSTRUCTING INFILTRATION SYSTEMS IN AREAS WITH LESS THAN THREE (3) FEET OF SEPARATION DISTANCE FROM THE BOTTOM OF THE INFILTRATION SYSTEM TO THE ELEVATION OF THE SEASONALLY SATURATED SOILS OR THE TOP OF BEDROCK. [MINN. R. 7090]
16.18 THIS PERMIT PROHIBITS PERMITTEES FROM CONSTRUCTING INFILTRATION SYSTEMS IN AREAS OF PREDOMINATELY HYDROLOGIC SOIL GROUP TYPE D SOILS (CLAY). [MINN. R. 7090]
16.19 THIS PERMIT PROHIBITS PERMITTEES FROM CONSTRUCTING INFILTRATION SYSTEMS WITHIN A DRINKING WATER SUPPLY MANAGEMENT AREA (DWSMA) AS DEFINED IN MINN. R. 4720.5100, SUBP. 13. IF THE SYSTEM WILL BE LOCATED:
A. IN AN EMERGENCY RESPONSE AREA (ERA) WITHIN A DWSMA CLASSIFIED AS HAVING HIGH OR VERY HIGH VULNERABILITY AS DEFINED BY THE MINNESOTA DEPARTMENT OF HEALTH; OR
B. IN AN ERA WITHIN A DWSMA CLASSIFIED AS MODERATE VULNERABILITY UNLESS A REGULATED MSA PERMITTEE PERFORMED OR APPROVED A HIGHER LEVEL OF ENGINEERING REVIEW SUFFICIENT TO PROVIDE A FUNCTIONING INFILTRATION SYSTEM THAT PREVENTS ADVERSE IMPACTS TO GROUNDWATER; OR
C. OUTSIDE OF AN ERA WITHIN A DWSMA CLASSIFIED AS HAVING HIGH OR VERY HIGH VULNERABILITY, UNLESS A REGULATED MSA PERMITTEE PERFORMED OR APPROVED A HIGHER LEVEL OF ENGINEERING REVIEW SUFFICIENT TO PROVIDE A FUNCTIONING TREATMENT SYSTEM AND TO PREVENT ADVERSE IMPACTS TO GROUNDWATER.

SEE "HIGHER LEVEL OF ENGINEERING REVIEW" IN THE MINNESOTA STORMWATER MANUAL FOR MORE INFORMATION. [MINN. R. 7090]
16.20 THIS PERMIT PROHIBITS PERMITTEES FROM CONSTRUCTING INFILTRATION SYSTEMS IN AREAS WITHIN 1,000 FEET UPGRADE OR 100 FEET DOWNGRADENT OF ACTIVE KARST FEATURES. [MINN. R. 70

PROJECT NAME  
HIDDEN FOREST EAST FOURTH ADDITION

PROJECT LOCATION  
\*\* NO ASSIGNED ADDRESS \*\*  
STUTZ ST NE @ 145TH AVE NE  
(EAST OF LEXINGTON AVE NE)  
HAM LAKE, MN 55304  
ANOKA COUNTY

LATITUDE: 45.23986  
LONGITUDE: -93.13870

DEVELOPER  
HFN PROPERTIES, LLC  
1740 WARD LAKE DR NW  
ANDOVER, MN 55304  
CONTACT NAME: JEFF STALLBERGER  
CONTACT PHONE: (612) 778-4471  
CONTACT E-MAIL: jstallb@hfn.com

GENERAL CONTRACTOR  
TBD

NARRATIVE - PERMANENT STORMWATER TREATMENT SYSTEMS  
SEVERAL POND ARE PROPOSED TO MEETING STORMWATER MANAGEMENT REQUIREMENTS. SEE "STORMWATER DRAINAGE REPORT" FOR FURTHER DISCUSSION AND INFORMATION.

TABLE: SITE IMPERVIOUS AREAS. Columns: BEFORE CONSTRUCTION, AFTER CONSTRUCTION. Rows: TOTAL SITE AREA, TOTAL ESTIMATED IMPERVIOUS, TOTAL ESTIMATED PERVIOUS.

TOTAL DISTURBED AREA  
39.9 ACRES

MAP WITH EXISTING AND FINAL GRADES AND DESIGN CALCULATIONS  
SEE "STORMWATER DRAINAGE REPORT" FOR EXISTING AND PROPOSED AREA MAPS, DENOTING DRAINAGE AREA BOUNDARIES, DIRECTIONS OF FLOW, AND DISCHARGE POINTS WHERE STORMWATER LEAVES THE SITE.

TABLE: RECEIVING WATERS WITHIN ONE MILE. Columns: NAME OF WATER BODY, TYPE OF WATER BODY, SPECIAL WATER, IMPAIRED WATER. Rows: UNNAMED WETLANDS, UNNAMED DITCH, COUNTY DITCH NO. 44, CARLOS AVERY, COON CREEK.

BUFFER TO SURFACE WATER  
IF THE SITE DRAINS TO A SURFACE WATER, IS A 50-FT NATURAL BUFFER ADJACENT TO THE SURFACE WATER PRESERVED?

NOTE: NATURAL BUFFERS ARE NOT REQUIRED ADJACENT TO ROAD DITCHES, JUDICIAL DITCHES, COUNTY DITCHES, STORMWATER CONVEYANCE CHANNELS, STORM DRAIN INLETS, AND SEDIMENT BASINS.

TEMPORARY SEDIMENTATION BASINS  
IF TEN (10) OR MORE ACRES OF DISTURBED SOIL DRAIN TO A COMMON LOCATION, IS A TEMPORARY SEDIMENT BASIN PROVIDED FOR TREATMENT OF THE RUNOFF BEFORE IT LEAVES THE CONSTRUCTION SITE OR ENTERS SURFACE WATERS?

INFILTRATION FEASIBILITY  
ARE THERE ANY INFILTRATION RESTRICTIONS FOR THE SITE (SEE 16.14 THROUGH 16.21)?

ADDITIONAL STORMWATER MITIGATION MEASURES  
ARE THERE ANY STORMWATER MITIGATION MEASURES PER:  
• ENVIRONMENTAL REVIEW DOCUMENT?  
• ENDANGERED SPECIES REVIEW?  
• ARCHAEOLOGICAL REVIEW?  
• OTHER LOCAL, STATE OR FEDERAL REVIEW?

IF YES TO ANY OF THE ABOVE, DESCRIBE THE MITIGATION MEASURES. FOR PURPOSES OF THIS PERMIT, MITIGATION MEASURES MEANS ACTIONS NECESSARY TO AVOID, MINIMIZE, OR MITIGATE FOR IMPACTS RELATED TO EROSION PREVENTION, SEDIMENT CONTROL, THE PERMANENT STORMWATER TREATMENT SYSTEM, POLLUTION PREVENTION MANAGEMENT MEASURES AND DISCHARGES ASSOCIATED WITH THE PROJECT'S CONSTRUCTION ACTIVITY. [MINN. R. 7090]

DOCUMENTATION OF TRAINED INDIVIDUALS

A. INDIVIDUAL WHO PREPARED THE SWPPP:

ADAM GINKEL  
PLOWE ENGINEERING, INC.  
6776 LAKE DRIVE  
LINO LAKES MN 55014  
(651) 361-8234  
adam@plowe.com

B. INDIVIDUAL(S) OVERSEEING IMPLEMENTATION OF, REVISING AND/OR AMENDING THE SWPPP AND INDIVIDUALS PERFORMING INSPECTIONS FOR THE PROJECT. ONE OF THESE INDIVIDUALS MUST BE AVAILABLE FOR AN ONSITE INSPECTION WITHIN 72 HOURS UPON REQUEST BY THE MPCA. [MINN. R. 7090]

TBD - WHEN INFORMATION BECOMES AVAILABLE, CONTRACTOR TO PROVIDE INFORMATION TO CITY OF HAM LAKE AND CCWD & UPDATED SWPPP ACCORDINGLY

C. INDIVIDUAL(S) PERFORMING OR SUPERVISING THE INSTALLATION, MAINTENANCE AND REPAIR OF BMPs. [MINN. R. 7090]

TBD - WHEN INFORMATION BECOMES AVAILABLE, CONTRACTOR TO PROVIDE INFORMATION TO CITY OF HAM LAKE AND CCWD & UPDATED SWPPP ACCORDINGLY

LONG TERM OPERATION AND MAINTENANCE OF PERMANENT STORMWATER FACILITIES

THE PROPOSED STORMWATER MANAGEMENT FEATURES FOR THIS SITE INCLUDES STORMWATER PONDS - THESE WILL BE OPERATED AND MAINTAINED BY THE CITY OF HAM LAKE.

REVEGETATION SPECIFICATIONS

TABLE: REVEGETATION SPECIFICATIONS. Columns: ITEM, MNDOT SPECIFICATION/NOTES. Rows: SOD, SEED, FOR TURF ESTABLISHMENT, TEMPORARY FALL COVER, SPRING/SUMMER SOIL-BUILDING COVER, MULCH, HYDROMULCH, FERTILIZER, WOOD FIBER BLANKET.

\* MOW A MINIMUM OF: RESIDENTIAL TURF - ONCE PER 2 WEEKS, COMMERCIAL TURF - ONCE PER 4 WEEKS  
\*\* SEEDED AREAS SHALL BE EITHER MULCHED OR COVERED BY FIBROUS BLANKETS TO PROTECT SEEDS AND LIMIT EROSION.

QUANTITIES - ESTIMATED QUANTITIES FOR EROSION AND SEDIMENT CONTROL MEASURES

TABLE: QUANTITIES - ESTIMATED QUANTITIES FOR EROSION AND SEDIMENT CONTROL MEASURES. Columns: TYPE, QTY, UNIT. Rows: SILT FENCE, BID-ROLLS, RIP-RAP W. GEO-FABRIC, CATCH BASIN INLET PROTECTION, STABILIZED (SODDED) OVERFLOW, EROSION CONTROL BLANKET, SEED & MULCH (GENERAL), ROCK CONSTRUCTION ENTRANCE.

NARRATIVE - TIMING FOR INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES

- 1. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN AND SWPPP MUST BE AVAILABLE ON THE PROJECT SITE AT ALL TIMES.
- 2. CONTRACTOR SHALL INSTALL SILT FENCE AS SHOWN ON PLAN.
- 2.1. ADDITIONAL SILT FENCE MAY BE NECESSARY IF LOCAL CONDITIONS REQUIRE.
- 2.2. THE CONTRACTOR SHALL MAINTAIN SILT FENCE, INCLUDING THE REMOVAL OF ACCUMULATED SEDIMENT, THROUGH COMPLETION OF BUILDING CONSTRUCTION.
- 2.3. SILT FENCE SHALL REMAIN IN PLACE UNTIL SITE HAS BEEN STABILIZED.
- 3. CONTRACTOR SHALL INSTALL A ROCK CONSTRUCTION ENTRANCE AT ALL LOCATIONS WHERE CONSTRUCTION TRAFFIC WILL ENTER/EXIT SITE.
- 4. CONTRACTOR TO INSTALL TREE PROTECTION FENCING AS APPLICABLE.
- 5. CONTRACTOR SHALL PERFORM SITE GRADING ON AN AREA-BY-AREA BASIS TO MINIMIZE UNSTABILIZED AREAS.
- 5.1. CONTRACTOR MUST IMMEDIATELY INITIATE STABILIZATION OF EXPOSED SOIL AREAS, AS DESCRIBED IN ITEM 8.4 OF THE PERMIT, AND COMPLETE THE STABILIZATION WITHIN SEVEN (7) CALENDAR DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE TEMPORARILY OR PERMANENTLY CEASES.
- 5.2. CONTRACTOR TO PROVIDE TEMPORARY SEDIMENTATION BASINS AS REQUIRED IN SECTION 14.1 THROUGH 14.10.
- 6. CONTRACTOR TO SHALL PAY SPECIAL ATTENTION TO ADJACENT PROPERTY LINES TO ENSURE THE EROSION CONTROL PRACTICES INPLACE IN THOSE AREAS PREVENT MIGRATION OF SEDIMENT ONTO ADJACENT PROPERTIES.
- 7. ALL EROSION AND SEDIMENT CONTROL MEASURES SHOWN ON THE PLANS OR IMPLEMENTED IN THE FIELD SHALL BE IN ACCORDANCE WITH THE CITY AND NPDES PHASE II PERMIT REQUIREMENTS.
- 8. CONTRACTOR TO PROVIDE ADDITIONAL SILT FENCE, BIDROLLS, EROSION CONTROL BLANKET, OR OTHER APPROVED EQUAL FOR ANY SLOPES THAT APPEAR TO BE FAILING.
- 9. CONTRACTOR TO STABILIZE SOIL STOCKPILES; STABILIZATION SHALL BE INITIATED IMMEDIATELY.
- 10. CONTRACTOR SHALL FINAL GRADE SWALE AREAS UPON STABILIZATION OF UPSTREAM AREAS.
- 11. CONTRACTOR SHALL BE RESPONSIBLE TO SWEEP/SCRAPE ADJACENT STREETS WHEN MATERIALS OR DEBRIS HAVE WASHED/FLOWED ONTO ADJACENT STREETS OR AS DIRECTED BY CITY.
- 12. COORDINATE SMALL UTILITIES INSTALLATIONS (GAS, PHONE, ELECTRIC, CABLE, FIBEROPTIC, ETC.) AFTER CURB & GUTTER INSTALLATION.

IF DEWATERING IS REQUIRED, THE CONTRACTOR SHALL APPLY FOR A MN DNR DEWATERING PERMIT AND PROVIDE WELL-FIELD LOCATIONS, RATES, DISCHARGE LOCATIONS, SCHEDULE AND QUANTITIES TO CCWD A MINIMUM OF SEVEN (7) DAYS PRIOR TO DEWATERING OPERATIONS.

NPDES DEFINITIONS

"BEST MANAGEMENT PRACTICES (BMPs)" MEANS THE MOST EFFECTIVE AND PRACTICABLE MEANS OF EROSION PREVENTION AND SEDIMENT CONTROL, AND WATER QUALITY MANAGEMENT PRACTICES THAT ARE THE MOST EFFECTIVE AND PRACTICABLE MEANS OF TO CONTROL, PREVENT, AND MINIMIZE DEGRADATION OF SURFACE WATER, INCLUDING AVOIDANCE OF IMPACTS, CONSTRUCTION PHASING, MINIMIZING THE LENGTH OF TIME SOIL AREAS ARE EXPOSED, PROHIBITIONS, POLLUTION PREVENTION THROUGH GOOD HOUSEKEEPING, AND OTHER MANAGEMENT PRACTICES PUBLISHED BY STATE OR DESIGNATED AREA-WIDE PLANNING AGENCIES. [MINN. R. 7090]

"CONSTRUCTION ACTIVITY" MEANS ACTIVITIES INCLUDING CLEARING, GRADING, AND EXCAVATING, THAT RESULT IN LAND DISTURBANCE OF EQUAL TO OR GREATER THAN ONE ACRE, INCLUDING THE DISTURBANCE OF LESS THAN ONE ACRE OF TOTAL LAND AREA THAT IS PART OF A LARGER COMMON PLAN OF DEVELOPMENT OR SALE IF THE LARGER COMMON PLAN WILL ULTIMATELY DISTURB EQUAL TO OR GREATER THAN ONE ACRE. THIS INCLUDES A DISTURBANCE TO THE LAND THAT RESULTS IN A CHANGE IN THE TOPOGRAPHY, EXISTING SOIL COVER, BOTH VEGETATIVE AND NONVEGETATIVE, OR THE EXISTING SOIL TOPOGRAPHY THAT MAY RESULT IN ACCELERATED STORMWATER RUNOFF THAT MAY LEAD TO SOIL EROSION AND MOVEMENT OF SEDIMENT. CONSTRUCTION ACTIVITY DOES NOT INCLUDE A DISTURBANCE TO THE LAND OF LESS THAN FIVE ACRES FOR THE PURPOSE OF ROUTINE MAINTENANCE PERFORMED TO MAINTAIN THE ORIGINAL LINE AND GRADE, HYDRAULIC CAPACITY, AND ORIGINAL PURPOSE OF THE FACILITY. ROUTINE MAINTENANCE DOES NOT INCLUDE ACTIVITIES SUCH AS REPAIRS, REPLACEMENT AND OTHER TYPES OF NON-ROUTINE MAINTENANCE. PAVEMENT REHABILITATION THAT DOES NOT DISTURB THE UNDERLYING SOILS (E.G., MILL AND OVERLAY PROJECTS) IS NOT CONSTRUCTION ACTIVITY. [MINN. R. 7090]

"DEWATERING" MEANS THE REMOVAL OF SURFACE OR GROUND WATER TO DRY AND/OR SOLIDIFY A CONSTRUCTION SITE TO ENABLE CONSTRUCTION ACTIVITY. DEWATERING MAY REQUIRE A MINNESOTA DEPARTMENT OF NATURAL RESOURCES WATER APPROPRIATION PERMIT AND, IF DEWATERING WATER IS CONTAMINATED, DISCHARGE OF SUCH WATER MAY REQUIRE AN INDIVIDUAL MPCA NPDES/SDS PERMIT. [MINN. R. 7090]

"EROSION PREVENTION" MEANS MEASURES EMPLOYED TO PREVENT EROSION SUCH AS SOIL STABILIZATION PRACTICES, PERMANENT COVER OR CONSTRUCTION PHASING. [MINN. R. 7090]

"GENERAL CONTRACTOR" MEANS THE PARTY WHO SIGNS THE CONSTRUCTION CONTRACT WITH THE OWNER TO CONSTRUCT THE ENTIRE PROJECT DESCRIBED IN THE FINAL PLANS AND SPECIFICATIONS, WHERE THE CONSTRUCTION PROJECT INVOLVES MORE THAN ONE CONTRACTOR. THE GENERAL CONTRACTOR IS THE PARTY RESPONSIBLE FOR MANAGING THE ENTIRE PROJECT ON BEHALF OF THE OWNER. IN SOME CASES, THE OWNER IS THE GENERAL CONTRACTOR. IN THESE CASES, THE OWNER SIGNS THE PERMIT APPLICATION AS THE OPERATOR AND BECOMES THE SOLE PERMITTEE. [MINN. R. 7090]

"GROUNDWATER" MEANS THE WATER CONTAINED BELOW THE SURFACE OF THE EARTH IN THE SATURATED ZONE INCLUDING, WITHOUT LIMITATION, ALL WATERS WHETHER UNDER CONFINED, UNCONFINED, OR PERCHED CONDITIONS, IN NEAR SURFACE UNCONSOLIDATED SEDIMENT OR REGOLITH, OR IN ROCK FORMATIONS DEEPER UNDERGROUND. [MINN. R. 7090]

"HOMEOWNER FACT SHEET" MEANS AN MPCA FACT SHEET AVAILABLE ON THE MPCA CONSTRUCTION STORMWATER WEBSITE FOR PERMITTEES TO GIVE TO HOMEOWNERS AT THE TIME OF SALE. [MINN. R. 7090]

"INFEASIBLE" MEANS NOT TECHNOLOGICALLY POSSIBLE OR NOT ECONOMICALLY PRACTICABLE AND ACHIEVABLE IN LIGHT OF THE BEST INDUSTRY PRACTICES. [MINN. R. 7090]

"INITIATED IMMEDIATELY" MEANS TAKING AN ACTION TO COMMENCE SOIL STABILIZATION AS SOON AS PRACTICABLE, BUT NO LATER THAN THE END OF THE WORK DAY, FOLLOWING THE DAY WHEN THE LAND-DISTURBING ACTIVITIES TEMPORARILY OR PERMANENTLY CEASE, IF THE PERMITTEES KNOW THAT CONSTRUCTION WORK ON THAT PORTION OF THE SITE WILL BE TEMPORARILY CEASED FOR 14 OR MORE ADDITIONAL CALENDAR DAYS OR 7 CALENDAR DAYS WHERE ITEM 23.3 APPLIES. PERMITTEES CAN INITIATE STABILIZATION BY:

- A. PREPPING THE SOIL FOR VEGETATIVE OR NON-VEGETATIVE STABILIZATION; OR
- B. APPLYING MULCH OR OTHER NON-VEGETATIVE PRODUCT TO THE EXPOSED SOIL AREA; OR
- C. SEEDING OR PLANTING THE EXPOSED AREA; OR
- D. STARTING ANY OF THE ACTIVITIES IN A, C OR ON A PORTION OF THE AREA TO BE STABILIZED, BUT NOT ON THE ENTIRE AREA; OR
- E. FINALIZING ARRANGEMENTS TO HAVE STABILIZATION PRODUCT FULLY INSTALLED IN COMPLIANCE WITH THE APPLICABLE DEADLINE FOR COMPLETING STABILIZATION. [MINN. R. 7090]

"IMPERVIOUS SURFACE" MEANS A CONSTRUCTED HARD SURFACE THAT EITHER PREVENTS OR RETARDS THE ENTRY OF WATER INTO THE SOIL AND CAUSES WATER TO RUN OFF THE SURFACE IN GREATER QUANTITIES AND AT AN INCREASED RATE OF FLOW THAN PRIOR TO DEVELOPMENT. EXAMPLES INCLUDE ROOFTOPS, SIDEWALKS, DRIVEWAYS, PARKING LOTS, AND CONCRETE, ASPHALT, OR GRAVEL ROADS, BRIDGES OVER SURFACE WATERS ARE CONSIDERED IMPERVIOUS SURFACES. [MINN. R. 7090]

"NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)" MEANS THE PROGRAM FOR ISSUING, MODIFYING, REVOKING, REISSUING, TERMINATING, MONITORING, AND ENFORCING PERMITS UNDER THE CLEAN WATER ACT, AS AMENDED [33 U.S.C. 1251 ET SEQ. SECTION 1342 AND 49 CFR PARTS 122, 123, 124 AND 450]. [MINN. R. 7090]

"NATURAL BUFFER" MEANS AN AREA OF UNDISTURBED COVER SURROUNDING SURFACE WATERS WITHIN WHICH CONSTRUCTION ACTIVITIES ARE RESTRICTED. NATURAL BUFFER INCLUDES THE VEGETATION, EXPOSED ROCK, OR BARREN GROUND THAT EXISTS PRIOR TO COMMENCEMENT OF EARTH-DISTURBING ACTIVITIES. [MINN. R. 7090]

"NOTICE OF TERMINATION (NOT)" MEANS THE FORM (ELECTRONIC OR PAPER) REQUIRED FOR TERMINATING COVERAGE UNDER THE CONSTRUCTION GENERAL PERMIT. [MINN. R. 7090]

"OPERATOR" MEANS THE PERSON (USUALLY THE GENERAL CONTRACTOR), FIRM, GOVERNMENTAL AGENCY, OR OTHER ENTITY DESIGNATED BY THE OWNER WHO HAS DAY TO DAY OPERATIONAL CONTROL AND/OR THE ABILITY TO MODIFY PROJECT PLANS AND SPECIFICATIONS RELATED TO THE SWPPP. THE PERMIT APPLICATION MUST LIST THE OPERATOR AS A PERMITTEE. SUCH ACTORS HIRED BY AND UNDER SUPERVISION OF THE GENERAL CONTRACTOR ARE NOT OPERATORS. [MINN. R. 7090]

"OWNER" MEANS THE PERSON, FIRM, GOVERNMENTAL AGENCY, OR OTHER ENTITY POSSESSING THE TITLE OF THE LAND ON WHICH THE CONSTRUCTION ACTIVITIES WILL OCCUR OR, IF THE CONSTRUCTION ACTIVITY IS FOR A LEASE, EASEMENT, OR MINERAL RIGHTS LICENSE HOLDER, THE PARTY OR INDIVIDUAL IDENTIFIED AS THE LEASE, EASEMENT OR MINERAL RIGHTS LICENSE HOLDER; OR THE CONSTRUCTION GOVERNMENT AGENCY RESPONSIBLE FOR THE CONSTRUCTION ACTIVITY. [MINN. R. 7090]

"PERMANENT COVER" MEANS SURFACE TYPES THAT WILL PREVENT SOIL FAILURE UNDER EROSION CONDITIONS. EXAMPLES INCLUDE GRAVEL, CONCRETE, PERENNIAL COVER, OR OTHER LANDSCAPED MATERIAL THAT WILL PERMANENTLY ARREST SOIL EROSION. PERMITTEES MUST ESTABLISH A UNIFORM PERENNIAL VEGETATIVE COVER (I.E. EVENLY DISTRIBUTED, WITHOUT LARGE BARE AREAS) WITH A DENSITY OF 70 PERCENT OF THE NATIVE BACKGROUND VEGETATIVE COVER ON ALL AREAS NOT COVERED BY PERMANENT STRUCTURES, OR EQUIVALENT PERMANENT STABILIZATION MEASURES. PERMANENT COVER DOES NOT INCLUDE TEMPORARY BMPs SUCH AS WOOD FIBER BLANKET, MULCH, AND ROLLED EROSION CONTROL PRODUCTS. [MINN. R. 7090]

"PERMITTEES" MEANS THE PERSONS, FIRM, GOVERNMENTAL AGENCY, OR OTHER ENTITY IDENTIFIED AS THE OWNER AND OPERATOR ON THE APPLICATION SUBMITTED TO THE MPCA AND ARE RESPONSIBLE FOR COMPLIANCE WITH THE TERMS AND CONDITIONS OF THIS PERMIT. [MINN. R. 7090]

"PROJECTS" MEANS ALL CONSTRUCTION ACTIVITY PLANNED AND/OR CONDUCTED UNDER A PARTICULAR PERMIT. THE PROJECT OCCURS ON THE SITE OR SITES DESCRIBED IN THE PERMIT APPLICATION, THE SWPPP AND IN THE ASSOCIATED PLANS, SPECIFICATIONS AND CONTRACT DOCUMENTS. [MINN. R. 7090]

"PUBLIC WATERS" MEANS ALL WATER BASINS AND WATERCOURSES DESCRIBED IN MINN. STAT. SECT. 103B.05 SUBP. 15. [MINN. R. 7090]

"SEDIMENT CONTROL" MEANS METHODS EMPLOYED TO PREVENT SUSPENDED SEDIMENT IN STORMWATER FROM LEAVING THE SITE (E.G. SILT FENCES, COMPOST LOGS AND STORM DRAIN INLET PROTECTION). [MINN. R. 7090]

"STABILIZE," "STABILIZED," "STABILIZATION" MEANS THE EXPOSED GROUND SURFACE HAS BEEN COVERED APPROPRIATE MATERIALS SUCH AS MULCH, STAKED SOO, RIPRAP, EROSION CONTROL BLANKET, MATS OR OTHER MATERIAL THAT PREVENTS EROSION FROM OCCURRING. GRASS SEEDING, AGRICULTURAL CROP SEEDING OR OTHER SEEDING ALONE IS NOT STABILIZATION. MULCH MATERIALS MUST ACHIEVE APPROXIMATELY 90 PERCENT GROUND COVERAGE (TYPICALLY 2 TON/ACRE). [MINN. R. 7090]

"STORMWATER" MEANS PRECIPITATION RUNOFF, STORMWATER RUNOFF, SNOWMELT RUNOFF, AND ANY OTHER SURFACE RUNOFF AND DRAINAGE. [MINN. R. 7090]

"STEEP SLOPES" MEANS SLOPES THAT ARE 1:3 (V:H) (33.3 PERCENT) OR STEEPER IN GRADE. [MINN. R. 7090]

"STORM WATER POLLUTION PREVENTION PLAN (SWPPP)" MEANS A PLAN FOR STORMWATER DISCHARGE THAT INCLUDES ALL REQUIRED CONTENT UNDER IN SECTION 5 THAT DESCRIBES THE EROSION PREVENTION, SEDIMENT CONTROL AND WASTE CONTROL BMPs AND PERMANENT STORMWATER TREATMENT SYSTEMS. [MINN. R. 7090]

"SURFACE WATER OR SATURATED" MEANS ALL STREAMS, LAKES, PONDS, MARSHES, WETLANDS, RESERVOIRS, SPRINGS, RIVERS, DRAINAGE SYSTEMS, WATERWAYS, WATERCOURSES, AND IRRIGATION SYSTEMS WHETHER NATURAL OR ARTIFICIAL, PUBLIC OR PRIVATE, EXCEPT THAT SURFACE WATERS DO NOT INCLUDE STORMWATER TREATMENT SYSTEMS CONSTRUCTED FROM UPLAND. THIS PERMIT DOES NOT CONSIDER STORMWATER TREATMENT SYSTEMS CONSTRUCTED IN WETLANDS AND MITIGATED IN ACCORDANCE WITH SECTION 22 AS SURFACE WATERS. [MINN. R. 7090]

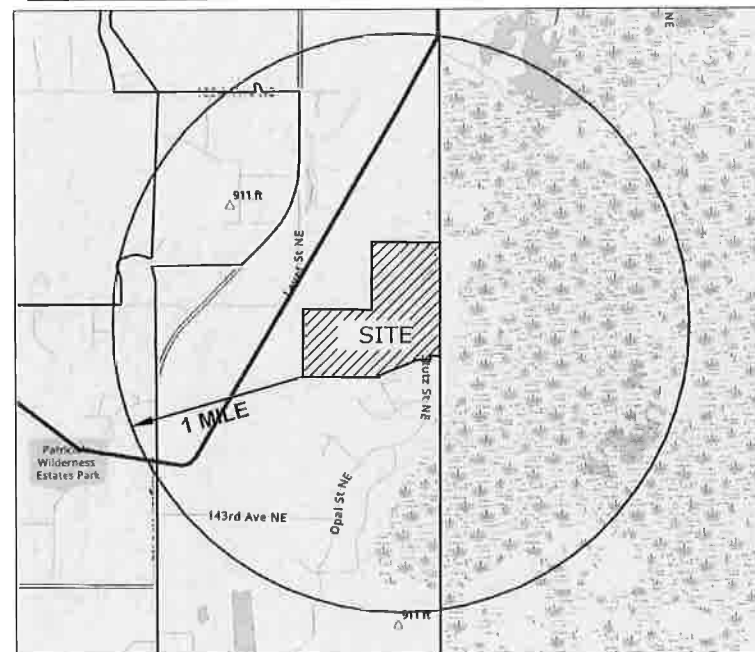
"WATERS OF THE STATE" (AS DEFINED IN MINN. STAT. SECT. 115.01, SUBP. 23) MEANS ALL STREAMS, LAKES, PONDS, MARSHES, WATERCOURSES, WATERWAYS, WELLS, SPRINGS, RESERVOIRS, AQUIFERS, IRRIGATION SYSTEMS, DRAINAGE SYSTEMS AND ALL OTHER BODIES OR ACCUMULATIONS OF WATER, SURFACE OR UNDERGROUND, NATURAL OR ARTIFICIAL, PUBLIC OR PRIVATE, WHICH ARE CONTAINED WITHIN FLOW THROUGH, OR BORDER UPON THE STATE OR ANY PORTION THEREOF. [MINN. STAT. 115.01, SUBP. 23]

"WATER QUALITY VOLUME" MEANS ONE (1) INCH OF RUNOFF FROM THE NET INCREASE IN IMPERVIOUS SURFACES CREATED BY THE PROJECT (CALCULATED AS AN INSTANTANEOUS VOLUME). [MINN. R. 7090]

"WETLANDS" (AS DEFINED IN MINN. STAT. SECT. 103B.01B, SUBP. 1A.B) MEANS THOSE AREAS THAT ARE INUNDATED OR SATURATED BY SURFACE WATER OR GROUNDWATER AT A FREQUENCY AND DURATION SUFFICIENT TO SUPPORT, AND UNDER NORMAL CIRCUMSTANCES DO SUPPORT, A PREVALENCE OF VEGETATION TYPICALLY ADAPTED FOR LIFE IN SATURATED SOIL CONDITIONS. WETLANDS GENERALLY INCLUDE SWAMPS, MARSHES, BOGS, AND SIMILAR AREAS. CONSTRUCTED WETLANDS DESIGNED FOR WASTEWATER TREATMENT ARE NOT WATERS OF THE STATE. WETLANDS MUST HAVE THE FOLLOWING ATTRIBUTES:

- 1. A PREDOMINANCE OF HYDRIC SOILS; AND
- 2. INUNDATED OR SATURATED BY SURFACE WATER OR GROUNDWATER AT A FREQUENCY AND DURATION SUFFICIENT TO SUPPORT A PREVALENCE OF HYDROPHYTIC VEGETATION TYPICALLY ADAPTED FOR LIFE IN A SATURATED SOIL CONDITION; AND
- 3. UNDER NORMAL CIRCUMSTANCES SUPPORT A PREVALENCE OF SUCH VEGETATION. [MINN. R. 7090.01B6, SUBP. 1A.B]

MAP OF SURFACE WATERS



COON CREEK IS IDENTIFIED AS AN IMPAIRED WATER AND HAS AN EPA APPROVED IMPAIRMENT OF BENTHIC MACROINVERTEBRATE BIOASSAYSMENTS AND E. COLI. BECAUSE OF THIS, ADDITIONAL BMP REQUIREMENTS ARE REQUIRED:

- 23.9. PERMITTEES MUST IMMEDIATELY INITIATE STABILIZATION OF EXPOSED SOIL AREAS, AS DESCRIBED IN ITEM 8.4, AND COMPLETE THE STABILIZATION WITHIN SEVEN (7) CALENDAR DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE TEMPORARILY OR PERMANENTLY CEASES.

23.10. PERMITTEES MUST PROVIDE A TEMPORARY SEDIMENT BASIN AS DESCRIBED IN SECTION 14 FOR COMMON DRAINAGE LOCATIONS THAT SERVE AN AREA WITH FIVE (5) OR MORE ACRES DISTURBED AT ONE TIME.



PLOWE ENGINEERING, INC.

8770 LAKE DRIVE  
SUITE 110  
LINO LAKES, MN 55014

PHONE: (651) 361-8210  
FAX: (651) 361-8701

DRAWN BY: AG  
CHECK BY: CWP

JOB NO: 22-2043  
DATE: 02/19/23

TABLE: REVISIONS. Columns: NO., DATE, DESCRIPTION.

I HEREBY CERTIFY THAT THIS PLAN 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.  
ADAM GINKEL  
Date: 05/16/2023 License No.: 43963

HIDDEN FOREST EAST FOURTH ADDITION  
CITY OF HAM LAKE, MINNESOTA  
SWPPP

SHEET

C3.2

PREPARED FOR: HFN PROPERTIES, LLC

**Tradewell Soil Testing  
18330 Dahlia Street NW  
Cedar, MN 55011**

April 10<sup>th</sup>, 2023

RFC Engineering  
13635 Johnson Street NE  
Ham Lake, MN 55304  
Attention: Tom Collins

Dear Mr. Collins:

As a licensed site evaluator who conducted the soil borings in Hidden Forest East 4<sup>th</sup>, Addition for HFN Properties, LLC, I found the following: Each boring has at least 12" of natural, undisturbed and unmottled soil. In order to design and install a standard soil treatment system according to MN Chapter 7080 Code, at least 12" of natural soil with no signs of mottling is required. Therefore, each of the proposed lots will support 2 "standard" septic systems within the 7,500 square feet septic area as shown on the Grading Plan.

Sincerely,

A handwritten signature in black ink that reads "Mark Tradewell". The signature is written in a cursive, flowing style.

Mark Tradewell  
MPCA #307

## Tom Collins

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**From:** JEFFREY Stalberger <stally68@msn.com>  
**Sent:** Tuesday, June 13, 2023 3:42 PM  
**To:** Henning-Randa, Bridget (DNR); Melissa Barrett; Tom Collins  
**Cc:** Jennifer Bohr; BRIAN KIRKHAM  
**Subject:** Re: Hidden Forest East 4th Addition - Permit application review

Bridget, yes, I can do that. please draft the permit.  
Thank you,  
Jeff Stalberger

---

**From:** Henning-Randa, Bridget (DNR) <Bridget.Henning-Randa@state.mn.us>  
**Sent:** Tuesday, June 13, 2023 3:31 PM  
**To:** JEFFREY Stalberger <stally68@msn.com>; Melissa Barrett <melissa@kjolhaugenv.com>  
**Cc:** Jennifer Bohr <JBohr@ci.ham-lake.mn.us>; BRIAN KIRKHAM <bkirkham11@msn.com>  
**Subject:** RE: Hidden Forest East 4th Addition - Permit application review

Hello Jeff,

I have reviewed your application and have two outstanding issues that will need to be addressed in the permit. If you can agree to the conditions below, I will move forward with drafting the permit and you can move forward with the planning commission.

1. The project will need to allow at least 2 weeks for salvage and relocation of the plants by DNR or a DNR authorized party prior to grading impacts to the area with protected plants.
2. Fairly intensive survey efforts for this species have been conducted and additional surveys are unlikely to identify many new populations. Therefore, preferred mitigation for the species is adaptive management to maintain suitable habitat. We estimate that \$40,000 for management of existing population, such as invasive species control and prescribed fire, and monitoring to adapt management actions, will offset project impacts.

Please, let me know if you have any questions and if you would like me to proceed in drafting the permit.

Thank you,  
Bridget

**Bridget Henning-Randa, Ph.D.**

Minnesota Endangered Species Consultant | Division of Ecological and Water Resources  
Pronouns: she/her/hers

**Minnesota Department of Natural Resources**

500 Lafayette Rd., Box 25

St. Paul, MN 55155

Email: [bridget.henning-randa@state.mn.us](mailto:bridget.henning-randa@state.mn.us)

<http://www.dnr.state.mn.us/eco/nhnrp>





**From:** JEFFREY Stalberger <stally68@msn.com>  
**Sent:** Tuesday, June 13, 2023 11:29 AM  
**To:** Henning-Randa, Bridget (DNR) <Bridget.Henning-Randa@state.mn.us>; Melissa Barrett <melissa@kjolhaugenv.com>  
**Cc:** Jennifer Bohr <JBohr@ci.ham-lake.mn.us>; BRIAN KIRKHAM <bkirkham11@msn.com>; Wolf, Heidi (DNR) <heidi.wolf@state.mn.us>  
**Subject:** Re: Hidden Forest East 4th Addition - Permit application review

H Bridget, I was just going to follow up on the Hidden Forest East 4<sup>th</sup> Addition. We are hoping for some good news, and we can move forward with the planning commission meeting.

Sorry for being a pest,

Thanks, Jeff S.

612-799-1471

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**From:** Henning-Randa, Bridget (DNR) <[Bridget.Henning-Randa@state.mn.us](mailto:Bridget.Henning-Randa@state.mn.us)>  
**Sent:** Monday, June 12, 2023 10:48 AM  
**To:** Melissa Barrett <[melissa@kjolhaugenv.com](mailto:melissa@kjolhaugenv.com)>; JEFFREY Stalberger <[stally68@msn.com](mailto:stally68@msn.com)>  
**Cc:** Jennifer Bohr <[JBohr@ci.ham-lake.mn.us](mailto:JBohr@ci.ham-lake.mn.us)>; BRIAN KIRKHAM <[bkirkham11@msn.com](mailto:bkirkham11@msn.com)>; Wolf, Heidi (DNR) <[heidi.wolf@state.mn.us](mailto:heidi.wolf@state.mn.us)>  
**Subject:** RE: Hidden Forest East 4th Addition - Permit application review

Hello Jeff and Melissa,

I will review this material and do my best to let you know if we have additional concerns by tomorrow morning. I do anticipate that we will be able to issue a permit using the existing layout, but I will not be able to issue a permit by tomorrow. Next week Wednesday is the best case scenario for permit issuance, assuming I have all the information I need in the new submittal. I will let you know more after my review.

Thanks,  
Bridget

**From:** Melissa Barrett <[melissa@kjolhaugenv.com](mailto:melissa@kjolhaugenv.com)>  
**Sent:** Friday, June 2, 2023 2:54 PM  
**To:** Wolf, Heidi (DNR) <[heidi.wolf@state.mn.us](mailto:heidi.wolf@state.mn.us)>; Henning-Randa, Bridget (DNR) <[Bridget.Henning-Randa@state.mn.us](mailto:Bridget.Henning-Randa@state.mn.us)>  
**Cc:** Jennifer Bohr <[JBohr@ci.ham-lake.mn.us](mailto:JBohr@ci.ham-lake.mn.us)>; BRIAN KIRKHAM <[bkirkham11@msn.com](mailto:bkirkham11@msn.com)>; JEFFREY Stalberger <[stally68@msn.com](mailto:stally68@msn.com)>  
**Subject:** FW: \* Correction on dates Hidden Forest East 4th Addition - Permit application - DNR Response

Heidi,

I am forwarding this email on to you in the event that you are helping Bridget while she is out, and because Bridget's return date is the date that the city of Ham Lake must hear back regarding this application as highlighted below.

Thank you.

*Melissa Barrett*  
*Kjolhaug Environmental Services*  
2500 Shadywood Road, Suite 130  
Orono, MN 55331  
Phone: 952-388-3752

**From:** JEFFREY Stalberger <[stally68@msn.com](mailto:stally68@msn.com)>

**Sent:** Friday, June 2, 2023 1:50 PM

**To:** Henning-Randa, Bridget (DNR) <[Bridget.Henning-Randa@state.mn.us](mailto:Bridget.Henning-Randa@state.mn.us)>; Melissa Barrett <[melissa@kjolhaugenv.com](mailto:melissa@kjolhaugenv.com)>; Matt Davich <[mdavich@egrud.com](mailto:mdavich@egrud.com)>

**Cc:** Jennifer Bohr <[JBohr@ci.ham-lake.mn.us](mailto:JBohr@ci.ham-lake.mn.us)>; BRIAN KIRKHAM <[bkirkham11@msn.com](mailto:bkirkham11@msn.com)>

**Subject:** Fw: \* Correction on dates Hidden Forest East 4th Addition - Permit application - DNR Response

correction on dates:

Hello Bridget and Melissa,

Melissa I believe I said on the phone from my car it was the 16<sup>th</sup> but looking at my notes it was Tuesday the 13<sup>th</sup>.

Jenifer Bohr (attached) at the city of Ham Lake said that if we have the DNR approval by the 13<sup>th</sup> we would be able make the agenda for the next planning commission meeting. Mayor Brian Kirkham (attached) said it's very possible to have a special council meeting to expedite the start to help complete the project before frost arrives.

Thank you,

Jeff Stalberger Sr.

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**From:** Melissa Barrett <[melissa@kjolhaugenv.com](mailto:melissa@kjolhaugenv.com)>

**Sent:** Friday, June 2, 2023 1:07 PM

**To:** Henning-Randa, Bridget (DNR) <[Bridget.Henning-Randa@state.mn.us](mailto:Bridget.Henning-Randa@state.mn.us)>

**Cc:** JEFFREY Stalberger <[stally68@msn.com](mailto:stally68@msn.com)>; Matt Davich ([mdavich@egrud.com](mailto:mdavich@egrud.com)) <[mdavich@egrud.com](mailto:mdavich@egrud.com)>

**Subject:** RE: Hidden Forest East 4th Addition - Permit application - DNR Response

Bridget,

Please see response to comments below and attached supplemental information.

I know that on 5/25 Jeff sent out an email to let you know how this permit is tied to city approvals and how that affects whether he can start his project this year. The exact date of the city approving his project is June 16, and so the planning commission would need to know things were able to move forward (proffered permit OK) a few days before that to be able to add that to their agenda. Jeff – please let me know if I got that wrong.

Please let us know if that timeframe is problematic. Thank you.

*Melissa Barrett*

*Kjolhaug Environmental Services*

2500 Shadywood Road, Suite 130

Orono, MN 55331

Phone: 952-388-3752

**From:** Henning-Randa, Bridget (DNR) <[Bridget.Henning-Randa@state.mn.us](mailto:Bridget.Henning-Randa@state.mn.us)>

**Sent:** Thursday, June 1, 2023 4:15 PM

**To:** Melissa Barrett <[melissa@kjolhaugenv.com](mailto:melissa@kjolhaugenv.com)>

**Cc:** JEFFREY Stalberger <[stally68@msn.com](mailto:stally68@msn.com)>

**Subject:** RE: Hidden Forest East 4th Addition - Permit application - DNR Response

Hello Mellissa,

Thank you for your patience. We have reviewed your application and have the following comments or requests for additional information:

1. Please provide shapefiles of the project site, area of impact, and protective fence locations around plants that will not be taken. Please see attached shapefiles.
2. Please, provide a description of the need for the project at this site. Were alternative sites considered for satisfying housing need? This is Phase 4 of an existing project. Infrastructure is in place to complete this project phase, and a development in this location has been coordinated with the city for many years (starting in 2016) and is part of the city's residential and traffic plans for this area (as outlined in the city's comprehensive plan - which is a planning tool that identifies areas for development in a proactive way for the city as a whole).
3. Please describe measures that will be implemented to ensure adjacent habitat will not be significantly disturbed, such as silt fence and construction crew notification. As required by the SWPPP, silt fencing will be used throughout the entire project area. Silt fence will be placed at the limits of grading. The location of silt fence near avoided known and potential protected species is shown on the attached **Sheet 7 and Figure 4** and is included in the provided silt fence shapefile. Wetland buffer and rare species signage (**Figure 4 attached**) will be installed at the start of project construction thereby notifying contractors and landowners that disturbance beyond the signs is not allowed.
4. Has this project received an NH review letter? If so, please provide it. Please, indicate how impacts to other rare species that may be on the project site, such as Blanding's turtle, will be avoided. Because it can take a number of months to receive a reply to the NHIS request, it is our understanding that Stantec submitted a survey protocol to DNR prior to beginning field work. That protocol was submitted prior to the new MCE online submission option; however, Stantec has access to the DNR's NHIS database so that all potential species were noted in the protocol and specifically investigated for in the field, plus any other rare species that may occur that were not included within or near the project area according to NHIS data. See attached Blanding's Turtle Avoidance Plan.
5. Please provide more information about onsite avoidance and mitigation (section 6.1). Where are the avoided areas that potentially provide long term habitat? Over 30 acres of the total project area is wooded and will remain as-is (see "tree preservation" areas on attached grading limits figure). It is the wooded area in which this species was found, and in which it may occur in the future.
6. We do not agree that the decrease of observed individuals from 2020 to 2022 or the presence of non-fruiting individuals is an indication that the species is likely to disappear in the absence of this project. Comment noted.
7. The DNR does not consider the proposed mitigation adequate to offset the proposed impact to not be detrimental to the species. Offsetting the loss of sub-populations of a rare species requires specific conservation actions; your proposal does not adequately fund specific actions that would benefit the species. You are welcome to prepare an additional proposal that fully offsets the impact or after receiving the requested information above, we will provide a mitigation suggestion. The species to be taken is found within a complex of habitats common to the Anoka Sand Plain. Compensatory mitigation for other protected species found in similar situations determined that plant surveys were a priority for contributing towards the conservation of the species, thereby providing a net benefit to the species. For past permits, the DNR has estimated the cost of such surveys to be \$32,000 to cover the cost of salary for a biologist, equipment, supplies, travel, and contractual work needed to complete surveys. For this project which proposes impact to 8 non-fruiting stems along with preservation/avoidance of 43 non-fruiting stems proposed mitigation is \$16,000.

Let me know if you have any questions,

Thank you,  
Bridget

**Bridget Henning-Randa, Ph.D.**

Minnesota Endangered Species Consultant | Division of Ecological and Water Resources

Pronouns: she/her/hers  
**Minnesota Department of Natural Resources**  
500 Lafayette Rd., Box 25  
St. Paul, MN 55155  
Email: [bridget.henning-randa@state.mn.us](mailto:bridget.henning-randa@state.mn.us)  
<http://www.dnr.state.mn.us/eco/nhnrp>



**From:** Joyal, Lisa (DNR) <[lisa.joyal@state.mn.us](mailto:lisa.joyal@state.mn.us)>  
**Sent:** Wednesday, May 3, 2023 2:27 PM  
**To:** Melissa Barrett <[melissa@kjolhaugenv.com](mailto:melissa@kjolhaugenv.com)>  
**Cc:** JEFFREY Stalberger <[stally68@msn.com](mailto:stally68@msn.com)>; Henning-Randa, Bridget (DNR) <[Bridget.Henning-Randa@state.mn.us](mailto:Bridget.Henning-Randa@state.mn.us)>; Horton, Becky (DNR) <[becky.horton@state.mn.us](mailto:becky.horton@state.mn.us)>  
**Subject:** Hidden Forest East 4th Addition - Survey Report - DNR Response

Hi Melissa,

Thank you for submitting the attached 2022 survey report. The survey documented black huckleberry (*Gaylussacia baccata*), and recommended that an additional survey be conducted. The DNR has verified the species identification and reviewed the report, and concurs that a follow up survey for *Rubus* species be conducted in late July – August. Tubercled rein orchid (*Platanthera flava* var. *herbiola*) should also be considered a target species during the follow up survey. We look forward to receiving the survey results.

In the future, please submit survey reports to [Reports.NHIS@state.mn.us](mailto:Reports.NHIS@state.mn.us) prior to submitting a permit to take application. More information can be found at [Natural Heritage Review](#) and [Rare Species Survey Process](#). Please note that survey data ([spreadsheets](#) and GIS data) should be submitted with the survey report.

Thank you,

*Lisa Joyal*

---

**Lisa Joyal**  
Endangered Species Review Coordinator | EWR  
NHIS Data Distribution Coordinator | EWR  
**Minnesota Department of Natural Resources**  
500 Lafayette Road, Box 25  
St. Paul, MN 55155  
Phone: 651-259-5109  
Email: [lisa.joyal@state.mn.us](mailto:lisa.joyal@state.mn.us)  
[mndnr.gov/eco](http://mndnr.gov/eco)

**From:** Melissa Barrett <[melissa@kjolhaugenv.com](mailto:melissa@kjolhaugenv.com)>  
**Sent:** Saturday, January 7, 2023 9:42 AM  
**To:** Henning-Randa, Bridget (DNR) <[Bridget.Henning-Randa@state.mn.us](mailto:Bridget.Henning-Randa@state.mn.us)>; Joyal, Lisa (DNR) <[lisa.joyal@state.mn.us](mailto:lisa.joyal@state.mn.us)>; Horton, Becky (DNR) <[becky.horton@state.mn.us](mailto:becky.horton@state.mn.us)>

Cc: JEFFREY Stalberger <[stally68@msn.com](mailto:stally68@msn.com)>

Subject: Hidden Forest East 4th Addition, Ham Lake - Permit application to take *Gaylussacia baccata* (black huckleberry)

**This message may be from an external email source.**

Do not select links or open attachments unless verified. Report all suspicious emails to [Minnesota IT Services Security Operations Center](#).

Hello,

On behalf of HFN Properties we are submitting this *Permit Application to Take MN Endangered or Threatened Species Incidental to the Hidden Forest East 4<sup>th</sup> Addition* residential development project (download link below). The project proposes to impact one population on the site, and avoid another population on the site.

Please contact me with any questions or the need for further information for your review. Thank you.

 [TakePermitAppl HFN 4th Addition Ham Lake 1-9-2023 KES\\_opt.pdf](#)

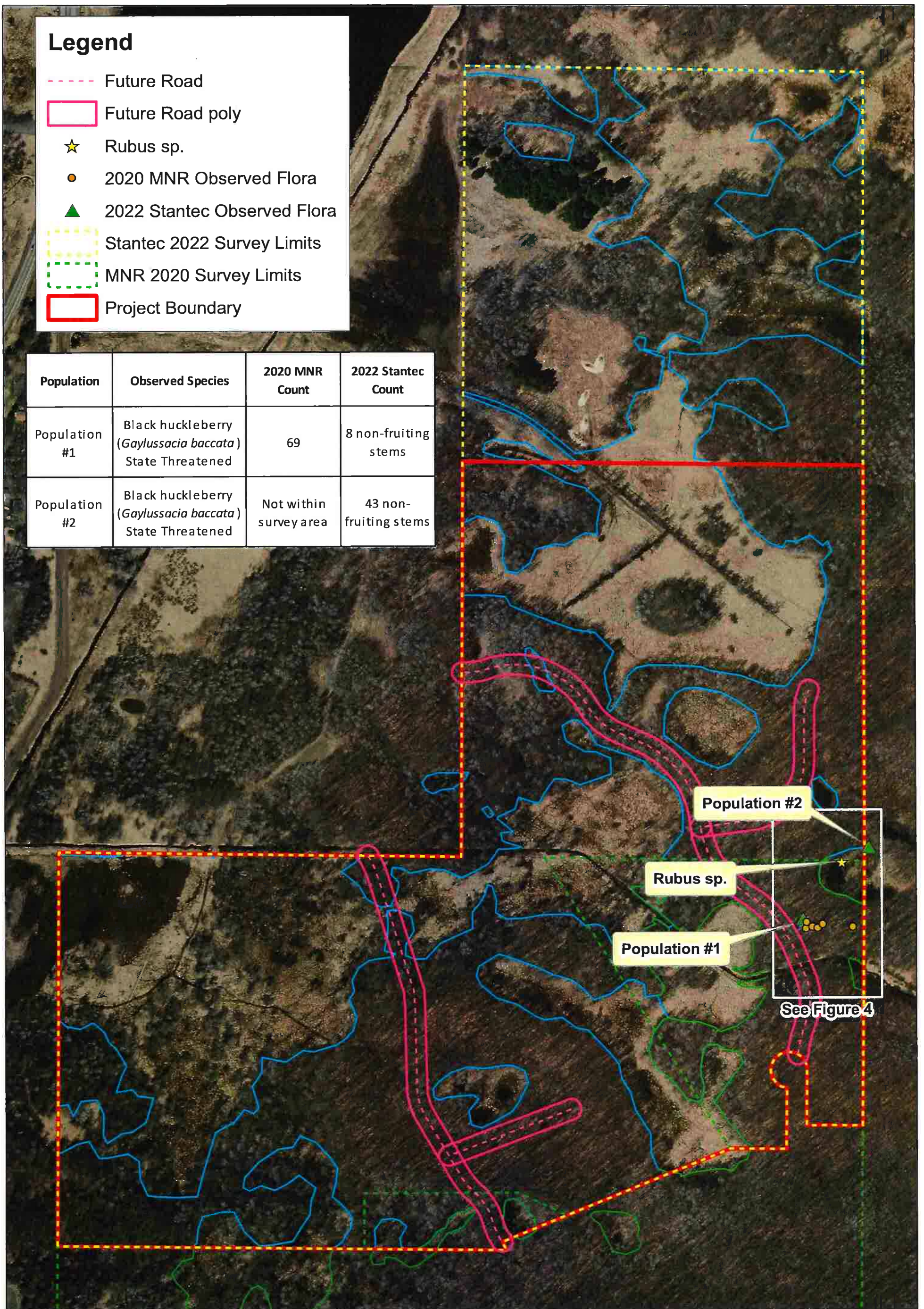
*Melissa Barrett*

*Kjolhaug Environmental Services*

2500 Shadywood Road, Suite 130

Orono, MN 55331

Phone: 952-388-3752



**Legend**

- - - Future Road
- Future Road poly
- ★ Rubus sp.
- 2020 MNR Observed Flora
- ▲ 2022 Stantec Observed Flora
- Stantec 2022 Survey Limits
- MNR 2020 Survey Limits
- Project Boundary

Population	Observed Species	2020 MNR Count	2022 Stantec Count
Population #1	Black huckleberry ( <i>Gaylussacia baccata</i> ) State Threatened	69	8 non-fruiting stems
Population #2	Black huckleberry ( <i>Gaylussacia baccata</i> ) State Threatened	Not within survey area	43 non-fruiting stems

**Figure 3 - Survey Limits & Rare Species Locations**

N

0 500 Feet

**Hidden Forest East 4th Addition (KES 2022-211)**  
**Ham Lake, Minnesota**

Note: Boundaries indicated on this figure are approximate and do not constitute an official survey product.

## NOTICE OF PERMIT APPLICATION STATUS

**Project:** Hidden Forest 4<sup>th</sup> Addition

**Date:** May 19, 2023

**Applicant:** HFN Properties, LLC  
Attn: Jeff Stalberger  
17404 Ward Lake Dr  
Anoka, MN 55304

**Permit Application#:** P23-023

**Purpose:** Construction of a 22-lot single family home development with associated stormwater features, streets, and utilities.

**Location:** Stutz St NE and 149th Ave NE, Stutz St NE and 149th Ave NE, Ham Lake

At their meeting on April 24, 2023 the Board of Managers of the Coon Creek Watershed District **conditionally approved** the above referenced project with 8 conditions and 3 stipulations. **This is NOT a permit.**

Since your last submittal on 5/16/2023, the following 4 conditions remain which must be addressed before permit issuance (please see note below on how to address conditions).

1. Submittal of a performance escrow in the amount of \$20,450.00.
2. Provide proof of NPDES permit application.
3. Submittal of Wetland Bank Credit Withdrawal Verification.
4. Submittal of final Takings Permit from the MnDNR.

Please note that there are also 3 stipulations.

Please be advised that **this is NOT a permit**, and that work without a permit is a violation of the terms of the Coon Creek Watershed District Rule 5.1. If you have any questions, please call 763-755-0975.

Sincerely,



Erin Edison  
Watershed Development Coordinator

cc: File P23-023  
Eileen Weigel, Stantec  
Danielle Tourtillott, Stantec  
Tom Collins, Ham Lake

**CITY OF HAM LAKE  
PLANNING COMMISSION REQUEST APPLICATION  
INSPECTION REPORT**

MTG DATE: June 26, 2023

INSPECTION ISSUED TO: Erin Dixson

APPLICANT/CONTACT: Stone Construction/Mitch Stone

TELEPHONE NUMBER: 763-784-1950 or 612-366-4390 or  
mitch.s@stoneconstructioninc.com

BUSINESS/PLAT NAME: Jam Hops

ADDRESS/LOCATION OF INSPECTION: 1460 133<sup>rd</sup> Ln NE

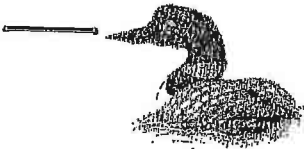
APPLICATION FOR: Commercial Site Plan (Add'n)

RECOMMENDATION: \_\_\_\_\_  
\_\_\_\_\_  
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\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

DATE: \_\_\_\_\_

PLANNING COMMISSIONER SIGNATURE: \_\_\_\_\_





# CITY OF HAM LAKE

## PLANNING REQUEST

15544 Central Avenue NE

Ham Lake, MN 55304

Phone (763) 434-9555 Fax (763) 235-1697

Date of Application 3-27-2023

Date of Receipt 5-19-23

Receipt # 96078

Meeting Appearance Dates:

Planning Commission 6-26-23 City Council \_\_\_\_\_

Please check request(s):

- Metes & Bounds Conveyance
- Sketch Plan
- Preliminary Plat Approval\*
- Final Plat Approval
- Rezoning\*
- Multiple Dog License\*

- Commercial Building Site
- Certificate of Occupancy
- Home Occupation Permit
- Conditional Use Permit (New)\*
- Conditional Use Permit (Renewal)
- Other

*\*NOTE: Advisory Signage is required for land use alterations and future road connections. This application also requires a Public Hearing. Such fees shall be deducted from deposit.*

Development/Business Name: Jam Hops

Address/Location of property: 1460 133<sup>rd</sup> LN NE

Legal Description of property: SW 1/4 of SE 1/4 of Sec 32, TWP 32, RGE 23

PIN # 32,32,23,43.0013 Current Zoning CD-2 Proposed Zoning CD-2

Notes: 12,992 Sq Ft addition to east side of bldg with parking lot expansion

Applicant's Name: Mitch Stone

Business Name: Stone Construction

Address 2181 107<sup>th</sup> LN NE

City Blaine State MN Zip Code 55449

Phone 763-784-1950 Cell Phone 612-366-4390 Fax \_\_\_\_\_

Email address Mitch.S@StoneConstructionInc.com

*You are advised that the 60-day review period required by Minnesota Statutes Chapter 15.99 does not begin to run until all of the required items have been received by the City of Ham Lake.*

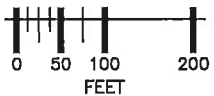
SIGNATURE [Signature] DATE 3/22/23

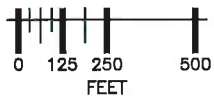
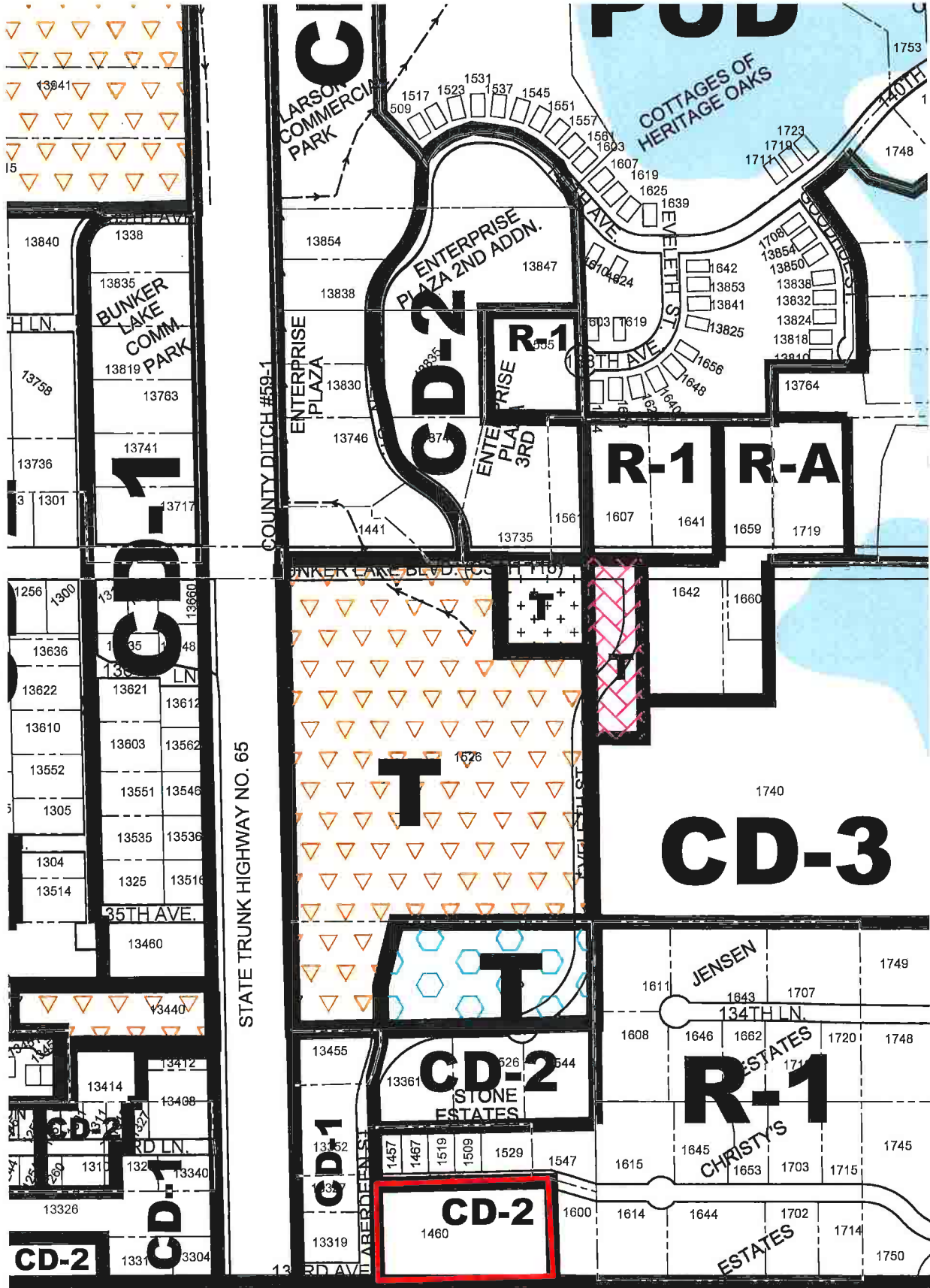
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- FOR STAFF USE ONLY -

ACTION BY: Planning Commission \_\_\_\_\_  
City Council \_\_\_\_\_

PROPERTY TAXES CURRENT  YES  NO





## Jam Hops - Narrative

Since it's opening at the current location in 2017, Jam Hops has continued to grow, other than during the COVID pandemic of course. We had hoped and planned for this to happen and included an expansion in the original plan. We have had waitlists for our gymnastics and Ninja classes for the past 2 years, and began renting space this past fall to accommodate our growing needs as best we can until the expansion is completed.

In addition to gymnastics and Ninja recreational classes, we have recreational and competitive dance classes, competitive boys and girls gymnastics teams, and an academic preschool. We also offer birthday parties, open gym, and day camps. We have plans to add a coffee, tea and shake shop through our Jam Hope Foundation, which will be staffed by kids and adults with special needs. We will sell prepackaged snacks, however there will be no food preparation. Anytime Fitness will continue to lease space in our building, and continues to operate.

We have 150 employees, and our hours of operation are approximately 8:00am-9:00pm 7 days a week with some Sundays being closed. Currently, parking at our peak evening times we can use up to 110 parking stalls. We expect a 20% increase with this expansion, which adds 22 parking stalls. Anytime Fitness uses 20 parking stalls at peak hours, totaling 152 stalls at peak business hours.

We have loved being part of the Ham Lake community for over 26 years. It is our privilege to serve the kids and families that come to Jam Hops, and to support the local businesses and organizations through our Jam Hops gives back program. Thank you for your help and support through our years of growth, and for your consideration of our much needed expansion.

Meeting Date: June 26, 2023

**CITY OF HAM LAKE**  
*STAFF REPORT*

**To: Members of the Planning Commission**

**From: Mark Jones, Building and Zoning Official**

**Subject: Jam Hops requesting a 12,992 square foot addition at 1460 133<sup>rd</sup> Lane NE**

**Introduction/Discussion:**

Jam Hops provides gymnastics and Ninja recreational classes, recreational and competitive dance classes, competitive boys and girl's gymnastics teams, and also has an academic preschool. They are requesting approval to add a 12,992 square foot addition to the east side of the building and expand their parking lot. The property abuts residential property on the north and east sides. Currently there is limited screening on the north side and no screening on the east side of the property. Per Article 11-1853.A - *Where property lines are adjacent to residential areas, a planting screen of conifers shall be required, of sufficient size and proximity to provide an intermingled screen within five years.* Code compliant screening on the north and south sides of the property is required.

The narrative indicates the business has experienced growth since constructing the building in 2016 and that a future expansion to the building was included in the original plan. The original civil plans dated April 28, 2016 do show a future 10,368 square foot expansion area on sheet C2; however, sheet C2 of the modified civil plans dated December 14, 2016, included this expansion area in the original build and a permit was issued. This expansion could be considered a third addition to the building.

There has been a great deal of discussion about the adequacy of the septic system due to the expanded occupancy load for this type of building. Occupancy Loads are based on the Minnesota 2020 Building Section 1004 (IBC). Per table 1004.5 (IBC) the maximum occupancy load will be 888 with the proposed addition to the existing building. The septic system needs to be designed to accommodate this occupancy load as required by Minnesota Subsurface Sewage Treatment System Program (SSTS) rules. Jam Hops indicates there are plans for a coffee, tea and shake shop in the building. Beverage service businesses generate additional strain on a septic system.

**Recommendation:**

I recommend site plan approval on the condition that a Building Permit not be issued until the septic system has been approved. All screening also needs to be approved by the City Engineer and the Building Official before a permit will be issued.

## Memorandum

Date: June 22, 2023  
To: Planning Commissioners  
From: Tom Collins, City Engineer *TPC*  
Subject: Jam Hops Dance Studio Building Addition

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**Introduction:**

The Title Sheet, Legend, Existing Conditions & Removal Plan, Civil Site Plan, Grading, Drainage & Erosion Control Plan, Details, Stormwater Pollution Prevention Plan received May 3<sup>rd</sup> and the Architectural Plans and Stormwater Drainage Report received April 13<sup>th</sup> address prior review comments. The Architectural Plans include the Landscape Plan. No additional screening is proposed.

**Discussion:**

The Plans reflect a 12,992 square foot building addition to the existing 44,472 square foot building footprint. The stormwater treatment basin that was constructed with the prior expansion has adequate capacity for the proposed expansion. Additional stormwater treatment is not required.

The Coon Creek Watershed District (CCWD) Board of Managers conditionally approved the plans at the March 13<sup>th</sup> meeting, per the attached. The CCWD issued their attached permit on May 25<sup>th</sup>. An Operations and Maintenance Agreement for Stormwater Facilities has been executed between Jam Hops and the CCWD.

Per the attached Building Official memo, a Building Permit will not be issued until the septic design is approved. The State Fire Marshall office will be confirming if the reserve water tank and pump capacity of the existing fire suppression system are sufficient for the new addition. The MPCA issued the attached Construction Stormwater Permit on March 17<sup>th</sup>.

**Recommendation:**

It is recommended that the plans for the Jam Hops Dance Studio Building Addition be recommended for approval.

# JAM HOPS DANCE STUDIO BLDG ADDITION

## TITLE SHEET, LEGEND, EXISTING CONDITIONS & REMOVAL PLAN

HAM LAKE, MINNESOTA

### LEGEND \*

— OH —	EXISTING OVERHEAD ELECTRIC	— W —	PROPOSED WATER PIPE
— TEL —	EXISTING UNDERGROUND TELEPHONE	— S —	PROPOSED SANITARY SEWER PIPE
— CB —	EXISTING UNDERGROUND CABLE	— ST —	PROPOSED STORM SEWER PIPE
— TP —	EXISTING TELEPHONE PEDESTAL	— DC —	PROPOSED DRAIN TILE AND CLEAN-OUT
— E —	EXISTING ELECTRICAL PEDESTAL	— ELEC —	PROPOSED ELECTRIC SERVICE *
— EC —	EXISTING CABLE PEDESTAL	— GAS —	PROPOSED GAS SERVICE *
— UP —	EXISTING UTILITY POLE	— TEL —	PROPOSED TELEPHONE SERVICE *
— LP —	EXISTING LIGHT POLE	— SM —	PROPOSED STORM MANHOLE
— SS —	EXISTING STORM SEWER	— CB —	PROPOSED CATCH BASIN
— WM —	EXISTING WATER MAIN	— FES —	PROPOSED FLARED-END SECTION
— SS —	EXISTING SANITARY SEWER	— GV —	PROPOSED GATE VALVE
— FM —	EXISTING FORCEMAIN	— H —	PROPOSED HYDRANT
— SM —	EXISTING STORM MANHOLE	— SSM —	PROPOSED SANITARY SEWER MANHOLE
— CB —	EXISTING CATCH BASIN	— 928 —	PROPOSED CONTOUR
— FES —	EXISTING FLARED-END SECTION	— 930 —	PROPOSED CONTOUR
— GV —	EXISTING GATE VALVE	— 920.60 —	PROPOSED SPOT ELEVATION (GUTTERLINE, BITUMINOUS SURFACE, OR EXISTING SURFACE UNLESS OTHERWISE INDICATED)
— H —	EXISTING HYDRANT	— S —	PROPOSED SILT FENCE
— S —	EXISTING WELL	— 4.0% —	PROPOSED DIRECTION OF DRAINAGE
— SSM —	EXISTING SANITARY SEWER MANHOLE	— B —	PROPOSED BITUMINOUS
— 928 —	EXISTING CONTOUR	— F —	PROPOSED FILTRATION MEDIA
— 930 —	EXISTING CONTOUR	— P —	PROPOSED INLET PROTECTION
— 920.59 —	EXISTING SPOT ELEVATION	— HDP —	PROPOSED HEAVY-DUTY PAVEMENT
— 920.59 —	EXISTING SPOT ELEVATION (MATCH: INTC ELEVATION)	— ENK —	PROPOSED ENKAMAT
— B —	EXISTING BITUMINOUS	— RW —	PROPOSED RETAINING WALL
— T —	EXISTING TREES	— BR —	BITUMINOUS PAVEMENT REMOVAL
— X —	EXISTING TREE TO BE REMOVED	— CS —	CONCRETE SIDEWALK REMOVAL
— S —	SURFACE DRAINAGE DIRECTION	— CSW —	PROPOSED CONCRETE SIDEWALK
— F —	EXISTING FENCE	— L —	PROPOSED LIGHT POLE
— RW —	EXISTING RETAINING WALL	— PS —	PARKING SETBACK
— WET —	EXISTING WETLAND	— BLS —	BUILDING SETBACK
		— T —	PROPOSED TIP-OUT CURB

\* NOT ALL SYMBOLS ARE APPLICABLE.

### GENERAL NOTES

THE INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF EXISTING UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO TYPE AND LOCATION OF UTILITIES AS NECESSARY TO AVOID DAMAGE TO THESE UTILITIES.

CALL "811" FOR EXISTING UTILITIES LOCATIONS PRIOR TO ANY EXCAVATIONS.

THE CONTRACTOR SHALL FIELD VERIFY SIZE, ELEVATION, AND LOCATION OF EXISTING SANITARY SEWER, STORM SEWER, AND WATER MAIN AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO THE START OF INSTALLATIONS.

INSTALLATIONS SHALL CONFORM TO THE CITY STANDARD SPECIFICATIONS AND DETAIL PLATES.

ALL UTILITIES THAT WILL BE OWNED AND MAINTAINED BY THE CITY AFTER CONSTRUCTION SHALL BE BUILT TO CITY STANDARDS.

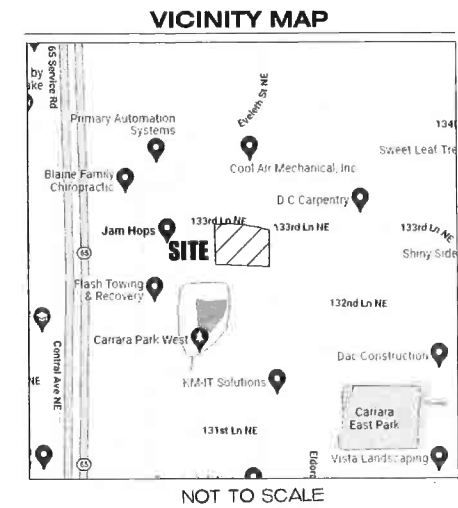
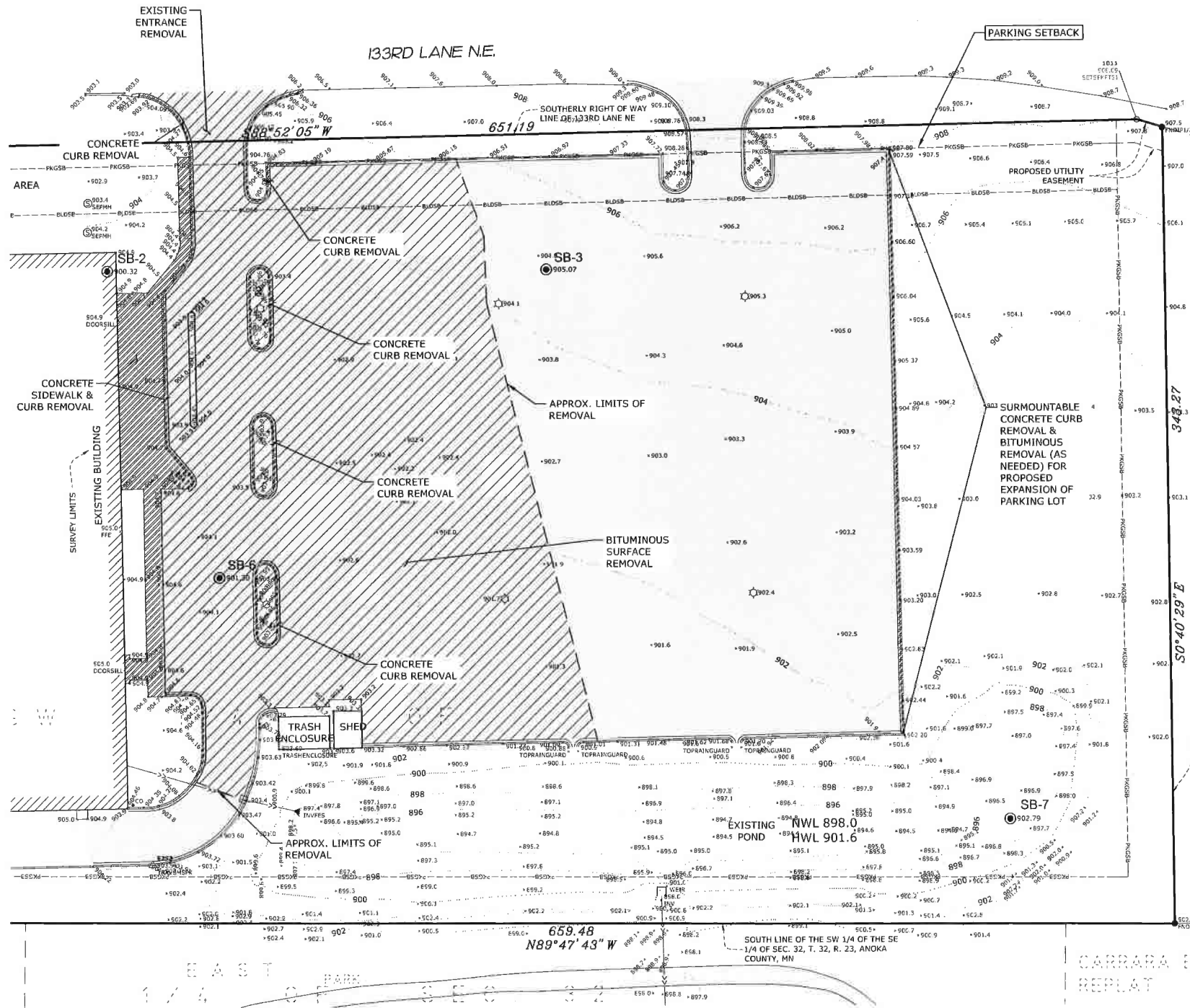
THE CONTRACTOR SHALL NOTIFY CITY PUBLIC WORKS DEPARTMENT A MINIMUM OF 24 HOURS PRIOR TO THE INTERRUPTION OF ANY SEWER OR WATER SERVICES TO EXISTING HOMES OR BUSINESSES.

THE CONTRACTOR SHALL OBTAIN A RIGHT-OF-WAY PERMIT FROM THE CITY PRIOR TO ANY WORK.

STORAGE OF MATERIALS OR EQUIPMENT SHALL NOT BE ALLOWED ON PUBLIC STREETS OR WITHIN PUBLIC RIGHT-OF-WAY.

NOTIFY CITY A MINIMUM OF 48 HOURS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.

ALL ELECTRIC, TELEPHONE, AND GAS EXTENSIONS INCLUDING SERVICE LINES SHALL BE CONSTRUCTED TO THE APPROPRIATE UTILITY COMPANY SPECIFICATIONS. ALL UTILITY DISCONNECTIONS SHALL BE COORDINATED WITH THE APPROPRIATE UTILITY COMPANY.



**GENERAL SITE INFORMATION:**

ZONING = CD-2, COMMERCIAL DEVELOPMENT, TIER 2

EXISTING BUILDING (MAIN) = 41,472 SF  
 EXISTING BUILDING (MEZZANINE) = 1,383 SF  
 PROPOSED BUILDING = 12,992 SF

DRAWN BY:	DESIGN BY:
M.Q.A.	C.W.P.
CHKD BY:	PROJ. NO.
M.Q.A.	22-1961
ORIGINAL DATE:	
	AUGUST 29, 2022

I hereby certify that this plan 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.

*Charles W. Plowe*  
 CHARLES W. PLOWE  
 LIC. NO. 18227  
 DATE: 5.3.2023

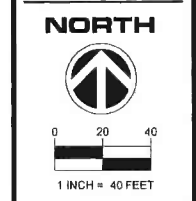
**JAM HOPS DANCE STUDIO BLDG ADDITION**  
 HAM LAKE, MINNESOTA

TITLE SHEET, LEGEND, EXISTING CONDITIONS, & REMOVAL PLAN

PREPARED FOR:  
**STONE CONSTRUCTION**



**PLOWE ENGINEERING, INC.**  
 6776 LAKE DRIVE SUITE 110  
 LINO LAKES, MN 55014  
 PHONE: (651) 361-8210  
 FAX: (651) 361-8701



**CO**



## TITLE SHEET, LEGEND, EXISTING CONDITIONS, & REMOVAL PLAN JAM HOPS DANCE STUDIO BLDG ADDITION

**CURB & BITUMINOUS NOTES**

REMOVAL AND DISPOSAL OF EXISTING STREET MATERIALS AS REQUIRED FOR CONSTRUCTION IS CONSIDERED INCIDENTAL.  
 SAW-CUT EXISTING BITUMINOUS AND CONCRETE CURB TO PROVIDE BUTT-JOINT.  
 RESTORE DISTURBED STREET TO EXISTING OR BETTER SECTION.  
 BACKFILLING OF CURB IS INCIDENTAL TO CURB INSTALLATION.  
 FOUR INCHES OF CLASS 5 UNDER CURB IS INCIDENTAL TO CURB INSTALLATION.  
 CURB ENDS SHALL TERMINATE IN A THREE-FOOT BEAVER TAIL.

DRAWN BY:	DESIGN BY:
M.Q.A.	C.W.P.
CHKD BY:	PROJ. NO.
M.Q.A.	22-1961
ORIGINAL DATE:	
AUGUST 29, 2022	
DATE	REVISION DESCRIPTION
3/20/23	REVISED SITE PLAN; REMOVED PROOF OF PARKING
4/17/23	REVISED SITE PLAN (PARKING STALLS)
4/26/23	REVISED SITE PLAN (HC AREA AND ISLAND)
5/3/23	REVISED SITE PLAN (HC AREA)

I hereby certify that this plan 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.

*Charles W. Plowe*  
 CHARLES W. PLOWE  
 DATE: 5.3.2023 LIC. NO. 19227

**JAM HOPS DANCE STUDIO**  
**BLDG ADDITION**  
 HAM LAKE, MINNESOTA  
 CIVIL SITE PLAN

PREPARED FOR:  
**STONE CONSTRUCTION**

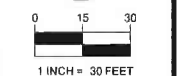


SITE PLANNING & ENGINEERING

**PLOWE ENGINEERING, INC.**

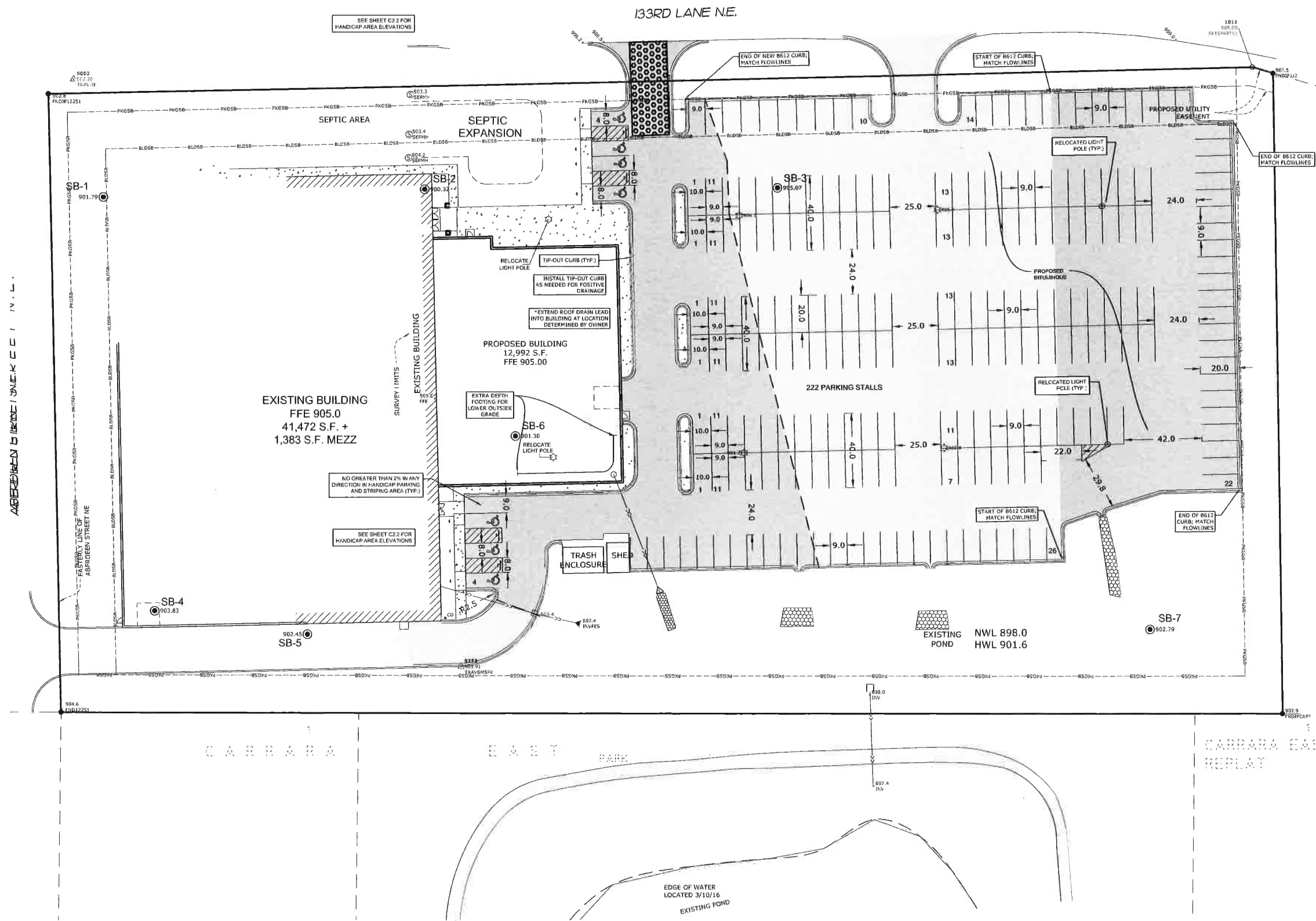
8776 LAKE DRIVE  
 SUITE 110  
 LINO LAKES, MN 55014  
 PHONE: (651) 361-8210  
 FAX: (651) 361-8701

**NORTH**



1 INCH = 30 FEET

**C1**



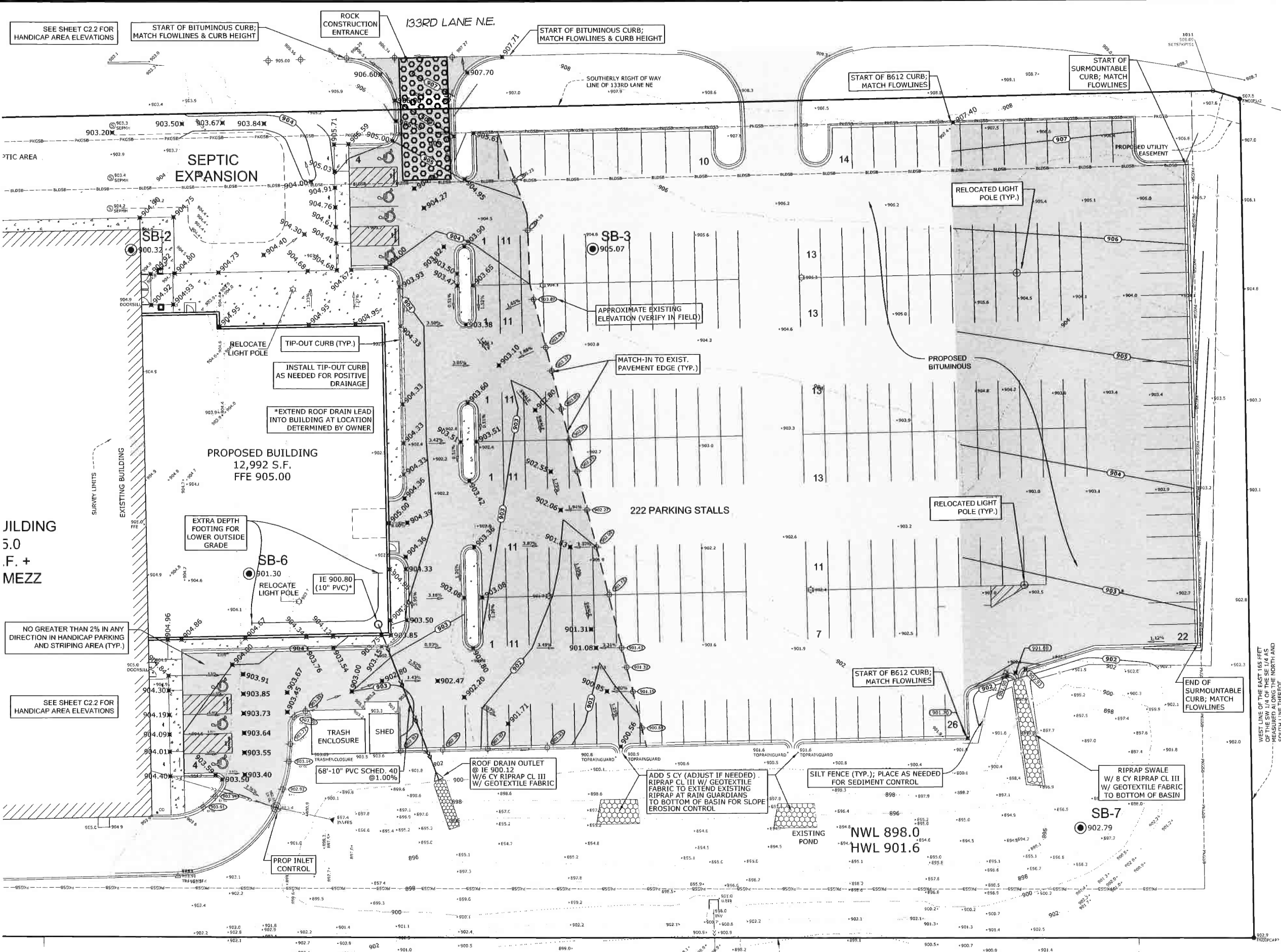
Know what's below.  
 Call before you dig.

ALL DIMENSIONS ARE TO BACK OF CURB UNLESS OTHERWISE NOTED.

**CIVIL SITE PLAN  
 JAM HOPS DANCE STUDIO BLDG ADDITION**

C:\Bentley\dwg\2023\20230811\20230811\_CADD\22-1961\_44557\_P1.dwg 5/3/2023





**STORM SEWER NOTES**

FIELD VERIFY SIZE, ELEVATION, AND LOCATION OF EXISTING STORM SEWER AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO ANY INSTALLATIONS.

WHEN CALLED OUT AS PIPE, STORM SEWER SHALL BE REINFORCED CONCRETE PIPE (RCP) ANSI C76 WITH R-4 GASKETS OR, IF ALLOWED BY CITY, HDPE PIPE MAY BE USED. (SEE PLAN FOR LOCATIONS WHERE RCP IS REQUIRED.) HDPE PIPE SHALL MEET THE REQUIREMENTS OF AASHTO M254 TYPE S WITH WATERTIGHT CONNECTIONS. USE SAND/GRANULAR MATERIAL FOR BACKFILLING AND COMPACTION OF HDPE/PVC PIPE IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM 2321.

STORM SEWER LENGTHS INCLUDE THE LAYING LENGTH OF THE FLARED-END SECTION. LAYING LENGTH OF APRON TO BE DEDUCTED FROM PAYMENT LENGTH OF PIPE.

ALL PORTIONS OF THE STORM SEWER SYSTEM LOCATED WITHIN 10 FEET OF THE BUILDING OR WATER SERVICE LINE MUST BE TESTED IN ACCORDANCE WITH MINNESOTA RULES, PART 4715.2820.

STORM SEWER PIPES TO BE JOINED TO THE CATCH BASIN MANHOLES W/ APPROVED RESILIENT RUBBER JOINTS TO MAKE THEM GASTIGHT OR WATERTIGHT. CEMENT MORTAR JOINTS ARE PERMITTED ONLY FOR REPAIRS AND CONNECTIONS OF EXISTING LINES CONSTRUCTED WITH SUCH JOINTS.

ALL PERMITS, INCLUDING BUT NOT LIMITED TO PERMITS FROM CITY OF HAM LAKE, COON CREEK WATERSHED, AND THE MINNESOTA DEPARTMENT OF LABOR AND INDUSTRY, SHALL BE OBTAINED PRIOR TO ORDERING OF MATERIAL AND STARTING OF CONSTRUCTION. NO INSTALLATION OF UTILITIES SHALL BE PERMITTED UNTIL ALL APPLICABLE PERMITS ARE RECEIVED BY THE CONTRACTOR.

INSTALLATION OF UTILITIES SHALL BE CONSTRUCTED TO MINNESOTA DEPARTMENT OF LABOR AND INDUSTRY STANDARDS AND CITY STANDARDS AS IDENTIFIED IN THE PUBLIC WORKS/ENGINEERING STANDARDS.

**OTHER NOTES**

- DISTURBED SOILS AND STOCKPILES WILL BE TEMPORARILY OR PERMANENTLY STABILIZED WITHIN 24 HOURS AFTER CONSTRUCTION ACTIVITY IN THAT AREA HAS TEMPORARILY OR PERMANENTLY CEASED.

DRAWN BY: M.Q.A. DESIGN BY: C.W.P.  
 CHKD BY: M.Q.A. PROJ. NO.: 22-1961

ORIGINAL DATE: AUGUST 29, 2022

DATE	REVISION DESCRIPTION
3/20/23	REMOVED PROOF OF PARKING & REVISED GRADES
4/12/23	REVISED GRADES AROUND HANDICAP PARKING AREAS
4/26/23	REVISED GRADES AT ISLAND AND ADDED RIPRAP
5/3/23	REVISED GRADES AT HC AREAS

I hereby certify that this plan 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.

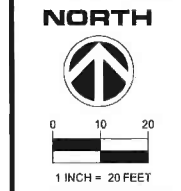
*Charles W. Plowe*  
 CHARLES W. PLOWE  
 DATE: 5.3.2023 LIC. NO. 18227

**JAM HOPS DANCE STUDIO BLDG ADDITION**  
 HAM LAKE, MINNESOTA  
 GRADING, DRAINAGE, AND EROSION CONTROL PLAN

PREPARED FOR:  
**STONE CONSTRUCTION**



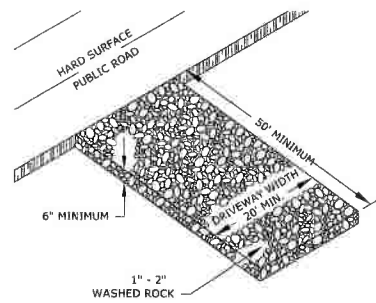
**PLOWE ENGINEERING, INC.**  
 6776 LAKE DRIVE  
 SUITE 110  
 LINO LAKES, MN 55014  
 PHONE: (651) 361-8210  
 FAX: (651) 361-8701



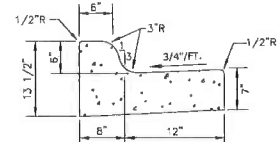
**GRADING, DRAINAGE, AND EROSION CONTROL PLAN  
 JAM HOPS DANCE STUDIO BLDG ADDITION**

**C2.1**

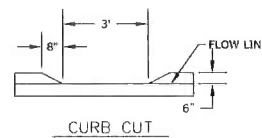




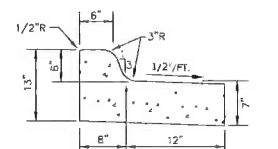
**ROCK CONSTRUCTION ENTRANCE**  
NOT TO SCALE



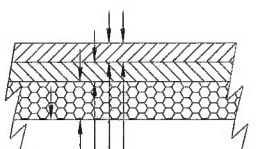
**B612 CONCRETE CURB AND GUTTER**  
NOT TO SCALE



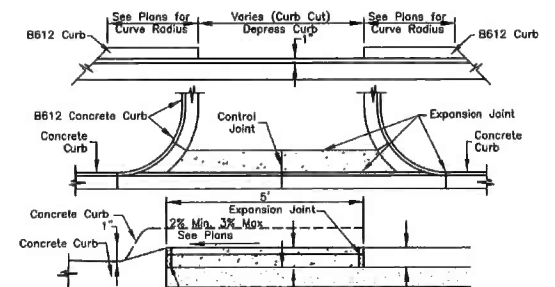
**CURB DRAIN OPENING**  
NOT TO SCALE



**B612 CONCRETE CURB AND GUTTER**  
TIP-DOT  
NOT TO SCALE

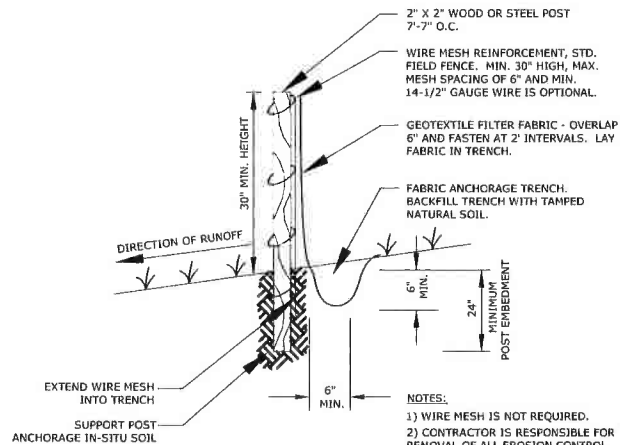


**PROPOSED BITUMINOUS**  
NOT TO SCALE

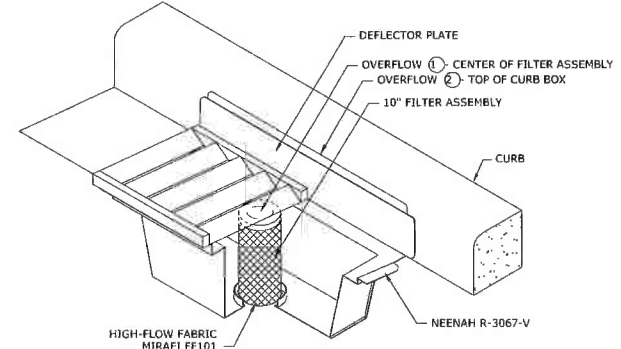


**Notes:**  
 1) Match existing driveway width and elevation at machine unless otherwise directed by engineer (See Plans).  
 2) If existing driveway is concrete, apron and driveway shall be constructed of 8" concrete with 8"x8"-8/8 welded wire fabric per MnDOT Spec. 3303 in flat sheets, not rolls. Epoxy coated dowel bars conforming to MnDOT Spec. 3302 shall be placed in the existing driveway pavement along the sawcut line. Dowel bars shall be properly coated with a MnDOT approved lubricant. Dowel bars shall be #13, and placed at 24" OC spacing. All work shall conform to MnDOT Spec. 2301 and 2531. Concrete shall be per MnDOT Spec. 2461 for ready-mix with 3,900 PSI at 28 days, with air content of 5% to 7%. Course aggregate for concrete shall be per MnDOT Spec. 3137 with 1" max. Class A aggregate. Joint sealer shall be hot-poured, low modulus, mastic type per MnDOT Spec. 3725. Membrane curing compound shall be per MnDOT Spec. 3754 and 2301.3J.  
 3) If existing driveway is gravel, apron and driveway within R/W shall be constructed per bituminous driveways.  
 4) If existing driveway is bituminous, apron shall be constructed per concrete driveway and driveway behind apron shall be bituminous per note A. All bituminous work shall conform to MnDOT Specifications 2112, 2211, 2357 and 2360. Tack coat is to be applied between bituminous courses and between concrete and bituminous surfaces.  
 5) Driveways in cut sections to slope up from 1" curb lip to R/W at 2% min. 3% max then slope to matchline. Driveways in fill sections to slope up from 1" curb lip to R/W at min of 2% then slope to matchline. See Plan for slopes.  
 A. Type SP 9.5 Bituminous Wear Course (SPWEA240C), 1" Thick MnDOT Spec. 2360.  
 B. 6" Reinforced Concrete Slab, MnDOT Spec. 2301 and 2531.  
 6" Aggregate Base Class 5, MnDOT Spec. 2211.  
 Gravel driveways matching beyond R/W shall be 8" Class 5.

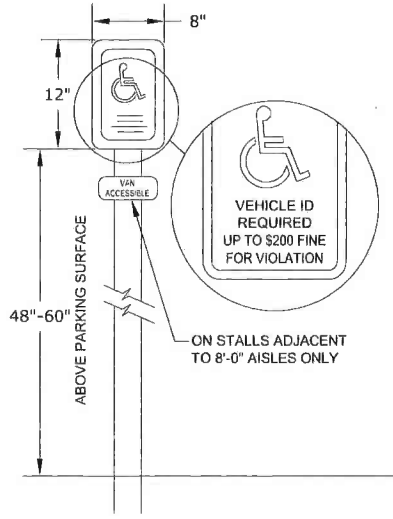
**COMMERCIAL DRIVEWAY DETAIL HL-370A1**  
NOT TO SCALE



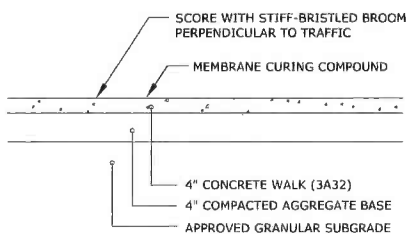
**EROSION CONTROL FENCE**  
NOT TO SCALE



**WIMCO INLET PROTECTION**  
NOT TO SCALE



**TYPICAL HANDICAP SIGN**  
NOT TO SCALE



**Notes:**  
 1) USE EXPANSION JOINT WHERE NEW CONCRETE MEETS EXISTING CONCRETE OR STRUCTURE.  
 2) CONTROL JOINTS SHALL BE CUT WITH A JOINTER HAVING A RADIUS OF 1/4" AND SPACED @ 5'-0" O.C. MAX. U.N.O.  
 3) EXPANSION JOINTS SHALL BE SPACED AT 20'-0" O.C. MAX. AND SHALL CONSIST OF A 1/2" PRE-FORMED JOINT FILLER.  
 4) ANTI-SPALLING COMPOUND SHALL BE APPLIED TO CONCRETE SURFACES.  
 5) SECTION TO BE REVIEWED AND APPROVED BY GEOTECHNICAL ENGINEER PRIOR TO INSTALLATION.

**TYPICAL CONCRETE SIDEWALK**  
NOT TO SCALE

DATE	REVISION DESCRIPTION
4/12/23	ADDED HC AND CONCRETE PAVEMENT (SIDEWALK) DETAILS

I hereby certify that this plan 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.  
**Charles W. Plowe**  
 CHARLES W. PLOWE  
 DATE: 5.3.2023 LIC. NO. 18227

**JAM HOPS DANCE STUDIO**  
**BLDG ADDITION**  
 HAM LAKE, MINNESOTA  
 DETAILS & NOTES

PREPARED FOR:  
**STONE CONSTRUCTION**

**PLOWE ENGINEERING, INC.**  
 6778 LAKE DRIVE  
 SUITE 110  
 LIND LAKES, MN 55014  
 PHONE: (651) 361-8210  
 FAX: (651) 361-8701

4.1 TERMINATION OF COVERAGE. [MINN. R. 7090]

- 4.2 PERMITTEES MUST SUBMIT A NOT WITHIN 30 DAYS AFTER ALL TERMINATION CONDITIONS LISTED IN SECTION 13 ARE COMPLETE. [MINN. R. 7090]
4.3 PERMITTEES MUST SUBMIT A NOT WITHIN 30 DAYS AFTER SELLING OR OTHERWISE LEGALLY TRANSFERRING THE ENTIRE SITE, INCLUDING PERMIT RESPONSIBILITY FOR ROADS (E.G., STREET SWEEPING) AND STORMWATER INFRASTRUCTURE FINAL CLEAN OUT, OR TRANSFERRING PORTIONS OF A SITE TO ANOTHER PARTY. THE PERMITTEES' COVERAGE UNDER THIS PERMIT TERMINATES AT MIDNIGHT ON THE SUBMISSION DATE OF THE NOT. [MINN. R. 7090]
4.4 PERMITTEES MAY TERMINATE PERMIT COVERAGE PRIOR TO COMPLETION OF ALL CONSTRUCTION ACTIVITY IF THEY MEET ALL OF THE FOLLOWING CONDITIONS:
A. CONSTRUCTION ACTIVITY HAS CEASED FOR AT LEAST 90 DAYS; AND
B. AT LEAST 90 PERCENT (BY AREA) OF ALL ORIGINALLY PROPOSED CONSTRUCTION ACTIVITY HAS BEEN COMPLETED AND PERMANENT COVER HAS BEEN ESTABLISHED ON THOSE AREAS; AND
C. ON AREAS WHERE CONSTRUCTION ACTIVITY IS NOT COMPLETE, PERMANENT COVER HAS BEEN ESTABLISHED; AND
D. THE SITE COMPLIES WITH ITEM 13.3 THROUGH 13.7.

AFTER PERMIT COVERAGE IS TERMINATED UNDER THIS ITEM, ANY SUBSEQUENT DEVELOPMENT ON THE REMAINING PORTIONS OF THE SITE WILL REQUIRE PERMIT COVERAGE IF THE SUBSEQUENT DEVELOPMENT ITSELF OR AS PART OF THE REMAINING COMMON PLAN OF DEVELOPMENT OR SALE WILL RESULT IN LAND DISTURBING ACTIVITIES OF ONE (1) OR MORE ACRES IN SIZE. [MINN. R. 7090]

4.5 PERMITTEES MAY TERMINATE COVERAGE UPON MPCA APPROVAL AFTER SUBMITTING INFORMATION DOCUMENTING THE OWNER CANCELED THE PROJECT. [MINN. R. 7090]

5.1 STORMWATER POLLUTION PREVENTION PLAN (SWPPP) CONTENT [MINN. R. 7090]

- 5.2 THE SWPPP MUST INCORPORATE SPECIFIC BEST MANAGEMENT PRACTICES (BMP) USED TO COMPLY WITH THE REQUIREMENTS OF THIS PERMIT. [MINN. R. 7090]
5.4 THE SWPPP MUST INCLUDE A NARRATIVE DESCRIBING THE TIMING FOR INSTALLATION OF ALL EROSION PREVENTION AND SEDIMENT CONTROL BMPs AND A DESCRIPTION OF THE PERMANENT STORMWATER TREATMENT SYSTEMS. [MINN. R. 7090]
5.5 THE SWPPP MUST INCLUDE THE LOCATION AND TYPE OF ALL TEMPORARY AND PERMANENT EROSION PREVENTION AND SEDIMENT CONTROL BMPs ALONG WITH PROCEDURES USED TO ESTABLISH ADDITIONAL TEMPORARY BMPs AS NECESSARY FOR THE SITE CONDITIONS DURING CONSTRUCTION. STANDARD DETAILS AND/OR SPECIFICATIONS FOR BMPs MUST BE INCLUDED IN THE FINAL PLANS AND SPECIFICATIONS FOR THE PROJECT. [MINN. R. 7090]
5.6 THE SWPPP MUST INCLUDE THE CALCULATIONS AND OTHER INFORMATION USED FOR THE DESIGN OF TEMPORARY SEDIMENT BASINS AND ANY OF THE PERMANENT STORMWATER TREATMENT SYSTEMS REQUIRED IN SECTION 15. [MINN. R. 7090]
5.7 THE SWPPP MUST INCLUDE ESTIMATED QUANTITIES ANTICIPATED AT THE START OF THE PROJECT FOR THE LIFE OF THE PROJECT FOR ALL EROSION PREVENTION AND SEDIMENT CONTROL BMPs (E.G., LINEAR FEET OF SILT FENCE OR SQUARE FEET OF EROSION CONTROL BLANKET). [MINN. R. 7090]
5.8 THE SWPPP MUST INCLUDE THE NUMBER OF ACRES OF IMPERVIOUS SURFACE FOR BOTH PRE- AND POST-CONSTRUCTION. [MINN. R. 7090]
5.9 THE SWPPP MUST INCLUDE A SITE MAP WITH EXISTING AND FINAL GRADES, INCLUDING DRAINAGE AREA BOUNDARIES, DIRECTIONS OF FLOW AND ALL DISCHARGE POINTS WHERE STORMWATER IS LEAVING THE SITE OR ENTERING A SURFACE WATER.

THE SITE MAP MUST INDICATE THE AREAS OF STEEP SLOPES. THE SITE MAP MUST ALSO INCLUDE IMPERVIOUS SURFACES, SOIL TYPES AND LOCATIONS OF POTENTIAL POLLUTANT-GENERATING ACTIVITIES AS IDENTIFIED IN SECTION 12. [MINN. R. 7090]

5.10 THE SWPPP MUST INCLUDE A MAP OF ALL SURFACE WATERS, EXISTING WETLANDS, AND STORMWATER PONDS OR BASINS THAT CAN BE IDENTIFIED ON MAPS SUCH AS UNITED STATES GEOLOGICAL SURVEY 7.5 MINUTE QUADRANGLE MAPS, THE NATIONAL WETLAND INVENTORY MAP OR EQUIVALENT MAPS AND ARE WITHIN ONE MILE (AERIAL RADIUS MEASUREMENT) FROM THE PROJECT BOUNDARIES THAT WILL RECEIVE STORMWATER FROM THE CONSTRUCTION SITE, DURING OR AFTER CONSTRUCTION. THE SWPPP MUST IDENTIFY IF THE SURFACE WATERS ARE SPECIAL OR IMPAIRED WATERS. [MINN. R. 7090]

5.11 THE SWPPP MUST INCLUDE A SITE MAP SHOWING CONSTRUCTION ACTIVITY AREAS THAT ARE ADJACENT TO AND DRINK TO PUBLIC WATERS FOR WHICH THE DNR HAS PROMULGATED "WORK IN WATER RESTRICTIONS" DURING SPECIFIED FISH SPANNING TIME FRAMES. [MINN. R. 7090]

5.12 PERMITTEES MUST IDENTIFY LOCATIONS OF 50' BUFFER ZONES AS REQUIRED IN ITEM 9.17 AND 100' PERMANENT BUFFER ZONES AS REQUIRED IN ITEM 23.11, ON PLAN SHEETS IN THE SWPPP. [MINN. R. 7090]

5.13 IF PERMITTEES DETERMINE COMPLIANCE WITH THE FOLLOWING REQUIREMENTS IS INFEASIBLE, THEY MUST DOCUMENT THE DETERMINATION IN THE SWPPP:
a. TEMPORARY SEDIMENT BASIN AS DESCRIBED IN SECTION 14, AND
b. FOR LINEAR TRENCH PERIMETER STORMWATER TREATMENT SYSTEM CANNOT BE CONSTRUCTED WITHIN THE RIGHT-OF-WAY, A REASONABLE ATTEMPT MUST BE MADE TO OBTAIN ADDITIONAL RIGHT-OF-WAY (ITEM 15.9) AND
c. BUFFER ZONES AS DESCRIBED IN ITEM 9.17 AND ITEM 23.11. [MINN. R. 7090]

5.14 IF PERMITTEES DETERMINE THAT A TEMPORARY SEDIMENT BASIN IS INFEASIBLE AS DESCRIBED IN ITEM 14.10, THE SWPPP MUST DESCRIBE THE ALTERNATIVE BMPs. [MINN. R. 7090]

5.15 WHERE SYSTEMS CANNOT MEET THE FULL VOLUME REDUCTION REQUIREMENT ON SITE, (E.G., THE SITE HAS INFILTRATION PROHIBITIONS, SEE ITEM 16.14 THROUGH ITEM 16.21) THE PERMITTEE MUST DOCUMENT THE REASONS IN THE SWPPP [MINN. R. 7090]

5.16 THE SWPPP MUST INCLUDE ANY STORMWATER MITIGATION MEASURES PROPOSED TO BE PART OF THE FINAL PROJECT IN ANY ENVIRONMENTAL REVIEW DOCUMENT, ENDANGERED SPECIES REVIEW, ARCHEOLOGICAL OR OTHER RELEVANT LOCAL, STATE OR FEDERAL REVIEW CONDUCTED FOR THE PROJECT, FOR PURPOSES OF THIS PERMIT. MITIGATION MEASURES MEANS ACTIONS NECESSARY TO AVOID, MINIMIZE OR PREVENT ADVERSE IMPACTS TO EROSION PREVENTION, SEDIMENT CONTROL, THE PERMANENT STORMWATER TREATMENT SYSTEM, POLLUTION PREVENTION MANAGEMENT MEASURES AND DISCHARGES ASSOCIATED WITH THE PROJECT'S CONSTRUCTION ACTIVITY. [MINN. R. 7090]

5.17 THE SWPPP MUST DESCRIBE THE METHODS USED FOR PERMANENT COVER OF ALL EXPOSED SOIL AREAS. [MINN. R. 7090]

5.18 PERMITTEES MUST IDENTIFY THE LOCATIONS OF AREAS WHERE CONSTRUCTION WILL BE PHASED TO MINIMIZE THE DURATION OF EXPOSED SOIL AREAS IN THE SWPPP. [MINN. R. 7090]

5.19 FOR PROJECTS WITH A DISCHARGE POINT ON THE PROJECT WITHIN ONE (1) MILE (AERIAL RADIUS MEASUREMENT) OF AND WHICH FLOWS TO AN IMPAIRED WATER, PERMITTEES MUST IDENTIFY THE IMPAIRED WATERS, AND ANY UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (USEPA)-APPROVED TOTAL MAXIMUM DAILY LOAD (TMDL) FOR THE POLLUTANT(S) OR STRESSOR(S) DESCRIBED IN ITEM 23.7. PERMITTEES' IDENTIFICATION MUST INCLUDE THOSE TMDLs APPROVED AT ANY TIME PRIOR TO PERMIT APPLICATION SUBMITTAL AND ARE STILL IN EFFECT. [MINN. R. 7090]

5.20 PERMITTEES MUST DOCUMENT IN THE SWPPP, ALL TRAINED INDIVIDUALS IDENTIFIED IN ITEM 21.2. DOCUMENTATION MUST INCLUDE:
a. NAMES OF PERSONNEL REQUIRED TO BE TRAINED; AND
b. DATES OF TRAINING AND NAME OF INSTRUCTOR(S) AND ENTITY PROVIDING TRAINING; AND
c. CONTENT OF TRAINING COURSE.

IF PERMITTEES DO NOT KNOW THE NAMES OF THE INDIVIDUALS AT THE TIME OF APPLICATION, THE PERMITTEES MUST ENSURE THEY DOCUMENT TRAINING BEFORE CONSTRUCTION ACTIVITY COMMENCES. [MINN. R. 7090]

5.21 THE SWPPP MUST IDENTIFY A PERSON KNOWLEDGEABLE AND EXPERIENCED IN THE APPLICATION OF EROSION PREVENTION AND SEDIMENT CONTROL BMPs WHO WILL COORDINATE WITH ALL CONTRACTORS, SUBCONTRACTORS, AND OPERATE ON-SITE TO OVERSEE THE IMPLEMENTATION OF THE SWPPP. [MINN. R. 7090]

5.22 THE SWPPP MUST DESCRIBE ANY SPECIFIC CHEMICALS AND CHEMICAL TREATMENT SYSTEMS USED FOR ENHANCING THE SEDIMENTATION PROCESS AND HOW IT ACHIEVES COMPLIANCE WITH ITEM 9.16. [MINN. R. 7090]

5.23 THE SWPPP MUST IDENTIFY THE PERSON(S), ORGANIZATION, OR ENTITIES RESPONSIBLE FOR LONG-TERM OPERATION AND MAINTENANCE OF PERMANENT STORMWATER TREATMENT SYSTEMS. [MINN. R. 7090]

5.24 THE SWPPP MUST DESCRIBE METHODS TO MINIMIZE SOIL COMPACTION AND PRESERVE TOPSOIL, MINIMIZING SOIL COMPACTION IS NOT REQUIRED WHERE THE FUNCTION OF A SPECIFIC AREA DICTATES COMPACTION. [MINN. R. 7090]

5.25 THE SWPPP MUST INCLUDE ANY SITE ASSESSMENTS FOR GROUNDWATER OR SOIL CONTAMINATION REQUIRED IN ITEM 16.15. [MINN. R. 7090]

5.26 THE SWPPP MUST ACCOUNT FOR THE FOLLOWING FACTORS IN DESIGNING TEMPORARY EROSION PREVENTION AND SEDIMENT CONTROL BMPs:

- a. THE EXPECTED AMOUNT, FREQUENCY, INTENSITY, AND DURATION OF PRECIPITATION; AND
b. THE NATURE OF STORMWATER RUNOFF AND RUN-ON AT THE SITE, INCLUDING FACTORS SUCH AS EXPECTED FLOW FROM IMPERVIOUS SURFACES, SLOPES, AND SITE DRAINAGE FEATURES; AND
c. THE STORMWATER VOLUME, VELOCITY, AND PEAK FLOW RATES TO MINIMIZE DISCHARGE OF POLLUTANTS IN RUNOFF WATER AND TO MINIMIZE CHANNEL AND STREAM-BANK EROSION AND SOIL IN THE IMMEDIATE VICINITY OF DISCHARGE POINTS; AND
d. THE RANGE OF SOIL PARTICLES SIZES EXPECTED TO BE PRESENT. [MINN. R. 7090]

6.1 SWPPP AMENDMENTS [MINN. R. 7090]

6.2 ONE OF THE INDIVIDUALS DESCRIBED IN ITEM 21.2 A OR ITEM 21.2 B OR ANOTHER QUALIFIED INDIVIDUAL MUST COMPLETE ALL SWPPP CHANGES. CHANGES INVOLVING THE USE OF A LESS STRINGENT BMP MUST INCLUDE A JUSTIFICATION DESCRIBING HOW THE REPLACEMENT BMP IS EFFECTIVE FOR THE SITE CHARACTERISTICS. [MINN. R. 7090]

6.3 PERMITTEES MUST AMEND THE SWPPP TO INCLUDE ADDITIONAL OR MODIFIED BMPs AS NECESSARY TO CORRECT PROBLEMS IDENTIFIED OR ADDRESS SITUATIONS WHENEVER THERE IS A CHANGE IN DESIGN, CONSTRUCTION, OPERATION, MAINTENANCE, WEATHER OR SEASONAL CONDITIONS HAVING A SIGNIFICANT EFFECT ON THE DISCHARGE OF POLLUTANTS TO SURFACE WATERS OR GROUNDWATER. [MINN. R. 7090]

6.4 PERMITTEES MUST AMEND THE SWPPP TO INCLUDE ADDITIONAL OR MODIFIED BMPs AS NECESSARY TO CORRECT PROBLEMS IDENTIFIED OR ADDRESS SITUATIONS WHENEVER INSPECTIONS BY THE SITE OWNER OR OPERATOR, USEPA OR MPCA OFFICIALS INDICATE THE SWPPP IS NOT EFFECTIVE IN ELIMINATING OR SIGNIFICANTLY MINIMIZING THE DISCHARGE OF POLLUTANTS TO SURFACE WATERS OR GROUNDWATER OR THE DISCHARGES ARE CAUSING WATER QUALITY STANDARD EXCEEDANCES (E.G., NUISANCE CONDITIONS AS DEFINED IN MINN. R. 7050.0210, SUBP. 2) OR THE SWPPP IS NOT CONSISTENT WITH THE OBJECTIVES OF A USEPA APPROVED TMDL. [MINN. R. 7090.0210]

7.1 BMP SELECTION AND INSTALLATION. [MINN. R. 7090]

7.2 PERMITTEES MUST SELECT, INSTALL, AND MAINTAIN THE BMPs IDENTIFIED IN THE SWPPP AND IN THIS PERMIT IN AN APPROPRIATE AND FUNCTIONAL MANNER IN ACCORDANCE WITH RELEVANT MANUFACTURER SPECIFICATIONS AND ACCEPTED ENGINEERING PRACTICES. [MINN. R. 7090]

8.1 EROSION PREVENTION PRACTICES. [MINN. R. 7090]

8.2 BEFORE WORK BEGINS, PERMITTEES MUST DELINEATE THE LOCATION OF AREAS NOT TO BE DISTURBED. [MINN. R. 7090]
8.3 PERMITTEES MUST MINIMIZE THE NEED FOR DISTURBANCE OF PORTIONS OF THE PROJECT WITH STEEP SLOPES. WHEN STEEP SLOPES MUST BE DISTURBED, PERMITTEES MUST USE TECHNIQUES SUCH AS PHASING AND STABILIZATION PRACTICES DESIGNED FOR STEEP SLOPES (E.G., SLOPE DRAINING AND TERRACING). [MINN. R. 7090]

8.4 PERMITTEES MUST STABILIZE ALL EXPOSED SOIL AREAS, INCLUDING STOCKPILES. STABILIZATION MUST BE INITIATED IMMEDIATELY TO LIMIT SOIL EROSION WHEN CONSTRUCTION ACTIVITY HAS PERMANENTLY OR TEMPORARILY CEASED ON ANY PORTION OF THE SITE AND WILL NOT RETURN FOR PERIODS EXCEEDING 7 CALENDAR DAYS. STABILIZATION MUST BE COMPLETED NO LATER THAN 7 CALENDAR DAYS AFTER THE CONSTRUCTION ACTIVITY HAS CEASED. STABILIZATION IS NOT REQUIRED ON CONSTRUCTED BASE COMPONENTS OF ROADS, PARKING LOTS AND SIMILAR SURFACES. STABILIZATION IS NOT REQUIRED ON TEMPORARY STOCKPILES WITHOUT SIGNIFICANT SILT, CLAY OR ORGANIC COMPONENTS (E.G., CLEAN AGGREGATE STOCKPILES, DEMOLITION CONCRETE STOCKPILES, SAND STOCKPILES) BUT PERMITTEES MUST PROVIDE SEDIMENT CONTROLS AT THE BASE OF THE STOCKPILE. [MINN. R. 7090]

8.5 FOR PUBLIC WATERS THAT THE MINNESOTA DNR HAS PROMULGATED "WORK IN WATER RESTRICTIONS" DURING SPECIFIED FISH SPANNING TIME FRAMES, PERMITTEES MUST COMPLETE STABILIZATION OF ALL EXPOSED SOIL AREAS WITHIN 200 FEET OF THE WATER'S EDGE, AND THAT DRAIN TO THESE WATERS, WITHIN 24 HOURS DURING THE RESTRICTION PERIOD. [MINN. R. 7090]

8.6 PERMITTEES MUST STABILIZE THE NORMAL WETTED PERIMETER OF THE LAST 200 LINEAR FEET OF TEMPORARY OR PERMANENT DRAINAGE DITCHES OR SWALES THAT DRAIN WATER FROM THE SITE WITHIN 24 HOURS AFTER CONNECTING TO A SURFACE WATER OR PROPERTY EDGE. PERMITTEES MUST COMPLETE STABILIZATION OF REMAINING PORTIONS OF TEMPORARY OR PERMANENT DRAINAGE DITCHES WITHIN 7 CALENDAR DAYS AFTER CONNECTING TO A SURFACE WATER OR PROPERTY EDGE AND CONSTRUCTION IN THAT PORTION OF THE DITCH TEMPORARILY OR PERMANENTLY CEASES. [MINN. R. 7090]

8.7 TEMPORARY OR PERMANENT DITCHES OR SWALES BEING USED AS A SEDIMENT CONTAINMENT SYSTEM DURING CONSTRUCTION (WITH PROPERLY DESIGNED ROCK-DITCH CHECKS, BOLL ROLLS, SILT DIKES, ETC.) DO NOT NEED TO BE STABILIZED. PERMITTEES MUST STABILIZE THESE AREAS WITHIN 24 HOURS AFTER THEIR USE AS A SEDIMENT CONTAINMENT SYSTEM CEASES. [MINN. R. 7090]

8.8 PERMITTEES MUST NOT USE MULCH, HYDROMULCH, TACKIFIER, POLYACRYLAMIDE OR SIMILAR EROSION PREVENTION PRACTICES WITHIN ANY PORTION OF THE NORMAL WETTED PERIMETER OF A TEMPORARY OR PERMANENT DRAINAGE DITCH OR SWALE SECTION WITH A CONTINUOUS SLOPE OF GREATER THAN 2 PERCENT. [MINN. R. 7090]

8.9 PERMITTEES MUST PROVIDE TEMPORARY OR PERMANENT ENERGY DISSIPATION AT ALL PIPE OUTLETS WITHIN 24 HOURS AFTER CONNECTION TO A SURFACE WATER OR PERMANENT TREATMENT SYSTEM. [MINN. R. 7090]

8.10 PERMITTEES MUST NOT DISTURB MORE LAND (I.E., PHASING) THAN CAN BE EFFECTIVELY INSPECTED AND MAINTAINED IN ACCORDANCE WITH SECTION 11. [MINN. R. 7090]

9.1 SEDIMENT CONTROL PRACTICES. [MINN. R. 7090]

9.2 PERMITTEES MUST ESTABLISH SEDIMENT CONTROL BMPs ON ALL DOWNGRADIENT PERIMETERS OF THE SITE AND DOWNGRADIENT AREAS OF THE SITE THAT DRAIN TO ANY SURFACE WATER, INCLUDING CURB AND GUTTER SYSTEMS. PERMITTEES MUST LOCATE SEDIMENT CONTROL PRACTICES UPGRADIENT OF ANY BUFFER ZONES. PERMITTEES MUST INSTALL SEDIMENT CONTROL PRACTICES BEFORE ANY UPGRADIENT LAND-DISTURBING ACTIVITIES BEGIN AND MUST KEEP THE SEDIMENT CONTROL PRACTICES IN PLACE UNTIL THEY ESTABLISH PERMANENT COVER. [MINN. R. 7090]

9.3 IF DOWNGRADIENT SEDIMENT CONTROLS ARE OVERLOADED, BASED ON FREQUENT FAILURE OR EXCESSIVE MAINTENANCE REQUIREMENTS, PERMITTEES MUST INSTALL TEMPORARY SEDIMENT CONTROL PRACTICES OR REDUNDANT BMPs TO ELIMINATE THE OVERLOADING AND AMEND THE SWPPP TO IDENTIFY THESE ADDITIONAL PRACTICES AS REQUIRED IN ITEM 6.3. [MINN. R. 7090]

9.4 TEMPORARY OR PERMANENT DRAINAGE DITCHES AND SEDIMENT BASINS DESIGNED AS PART OF A SEDIMENT CONTAINMENT SYSTEM (E.G., TRENCH DITCHES WITH CHECK DAMS) REQUIRE SEDIMENT CONTROL PRACTICES ONLY AS APPROPRIATE FOR SITE CONDITIONS. [MINN. R. 7090]

9.5 A FLOATING SILT CURTAIN PLACED IN THE WATER IS NOT A SEDIMENT CONTROL BMP TO SATISFY ITEM 9.2 EXCEPT WHEN WORKING ON A SHORELINE OR BELOW THE WATERLINE. IMMEDIATELY AFTER THE SHORT TERM CONSTRUCTION ACTIVITY (E.G., INSTALLATION OF RIP RAP ALONG THE SHORELINE) IN THAT AREA IS COMPLETE, PERMITTEES MUST INSTALL AN UPLAND SEDIMENT CONTROL PRACTICE THAT AN APPROPRIATE DISPOSAL METHOD IS AVAILABLE FOR RECOVERED SPILLED MATERIALS. PERMITTEES MUST REPORT AND CLEAN UP SPILLS IMMEDIATELY AS REQUIRED BY MINN. STAT. 115.061, USING DRY CLEAN UP MEASURES WHERE POSSIBLE. [MINN. STAT. 115.061]

9.6 PERMITTEES MUST RESTRICT VEHICLE EXTERIOR WASHING AND EQUIPMENT TO A DEFINED AREA OF THE SITE. PERMITTEES MUST CONTAIN RUNOFF FROM THE WASHING AREA IN A SEDIMENT BASIN OR OTHER SIMILARLY EFFECTIVE CONTROLS AND MUST DISPOSE WASTE FROM THE WASHING ACTIVITY PROPERLY. PERMITTEES MUST PROPERLY USE AND STORE SOAPS, DETERGENTS, OR SOLVENTS. [MINN. R. 7090]

9.7 PERMITTEES MUST PROVIDE EFFECTIVE CONTAINMENT FOR ALL LIQUID AND SOLID WASTES GENERATED BY WASHOUT OPERATIONS (E.G., CONCRETE, STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS AND OTHER CONSTRUCTION MATERIALS) RELATED TO CONSTRUCTION ACTIVITY. PERMITTEES MUST PREVENT LIQUID AND SOLID WASHOUT WASTES FROM CONTACTING THE GROUND AND MUST DESIGN THE CONTAINMENT SO IT DOES NOT RESULT IN RUNOFF FROM THE WASHOUT OPERATIONS OR AREAS. PERMITTEES MUST PROPERLY DISPOSE LIQUID AND SOLID WASTES IN COMPLIANCE WITH MPCA RULES. PERMITTEES MUST INSTALL A SIGN INDICATING THE LOCATION OF THE WASHOUT FACILITY. [MINN. R. 7090]

9.8 PERMITTEES MUST INSTALL A SIGN INDICATING THE LOCATION OF THE WASHOUT FACILITY. [MINN. R. 7090]

9.9 PERMITTEES MUST PROVIDE SILT FENCE OR OTHER EFFECTIVE SEDIMENT CONTROLS AT THE BASE OF STOCKPILES ON THE DOWNGRADIENT PERIMETER. [MINN. R. 7090]

9.10 PERMITTEES MUST LOCATE STOCKPILES OUTSIDE OF NATURAL BUFFERS OR SURFACE WATERS, INCLUDING STORMWATER CONVEYANCES SUCH AS CURB AND GUTTER SYSTEMS UNLESS THERE IS A BYPASS IN PLACE FOR THE STORMWATER. [MINN. R. 7090]

9.11 PERMITTEES MUST INSTALL A VEHICLE TRACKING BMP TO MINIMIZE THE TRACK OUT OF SEDIMENT FROM THE CONSTRUCTION SITE OR ONTO PAVED ROADS WITHIN THE SITE. [MINN. R. 7090]

9.12 PERMITTEES MUST USE STREET SWEEPING IF VEHICLE TRACKING BMPs ARE NOT ADEQUATE TO PREVENT SEDIMENT FROM GOING ONTO THE STREET. [MINN. R. 7090]

9.13 PERMITTEES MUST INSTALL TEMPORARY SEDIMENT BASINS AS REQUIRED IN SECTION 14. [MINN. R. 7090]

9.14 IN ANY AREAS OF THE SITE WHERE FINAL VEGETATIVE STABILIZATION WILL OCCUR, PERMITTEES MUST RESTRICT VEHICLE AND EQUIPMENT USE TO MINIMIZE SOIL COMPACTION. [MINN. R. 7090]

9.15 PERMITTEES MUST PRESERVE TOPSOIL ON THE SITE, UNLESS INFEASIBLE. [MINN. R. 7090]

9.16 PERMITTEES MUST DIRECT DISCHARGES FROM BMPs TO VEGETATED AREAS UNLESS INFEASIBLE. [MINN. R. 7090]

9.17 PERMITTEES MUST PRESERVE A 50 FOOT NATURAL BUFFER OR, IF A BUFFER IS INFEASIBLE ON THE SITE, PROVIDE REDUNDANT (DOUBLE) PERIMETER SEDIMENT CONTROLS WHEN SURFACE WATER IS LOCATED WITHIN 50 FEET OF THE PROJECT'S EARTH DISTURBANCES AND STORMWATER FLOWS TO THE SURFACE WATER. PERMITTEES MUST INSTALL PERIMETER SEDIMENT CONTROLS LIMITED TO 10 FEET FROM THE BUFFER OR BUFFER AREAS. BUFFER AREAS MUST NOT BE ADJACENT TO ROAD DITCHES, JUDICIAL DITCHES, COUNTY DITCHES, STORMWATER CONVEYANCE CHANNELS, STORM DRAIN INLETS, AND SEDIMENT BASINS. IF PRESERVING THE BUFFER IS INFEASIBLE, PERMITTEES MUST DOCUMENT THE REASONS IN THE SWPPP. SHEET PILING IS A REDUNDANT PERIMETER CONTROL IF INSTALLED IN A MANNER THAT RETAINS ALL STORMWATER. [MINN. R. 7090]

9.18 PERMITTEES MUST USE POLYMERS, FLOCCULANTS, OR OTHER SEDIMENTATION TREATMENT CHEMICALS IN ACCORDANCE WITH ACCEPTED ENGINEERING PRACTICES, DOSING SPECIFICATIONS AND SEDIMENT REMOVAL DESIGN SPECIFICATIONS PROVIDED BY THE MANUFACTURER OR SUPPLIER. THE PERMITTEES MUST USE CONVENTIONAL EROSION AND SEDIMENT CONTROLS PRIOR TO CHEMICAL ADDITION AND MUST DIRECT TREATED STORMWATER TO A SEDIMENT CONTROL SYSTEM FOR FILTRATION OR SETTLEMENT OF THE FLOC PRIOR TO DISCHARGE. [MINN. R. 7090]

10.1 DEWATERING AND BASIN DRAINING. [MINN. R. 7090]

10.2 PERMITTEES MUST DISCHARGE TURBID OR SEDIMENT-LADEN WATERS RELATED TO DEWATERING OR BASIN DRAINING (E.G., PUMPED DISCHARGES, TRENCH-DITCH CUTS FOR DRAINAGE) TO A TEMPORARY OR PERMANENT SEDIMENT BASIN ON THE PROJECT SITE UNLESS INFEASIBLE. PERMITTEES MAY DEWATER TO SURFACE WATERS IF THEY VISUALLY CHECK TO ENSURE ADEQUATE TREATMENT HAS BEEN OBTAINED AND NUISANCE CONDITIONS (SEE MINN. R. 7090.0210, SUBP. 2) WILL NOT RESULT FROM THE DISCHARGE. IF PERMITTEES CANNOT DISCHARGE THE WATER TO A SEDIMENTATION BASIN PRIOR TO ENTERING A SURFACE WATER, PERMITTEES MUST TREAT IT WITH AN IMPERMEABLE BMP SUCH THAT THE DISCHARGE DOES NOT ADVERSELY AFFECT THE SURFACE WATER OR DOWNSTREAM PROPERTIES. [MINN. R. 7090]

10.3 IF PERMITTEES MUST DISCHARGE WATER CONTAINING OIL OR GREASE, THEY MUST USE AN OIL-WATER SEPARATOR OR SUITABLE FILTRATION DEVICE (E.G., CARTRIDGE FILTERS, ABSORBENTS PADS) PRIOR TO DISCHARGE. [MINN. R. 7090]

10.4 PERMITTEES MUST DISCHARGE ALL WATER FROM DEWATERING OR BASIN-DRAINING ACTIVITIES IN A MANNER THAT DOES NOT CAUSE EROSION OR SCOUR IN THE IMMEDIATE VICINITY OF DISCHARGE POINTS OR INUNDATION OF WETLANDS IN THE IMMEDIATE VICINITY OF DISCHARGE POINTS THAT CAUSES SIGNIFICANT ADVERSE IMPACT TO THE WETLAND. [MINN. R. 7090]

10.5 IF PERMITTEES USE FILTERS WITH BACKWASH WATER, THEY MUST HAUL THE BACKWASH WATER AWAY FOR DISPOSAL, RETURN THE BACKWASH WATER TO THE BEGINNING OF THE TREATMENT PROCESS, OR INCORPORATE THE BACKWASH WATER INTO THE SITE IN A MANNER THAT DOES NOT CAUSE EROSION. [MINN. R. 7090]

11.1 INSPECTIONS AND MAINTENANCE. [MINN. R. 7090]

11.2 PERMITTEES MUST ENSURE A TRAINED PERSON, AS IDENTIFIED IN ITEM 21.2 B, WILL INSPECT THE ENTIRE CONSTRUCTION SITE AT LEAST ONCE EVERY SEVEN (7) DAYS DURING ACTIVE CONSTRUCTION AND WITHIN 24 HOURS AFTER A RAINFALL EVENT GREATER THAN 1/2 INCH IN 24 HOURS. [MINN. R. 7090]

11.3 PERMITTEES MUST INSPECT AND MAINTAIN ALL PERMANENT STORMWATER TREATMENT BMPs. [MINN. R. 7090]

11.4 PERMITTEES MUST INSPECT ALL EROSION PREVENTION AND SEDIMENT CONTROL BMPs AND POLLUTION PREVENTION MANAGEMENT MEASUREMENTS FOR EFFECTIVENESS. PERMITTEES MUST REPAIR, REPLACE OR SUPPLEMENT ALL NONFUNCTIONAL BMPs WITH FUNCTIONAL BMPs BY THE END OF THE NEXT BUSINESS DAY AFTER DISCOVERY UNLESS ANOTHER TIME FRAME IS SPECIFIED IN ITEM 11.5 OR 11.6. PERMITTEES MAY TAKE ADDITIONAL TIME IF FIELD CONDITIONS PREVENT ACCESS TO THE AREA. [MINN. R. 7090]

11.5 DURING EACH INSPECTION, PERMITTEES MUST INSPECT SURFACE WATERS, INCLUDING DRAINAGE DITCHES AND CONVEYANCE SYSTEMS, FOR EVIDENCE OF EROSION OR SEDIMENTATION. PERMITTEES MUST REMOVE ALL DELTAS AND SEDIMENT DEPOSITED IN SURFACE WATERS, INCLUDING DRAINAGE WAYS, CATCH BASINS, AND OTHER DRAINAGE SYSTEMS AND RESTABILIZE THE AREAS WHERE SEDIMENT REMOVAL RESULTS IN EXPOSED SOIL. PERMITTEES MUST COMPLETE REMOVAL AND STABILIZATION WITHIN SEVEN (7) CALENDAR DAYS OF DISCOVERY UNLESS OTHERWISE SPECIFIED IN THE SWPPP. PERMITTEES MUST USE ALL REASONABLE EFFORTS TO OBTAIN ACCESS. IF PRECLUDED, REMOVAL AND STABILIZATION MUST TAKE PLACE WITHIN SEVEN (7) DAYS OF OBTAINING ACCESS. PERMITTEES ARE RESPONSIBLE FOR CONTACTING ALL LOCAL, REGIONAL, STATE AND FEDERAL AUTHORITIES AND RECEIVING ANY APPLICABLE PERMITS, PRIOR TO CONDUCTING ANY WORK IN SURFACE WATERS. [MINN. R. 7090]

11.6 PERMITTEES MUST INSPECT CONSTRUCTION SITE VEHICLE EXIT LOCATIONS, STREETS AND CURB AND GUTTER SYSTEMS WITHIN AND ADJACENT TO THE PROJECT FOR SEDIMENTATION FROM EROSION OR TRACKED SEDIMENT FROM VEHICLES. PERMITTEES MUST REMOVE SEDIMENT FROM ALL PAVED SURFACES WITHIN ONE (1) CALENDAR DAY OF DISCOVERY OR, IF APPLICABLE, WITHIN A SHORTER TIME TO AVOID A SAFETY HAZARD TO USERS OF PUBLIC STREETS. [MINN. R. 7090]

11.7 PERMITTEES MUST REPAIR, REPLACE OR SUPPLEMENT ALL PERIMETER CONTROL DEVICES WHEN THEY BECOME NONFUNCTIONAL OR THE SEDIMENT REACHES 1/2 OF THE HEIGHT OF THE DEVICE. [MINN. R. 7090]

11.8 PERMITTEES MUST DRAIN TEMPORARY AND PERMANENT SEDIMENTATION BASINS AND REMOVE THE SEDIMENT WHEN THE DEPTH OF SEDIMENT COLLECTED IN THE BASIN REACHES 1/2 THE STORAGE VOLUME. [MINN. R. 7090]

11.9 PERMITTEES MUST ENSURE THAT AT LEAST ONE INDIVIDUAL PRESENT ON THE SITE OR AVAILABLE TO THE PROJECT SITE IN THREE (3) CALENDAR DAYS IS TRAINED IN THE JOB DUTIES DESCRIBED IN ITEM 21.2 B. [MINN. R. 7090]

11.10 PERMITTEES MAY ADJUST THE INSPECTION SCHEDULE DESCRIBED IN ITEM 11.2 AS FOLLOWS:

- A. INSPECTIONS OF AREAS WITH PERMANENT COVER CAN BE REDUCED TO ONCE PER MONTH, EVEN IF CONSTRUCTION ACTIVITY CONTINUES ON OTHER PORTIONS OF THE SITE; OR
B. WHERE SITES HAVE PERMANENT COVER ON ALL EXPOSED SOIL AND NO CONSTRUCTION ACTIVITY IS OCCURRING ANYWHERE ON THE SITE, INSPECTIONS CAN BE REDUCED TO ONCE PER MONTH AND, AFTER 12 MONTHS, MAY BE SUSPENDED COMPLETELY UNTIL CONSTRUCTION ACTIVITY RESUMES. THE MPCA MAY REQUIRE INSPECTIONS TO RESUME IF CONDITIONS WARRANT; OR
C. WHERE CONSTRUCTION ACTIVITY HAS BEEN SUSPENDED DUE TO FROZEN GROUND CONDITIONS, INSPECTIONS MAY BE SUSPENDED, INSPECTIONS MUST RESUME WITHIN 24 HOURS OF RUNOFF OCCURRING, OR UPON RESUMING CONSTRUCTION, WHICHEVER COMES FIRST. [MINN. R. 7090]
11.11 PERMITTEES MUST RECORD ALL INSPECTIONS AND MAINTENANCE ACTIVITIES WITHIN 24 HOURS OF BEING CONDUCTED AND THESE RECORDS MUST BE RETAINED WITH THE SWPPP. THESE RECORDS MUST INCLUDE:
A. DATE AND TIME OF INSPECTIONS; AND
B. NAME OF PERSONS CONDUCTING INSPECTIONS; AND
C. ACCURATE FINDINGS OF INSPECTIONS, INCLUDING THE SPECIFIC LOCATION WHERE CORRECTIVE ACTIONS ARE NEEDED; AND
D. CORRECTIVE ACTIONS TAKEN (INCLUDING DATES, TIMES, AND PARTY COMPLETING MAINTENANCE ACTIVITIES); AND
E. DATES OF ALL RAINFALL EVENTS GREATER THAN 1/2 INCHES IN 24 HOURS, AND THE AMOUNT OF RAINFALL FOR EACH EVENT. PERMITTEES MUST OBTAIN RAINFALL AMOUNTS BY EITHER A PROPERTY MAINTAINED RAIN GAUGE INSTALLED ON-SITE, A WEATHER STATION THAT IS WITHIN ONE (1) MILE OF YOUR LOCATION, OR A WEATHER REPORTING SYSTEM THAT PROVIDES SITE SPECIFIC RAINFALL DATA FROM RADAR SUMMARIES; AND
F. IF PERMITTEES OBSERVE A DISCHARGE DURING THE INSPECTION, THEY MUST RECORD AND SHOULD PHOTOGRAPH AND DESCRIBE THE LOCATION OF THE DISCHARGE (I.E., COLOR, ODOR, SETTLED OR SUSPENDED SOLIDS, OIL SHEEN, AND OTHER OBVIOUS INDICATORS OF POLLUTANTS); AND
G. ANY AMENDMENTS TO THE SWPPP PROPOSED AS A RESULT OF THE INSPECTION MUST BE DOCUMENTED AS REQUIRED IN SECTION 6 WITHIN SEVEN (7) CALENDAR DAYS. [MINN. R. 7090]

12.1 POLLUTION PREVENTION MANAGEMENT MEASURES. [MINN. R. 7090]

12.2 PERMITTEES MUST PLACE BUILDING PRODUCTS AND LANDSCAPE MATERIALS UNDER COVER (E.G., PLASTIC SHEETING OR TEMPORARY ROOFS) OR PROTECT THEM BY SIMILARLY EFFECTIVE MEANS DESIGNED TO MINIMIZE CONTACT WITH STORMWATER. PERMITTEES ARE NOT REQUIRED TO COVER OR PROTECT PRODUCTS WHICH ARE EITHER NOT A SOURCE OF CONTAMINATION TO STORMWATER OR ARE DESIGNED TO BE EXPOSED TO STORMWATER. [MINN. R. 7090]

12.3 PERMITTEES MUST PLACE PESTICIDES, FERTILIZERS AND TREATMENT CHEMICALS UNDER COVER (E.G., PLASTIC SHEETING OR TEMPORARY ROOFS) OR PROTECT THEM BY SIMILARLY EFFECTIVE MEANS DESIGNED TO MINIMIZE CONTACT WITH STORMWATER. [MINN. R. 7090]

12.4 PERMITTEES MUST STORE HAZARDOUS MATERIALS AND TOXIC WASTE, INCLUDING OIL, DIESEL FUEL, GASOLINE, HYDRAULIC FLUIDS, PAINT SOLVENTS, PAINTS, PRESERVATIVES, ADDITIVES, CURING COMPOUNDS, AND ACIDS IN SEALED CONTAINERS TO PREVENT SPLASH, LEAKS OR OTHER DISCHARGE. STORAGE AND DISPOSAL OF HAZARDOUS WASTE MATERIALS MUST BE IN COMPLIANCE WITH MINN. R. CH 7045 INCLUDING SECONDARY CONTAINMENT AS APPLICABLE. [MINN. R. 7090]

12.5 PERMITTEES MUST PROPERLY STORE, COLLECT AND DISPOSE SOLID WASTE IN COMPLIANCE WITH MINN. R. CH 7035. [MINN. R. 7090]

12.6 PERMITTEES MUST POSITION PORTABLE TOILETS SO THEY ARE SECURE AND WILL NOT TIP OR BE KNOCKED OVER. PERMITTEES MUST PROPERLY DISPOSE SANITARY WASTE IN ACCORDANCE WITH MINN. R. CH 7041. [MINN. R. 7041]

12.7 PERMITTEES MUST TAKE REASONABLE STEPS TO PREVENT THE DISCHARGE OF SPILLED OR LEAKED CHEMICALS, INCLUDING FUEL, FROM ANY AREA WHERE CHEMICALS OR FUEL WILL BE LOADED OR UNLOADED INCLUDING THE USE OF DRIP PANS OR ABSORBENTS UNLESS INFEASIBLE. PERMITTEES MUST ENSURE ADEQUATE SUPPLIES ARE AVAILABLE AT ALL TIMES TO CLEAN UP DISCHARGED MATERIALS AND THAT AN APPROPRIATE DISPOSAL METHOD IS AVAILABLE FOR RECOVERED SPILLED MATERIALS. PERMITTEES MUST REPORT AND CLEAN UP SPILLS IMMEDIATELY AS REQUIRED BY MINN. STAT. 115.061, USING DRY CLEAN UP MEASURES WHERE POSSIBLE. [MINN. STAT. 115.061]

12.8 PERMITTEES MUST LIMIT VEHICLE EXTERIOR WASHING AND EQUIPMENT TO A DEFINED AREA OF THE SITE. PERMITTEES MUST CONTAIN RUNOFF FROM THE WASHING AREA IN A SEDIMENT BASIN OR OTHER SIMILARLY EFFECTIVE CONTROLS AND MUST DISPOSE WASTE FROM THE WASHING ACTIVITY PROPERLY. PERMITTEES MUST PROPERLY USE AND STORE SOAPS, DETERGENTS, OR SOLVENTS. [MINN. R. 7090]

12.9 PERMITTEES MUST PROVIDE EFFECTIVE CONTAINMENT FOR ALL LIQUID AND SOLID WASTES GENERATED BY WASHOUT OPERATIONS (E.G., CONCRETE, STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS AND OTHER CONSTRUCTION MATERIALS) RELATED TO CONSTRUCTION ACTIVITY. PERMITTEES MUST PREVENT LIQUID AND SOLID WASHOUT WASTES FROM CONTACTING THE GROUND AND MUST DESIGN THE CONTAINMENT SO IT DOES NOT RESULT IN RUNOFF FROM THE WASHOUT OPERATIONS OR AREAS. PERMITTEES MUST PROPERLY DISPOSE LIQUID AND SOLID WASTES IN COMPLIANCE WITH MPCA RULES. PERMITTEES MUST INSTALL A SIGN INDICATING THE LOCATION OF THE WASHOUT FACILITY. [MINN. R. 7090]

12.10 PERMITTEES MUST INSTALL A SIGN INDICATING THE LOCATION OF THE WASHOUT FACILITY. [MINN. R. 7090]

12.11 PERMITTEES MUST PROVIDE SILT FENCE OR OTHER EFFECTIVE SEDIMENT CONTROLS AT THE BASE OF STOCKPILES ON THE DOWNGRADIENT PERIMETER. [MINN. R. 7090]

12.12 PERMITTEES MUST LOCATE STOCKPILES OUTSIDE OF NATURAL BUFFERS OR SURFACE WATERS, INCLUDING STORMWATER CONVEYANCES SUCH AS CURB AND GUTTER SYSTEMS UNLESS THERE IS A BYPASS IN PLACE FOR THE STORMWATER. [MINN. R. 7090]

12.13 PERMITTEES MUST INSTALL A VEHICLE TRACKING BMP TO MINIMIZE THE TRACK OUT OF SEDIMENT FROM THE CONSTRUCTION SITE OR ONTO PAVED ROADS WITHIN THE SITE. [MINN. R. 7090]

12.14 PERMITTEES MUST USE STREET SWEEPING IF VEHICLE TRACKING BMPs ARE NOT ADEQUATE TO PREVENT SEDIMENT FROM GOING ONTO THE STREET. [MINN. R. 7090]

12.15 PERMITTEES MUST INSTALL TEMPORARY SEDIMENT BASINS AS REQUIRED IN SECTION 14. [MINN. R. 7090]

12.16 IN ANY AREAS OF THE SITE WHERE FINAL VEGETATIVE STABILIZATION WILL OCCUR, PERMITTEES MUST RESTRICT VEHICLE AND EQUIPMENT USE TO MINIMIZE SOIL COMPACTION. [MINN. R. 7090]

12.17 PERMITTEES MUST PRESERVE TOPSOIL ON THE SITE, UNLESS INFEASIBLE. [MINN. R. 7090]

18.1 WET SEDIMENTATION BASIN. [MINN. R. 7090]

18.2 PERMITTEES USING A WET SEDIMENTATION BASIN TO MEET THE PERMANENT STORMWATER TREATMENT REQUIREMENTS OF THIS PERMIT MUST INCORPORATE THE DESIGN PARAMETERS IN ITEM 18.3 THROUGH 18.10. [MINN. R. 7090]

19.1 REGIONAL WET SEDIMENTATION BASINS. [MINN. R. 7090]

20.1 SWPPP AVAILABILITY. [MINN. R. 7090]

21.1 TRAINING REQUIREMENTS. [MINN. R. 7090]

21.2 PERMITTEES MUST ENSURE ALL OF THE FOLLOWING INDIVIDUALS RECEIVE TRAINING AND THE CONTENT AND EXTENT OF THE TRAINING IS COMMENSURATE WITH THE INDIVIDUAL'S JOB DUTIES AND RESPONSIBILITIES WITH REGARD TO ACTIVITIES COVERED UNDER THIS PERMIT:

23.1 ADDITIONAL REQUIREMENTS FOR DISCHARGES TO SPECIAL (PROHIBITED, RESTRICTED, OTHER) AND IMPAIRED WATERS. [MINN. R. 7090]

23.2 DISCHARGES TO THE TROUT STREAMS (OTHER SPECIAL WATER) LISTED IN MINN. R. 6264.0050, SUBP. 4 MUST INCORPORATE THE BMPs OUTLINED IN ITEMS 23.5, 23.10, 23.11, AND 23.12. [MINN. R. 6264.0050, SUBP. 4]

23.3 PERMITTEES MUST IMMEDIATELY INITIATE STABILIZATION OF EXPOSED SOIL AREAS, AS DESCRIBED IN ITEM 8.4 AND COMPLETE STABILIZATION WITHIN SEVEN (7) CALENDAR DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE TEMPORARILY OR PERMANENTLY CEASES. [MINN. R. 7090]

24.1 GENERAL PROVISIONS. [MINN. R. 7090]

24.2 IF THE MPCA DETERMINES THAT AN INDIVIDUAL PERMIT WOULD MORE APPROPRIATELY REGULATE THE CONSTRUCTION ACTIVITY, THE MPCA MAY REQUIRE AN INDIVIDUAL PERMIT TO CONTINUE THE CONSTRUCTION ACTIVITY. COVERAGE UNDER THIS GENERAL PERMIT WILL REMAIN IN EFFECT UNTIL THE MPCA ISSUES AN INDIVIDUAL PERMIT. [MINN. R. 7001.0210, SUBP. 6]

DOCUMENTATION OF TRAINED INDIVIDUALS
A. INDIVIDUAL WHO PREPARED THE SWPPP
UNIVERSITY OF MINNESOTA
Adam Ginkel
Erosion and Stormwater Management
Design of Construction SWPPP (May 31 2023)

PROJECT NAME
JAM HOPS DANCE STUDIO BLDG ADDITION
PROJECT LOCATION
PID: 32-32-23-43-0013
DEVELOPER
STONE CONSTRUCTION, INC.
2183 107TH LANE NE
BLAINE, MN 55449
CONTACT NAME: PAUL STONE
CONTACT PHONE: 763-784-1950
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NARRATIVE - PERMANENT STORMWATER TREATMENT SYSTEMS

THE PROJECT CONSISTS OF THE CONSTRUCTION OF A NEW BUILDING AND PARKING LOT EXPANSION FOR JAM HOPS DANCE STUDIO.

Table with 3 columns: BEFORE CONSTRUCTION, AFTER CONSTRUCTION, and values for TOTAL SITE AREA, IMPERVIOUS, and PERVIOUS.

TOTAL DISTURBED AREA
1.58 ACRES

SITE MAP W/ EXISTING AND FINAL GRADES AND DESIGN CALCULATIONS

SEE "STORMWATER DRAINAGE REPORT" FOR EXISTING AND PROPOSED AREA MPPS, DENOTING DRAINAGE AREA BOUNDARIES, DIRECTIONS OF FLOW, AND DISCHARGE POINTS WHERE STORMWATER LEAVES THE SITE.

Table with 4 columns: NAME OF WATER BODY, TYPE OF WATER BODY, SPECIAL WATER, IMPAIRED WATER.

TEMPORARY SEDIMENTATION BASINS

IF FIVE (5) OR MORE ACRES OF DISTURBED SOIL DRAIN TO A COMMON LOCATION, IS A TEMPORARY SEDIMENT BASIN PROVIDED FOR TREATMENT OF THE RUNOFF BEFORE IT LEAVES THE CONSTRUCTION SITE OR ENTERS SURFACE WATERS?

INFILTRATION FEASIBILITY

ARE THERE ANY INFILTRATION RESTRICTIONS FOR THE SITE (SEE 16.14 THROUGH 16.217)

ADDITIONAL STORMWATER MITIGATION MEASURES

ARE THERE ANY STORMWATER MITIGATION MEASURES PER: ENVIRONMENTAL REVIEW DOCUMENT?, ENDANGERED SPECIES REVIEW?, ARCHAEOLOGICAL REVIEW?, OTHER LOCAL, STATE OR FEDERAL REVIEW?

LONG TERM OPERATION AND MAINTENANCE OF PERMANENT STORMWATER FACILITIES

THE PERMANENT STORMWATER MANAGEMENT FACILITIES ARE PRIVATELY OWNED AND THE LONG-TERM OPERATIONS AND MAINTENANCE WILL BE PROVIDED BY THE OWNER.

REVEGETATION SPECIFICATIONS

Table with 2 columns: ITEM, MNDOT SPECIFICATION/NOTES. Includes rows for SOD, SEED, TURF, TEMPORARY COVER, MULCH, FERTILIZER, and WOOD FIBER BLANKET.

\* MOW A MINIMUM OF: RESIDENTIAL TURF - ONCE PER 2 WEEKS COMMERCIAL TURF - ONCE PER 4 WEEKS

QUANTITIES - ESTIMATED QUANTITIES FOR EROSION AND SEDIMENT CONTROL MEASURES

Table with 3 columns: TYPE, QTY, UNIT. Lists items like SILT FENCE, RIP-RAP, TURF REINFORCEMENT MAT, SEED & MULCH, ROCK CONSTRUCTION ENTRANCE, SOD, EROSION CONTROL BLANKET, and INLET PROTECTION.

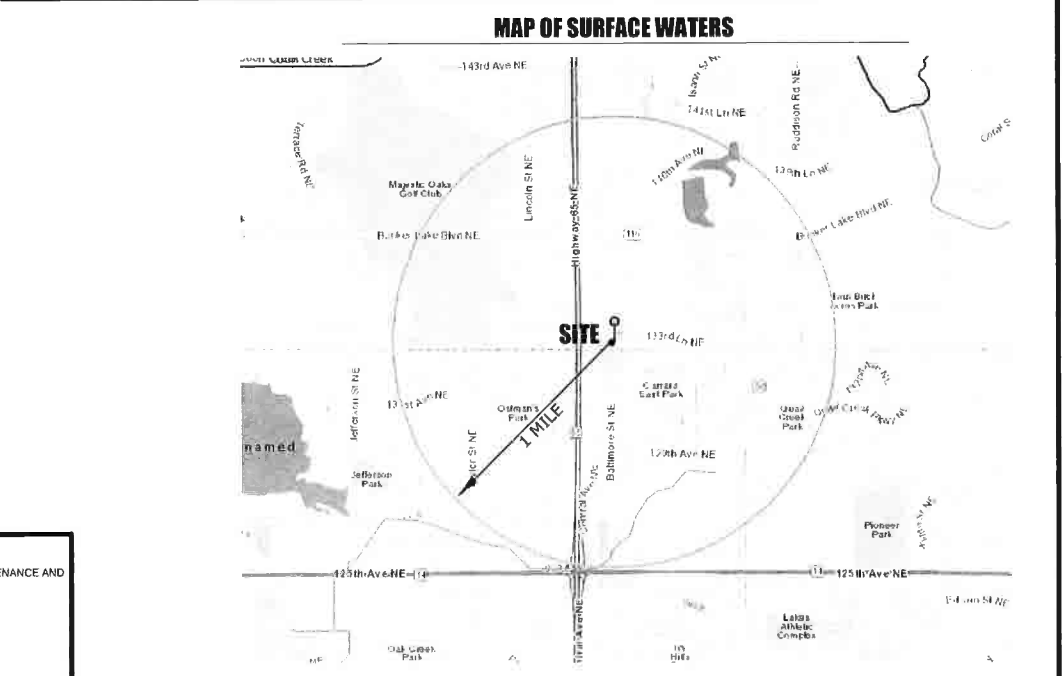
NARRATIVE - TIMING FOR INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES

- 1. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN AND SWPPP MUST BE AVAILABLE ON THE PROJECT SITE AT ALL TIMES.
2. CONTRACTOR SHALL INSTALL SILT FENCE AS SHOWN ON PLAN.
2.1. ADDITIONAL SILT FENCE MAY BE NECESSARY IF LOCAL CONDITIONS REQUIRE.
2.2. THE CONTRACTOR SHALL MAINTAIN SILT FENCE, INCLUDING THE REMOVAL OF ACCUMULATED SEDIMENT, THROUGH COMPLETION OF BUILDING CONSTRUCTION.
2.3. SILT FENCE SHALL REMAIN IN-PLACE UNTIL SITE HAS BEEN STABILIZED.
3. CONTRACTOR SHALL INSTALL THE ROCK CONSTRUCTION ENTRANCE WHEREVER CONSTRUCTION TRAFFIC ENTERS ONTO EXISTING PAVED SURFACES.
4. CONTRACTOR TO INSTALL TREE PROTECTION FENCING AS APPLICABLE.
5. CONTRACTOR SHALL PERFORM SITE GRADING ON AN AREA-BY-AREA BASIS TO MINIMIZE UNSTABILIZED AREAS.
5.1. CONTRACTOR MUST IMMEDIATELY INITIATE STABILIZATION OF EXPOSED SOIL AREAS, AS DESCRIBED IN ITEM 8.4 OF THE PERMIT, AND COMPLETE THE STABILIZATION WITHIN SEVEN (7) CALENDAR DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE TEMPORARILY OR PERMANENTLY CEASES.
6. CONTRACTOR TO PROTECT PERMANENT STORMWATER MANAGEMENT FACILITIES FROM CONSTRUCTION RUN-OFF.
6.1. INFILTRATION SYSTEMS MUST NOT BE EXCAVATED TO FINAL GRADE UNTIL THE CONTRIBUTING DRAINAGE AREA HAS BEEN CONSTRUCTED AND FULLY STABILIZED.
7. CONTRACTOR TO SHALL PAY SPECIAL ATTENTION TO ADJACENT PROPERTY LINES TO ENSURE THE EROSION CONTROL PRACTICES IN PLACE IN THOSE AREAS PREVENT MIGRATION OF SEDIMENT ONTO ADJACENT PROPERTIES.
8. ALL EROSION AND SEDIMENT CONTROL MEASURES SHOWN ON THE PLANS OR IMPLEMENTED IN THE FIELD SHALL BE IN ACCORDANCE WITH THE CITY AND NPDES PHASE I PERMIT REQUIREMENTS.
9. CONTRACTOR TO PROVIDE ADDITIONAL SILT FENCE, BIOROLLS, EROSION CONTROL BLANKET, OR OTHER APPROVED EQUAL FOR ANY SLOPES THAT APPEAR TO BE FAILING.
10. CONTRACTOR TO STABILIZE SOIL STOCKPILES; STABILIZATION SHALL BE INITIATED IMMEDIATELY.
11. CONTRACTOR SHALL FINAL GRADE SWALE AREAS UPON STABILIZATION OF UPSTREAM AREAS.
12. CONTRACTOR SHALL BE RESPONSIBLE TO SWEEP/SCRAPE ADJACENT STREETS WHEN MATERIALS OR DEBRIS HAVE WASHED/DILOWED ONTO ADJACENT STREETS OR AS DIRECTED BY CITY.
13. COORDINATE SMALL UTILITIES INSTALLATIONS (GAS, PHONE, ELECTRIC, GAS, ETC.) AFTER CURB & GUTTER INSTALLATION.

LIST OF IMPAIRED WATERS:

NONE

"BEST MANAGEMENT PRACTICES (BMPs)" MEANS THE MOST EFFECTIVE AND PRACTICABLE MEANS OF EROSION PREVENTION AND SEDIMENT CONTROL... "OPERATOR" MEANS THE PERSON (USUALLY THE GENERAL CONTRACTOR), FIRM, GOVERNMENTAL AGENCY, OR OTHER ENTITY DESIGNATED BY THE OWNER... "PERMANENT COVER" MEANS SURFACE TYPES THAT WILL PREVENT SOIL FAILURE UNDER EROSION CONDITIONS... "STORMWATER" MEANS PRECIPITATION RUNOFF... "WATERS OF THE STATE" (AS DEFINED IN MINN. STAT. SECT. 115.01, SUBP. 22) MEANS ALL STREAMS, LAKES, PONDS, SWAMPS, WATERWAYS, WELLS, SPRINGS, RESERVOIRS, AQUIFERS, IRRIGATION SYSTEMS, DRAINAGE SYSTEMS AND ALL OTHER BODIES OR ACCUMULATIONS OF WATER, SURFACE OR UNDERGROUND, NATURAL OR ARTIFICIAL, PUBLIC OR PRIVATE, WHICH ARE CONTAINED WITHIN FLOW THROUGH OR BOUNDARY UPON THE STATE OR ANY PORTION THEREOF... "WETLANDS" (AS DEFINED IN MINN. R. 7050.0186, SUBP. 1A.B) MEANS THOSE AREAS THAT ARE INUNDATED OR SATURATED BY SURFACE WATER OR GROUNDWATER AT A FREQUENCY AND DURATION SUFFICIENT TO SUPPORT, AND UNDER NORMAL CIRCUMSTANCES DO SUPPORT, A PREVALENCE OF VEGETATION TYPICALLY ADAPTED FOR LIFE IN SATURATED SOIL CONDITIONS. WETLANDS GENERALLY INCLUDE SWAMPS, MARSHES, BODIES, AND SIMILAR AREAS CONSTRUCTED VEGETATION DESIGNED FOR WASTEWATER TREATMENT ARE NOT WATERS OF THE STATE. WETLANDS MUST HAVE THE FOLLOWING ATTRIBUTES:
1. A PREVALENCE OF HYDRIC SOILS; AND
2. INUNDATED OR SATURATED BY SURFACE WATER OR GROUNDWATER AT A FREQUENCY AND DURATION SUFFICIENT TO SUPPORT A PREVALENCE OF HYDRIC VEGETATION TYPICALLY ADAPTED FOR LIFE IN A SATURATED SOIL CONDITION; AND
3. UNDER NORMAL CIRCUMSTANCES SUPPORT A PREVALENCE OF SUCH VEGETATION. [MINN. R. 7050.0186, SUBP. 1A.B]



STORM WATER POLLUTION PREVENTION PLAN
JAM HOPS DANCE STUDIO BLDG ADDITION

DRAWN BY: M.Q.A. DESIGN BY: C.W.P.
CHECK BY: M.Q.A. PROJ. NO: 22-1961
ORIGINAL DATE: AUGUST 29, 2022
REVISION DESCRIPTION
DATE
I hereby certify that this plan 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.
Charles W. Plowe
CHARLES W. PLOWE
DATE: 5.3.2023 LIC. NO. 18227
JAM HOPS DANCE STUDIO BLDG ADDITION
HAM LAKE, MINNESOTA
STORM WATER POLLUTION PREVENTION PLAN
PREPARED FOR: STONE CONSTRUCTION
SITE PLANNING & ENGINEERING
PLOWE ENGINEERING, INC.
6776 LAKE DRIVE SUITE 110 LINO LAKES, MN 55014
PHONE: (651) 361-8210 FAX: (651) 361-8701
C4.2

# JAM HOPS ADDITION

## COMMERCIAL PLAN REVIEW FOR CODE COMPLIANCE

### GENERAL INFORMATION

- A. PROJECT NAME: Jam Hops Addition  
 B. PROJECT LOCATION: 1460 133rd Lane Northeast  
 Ham Lake, Minnesota  
 C. ZONING AND LAND USE: CD-2, Commercial Development, Tier 2  
 D. LOT SIZE: 5.14 Acres 223,957 s.f.  
 E. BITUMINOUS PAVEMENT COVERAGE: 68,144 s.f./223,957 s.f. = 30.4%

### APPLICABLE CODES:

- A. HAM LAKE ZONING ORDINANCE Current Edition  
 B. MINNESOTA STATE BUILDING CODE (MSBC) 2020 Edition  
 C. CHAPTER 1305 - INT'L BUILDING CODE 2018 Edition  
 D. CHAPTER 1311 - INT'L EXISTING BUILDING CODE 2018 Edition  
 E. CHAPTER 1315 - NATIONAL ELECTRIC CODE 2020 Edition  
 F. CHAPTER 1322/23 - INT'L ENERGY CONSERVATION CODE 2018 Edition  
 G. CHAPTER 1341 - MN ACCESSIBILITY CODE 2020 Edition  
 H. CHAPTER 1346 - INT'L MECHANICAL CODE 2018 Edition  
 I. CHAPTER 4714 - MN PLUMBING CODE 2020 Edition

### BUILDING CLASSIFICATION

#### A. OCCUPANCY GROUPS/ TYPE OF CONST (IBC Chpt 3 & IBC Chpt 6)

1. Fitness Center - Group A-3  
 - Type of Construction - II-B  
 - Area - 54,464 s.f. First Floor  
 - 1,625 s.f. Mezzanine  
 - Proposed Height - 26'-8", 1 Story  
 2. Mixed Occupancy (IBC 508)  
 - Group A-3 Is Not Part of A Mixed Occupancy  
 3. Incidental Uses (IBC 509)  
 - None

#### B. FIRE-RESISTANCE-RATED CONSTRUCTION

Building Elements (IBC Tables 601 & 602)	Rating
Structural Frame	0 Hours
Exterior Bearing Walls	0 Hours
Interior Bearing Walls	0 Hours
Exterior Non-Bearing Walls	0 Hours
Interior Non-Bearing Walls	0 Hours
Floor Construction	0 Hours
Roof Construction	0 Hours

2. Exterior Wall Openings (IBC Table 705.8)  
 - Separation Distance Greater Than 30 Feet  
 Classification Area of Opening  
 Unprotected No Limit  
 Protected No Limit

3. Fire Walls (IBC 706)  
 - Not Required  
 4. Fire Barriers (IBC 707)  
 - Not Required  
 5. Fire Partitions (IBC 708)  
 - Not Required

#### C. ROOF AND INTERIOR FINISH REQUIREMENTS

1. Minimum Wall And Ceiling Finish Requirement (IBC Table 803.13)
- | Building Component                        | Finish Class                             |
|---|--|
| Vertical Exits/<br>Exit Passageways       | Class B - Group B<br>Class C - Group S-1 |
| Exit Access Corridors/<br>Other Exit ways | Class C                                  |
| Rooms and Enclosed<br>Spaces              | Class C                                  |
2. Minimum Roof Covering Classification (IBC Table 1505.1) = Class C  
 - (Contractor To Provide Class A Roof Assembly)

#### AUTOMATIC SPRINKLER REQUIREMENTS

- A. AN NFPA 13 AUTOMATIC SPRINKLER SYSTEM IS PROVIDED THROUGHOUT THE BUILDING (IBC 903.3.1.1)  
 1. Required Location(s) (IBC 903.2)  
 - Throughout The Building When The Fire Area Containing Group A-3 Exceeds 12,000 s.f., Or Exceeds 3 Stories, Or The Combined Fire Areas Of Group S-1 Exceeds 24,000 s.f.

#### ALLOWABLE HEIGHT, ALLOWABLE AREA

- A. ALLOWABLE HEIGHT (IBC Table 504.3/504.4)  
 1. Group A-3, Type II-B  
 - Sprinklered 75'-0", 3 Stories  
 2. Height Check  
 - 1 Story < 3 Stories  
 - 26'-8" < 75'-0"  
 B. ALLOWABLE AREA (IBC Table 506.2)  
 1. Unlimited Per IBC 507.6

### MEANS OF EGRESS

- A. DESIGN OCCUPANT LOAD (IBC Chpt 1004)  
 1. First Floor Occupants = 858 Occupants  
 2. Mezzanine Occupants = 30 Occupants  
 3. Total Occupants = 888 Occupants  
 B. EXIT/ EXIT ACCESS  
 1. Number Required (IBC Table 1006.2.1, 1006.3.2) = 3  
 2. Number of Accessible Required (IBC 1009) = 2  
 3. Arrangement (IBC 1007)  
 - Not Less Than 1/3 Overall Diagonal (Sprinklered Building)  
 4. Travel Distance Maximums  
 - Exit Access (IBC 1017) = 250'  
 - Common Path of Egress (IBC 1006.2.1) = 75'  
 - Dead Ends (IBC 1020.4) = 20'  
 5. Sizing (The Greater of Two Conflicting Widths Shall Be Used)  
 - Design Egress Sizing (IBC 1005.3)  
 Stairways (Occ Load x .3) = 9"  
 Other Components (Occ Load x .2) = 177.6"  
 - Stairways (IBC 1011.2) = 44"  
 - Corridors (IBC 1020.2) = 44"  
 - Exit Passageways (IBC 1024.2) = 44"  
 - Exit Doors (IBC 1010.1.1) = 32" Min Clear  
 48" Max Nom

6. Doors  
 - Swing (IBC 1010.1.2.1)  
 - Side Hinged Swinging Out At Occupant Load Of 50 Or More  
 - Landings (IBC 1010.1.6)  
 Width Not Less Than Width of Door Or Stairway  
 Length in Direction of Travel Not Less Than 44"  
 - Thresholds (IBC 1010.1.7)  
 Max Height = 1/2" - 1-2 Beveled Edge If 1/4" - 1/2"  
 - Door Arrangement (IBC 1010.1.6) 48" + Door Width Apart  
 - Lock or Latch (IBC 1010.1.9)  
 Operable From Egress Side Without Use of Knowledge or Keys.  
 Manually Operated Flush Bolts Permitted on Inactive Inlet.  
 - Panic / Fire Exit Hardware (IBC 1010.1.10)  
 Required At Exit/Exit Access Doors

### PLUMBING FIXTURES

- A. NUMBER FIXTURES REQUIRED (IBC 2902.1)  
 1. Based On 888 Occupants - Assembly Occupancy  
 - 444 Male Occupants  
 - 444 Female Occupants
- | Fixture            | Required |       | Provided |       |
|--------------------|----------|-------|----------|-------|
|                    | Men      | Women | Men      | Women |
| Water Closets      | 3.56     | 6.84  | 1        | 5     |
| Urinals            | -        | -     | 1        | -     |
| Lavatories         | 2.22     | 2.22  | 1        | 3     |
| Bathlubs/ Showers  | -        | -     | -        | -     |
| Drinking Fountains | 1.78     | -     | 4        | -     |
| Service Sink       | 1        | -     | 1        | -     |

Note: Footnote k - Urinals May Be Substituted For Up to 2/3 Of Required Water Closets

- B. LOCATION OF FIXTURES (IBC 2902.3.3)  
 - Not More Than 1 Story Above Or Below Regular Working Area  
 - Travel Distance Less Than 500 Ft  
 C. SIGNAGE (IBC 2902.4)  
 - A Legible Sign For Each Sex Shall Be Provided Near The Entrance To The Toilet Facility

### OTHER

- A. ACCESSIBILITY  
 1. Building is Accessible  
 B. GUARDS (IBC 1015)  
 1. 42" High Minimum Guards Shall Be Installed Where A Change In Levels Drops 30" Or More.  
 C. ROOF ACCESS (IBC 306.5)  
 1. Existing Roof Access Provided  
 D. CONCEALED SPACES  
 1. Floors (IBC 718.3)  
 - Draftstops Not Required in Sprinklered Building  
 2. Attics (IBC 718.4)  
 - N/A  
 E. VENTILATION  
 1. Attics (IBC 1202.2)  
 - N/A  
 2. Under-Floors (IBC 1202.4)  
 - Not Required  
 F. SAFETY GLAZING (IBC 2406)  
 1. Safety Glazing Shall Be Installed In Hazardous Locations As Specified In IBC 2406.4  
 G. RECYCLING SPACE (MSBC 1303.1500)  
 1. 0025 x 56,089 s.f. = 140 s.f. Required  
 H. FIRE ALARM AND DETECTION SYSTEMS  
 1. Fire Alarm And Detection System Not Required (IBC 907.2)  
 2. If Required Provide Audible And Visible Alarm Notification Devices (IBC 907.5, NFPA 72)  
 J. PARKING AND MANEUVERING (Ham Lake Zoning Ordinance)  
 1. Parking Stall Calculation

As Requested Per City Of Ham Lake	222 Stalls
Total Stalls Required	222 Stalls
Total Stalls Provided	222 Stalls
Proof of Parking	0 Stalls
Ultimate Parking	222 Stalls
Accessible Requirement Per 222 Stalls (IBC Table 1106.1)	7 Stalls

2. Stall Size 3. Aisle Size 4. Striping  
 9'-0" x 20'-0" 24'-0" 4" White Stripes  
 5. Pavement Design  
 - All Parking Areas  
 1 1/2" Bituminous Wear Course MN D.O.T. 2331 Type 41  
 1 1/2" Bituminous Binder Course MN D.O.T. 2331 Type 31  
 4" Compacted Class 5 Base MN D.O.T. 3138  
 - Verify With Existing Soil Conditions And Adjust Accordingly

## ENERGY COMPLIANCE

### ANSI/ASHRAE STANDARD 90.1-2016

Note: Compliance Is For Building Envelope Only. The Design-Build HVAC and Electrical Designers Must Submit Documentation Proving Compliance With HVAC, Lighting, And Water Heating

### GENERAL

- A. Space Conditioning Category (5.1.2)  
 1. Nonresidential Conditioned Space  
 B. Climate (5.1.4)  
 1. Zone 5 - Southern Minnesota

### COMPLIANCE PATH

- A. Prescriptive Building Envelope Option (5.2)

### MANDATORY PROVISIONS

- A. Components Of The Building Envelope Shall Comply With Section 5.4  
 1. Insulation (5.4.1) Shall Comply With Section 5.8.1.1 - 5.8.1.9  
 2. Fenestration/ Door Performance (5.4.2) Shall Comply With Section 5.8.2  
 3. Air Leakage (5.4.3)  
 The Building Envelope Shall Contain An Air Barrier And Be Sealed At The Following Areas:  
 - Joints Around Fenestration And Door Frames  
 - Junctions Between Walls and Floors, Walls At Building Corners, Walls and Roofs or Ceilings  
 - Penetrations Of Utility Services At Walls, Floors, and Roofs  
 - Building Assemblies Used As Ducts Or Plenums  
 - Joints, Seams, Conn. Between Planes Or Changes In Air Barrier Materials  
 Fenestration and Doors - According To 5.4.3.2  
 Loading Dock Weatherseals - Required According To 5.4.3.3  
 Vestibules - Required at Building Entrances According To 5.4.3.4

### PRESCRIPTIVE REQUIREMENTS

Table 5.5-6 Building Component	Maximum Assembly	Minimum Insulation	Proposed
ROOF: Entirely Above Deck	U-0.032	R-30 (c)	R-30 (c)
WALLS: Mass	U-0.060	R-13.3 (c)	R-28.2 (c)
S. O. C. FLOORS: Unheated	F-0.510	R-10.0 (3R)	R-28.2 (c)
OPAQUE DOORS: Swinging	U-0.370	U-0.20	U-0.20
OPAQUE DOORS: Non-Swinging	U-0.310	U-0.147	U-0.147
FENESTRATION: 0-40% Glazing	U-0.360 (0.36 SHGC)	U-0.340	U-0.340

### SUBMITTALS

- A. Contractor To Provide Product Submittals If Requested By The Building Official

### PRODUCT INFORMATION AND INSTALL. REQ.

- A. Building Components Must Identify R-Values Or U-Values Clearly Labeled On The Product In Accordance With Section 5.8

## DEVELOPMENT TEAM

### OWNER

JAM HOPS

1460 133rd Lane NE  
 Ham Lake, MN 55304  
 Phone: 763-413-0647  
 Contact: Brenda Nolby

### CONTRACTOR

STONE CONSTRUCTION

2181 107th Lane Northeast  
 Blaine, MN. 55434  
 Phone: 763-784-1950  
 Contact: Mitch Stone

### CIVIL ENGINEER

PLOWE ENGINEERING

6776 Lake Drive, Suite 110  
 Lino Lakes, MN 55014  
 Phone: 651-361-8210  
 Contact: Chuck Plowe

### ENGINEER

STROH ENGINEERING

P.O. Box 1058  
 Jerome, AZ 86331  
 Phone: 808-463-2256  
 Contact: Bernie Stroh

### ARCHITECT

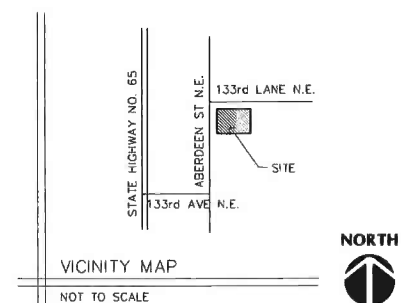
LAMPERT ARCHITECTS

420 Summit Ave  
 St. Paul, MN 55102  
 Phone: 763-755-1211  
 Contact: James Berthoume

## SHEET SCHEDULE

Sheet	Description
T1	Title Sheet
A1	Site Plan
L1	Landscape Plan
A2	Floor Plan, Mezzanine Plan
A3	Enlarged Floor Plans, Reflected Ceiling Plans
A4	Roof Plan
A5	Building Elevations
A6	Details
A7	Wall Sections
A8	Wall Sections
S1	Footing & Foundation Plan, Mezzanine Framing Plan
S2	Roof Framing Plan
S3	Structural Details

## VICINITY MAP



VICINITY MAP

NOT TO SCALE

NOTE TO ALL DESIGN/BUILD CONTRACTORS AND THEIR SUB-CONTRACTORS:  
 THE DESIGN/BUILD CONTRACTOR IS RESPONSIBLE FOR REVIEWING ALL MECHANICAL, ELECTRICAL, PLUMBING, FIRE SPRINKLER, OR ANY OTHER DESIGN/BUILD SUB-CONTRACTOR'S DOCUMENTS AS PERTAINING TO THE WORK FOR THIS PROJECT. IT IS THE DESIGN/BUILD SUB-CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE DESIGN/BUILD CONTRACTOR OF ANY CONFLICTS WITH THE ARCHITECTURAL AND STRUCTURAL DOCUMENTS DUE TO SIZES, LOCATIONS, QUANTITIES, ROUGH-IN DIMENSIONS AND CODE INTERPRETATIONS. THE DESIGN/BUILD CONTRACTOR IS RESPONSIBLE FOR NOTIFYING THE ARCHITECT IMMEDIATELY OF ANY ARCHITECTURAL REVISIONS REQUIRED DUE TO THE COORDINATION OF EACH DESIGN/BUILD SUB-CONTRACTOR'S DOCUMENTS.



LAMPERT ARCHITECTS

420 Summit Avenue  
 St. Paul, MN 55102  
 Phone: 763.755.1211 Fax: 763.757.2848  
 lampert@lampert-arch.com

### ARCHITECT CERTIFICATION:

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 ARCHITECT UNDER THE LAWS OF THE STATE OF MINNESOTA.

*Leonard Lampert*

LEONARD LAMPERT

PRINT NAME

13569

LICENSE NO

2/24/23

DATE

(763) 784-1950

FAX 784-9707

STONE CONSTRUCTION, INC.

2181 - 107th LANE N.E.

BLAINE, MINNESOTA 55434

JAM HOPS ADDITION  
 1460 133rd Lane NE, Ham Lake, Minnesota

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Leonard Lampert Architects Inc.

Project Designer: JAMES B

Drawn By: JRB

Checked By: LL

Revisions

7/26/22 ISSUE FOR PERMIT

12/27/22 RE-ISSUE

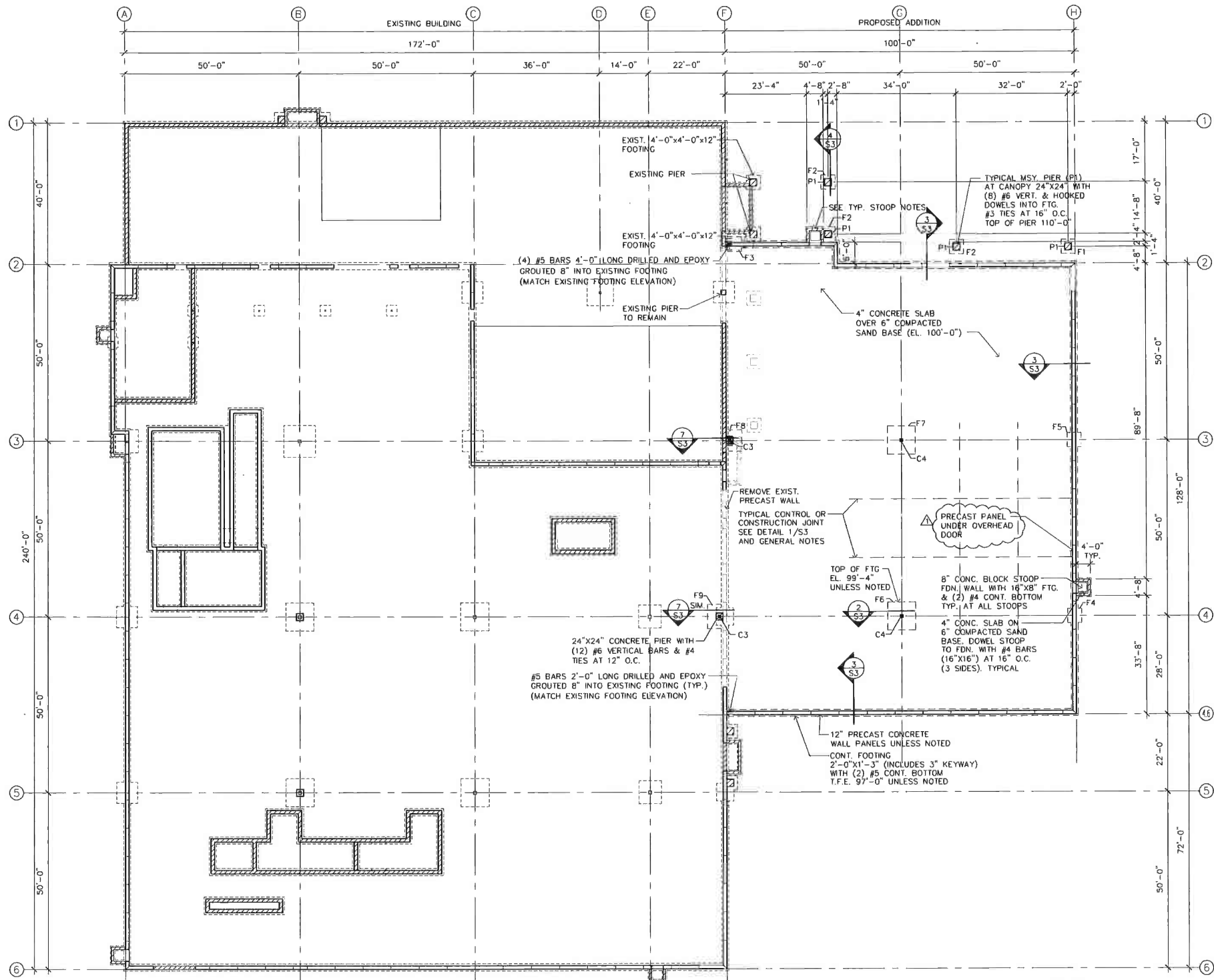
2/24/23 REVISION

TITLE SHEET

Sheet Number

T1

Project No. 220422-1



SPREAD FOOTING SCHEDULE		
MARK	SIZE	REINFORCING EACH WAY
F1	3'-0"x3'-0"x12"	(4) #5 EACH WAY BOTTOM
F2	3'-6"x3'-6"x12"	(4) #5 EACH WAY BOTTOM
F3	4'-0"x4'-0"x12"	(5) #5 EACH WAY BOTTOM
F4	5'-0"x5'-0"x12"	(6) #5 EACH WAY BOTTOM
F5	6'-0"x6'-0"x14"	(7) #5 EACH WAY BOTTOM
F6	7'-0"x7'-0"x16"	(7) #6 EACH WAY BOTTOM
F7	8'-0"x8'-0"x18"	(9) #6 EACH WAY BOTTOM
F8	4'-0"x6'-0"x12"	(6) #5 TRANSVERSE BARS BOTTOM, DRILL & EPOXY BARS 8" INTO EXISTING FOOTING (7) #5 LONGIT. BOTTOM BARS
F9	5'-0"x7'-0"x12"	(8) #5 TRANSVERSE BARS BOTTOM, DRILL & EPOXY BARS 8" INTO EXISTING FOOTING (7) #5 LONGIT. BOTTOM BARS

FOOTINGS DESIGNED FOR MAXIMUM SOIL BEARING PRESSURE OF 2500 PSF. (TO BE FIELD VERIFIED BY GEOTECHNICAL ENGINEER)

STEEL COLUMN SCHEDULE			
MARK	SIZE	BASE PLATE	ANCHOR BOLT
C1	HSS 4X4X1/4	3/4"x12"x1'-0"	(4) 3/4" DIA BENT ANCHOR BOLTS
C2	HSS 5X5X1/4	3/4"x13"x1'-1"	(4) 3/4" DIA BENT ANCHOR BOLTS
C3	HSS 7X7X1/4	3/4"x15"x1'-3"	(4) 3/4" DIA BENT ANCHOR BOLTS
C4	HSS 8X8X1/4	3/4"x16"x1'-4"	(4) 3/4" DIA BENT ANCHOR BOLTS

1 FOOTING AND FOUNDATION PLAN  
SCALE: 1/16" = 1'-0"



GENERAL STRUCTURAL NOTES:

- BUILDING CODE:  
STRUCTURAL DESIGN CONFORMS TO THE REQUIREMENTS OF THE 2018 INTERNATIONAL BUILDING CODE (IBC) & MINNESOTA STATE BLDG. CODE (MNSBC 2020)
- DESIGN LOADS:  
WIND LOAD  
BASIC WIND SPEED (3 SECOND GUST)..... 115 MPH (Vw Ullimate) (90 MPH SERVICE)  
WIND IMPORTANCE FACTOR, I..... 1.0  
EXPOSURE..... B  
INTERNAL PRESSURE COEFFICIENTS, GC..... ±0.18 pl  
ROOF LOAD  
LIVE LOAD (LL)..... 35 PSF \*\*  
DEAD LOAD (DESIGN DL)..... 20 PSF
- ROOF SNOW LOAD:  
GROUND SNOW LOAD, P<sub>g</sub>..... 50 PSF  
FLAT ROOF SNOW LOAD, P<sub>f</sub>..... 35 PSF  
SNOW EXPOSURE FACTOR, C<sub>e</sub>..... 1.0  
SNOW LOAD IMPORTANCE FACTOR, I<sub>s</sub>..... 1.0  
THERMAL FACTOR, C<sub>t</sub>..... 1.0  
\*\* PLUS SNOW ACCUMULATION AS REQUIRED BY IBC, CHAPTER 16, SECTION 1608.

- COORDINATION:  
1. STRUCTURAL MEMBERS INCLUDING SLABS, BEAMS, JOISTS, COLUMNS AND WALLS ARE DESIGNED FOR "IN PLACE LOADS" CONTRACTOR SHALL BE RESPONSIBLE FOR BRACING, WITHOUT OVERSTRESSING, ALL STRUCTURAL ELEMENTS (AS REQUIRED AT ANY STAGE OF CONSTRUCTION) UNTIL COMPLETION OF THIS PROJECT.
- FOUNDATIONS:  
1. FOOTINGS WERE DESIGNED FOR A MAXIMUM SOIL BEARING PRESSURE OF 2500 PSF. SOIL BEARING PRESSURE SHALL BE VERIFIED PRIOR TO THE CONSTRUCTION OF THE FOOTINGS AND REPORT ANY DISCREPANCIES TO THE ENGINEER. LOWER THE FOOTING ELEVATIONS SHOWN IF NECESSARY TO OBTAIN THE REQUIRED BEARING PRESSURE.

- CONCRETE:  
1. ALL CONCRETE SHALL BE NORMAL WEIGHT (150 PCF.) MINIMUM 28 DAY COMPRESSIVE STRENGTH, AS SPECIFIED BELOW.  
FOOTINGS AND FOUNDATION WALLS..... 3000 PSI  
SLAB ON GRADE..... 4000 PSI (MINIMUM)  
2. PROVIDE 3" CLEAR COVER ON BOTTOM AND SIDES FOR FOOTING REINFORCING.  
3. MAX. DISTANCE BETWEEN SLAB CONTROL OR CONSTRUCTION JOINTS SHALL NOT EXCEED 15'-0"  
4. EXCEPT WHERE OTHERWISE SHOWN, SLABS ON GRADE SHALL BE REINFORCED WITH 6X6-10/10 WELDED WIRE MESH OR FIBERMESH  
5. EXCEPT WHERE OTHERWISE SHOWN, SLABS ON GRADE SHALL BE 5" THICK CONCRETE.  
6. CONTRACTOR SHALL SUBMIT CONCRETE MIX DESIGNS. ALL SLAB CONCRETE SHALL BE 4000 PSI, W/ WATER CONTENT RATIO LESS THAN .50 AND PLASTERCIZER ADDED AT JOB SITE.

- STRUCTURAL PRECAST CONCRETE:  
1. STRUCTURAL PRECAST CONCRETE MEMBERS AND THEIR CONNECTIONS SHALL BE DESIGNED IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE PCI HANDBOOK FOR PRECAST/PRESTRESSED CONCRETE. PRESTRESSED UNITS SHALL BE DESIGNED TO SUPPORT THE DESIGN LOADS AS INDICATED  
2. PRECAST CONCRETE FABRICATOR SHALL FURNISH ALL LOOSE CLIP ANGLES, INSERTS AND WELD PLATES IN PRECAST AS NECESSARY FOR THE PROPER INSTALLATION OF THE PRECAST MEMBERS.  
3. ALL HEADERS AT OPENINGS IN PRECAST TO BE DESIGNED AND FURNISHED BY PRECAST SUPPLIER.

- REINFORCING STEEL:  
1. REINFORCING STEEL SHALL CONFORM TO ASTM (GRADE 60).  
2. WELDED WIRE FABRIC SHALL BE NEW BILLET STEEL, COLD DRAWN AND CONFORMING TO ASTM A185 AND A82.  
3. BAR SUPPORTS, DESIGN, DETAILING, FABRICATION AND PLACING OF REINFORCING BARS AND MESH SHALL BE IN ACCORDANCE WITH THE ACI CODE AND DETAILING MANUAL.  
4. UNLESS NOTED OTHERWISE, ALL REINFORCING LAP SPLICES SHALL BE 40 BAR DIAMETERS OR 12", WHICHEVER IS GREATER.

- STEEL JOISTS:  
1. ALL JOISTS SHALL COMPLY WITH THE STEEL JOIST INSTITUTE RECOMMENDED "CODE OF STANDARD PRACTICE FOR STEEL JOISTS FOR FABRICATION AND ERECTION."  
2. ALL K SERIES JOISTS SHALL HAVE HORIZONTAL WELDED BRACING AS SHOWN ON PLANS OR PER SA RECOMMENDATIONS.  
3. FOR DRAINAGE, STEEL JOISTS HAVE BEEN SIZED FOR PONDING CONSIDERATION PER IBC SEC. 1611

- STEEL DECK:  
1. STEEL ROOF DECK SHALL BE 1-1/2" X 22 GA. "TYPE B-WIDE RIB DECK" MANUFACTURED AND ERECTED IN ACCORDANCE WITH THE STEEL DECK INSTITUTE.  
2. STEEL DECK SHALL BE WELDED TO SUPPORTING MEMBERS WITH 5/8" DIA. PUDDLE WELDS AT 12" O.C. SIDELAP CONNECTIONS SHALL BE WELDED OR FASTENED WITH #2 TENS. SELF-DRILLING, SELF-TAPPING SCREWS (2 FASTENERS MINIMUM EQUALLY SPACED PER SIDELAP BETWEEN JOISTS).

- COLD-FORMED STEEL FRAMING:  
1. ALL STEEL STUDS AND ACCESSORIES SHALL BE OF THE TYPE, SIZE, GAUGE AND SPACING AS SHOWN ON PLANS.  
2. ALL STRUCTURAL MEMBERS SHALL BE DESIGNED IN ACCORDANCE WITH AMERICAN IRON AND STEEL INSTITUTE (AISI) "SPECIFICATION FOR THE DESIGN OF COLD FORMED STEEL STRUCTURAL MEMBERS" (LATEST EDITION).  
3. ALL STUDS AND/OR JOISTS SHALL BE FORMED FROM HOT-DIPPED GALVANIZED STEEL, G-60 COATING, CORRESPONDING TO THE REQUIREMENTS OF ASTM A446, GRADE A, WITH A MINIMUM YIELD OF 33KSI.

- MASONRY:  
1. CONCRETE MASONRY UNITS SHALL CONFORM TO THE REQUIREMENTS OF ASTM C90.  
2. MINIMUM COMPRESSIVE STRENGTH OF MSY UNITS F'm 1500 PSI.  
3. GROUT FOR HOLLOW MASONRY UNITS SHALL HAVE A 28 DAY COMPRESSIVE STRENGTH OF 3000 PSI, AND SHALL BE NORMAL WEIGHT PEA GRAVEL CONCRETE.  
4. ALL MASONRY WALLS SHALL HAVE HORIZONTAL REINFORCING FABRICATED WITH 9 GAUGE SIDE RODS. THIS REINFORCING SHALL BE LOCATED AT EVERY OTHER COURSE.  
5. ALL VERTICAL REINFORCING SHALL BE CONTINUOUS WITH 40 BAR DIAMETER LAPS AT SPLICES UNLESS NOTED.

- STRUCTURAL STEEL:  
1. DESIGN, DETAILING, FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH THE AISC "MANUAL OF STEEL CONSTRUCTION"  
2. ALL STRUCTURAL STEEL SHALL CONFORM TO ASTM A572 OR A992.  
3. STEEL PIPE SHALL CONFORM TO ASTM A501 OR ASTM A53.  
4. STEEL TUBES SHALL CONFORM TO ASTM A500 - GRADE B.  
5. ALL WELDING SHALL BE DONE BY CERTIFIED WELDERS USING E70XX ELECTRODES AND SHALL CONFORM TO AWS STANDARDS.  
6. ALL BOLTS SHALL BE 3/4" DIAMETER, ASTM A325.



ENGINEER CERTIFICATION:  
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.

SIGNATURE: *B. Stroh*  
PRINT NAME: BERNIE STROH  
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STONE CONSTRUCTION, INC.  
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JAM HOPS ADDITION  
1460 133rd Lane NE, Ham Lake, Minnesota

Structural Engineer: B STROH  
Drawn By: JRB  
Checked By: BS

DATE	REVISIONS
7/26/22	ISSUE FOR PERMIT
12/27/22	RE-ISSUE
2/24/23	REVISION

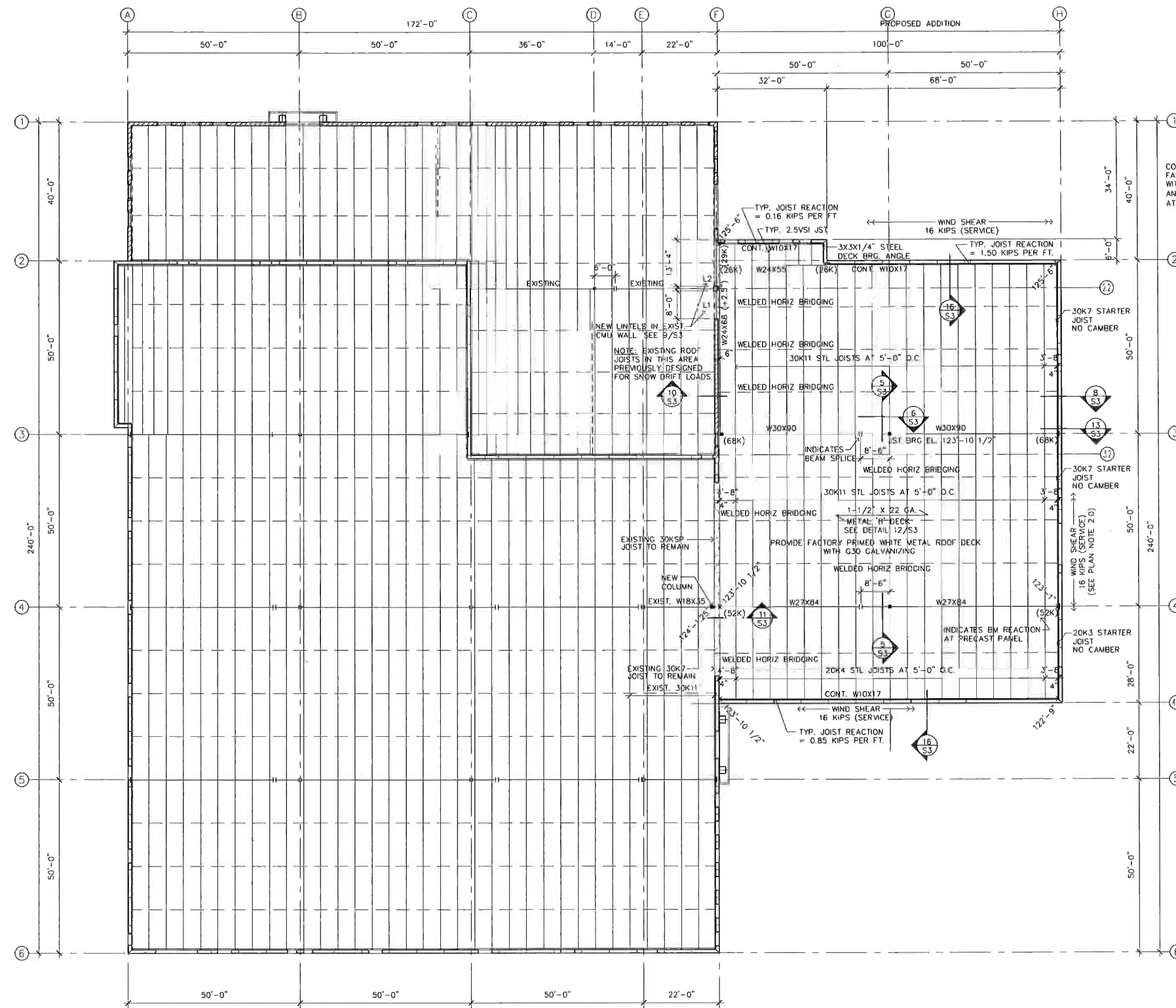
FOOTING AND FOUNDATION PLAN

Sheet Number

S1

Project No. 220422-1

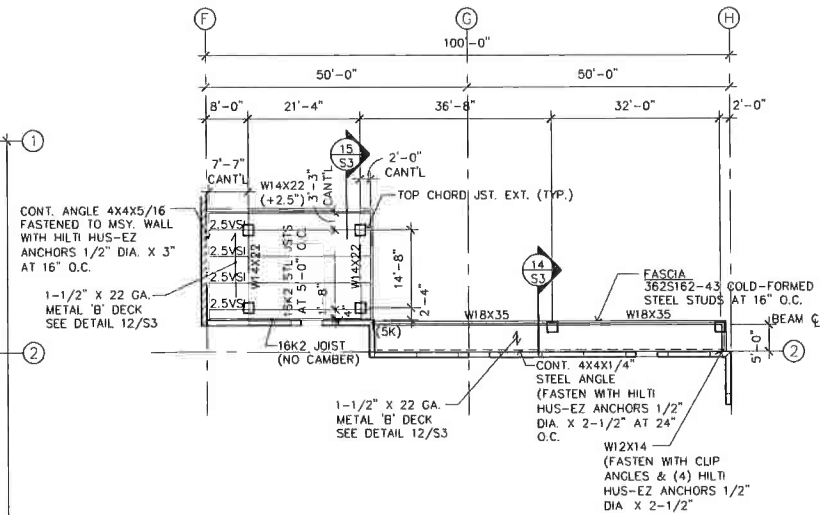
Filename: JAM\_HOPS\ADDITION\JAM\_HOPS\_ADDITION-S2



1 ROOF FRAMING PLAN  
S2 SCALE: 1/16" = 1'-0"



- ROOF PLAN NOTES:**
- CANTILEVER BEAM SPLICES HAVE BEEN OPTIMIZED FOR STEEL SIZES, STOCK LENGTHS AND STRUCTURAL DESIGN LOADS. STEEL FABRICATOR MAY SUBMIT ALTERNATE SPLICE LOCATIONS FOR CONSIDERATION BY STRUCTURAL ENGINEER OF RECORD.
  - NEW ADDITION SHALL BE DESIGNED TO BE SELF-SUPPORTING WITH REGARD TO WIND SHEAR LOADS IN EACH PRIMARY DIRECTION.

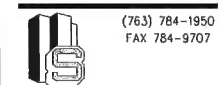


2 CANOPY FRAMING PLAN  
S2 SCALE: 1/16" = 1'-0"



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LICENSURE NO: 2/24/23  
DATE:



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BLAINE, MINNESOTA 55434

**JAM HOPS ADDITION**  
1460 133rd Lane NE, Ham Lake, Minnesota

Structural Engineer: B STROH  
Drawn By: JRB  
Checked By: BS

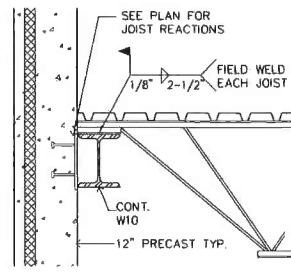
Revisions	
7/26/22	ISSUE FOR PERMIT
12/27/22	RE-ISSUE
2/24/23	REVISION

**CANOPY FRAMING PLAN**  
**ROOF FRAMING PLAN**  
Sheet Number

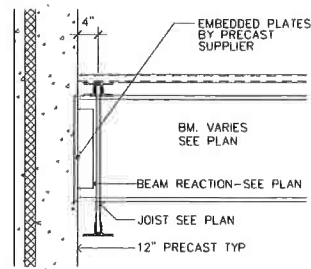
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Project No. 220422-1

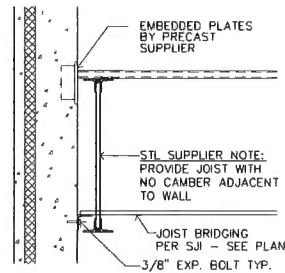




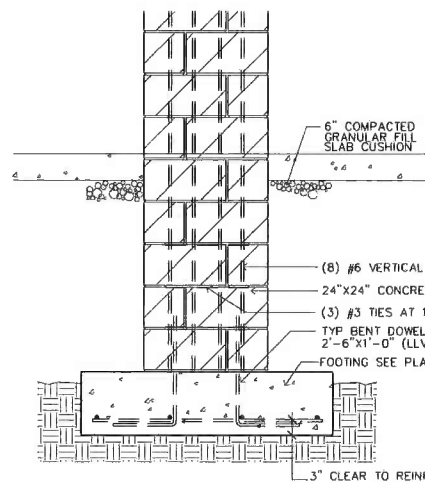
16 TYPICAL SECTION  
S3 SCALE: 3/4" = 1'-0"



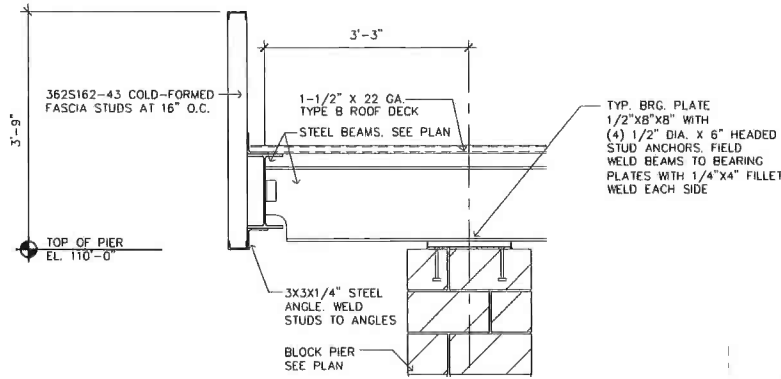
13 TYPICAL DETAIL  
S3 SCALE: 3/4" = 1'-0"



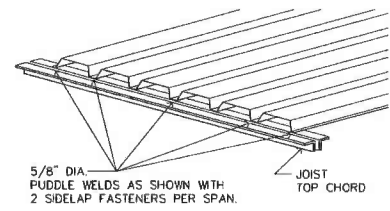
8 TYPICAL SECTION  
S3 SCALE: 3/4" = 1'-0"



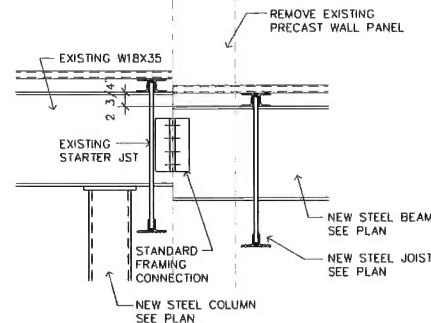
4 TYPICAL DETAIL  
S3 SCALE: 3/4" = 1'-0"



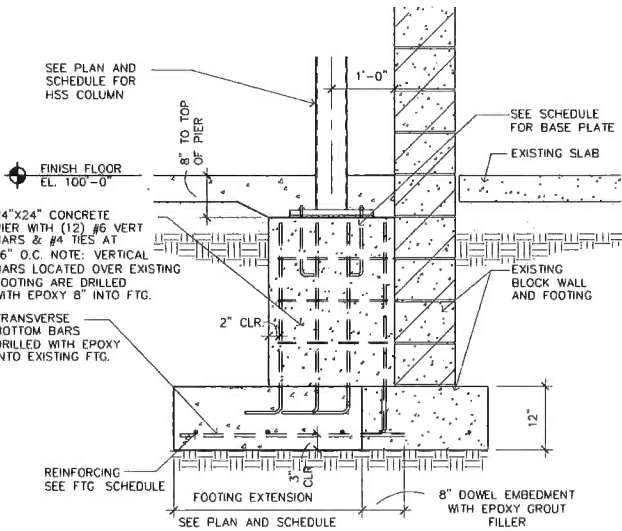
15 TYPICAL DETAIL  
S3 SCALE: 3/4" = 1'-0"



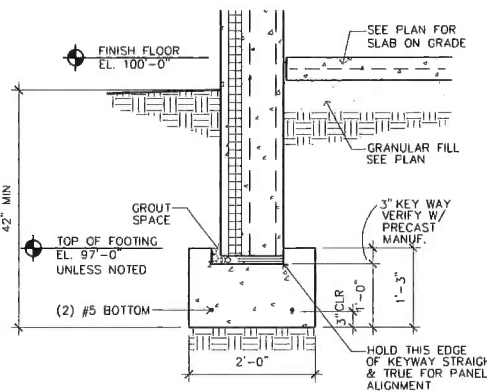
12 TYPICAL DECK FASTENING DETAIL  
S3 SCALE: NOT TO SCALE



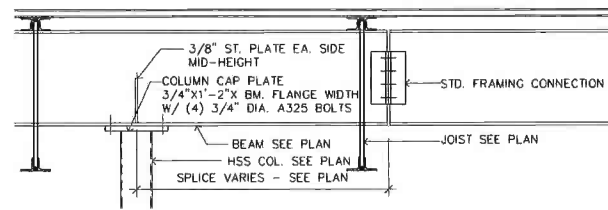
11 TYPICAL DETAIL  
S3 SCALE: 3/4" = 1'-0"



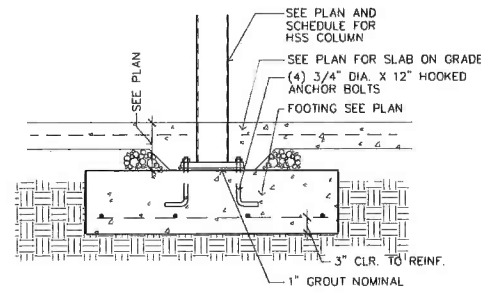
7 DETAIL AT FOOTINGS ADJACENT TO EXISTING BLDG.  
S3 SCALE: 3/4" = 1'-0"



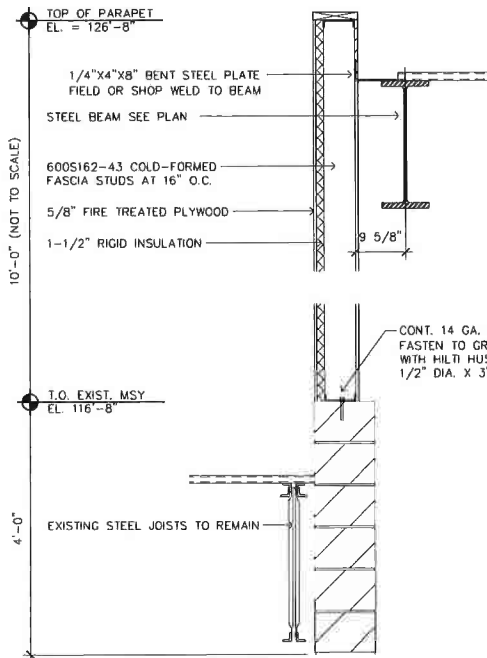
3 TYP. DETAIL AT PRECAST WALL FOOTING  
S3 SCALE: 3/4" = 1'-0"



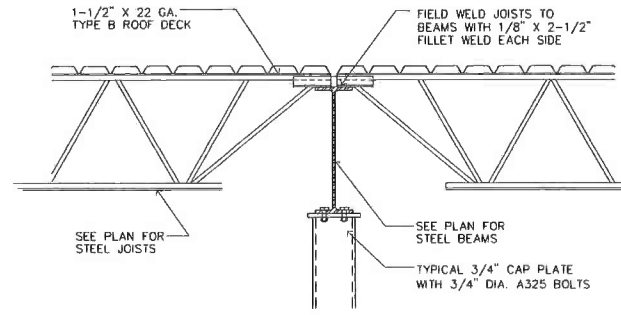
6 TYPICAL DETAIL AT BEAM SPLICE  
S3 SCALE: 3/4" = 1'-0"



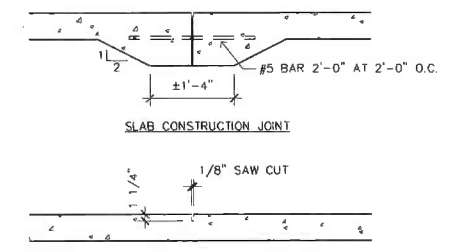
2 TYPICAL STEEL COLUMN FOOTING DETAIL  
S3 SCALE: 3/4" = 1'-0"



10 TYPICAL SECTION  
S3 SCALE: 3/4" = 1'-0"

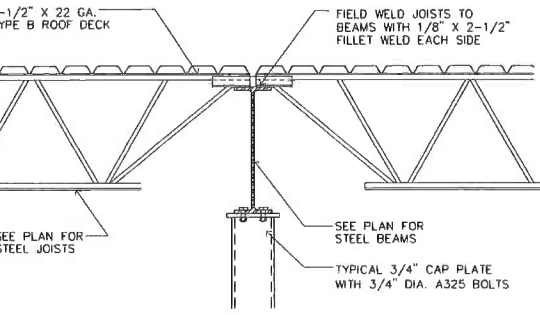


5 TYPICAL DETAIL AT ROOF JOIST BEARING  
S3 SCALE: 3/4" = 1'-0"

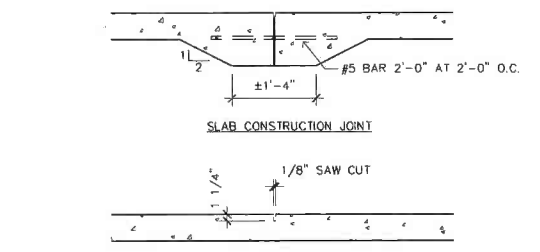


1 TYP. SLAB CONSTRUCTION/CONTROL JOINT DETAILS  
S3 SCALE: 3/4" = 1'-0"

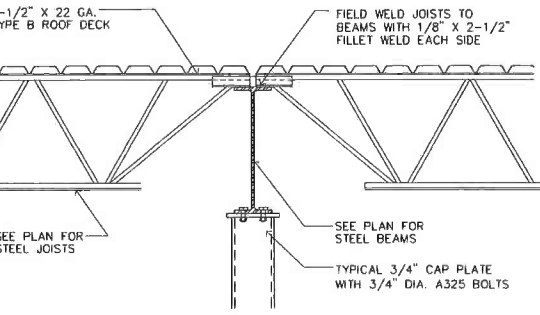
9 NEW LINTEL AT EXISTING CMU WALL  
S3 SCALE: NO SCALE



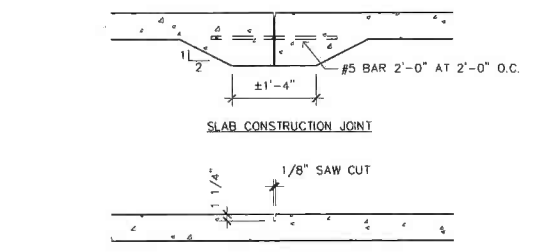
5 TYPICAL DETAIL AT ROOF JOIST BEARING  
S3 SCALE: 3/4" = 1'-0"



1 TYP. SLAB CONSTRUCTION/CONTROL JOINT DETAILS  
S3 SCALE: 3/4" = 1'-0"



5 TYPICAL DETAIL AT ROOF JOIST BEARING  
S3 SCALE: 3/4" = 1'-0"



1 TYP. SLAB CONSTRUCTION/CONTROL JOINT DETAILS  
S3 SCALE: 3/4" = 1'-0"

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Signature: *B. Stroh*  
PRINT NAME: BERNIE STROH  
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JAM HOPS ADDITION  
1460 133rd Lane NE, Ham Lake, Minnesota

Structural Engineer: B STROH  
Drawn By: JRB  
Checked By: BS  
Revisions:

7/26/22	ISSUE FOR PERMIT
12/27/22	RE-ISSUE
2/24/23	REVISION

STRUCTURAL DETAILS

Sheet Number

S3

Project No. 220422-1





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JAM HOPS ADDITION  
1460 133rd Lane NE, Ham Lake, Minnesota

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Project Designer: JAMES B  
Drawn By: JRB  
Checked By: LL

Revisions	
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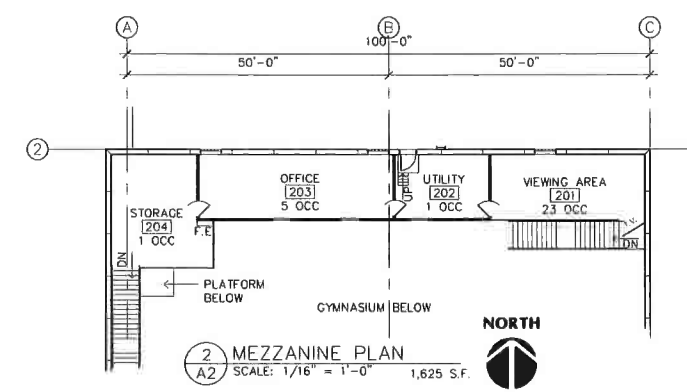
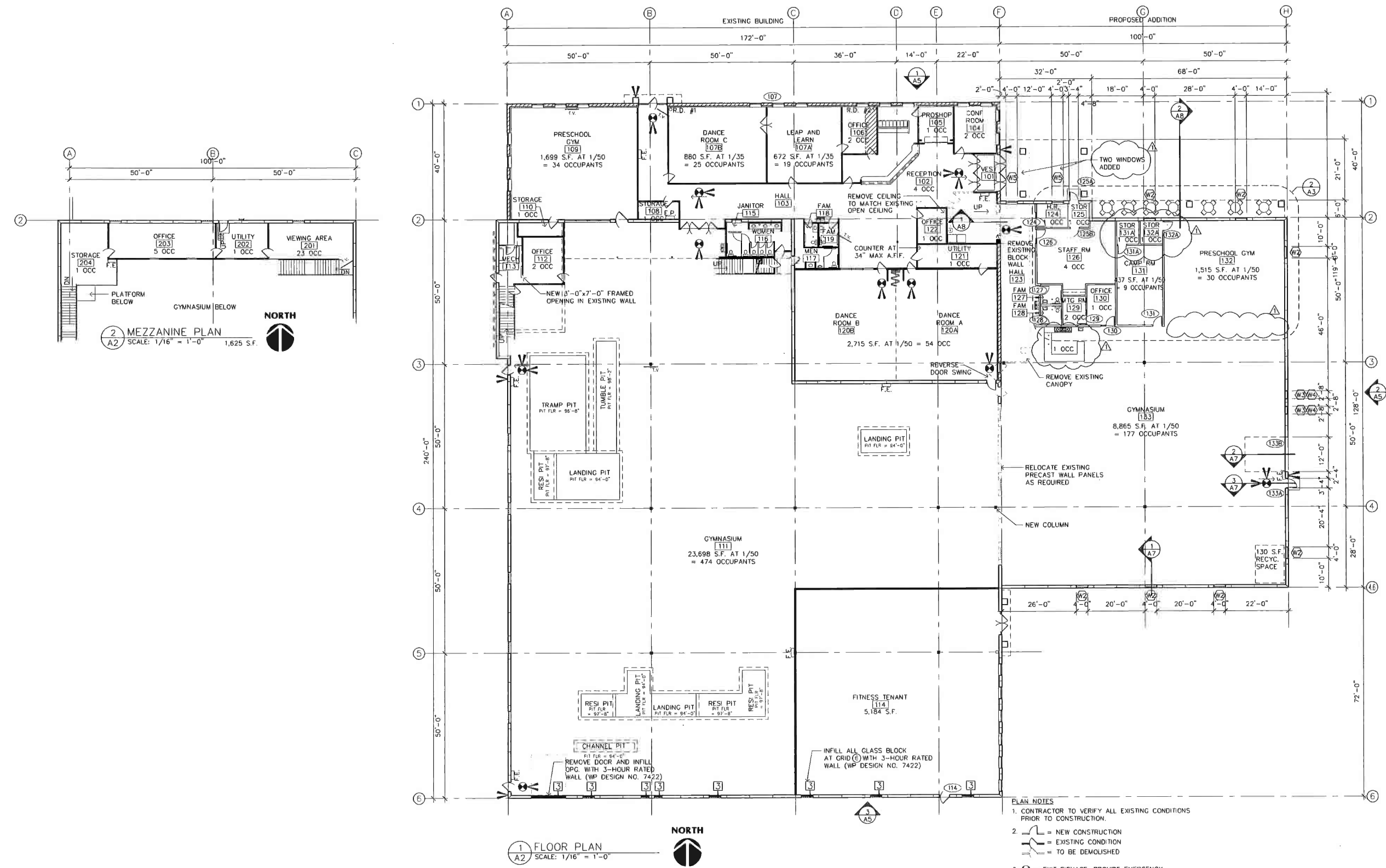
FLOOR PLAN  
MEZZANINE PLAN

Sheet Number

A2

Project No. 220422-1

Filename: JAM\_HOPS\ADDITION\JAM\_HOPS\_ADDITION-A2



1 FLOOR PLAN  
SCALE: 1/16" = 1'-0"

- PLAN NOTES
- CONTRACTOR TO VERIFY ALL EXISTING CONDITIONS PRIOR TO CONSTRUCTION.
  - NEW CONSTRUCTION
  - EXISTING CONDITION
  - TO BE DEMOLISHED
  - EXIT SIGNAGE. PROVIDE EMERGENCY BACK-UP POWER
  - EMERGENCY LIGHTING. PROVIDE EMERGENCY BACK-UP POWER AND (1) FOOT CANDLE AT THE WALKING SURFACE.
  - F.E. = FIRE EXTINGUISHER. VERIFY SIZE AND SPACING WITH BUILDING OFFICIAL.

**GRAB BARS**

GRAB BARS SHALL BE 1 1/4"-2" IN DIAMETER. THE SPACE BETWEEN THE GRAB BAR AND THE WALL SHALL BE 1 1/2". A 1 1/2" MINIMUM CLEARANCE SHALL BE PROVIDED BELOW AND AT END OF THE GRAB BAR. A 12" MINIMUM CLEARANCE SHALL BE PROVIDED ABOVE THE GRAB BAR EXCEPT AT SHOWER CONTROLS. GRAB BARS SHALL NOT ROTATE IN THEIR FITTING AND SHALL SUPPORT 250 POUNDS MINIMUM.

**FLUSH CONTROLS**

FLUSH CONTROLS SHALL BE HAND OPERATED OR AUTOMATIC. HAND OPERATED CONTROLS SHALL COMPLY WITH REQUIREMENTS FOR ACCESSIBLE OPERABLE PARTS. FLUSH CONTROLS SHALL BE LOCATED ON THE OPEN SIDE OF THE WATER CLOSET, EXCEPT IN AMBULATORY ACCESSIBLE COMPARTMENTS WHERE CONTROLS ARE PERMITTED ON EITHER SIDE OF THE WATER CLOSET.

**ACCESSORIES**

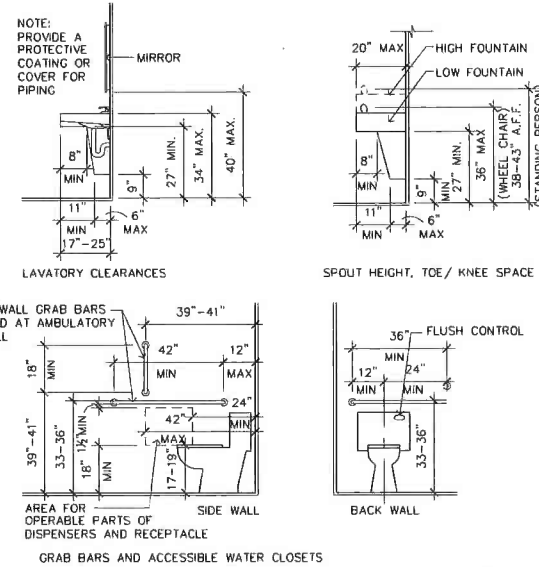
ALL WALL-MOUNTED DISPENSERS, WASTE DISPOSAL CONTAINERS, OR SIMILAR TOILET ACCESSORIES SHALL BE MOUNTED SO THAT THE OPERABLE PORTIONS OF SUCH ACCESSORIES COMPLY WITH AN UNOBSTRUCTED FRONT OR SIDE REACH. THE MAXIMUM UNOBSTRUCTED REACH RANGE IS BETWEEN 15" AND 48" ABOVE THE FINISHED FLOOR. OBSTRUCTIONS PROTRUDING 20-25 FROM A WALL SHALL LIMIT THE HIGH REACH TO 44" MAXIMUM ABOVE THE FINISHED FLOOR.

**INTERIOR FINISHES**

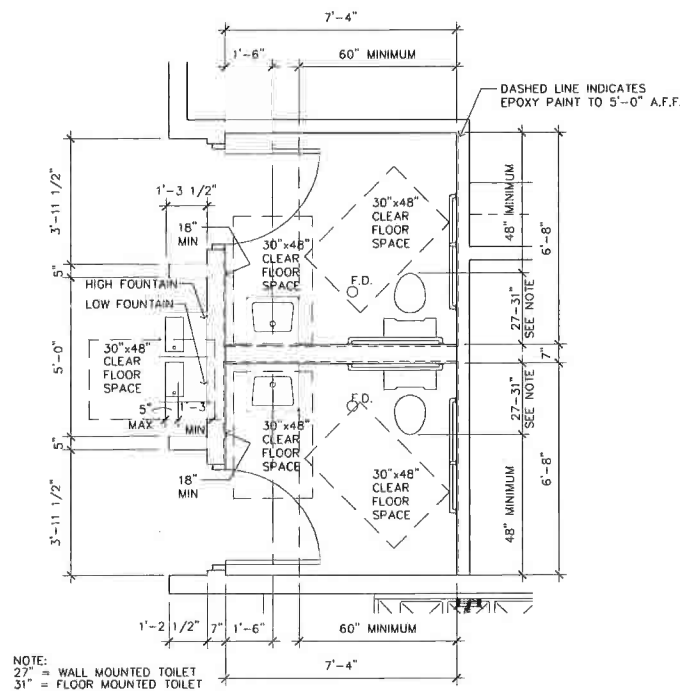
FLOORS IN TOILET, SHOWER, AND BATHING ROOMS ACCESSIBLE TO THE PUBLIC SHALL HAVE A SMOOTH, HARD NON-ABSORBENT SURFACE SUCH AS CERAMIC TILE AND SHALL EXTEND UP THE WALLS AT LEAST 4". (IBC 1209.2.1) WALLS WITHIN 2 FEET OF URINALS AND WATER CLOSETS SHALL HAVE A SMOOTH, HARD NON-ABSORBENT SURFACE, TO 4 FEET A.F.F. (IBC 1209.2.2) SHOWER COMPARTMENT AND BATHTUB WALLS WITH SHOWER HEADS SHALL HAVE A SMOOTH, HARD NON-ABSORBENT SURFACE SUCH AS CERAMIC TILE TO 72" ABOVE THE DRAIN. (IBC 1209.2.3)

**SIGNAGE**

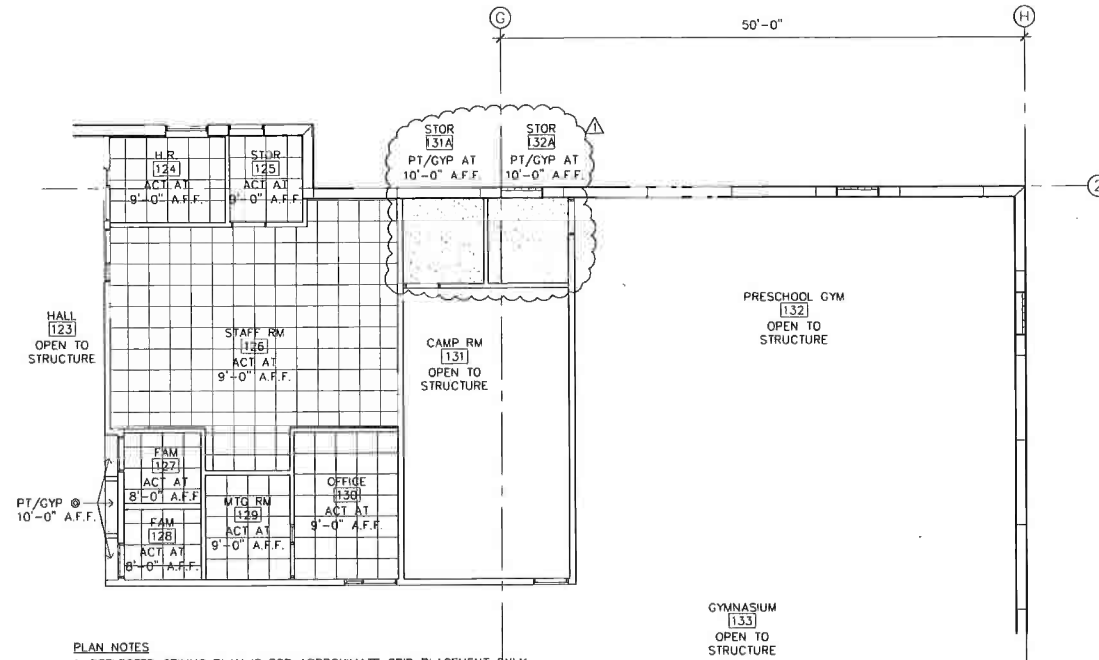
IDENTIFICATION SIGNAGE SHALL BE PROVIDED AT TOILET ROOMS. THE SIGNAGE SHALL INCLUDE TACTILE LETTERS INDICATING THE NAME OF THE SPACE, THE INTERNATIONAL SYMBOL OF ACCESSIBILITY, AND BRAILLE CHARACTERS ACCORDING TO CHAPTER 703. MOUNT THE SIGN CENTERED AT 9" FROM THE LATCH SIDE OF THE DOOR AND MOUNT THE SIGN 48"-60" ABOVE THE FINISHED FLOOR.



**4 PLUMBING FIXTURE DETAILS & NOTES**  
SCALE: 3/8" = 1'-0"

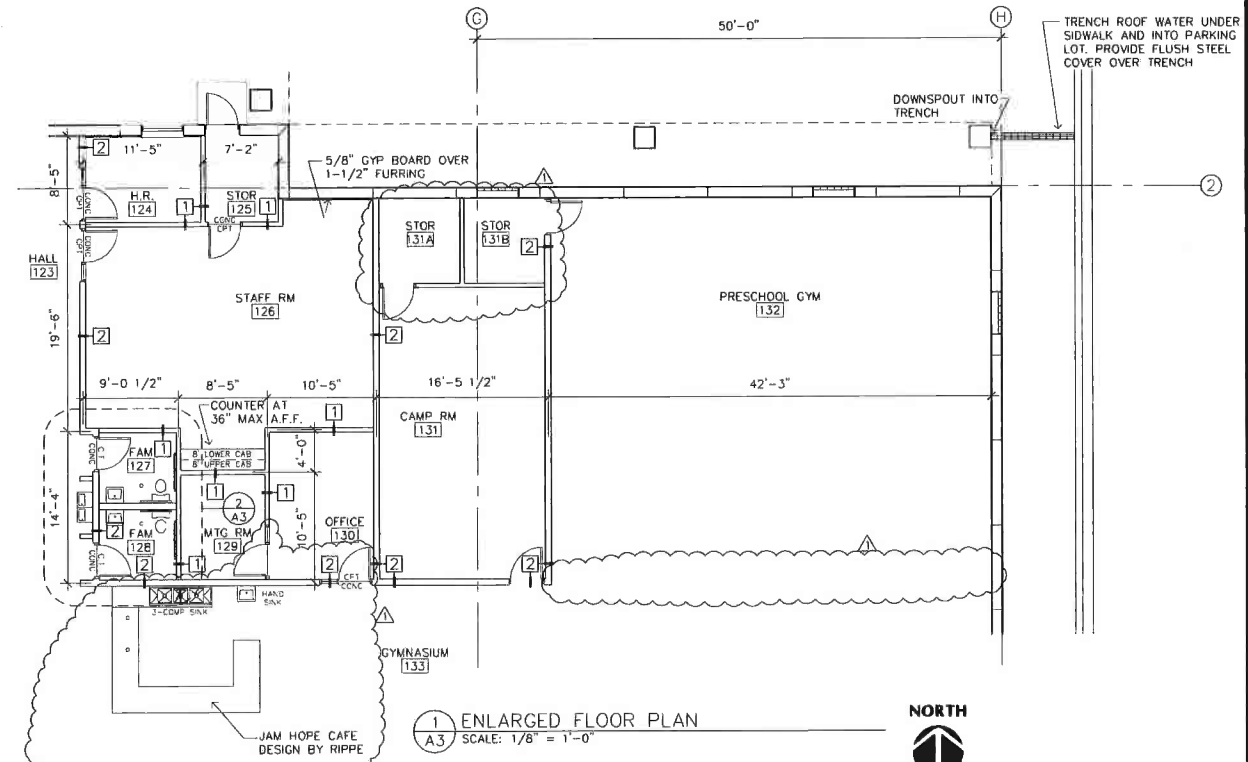


**2 ENLARGED RESTROOM PLAN**  
SCALE: 1/8" = 1'-0"



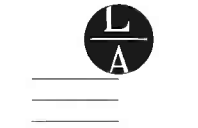
**PLAN NOTES**  
1. REFLECTED CEILING PLAN IS FOR APPROXIMATE GRID PLACEMENT ONLY. VERIFY LOCATION OF ALL DIFFUSERS, SPRINKLER HEADS, LIGHTS, ETC. WITH APPROPRIATE DESIGN BUILD CONTRACTOR

**3 FIRST FLOOR REFLECTED CEILING PLAN**  
SCALE: 1/8" = 1'-0"



**1 ENLARGED FLOOR PLAN**  
SCALE: 1/8" = 1'-0"

Filename: JAM\_HOPS\_ADDITION\JAM\_HOPS\_ADDITION-A3



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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 ARCHITECT UNDER THE LAWS OF THE STATE OF MINNESOTA.

LEONARD LAMPERT  
SIGNATURE  
LEONARD LAMPERT  
PRINT NAME  
13669  
LICENSE NO.  
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DATE

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**JAM HOPS ADDITION**  
1460 133rd Lane NE, Ham Lake, Minnesota

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Project Designer: JAMES B

Drawn By: JRB

Checked By: LL

Revisions

7/26/22 ISSUE FOR PERMIT

12/27/22 RE-ISSUE

2/24/23 REVISION

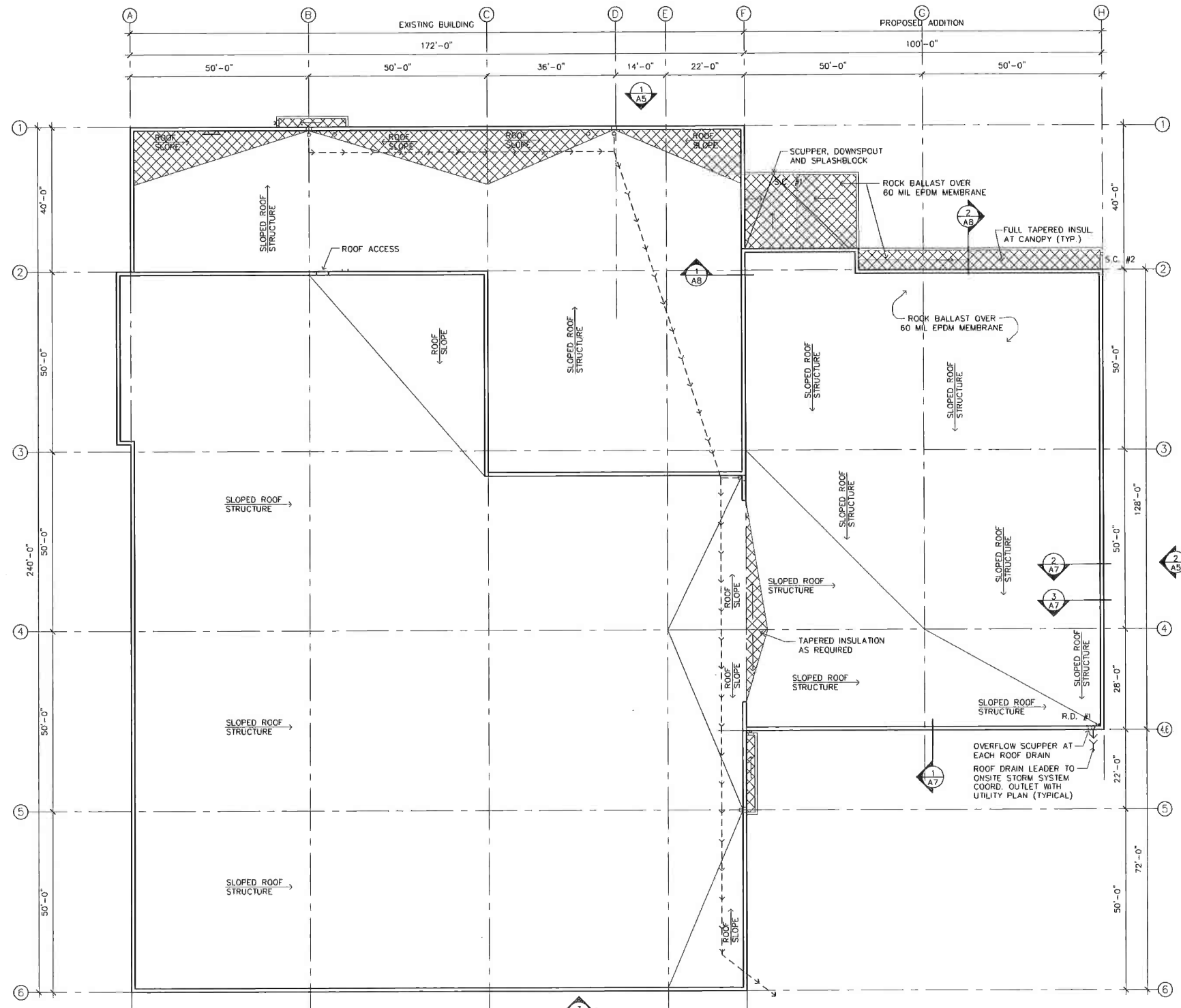
**ENLARGED FLOOR PLANS REF. CLG PLANS**

Sheet Number

**A3**

Project No. 220422-1

Filename: JAM HOPS ADDITION\JAM HOPS ADDITION-A4



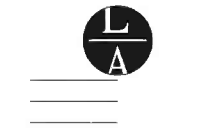
PLAN NOTES:

1. ROOF SLOPES 30" OVER 132'-0" (2.0%)
2. ROOF TOP UNIT LOCATIONS MUST BE CONFIRMED WITH MECHANICAL DRAWINGS (DESIGN BUILD)  
ROOF TOP UNITS TO BE LOCATED AWAY FROM THE PARAPET EDGE SO FAR AS POSSIBLE  
TO MINIMIZE THEIR APPEARANCE FROM THE GROUND
3. ROOF DRAIN AND DRAIN LEADER DESIGN IS BY PLUMBING CONTRACTOR  
LEADERS TO BE TIED INTO ONSITE STORM DRAIN - SEE CIVIL PLAN FOR STUB LOCATION

AREA SERVED  
BY ROOF DRAIN

ROOF DRAIN #1 ± 12,660 S.F.	SCUPPER #1 ± 637 S.F.	SCUPPER #2 ± 359 S.F.
--------------------------------	--------------------------	--------------------------

1 ROOF PLAN  
A4 SCALE: 1/16" = 1'-0"



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*Leonard Lampert*  
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Revisions

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2/24/23	REVISION

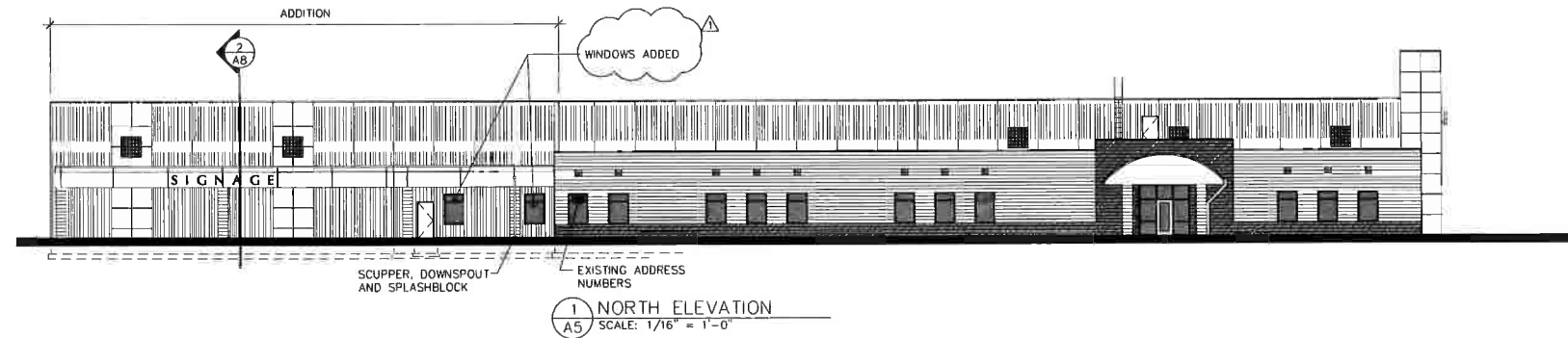
ROOF PLAN

Sheet Number

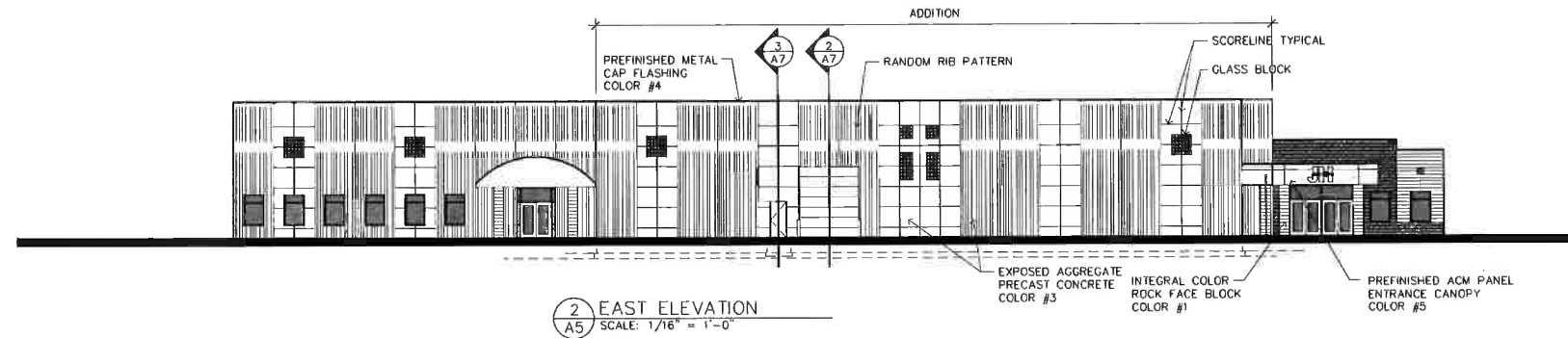
A4

Project No. 220422-1

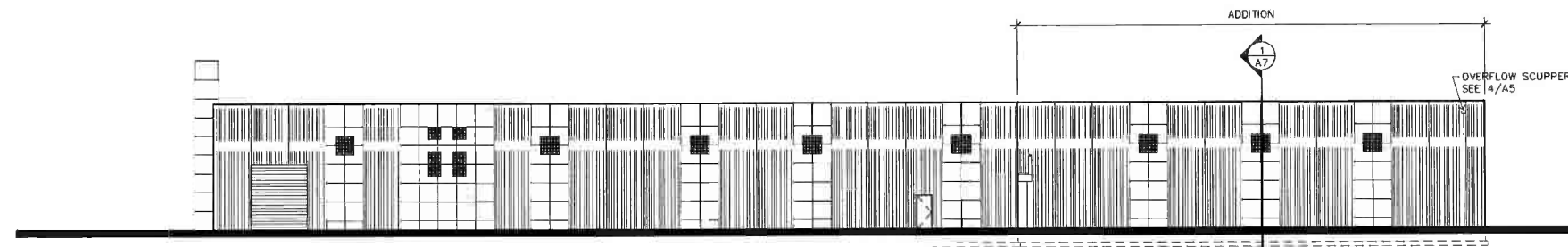
Filename: JAM HOPS\ADDITION\JAM HOPS ADDITION-A5



1 NORTH ELEVATION  
A5 SCALE: 1/16" = 1'-0"



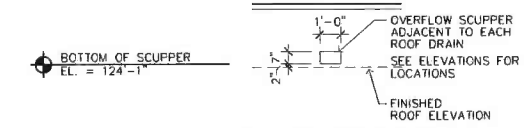
2 EAST ELEVATION  
A5 SCALE: 1/16" = 1'-0"



3 SOUTH ELEVATION  
A5 SCALE: 1/16" = 1'-0"

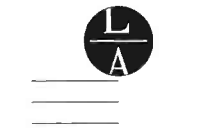
- COLOR #1 COUNTY MATERIALS - DESERT CASTLE
- COLOR #2 COUNTY MATERIALS - COCOA BEAN
- COLOR #3 FABCON - EXPOSED AGGREGATE BUFF #1013
- COLOR #4 FIRESTONE - SLATE GRAY
- COLOR #5 FIRESTONE - REGAL RED
- COLOR #6 ANODIZED ALUMINUM - DARK BRONZE
- COLOR #7 GLASS - BRONZE TINT

- TOP OF PRECAST  
EL. = 126'-8"
- FINISHED MEZZANINE  
EL. = 113'-8"
- FINISHED FLOOR  
EL. = 100'-0"
- T.O. FOOTING  
EL. = 97'-0"



NOTE: OVERFLOW SCUPPER IS SIZED ACCORDING TO IBC 1502.2.3 LEADER SIZE ASSUMED TO BE 6" DIAMETER. VERIFY WITH THE PLUMBING DESIGNER AND INT'L PLUMBING CODE

4 OVERFLOW SCUPPER DETAIL  
A5 SCALE: 1/4" = 1'-0"



LAMPERT ARCHITECTS

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*Leonard Lampert*  
SIGNATURE  
LEONARD LAMPERT  
PRINT NAME  
13869  
LICENSE NO.  
2/24/23  
DATE

(763) 784-1950  
FAX 784-9707

STONE CONSTRUCTION, INC.  
2181 - 107th LANE N.E.  
BLAINE, MINNESOTA 55434

JAM HOPS ADDITION  
1460 133rd Lane NE, Ham Lake, Minnesota

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Leonard Lampert Architects Inc.

Project Designer: JAMES B  
Drawn By: JRB  
Checked By: LL

Revisions	
6/23/22	PRELIMINARY
7/26/22	ISSUE FOR PERMIT
12/27/22	RE-ISSUE
2/24/23	REVISION

BUILDING ELEVATIONS

Sheet Number

A5

Project No. 220422-1

DR #	DOOR SIZE	THICK	DOOR	FRAME	REMARKS
114	3'-0"x7'-0"	1-3/4"	D2	F1	INSULATED, 180 MIN. RATED
124	3'-0"x7'-0"	1-3/4"	D1	F2	-
125A	3'-0"x7'-0"	1-3/4"	D2	F1	INSULATED
125B	3'-0"x7'-0"	1-3/4"	D1	F1	-
126	3'-0"x7'-0"	1-3/4"	D1	F2	-
127	3'-0"x7'-0"	1-3/4"	D1	F1	-
128	3'-0"x7'-0"	1-3/4"	D1	F1	-
129	3'-0"x7'-0"	1-3/4"	D1	F2	-
130	3'-0"x7'-0"	1-3/4"	D1	F2	-
131	3'-0"x7'-0"	1-3/4"	D1	F1	-
131A	3'-0"x7'-0"	1-3/4"	D1	F1	-
132A	3'-0"x7'-0"	1-3/4"	D1	F1	-
133A	3'-0"x7'-0"	1-3/4"	D2	F1	INSULATED
133B	12'-0"x14'-0"	2"	D3	-	INSULATED

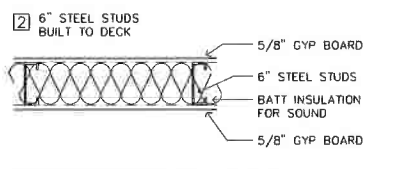
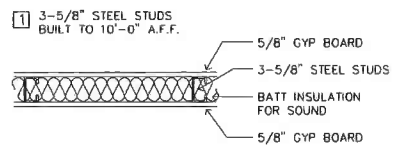
DOOR 131 TO PAIR OF DOORS  
DOOR 131A AND 132A ADDED TO SCHEDULE  
DOOR 132 REMOVED

- NOTES:
- ALL DOOR HARDWARE TO BE SPECIFIED & PROVIDED BY CONTRACTOR
  - ALL EXIT HARDWARE SHALL NOT REQUIRE TIGHT GRASPING, PINCHING, OR TWISTING OF THE WRIST. MOUNT HARDWARE BETWEEN 34"-48" (ANSI A117.1-104.2.6)
  - THE MAIN EXIT IS ALLOWED TO HAVE A KEYED LOCK PROVIDED THAT THE LOCKING DEVICE IS READILY DISTINGUISHABLE AS LOCKED AND A SIGN WITH 1" CONTRASTING LETTERS IS POSTED ON THE EGRESS SIDE STATING: 'THIS DOOR TO REMAIN UNLOCKED WHEN BUILDING IS OCCUPIED'. (IBC 1010.1.9.4)

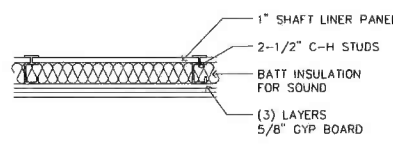
RM#	DESCRIPTION	FLOOR	BASE	N.WALL	E.WALL	S.WALL	W.WALL	CLG.	HGHT	REMARKS
101	VESTIBULE									
102	RECEPTION									
103	HALL									
104	CONFERENCE ROOM									
105	PROSHOP									
106	OFFICE									
107A	LEAP AND LEARN									
107B	DANCE ROOM C									
108	STORAGE									
109	PRESCHOOL GYM									
110	STORAGE									
111	GYMNASIUM									
112	OFFICE									
113	MECHANICAL									
114	FITNESS TENANT									
115	JANITOR									
116	WOMEN									
117	MEN									
118	FAMILY									
119	FAMILY									
120A	DANCE ROOM A									
120B	DANCE ROOM B									
121	UTILITY									
122	OFFICE									
123	HALL	CONC	VINYL	PT/GYP	PT/GYP	PT/GYP	PRECAST	OPEN	VARIES	
124	H.R.	CARPET	CARPET	PT/GYP	PT/GYP	PT/GYP	PT/GYP	ACT	9'-0"	
125	STORAGE	CONC	VINYL	PT/GYP	PT/GYP	PT/GYP	PT/GYP	ACT	9'-0"	
126	STAFF ROOM	CARPET	CARPET	PT/GYP	PT/GYP	PT/GYP	PT/GYP	ACT	9'-0"	
127	FAMILY	C.T.	C.T.	EPOXY PAINT TO 5'-0" A.F.F. - SEE PLAN				ACT	8'-0"	
128	FAMILY	C.T.	C.T.	EPOXY PAINT TO 5'-0" A.F.F. - SEE PLAN				ACT	8'-0"	
129	MEETING ROOM	CARPET	CARPET	PT/GYP	PT/GYP	PT/GYP	PT/GYP	ACT	9'-0"	
130	OFFICE	CARPET	CARPET	PT/GYP	PT/GYP	PT/GYP	PT/GYP	ACT	9'-0"	
131	CAMP ROOM	CONC	VINYL	PT/GYP	PRECAST	PRECAST	PRECAST	OPEN	VARIES	1
131A	STORAGE	CONC	VINYL	PT/GYP	PRECAST	PRECAST	PRECAST	PT/GYP	10'-0"	
132	PRESCHOOL GYM	CONC	VINYL	PT/GYP	PRECAST	PRECAST	PRECAST	OPEN	VARIES	1
132A	STORAGE	CONC	VINYL	PT/GYP	PRECAST	PRECAST	PRECAST	PT/GYP	10'-0"	
133	GYMNASIUM	CONC	VINYL	PT/GYP	PRECAST	PRECAST	PRECAST	OPEN	VARIES	1
201	VIEWING AREA									
202	UTILITY									
203	OFFICE									
204	STORAGE									

- ABBREVIATIONS:  
 CONC = SEALED CONCRETE  
 P.CONC = POLISHED CONCRETE  
 C.T. = CERAMIC TILE  
 PT/GYP = PAINTED GYPSUM BOARD  
 ACT = ACOUSTICAL CEILING TILE  
 1 = VINYL BASE ON PT/GYP WALLS ONLY

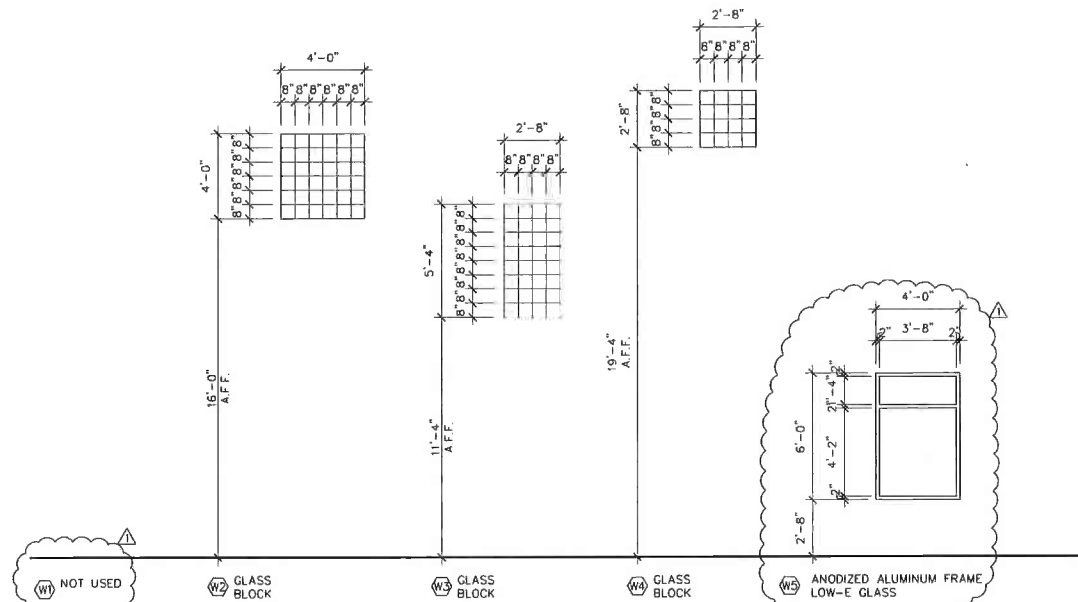
ROOM 131A AND 132A ADDED TO SCHEDULE



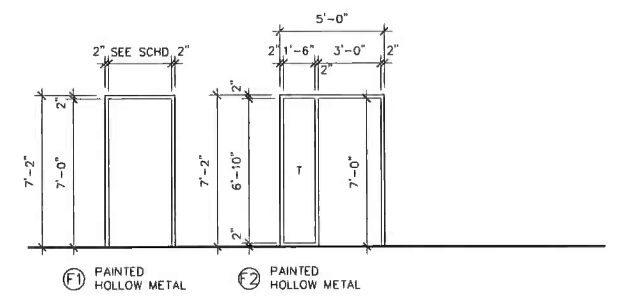
3 2-1/2" C-H STUDS INFILL  
 3 HOUR 2-1/2" C-H METAL STUD WALL  
 One Layer 1" ToughRock Shaftliner or 1" Densglass Shaftliner Inserted Between 2-1/2" Floor And Ceiling J Runners With H Sections Of 2-1/2" C-H Studs Between Panels.  
 Opposite Side: Base Layer 5/8" ToughRock Fiberguard C Gypsum Board Or 5/8" DensArmor Plus Fireguard C Interior Panels Applied Horizontally To Studs With 1" Type S Screws 24" O.C. Second Layer 5/8" ToughRock Fireguard C Gypsum Board Or 5/8" DensArmor Plus Fireguard C Interior Panels Applied Horizontally To Studs With 1-5/8" Type S Drywall Screws 16" O.C. At Studs And 1-1/2" Type G Drywall Screws 16" O.C. Placed 2" From Any Vertical Joints. Face Layer 5/8" Tough Rock Fireguard C Gypsum Board Or 5/8" DensArmor Plus Fireguard C Interior Panels Applied Vertically To Studs With 2-1/4" Type S Drywall Screw 12" O.C. At Studs And 1-1/2" Type G Drywall Screws 12" O.C. Placed 2" From Either Side Of Horizontal Joints.  
 GA FILE NO. GA WP 7422



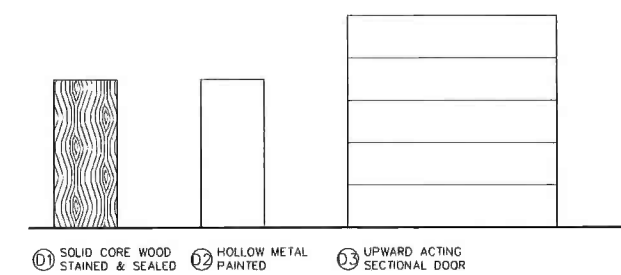
3 WALL TYPES  
 A6 SCALE: 1" = 1'-0"



2 WINDOW TYPES  
 A6 SCALE: 1/4" = 1'-0" T = TEMPERED GLASS



4 DOOR FRAME TYPES  
 A6 SCALE: 1/4" = 1'-0" T = TEMPERED GLASS



1 DOOR TYPES  
 A6 SCALE: 1/4" = 1'-0" T = TEMPERED GLASS



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LEONARD LAMPERT  
 LEONARD LAMPERT  
 LICENSE NO. 13669  
 DATE 2/24/23

(763) 784-1950  
 FAX 784-9707

STONE CONSTRUCTION, INC.  
 2181 - 107th LANE N.E.  
 BLAINE, MINNESOTA 55434

JAM HOPS ADDITION  
 1460 133rd Lane NE, Ham Lake, Minnesota

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 Leonard Lampert Architects Inc.

Project Designer: JAMES B  
 Drawn By: JRB  
 Checked By: LL

Revisions	DATE	DESCRIPTION
	7/26/22	ISSUE FOR PERMIT
	12/27/22	RE-ISSUE
	2/24/23	REVISION

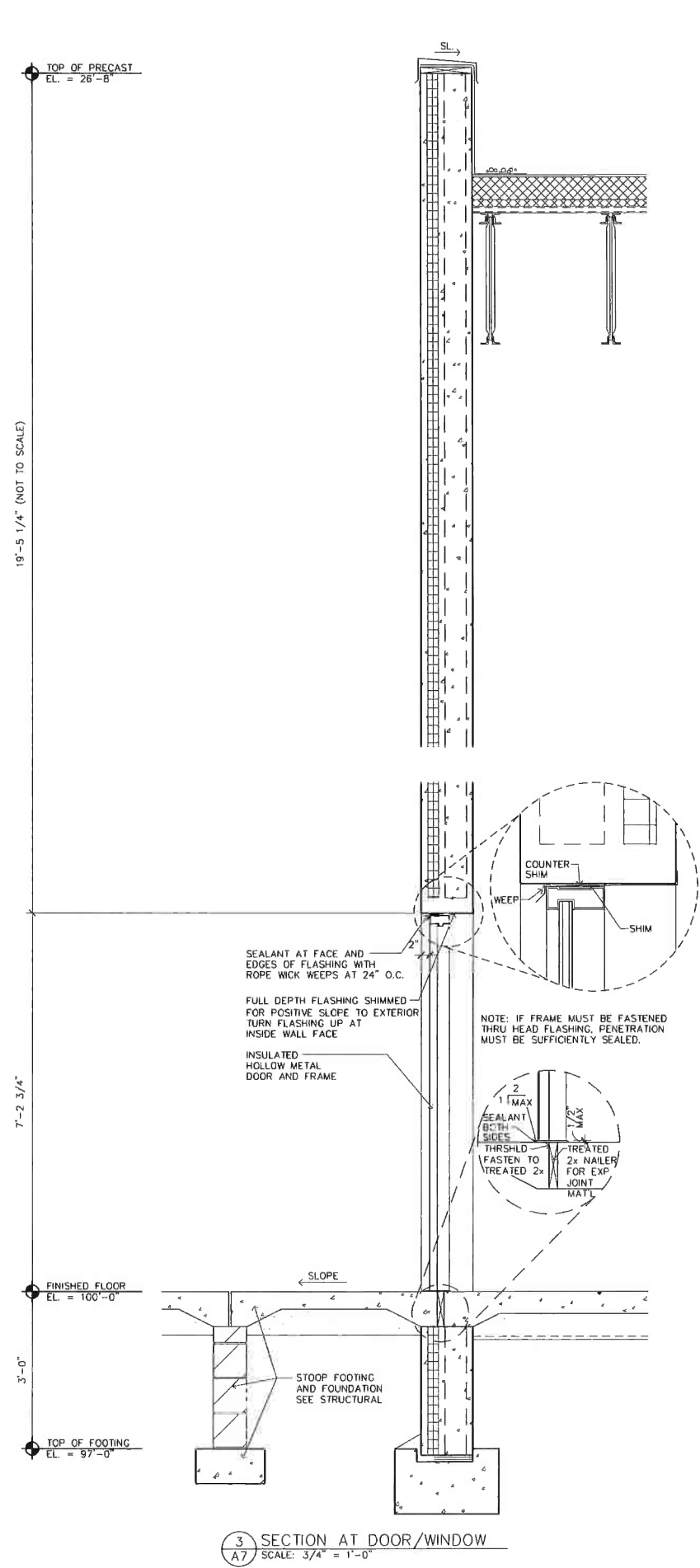
COMPONENT TYPES  
 SCHEDULES  
 DETAILS

Sheet Number

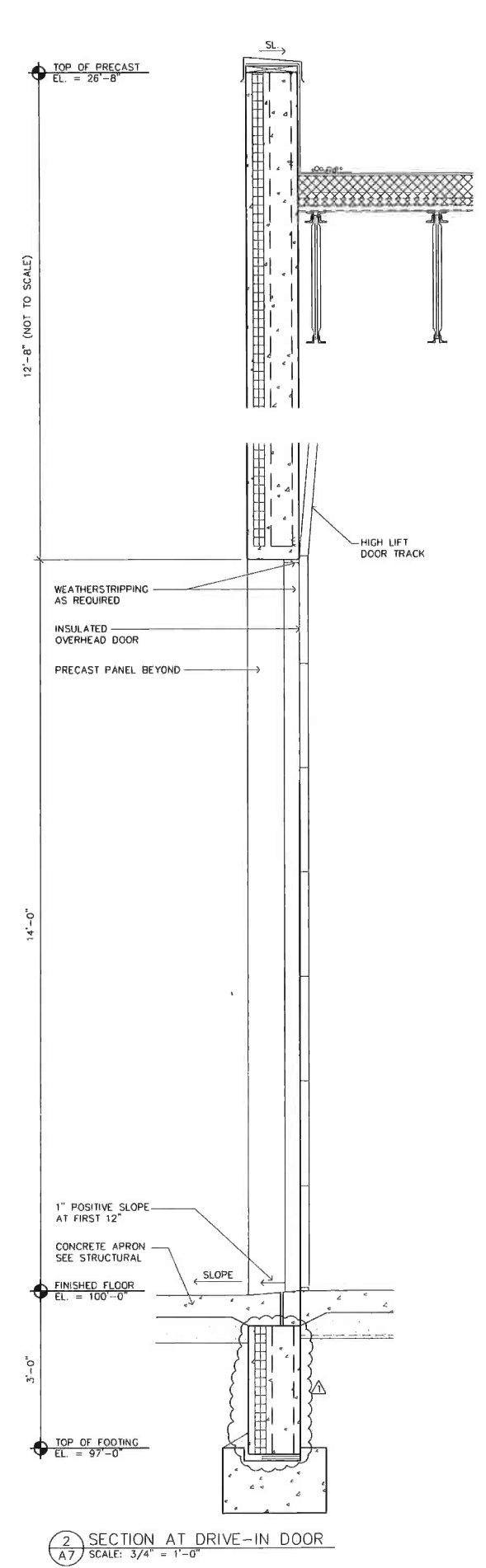
A6

Project No. 220422-1

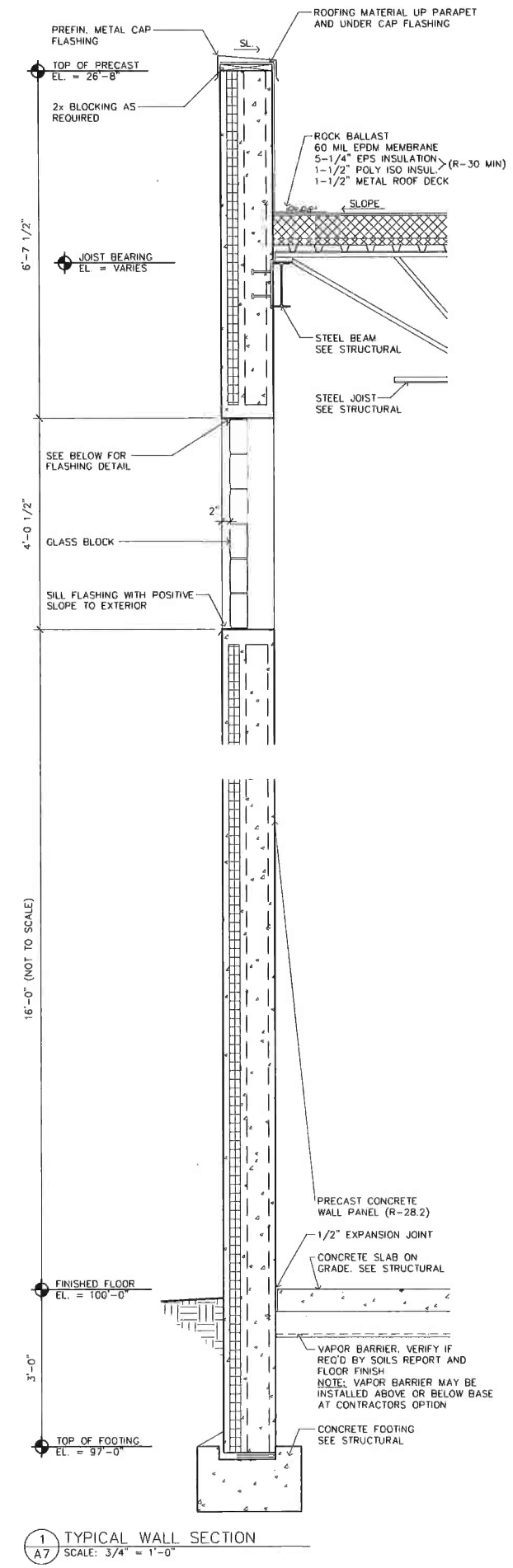
Filename: JAM\_HOPS\ADDITION\JAM\_HOPS\_ADDITION-A7



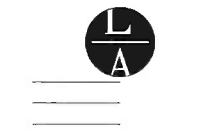
3 SECTION AT DOOR/WINDOW  
A7 SCALE: 3/4" = 1'-0"



2 SECTION AT DRIVE-IN DOOR  
A7 SCALE: 3/4" = 1'-0"



1 TYPICAL WALL SECTION  
A7 SCALE: 3/4" = 1'-0"



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lampart@lampert-arch.com

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SIGNATURE: *Leonard Lampert*  
LEONARD LAMPERT  
PRINT NAME  
13669  
LICENSE NO.  
2/24/23  
DATE

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FAX 784-9707

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Checked By: LL

Revisions	
7/26/22	ISSUE FOR PERMIT
12/27/22	RE-ISSUE
2/24/23	REVISION

**WALL SECTIONS**

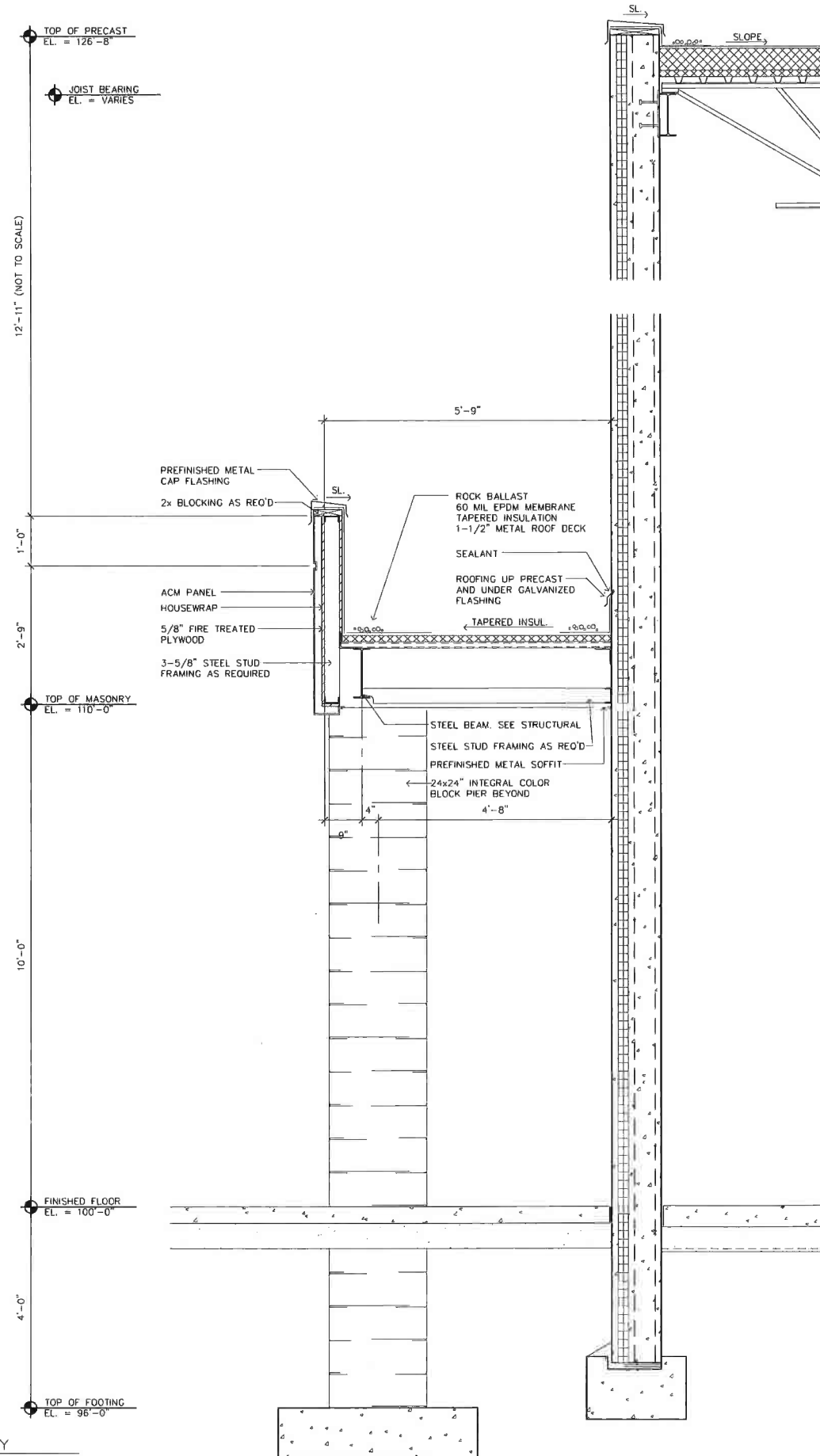
Sheet Number

**A7**

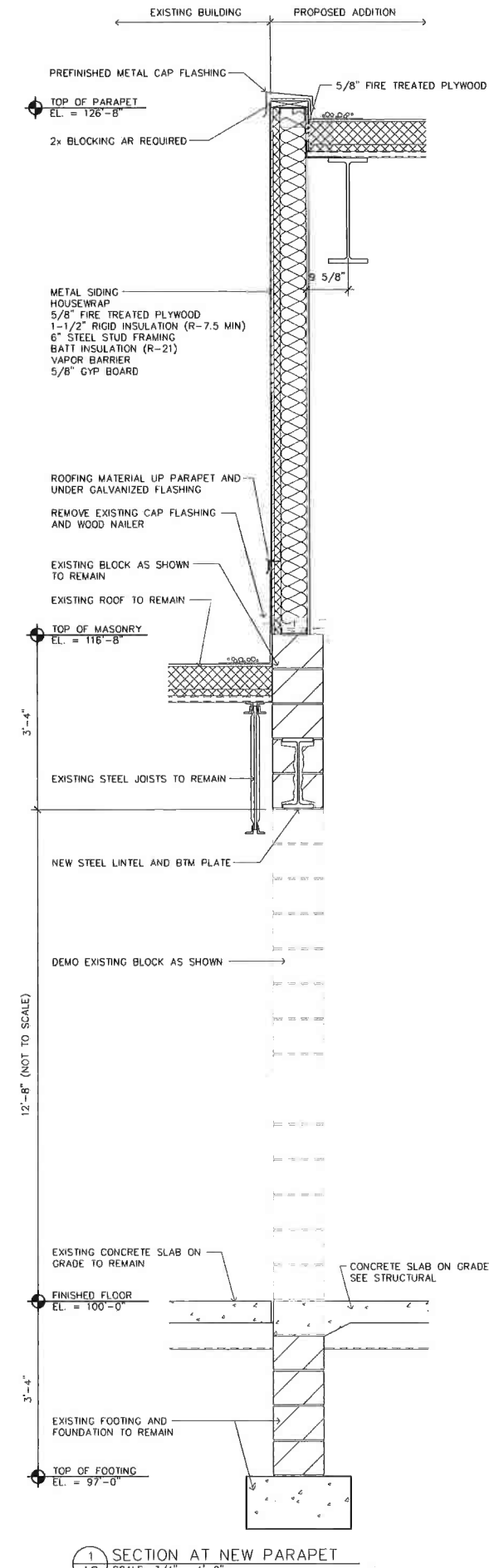
Project No. 220422--1



Filename: JAM\_HOPS\_ADDITION\JAM\_HOPS\_ADDITION-A8



2 SECTION AT CANOPY  
SCALE: 3/4" = 1'-0"



1 SECTION AT NEW PARAPET  
SCALE: 3/4" = 1'-0"



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LEONARD LAMPERT  
LEONARD LAMPERT  
13669  
2/24/23

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Drawn By: JRB  
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Revisions	Date	Description
	7/26/22	ISSUE FOR PERMIT
	12/27/22	RE-ISSUE
	2/24/23	REVISION

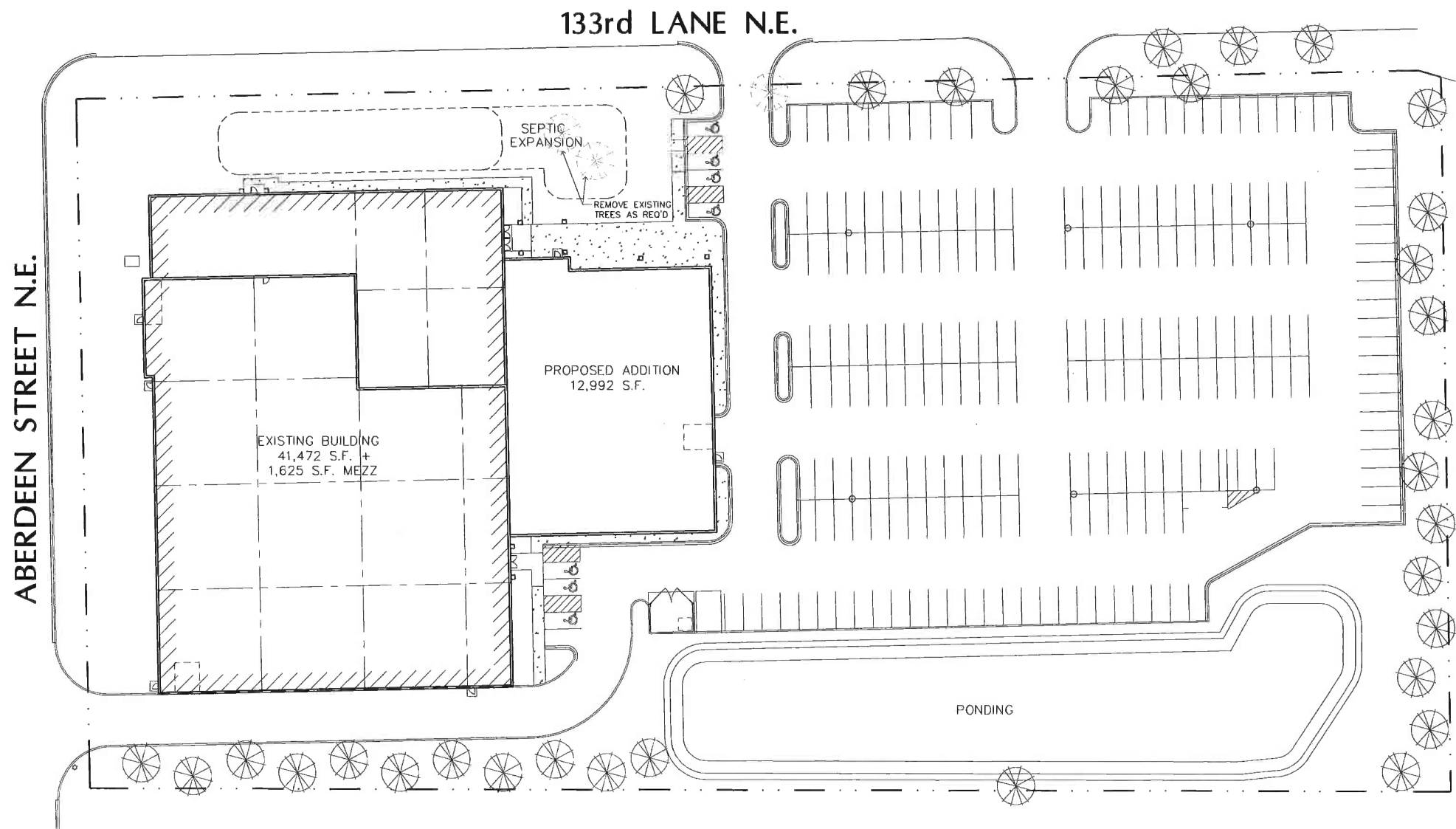
WALL SECTIONS

Sheet Number

A8

Project No. 220422-1

Filename: JAM\_HOPS\ADDITION\JAM\_HOPS\_ADDITION-A1



1 SITE PLAN  
A1 SCALE: 1" = 30'-0"



PLAN NOTE:  
1. NO NEW PLANTINGS PLANNED WITH EXPANSION  
2. PATCH AND REPAIR ALL GROUND COVER DISTURBED BY CONSTRUCTION PROCESS.

(763) 784-1950  
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STONE CONSTRUCTION, INC.  
2181 - 107th LANE N.E.  
BLAINE, MINNESOTA 55434

JAM HOPS ADDITION  
1460 133rd Lane NE Ham Lake, Minnesota

Drawn By: JRB  
Checked By: LL  
Revisions

12/27/22	RE-ISSUE
2/24/23	REVISION

LANDSCAPE PLAN

Sheet Number

L1

Project No. 220422-1

## Excerpt from Article 11 of the Ham Lake City Code

...

### **11-1800 LANDSCAPING IN COMMERCIAL ZONED AREAS**

In all areas of the City zoned CD-1, CD-2, CD-3 or CD-4, the following conditions shall apply to landscaping and ground cover.

**11-1810 Landscape Plan Required** No building permit shall be issued for construction on a vacant lot, nor for any addition to an existing building involving the addition of 500 square feet or more of additional building space, unless the applicant shall have first submitted and obtained approval of the City Council, after review by the Planning Commission, of a landscaping plan meeting the requirements of this code.

**11-1820 Installation Required** No certificate of occupancy shall be issued for any construction which required a landscaping plan unless the applicant has installed all of the elements of the landscaping plan, or unless the applicant has posted security acceptable to the City to guarantee timely installation of all landscaping.

**11-1830 Time for Submission** The landscaping plan shall be submitted, whenever possible, at the time of site plan approval. If the landscaping plan is not submitted at the time of site plan approval, it must be separately reviewed by the Planning Commission and approved by the City Council prior to the issuance of any building permits.

### **11-1840 Contents and Specifications**

The landscaping plan shall be a quality document prepared at a scale of one-inch equals thirty feet, showing all relevant dimensions. Fifteen copies of the plan shall be submitted by the applicant. The following data shall be displayed on the plan, legibly labeled:

- A. Perimeter of all buildings, signs or other structures;
- B. Parking lots and walkways, identifying pavement material;
- C. Areas of decorative rock, identifying type of rock;
- D. Areas of lawn;
- E. Other areas where other than natural wooded vegetation is to be used as ground cover, identifying the ground cover to be used;
- F. Locations, trunk size, height and species of all trees to be planted;
- G. Locations where existing natural wooded vegetation will remain undisturbed;
- H. All other landscaping features to be used.

### **11-1850 MINIMUM LANDSCAPING REQUIREMENTS**

**11-1851 Paved Surfaces** All surfaces upon which motor vehicles will be parked or driven, and all areas in which pedestrians will be walking from point to point shall

be surfaced with asphalt or concrete, to specifications established by the City's engineer.

**11-1852 Ground Cover** On any side of a lot which abuts a public road, the area from the road right-of-way to the nearest building side shall be entirely covered with ground cover consisting of pavement, decorative rock bordered with edging, lawn grass intended for regular mowing, mulch, bark, wood chips or other commonly used landscaping ground cover. Shingles, aggregate and clay mixtures such as Class V material, recycled concrete or asphalt, and other non-conventional ground covers shall not be permitted. Loose ground cover shall be installed to a depth of at least three inches. Any area which is covered by landscaping ground cover (not lawn or pavement) shall also include one decorative shrub for each ten square feet of ground cover.

Side yards and rear yards which do not contain existing natural wooded vegetation shall either be covered with ground cover in the manner stated above for front yards, or shall be planted so as to encourage the emergence of natural wooded vegetation, through the planting of tree species expected to reach a height of at least twenty five feet. Areas so prepared shall not be required to have mown lawn areas, but may be allowed to return to a natural state.

**11-1853 Tree Plantings** Trees which are planted outside of areas intended to return to a natural wooded state shall be of a variety indigenous to the local climate. Deciduous trees shall, when planted, have a trunk size of at least one and one half inches at a height of four feet from ground level. Conifers shall have a height of at least five feet. Tree locations are subject to review and approval of the City in the landscaping plan review process, and while no specific number of trees are required, the following general principles shall be observed;

A. Where property lines are adjacent to residential areas, a planting screen of conifers shall be required, of sufficient size and proximity to provide an intermingled screen within five years;

B. Decorative trees shall be planted along the right of way lines of adjacent public roadways;

B. The use of conifers shall be encouraged and preferred.

C. Whenever possible, an attempt will be made to preserve stands of existing vegetation, particularly treed or wooded areas.

#### **11-1860 Case by Case Evaluation**

Recognizing that the City contains a wide variety of commercial land, the landscape approval process shall be on a case by case basis. Where wetlands are present, or where large distances separate a commercial lot from adjacent lands, for example, strict adherence to screening requirements may be unnecessary. Likewise, strict adherence to the remaining provisions of Article 11-1800 may be unnecessary where size, spatial relationships, topography or other physical features render a given landscaping plan aesthetically acceptable, and departures from the strict observance of the elements of Article 11-1800 shall not be considered variances requiring a showing of physical

hardship. Conversely, an applicant shall be expected to meet the general spirit of this article in establishing an aesthetically pleasing landscaping plan.



## NOTICE OF PERMIT APPLICATION STATUS

**Project:** Jam Hops Addition

**Date:** March 13, 2023

**Applicant:** Jam Hops  
Attn: Brenda Nolby  
1460 133rd Ln NE  
Ham Lake, MN 55304

**Permit Application#:** P-23-026

**Purpose:** Building addition, sidewalk and parking addition

**Location:** 1460 133rd Ln NE, Ham Lake

At their meeting on March 13, 2023, the Board of Managers of the Coon Creek Watershed District the above referenced project with 3 conditions and 0 stipulations. **This is NOT a permit.**

Prior to permit issuance, the following conditions must be fulfilled. Please respond to each of these items in writing when resubmitting application materials to the District.

### Conditions:

1. Submittal of a performance escrow in the amount of \$2,775.00.
2. Provide a note on the erosion and sediment control plan that disturbed soils and stockpiles will be temporarily or permanently stabilized within 24 hours after construction activity in that area has temporarily or permanently ceased.
3. Provide proof that an application has been submitted to the MPCA for an NPDES Construction Stormwater Permit

After issuance, the permit will include the following stipulations that need to be fulfilled before permit closeout:

**Stipulations:** None

Please be advised that **this is NOT a permit**, and that work without a permit is a violation of the terms of the Coon Creek Watershed District Rules. If you have any questions, please call 763-755-0975.

Sincerely,

A handwritten signature in black ink that reads "Erin Edison".

Erin Edison  
Watershed Development Coordinator

cc: File P-23-026  
Eileen Weigel, Stantec  
Danielle Tourillott, Stantec  
Tom Collins, Ham Lake

**PERMIT**  
**COON CREEK WATERSHED DISTRICT**  
13632 Van Buren St NE  
Ham Lake, MN 55304  
Permit Number: 2322

**Project:** Jam Hops Addition

**Issued to:** CBN Enterprises LLC  
Brenda Nolby  
1460 133<sup>rd</sup> Ln NE  
Ham Lake, MN 55304

**Location:** 1460 133rd Ln NE, Ham Lake

**Permit Application #:** P-23-026

**Purpose:** Building addition, sidewalk and parking addition

At its meeting on March 13, 2023, the Board of Managers of the Coon Creek Watershed District reviewed and approved your permit application. The following exhibits are on file describing the approved project:

1. Permit Application; by CBN Enterprises LLC, dated 2/08/2023, received 2/13/2023.
2. Construction Plans (7 sheets); by Plowe, dated 04/12/2023, received 04/12/2023.
3. Building Plans (13 sheets); by Lampert Architects, dated 02/24/2023, received 04/12/2023.
4. Stormwater Management Plan; by Plowe, dated 01/31/2023, received 04/12/2023.

The Board of Managers found the project as planned to be in accordance with the Rules and Regulations, and Guidelines of the District, and therefore, approved the permit with 0 stipulations.

A follow up inspection will be conducted at the project site to assure compliance with all stipulations to this Permit. Failure to comply with the foregoing may result in rescission of the Permit, and is a violation of Minnesota Statutes section 103D.545, a misdemeanor.  
This document is not transferable.

Date of Issuance: 5/25/2023  
Date of Expiration: 5/25/2024

  
\_\_\_\_\_  
Tim Kelly, District Administrator

cc: File- P23-026  
Eileen Weigel, Stantec  
Danielle Tourtillott, Stantec  
Tom Collins, City of Ham Lake

**\*\*\*IMPORTANT PERMIT REQUIREMENTS OUTLINED ON REVERSE\*\*\***



**GENERAL PERMIT STIPULATIONS:**

1. The permittee must maintain the project authorized by this permit in good condition and in conformance with the terms and conditions of this permit.
2. The permittee shall grant access to the site at all reasonable times during and after construction to authorized representatives of the District for inspection of the work authorized hereunder.
3. The permittee shall utilize best management practices on the project site to minimize the potential for adverse impacts associated with erosion and sedimentation.
4. This permit applies only to the permitted project and the dated plans approved on this permit. If the design, location or purpose of the project changes you should contact the District to make sure the changes would not violate District Rules or applicable state law.
5. Construction work authorized under this permit shall be completed on or before the date specified above. The permittee may request an extension of the time to complete the project, stating the reason thereof, upon written request to the District.
6. The District may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:
  - a. You fail to comply with the terms and conditions of this permit.
  - b. The information provided by you or in support of your permit application proves to have been false, incomplete, or inaccurate.
  - c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.
7. Permittee shall ensure that the contractor has received and thoroughly understands all conditions of this permit.

**ADDITIONAL WETLAND-RELATED PERMIT CONDITIONS:**

The following additional terms and conditions apply to replacement wetland(s) approved as part of this permit.

1. The replacement wetland approved as part of this permit must be constructed concurrent with or prior to any wetland fill or draining activity; or the District has received and accepted an irrevocable bank letter of credit, a performance bond, or other security acceptable to the District in an amount sufficient to guarantee the successful completion of the wetland replacement as provided under Minn. Rules 8420.0530 (B)(2), as amended.
2. The Notice of Use Restrictions and Maintenance Responsibilities specified in Minn. Rules 8420.0530(D)(6), as amended, must be recorded and proof of recording provided to the District within 30 days of completing construction of the replacement wetland (completion of construction as determined by the District).
3. The permittee each year for five years following completion of the replacement wetland must submit to the District a Monitoring Report on the replacement wetland, which Report includes the information specified in Minn. Rules 8420.0620, as amended. The Report must be submitted to the District no later than October 1 of each year.

THIS CERTIFICATION ONLY APPLIES TO THE WCA OF 1991, AS AMENDED. Permits from local, state, and federal agencies may be required. Check with the appropriate authorities before commencing work in or near wetlands. The Combined Project Notification form can be used for this purpose.

**REFUNDING OF ESCROWS:** Upon completion of the project the applicant shall notify the District that:

1. The project is complete
2. The site is stabilized
3. The project is ready for final inspection
4. All stipulations listed on this permit have been fulfilled
5. If applicable, the applicant would like return of its escrow

Upon receipt of such notification the District will inspect the project for conformance with the permit conditions and requirements, permitted plans and water resources associated with the implementation of those plans resulting from construction. If the District determines the project is not complete and/or not stabilized the District will inform the applicant in writing. If the District determines the site is complete and stabilized, the permit conditions and requirements have been satisfied, the District will execute the appropriate refund at its next regularly scheduled meeting where the Board pays bills (typically the second Monday of each month).

Escrow refunds will be calculated as follows and shown on the refund check

1. Amount of escrow balance paid in cash;
2. Minus any permit review and/or inspection fees
3. Minus any other project-related expenses incurred by the District.

Data

# Construction Stormwater Search

## Permit Coverage Information

Preferred ID:	C00066075	<a href="#">Active</a>
	Construction Stormwater Permit	
Project Name:	Jam Hops	
Address:	1460 133rd Ln NE Ham Lake, MN 553047045	

[Permit summary](#) [New search](#)



Esri Canada, Esri, HERE, Garmin, USGS, NGA, EPA, USDA, NPS Powered by Esri

lat/long: 45.212013,-93.231972

## Site information

Site Name:	Jam Hops
Location Description:	
County:	Anoka
Owner:	CBN Enterprises LLC
Owner Org Type:	Private (Non-Government)
Latitude:	45.212013
Longitude:	-93.231972

Permit Information

Preferred ID: C00066075

Permit Type: Construction Stormwater Permit

Permit Coverage Date: 03/17/2023

Estimated Start Date: 04/16/2023

Estimated Completion Date: 09/29/2023

Termination Date:

Project Information

Project Size (acres): 1.68

Existing Impervious Area: 1.58

Resulting Impervious Area: 1.58

Other Project Type Description:

Site Contacts

Contact type	Name	Email	Address	City	State	Zip	Office Phone	Effective Start
is owned by	Brenda Nolby	bnolby@jamhops.com	1460 133rd LN NE	Blaine	MN	55304	763- 413- 0647	03/17/2023
is owned by	CBN Enterprises LLC		1460 133rd LN NE	Blaine	MN	55304	763- 413- 0647	03/17/2023
has contractor of	Mitch Stone	mitch.s@stoneconstructioninc.com	2181 107th Ln NE	Blaine	MN	55449- 5237	763- 784- 1950	03/17/2023
has contractor of	stone construction inc	mitch.s@stoneconstructioninc.com	2181 107th Ln NE	Blaine	MN	55449- 5237	763- 784- 1950	03/17/2023

Contact us

651-296-6300 or 800-657-3864

- [Email us](#)