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, MARCH 13, 2023

CALL TO ORDER: 6:00 p.m.

PLEDGE OF ALLEGIANCE

APPROVAL OF MINUTES: February 13, 2023

PUBLIC HEARINGS: None

NEW BUSINESS:

1. Sherry Saxon, Flamingo Terrace MHC, LLC, requesting site plan approval to expand Flamingo Terrace manufactured home park by 16 units at 17100 Highway 65 NE

COMMISSION BUSINESS:

1. City Council Update

CITY OF HAM LAKE PLANNING COMMISSION MINUTES MONDAY, FEBRUARY 13, 2023

The Ham Lake Planning Commission met for its regular meeting on Monday, February 13, 2023 in the Council Chambers at Ham Lake City Hall located at 15544 Central Avenue NE in Ham Lake, Minnesota.

MEMBERS PRESENT:

Commissioners Kyle Lejonvarn, Jeff Entsminger, Scott

Heaton, Jonathan Fisher, Dave Ringler and Erin Dixson

MEMBERS ABSENT:

Chair Brian Pogalz

OTHERS PRESENT:

City Engineer Dave Krugler, Building and Zoning Official,

Mark Jones and Building and Zoning Clerk Jennifer Bohr

CALL TO ORDER:

Vice Chair Dixson 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 Lejonvarn, seconded by Ringler, to approve the minutes of the January 23, 2023 Planning Commission meeting as written. All present in favor, motion carried.

NEW BUSINESS:

Kevin Hentges, Hentges Turf Farm, Inc., requesting Sketch Plan approval for the Hentges Addition Minor Plat (2 lots) in Sections 15 and 22

Mr. Jason Rud, of E.G. Rud and Sons, Inc. was present on behalf of the applicant. Mr. Rud stated this property consists of two tracts of land; a minor plat is being proposed to divide family assets. Mr. Rud stated the existing home is being split off from the turf farm for Mr. Kevin Hentges' sister. Mr. Rud stated City Staff has been providing direction throughout the platting process and the reports included in the packet address issues that have arisen. Vice Chair Dixson asked Engineer Krugler to comment. Engineer Krugler stated there has been discussion about razing some of the buildings to meet the 100-foot distance requirements between the farm buildings and dwelling unit; the current orientation and westerly lot line of Lot 2 meets the distance requirements of 9-370,7; an accessory building within the westerly 10-foot drainage and utility easement of Lot 2 will be removed. Engineer Krugler stated due to this being a minor plat, there is not a requirement to upgrade Naples Street NE or 155th Avenue NE. Engineer Krugler stated Coon Creek Watershed District approval is needed, a \$200 drainage fund contribution

per lot is needed and Public Works Superintendent Witkowski recommends accepting money in lieu of parkland. Vice Chair Dixson asked Building and Zoning Official Jones to comment. Building and Zoning Official Jones stated the current orientation of Lot 2 is being proposed, per a request by the applicant, to meet distance 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 155th Avenue NE and will require a change of address. (Per Articles 11-411.2.C and 11-820.) Building and Zoning Official Jones stated a re-designation of the front yard was needed in order to meet Code requirements with this subdivision request. Motion by Entsminger, seconded by Lejonvarn, to recommend approval of the Sketch Plan presented by Kevin Hentges, Hentges Turf Farm, Inc., for Hentges Addition Minor Plat (2 lots) in Sections 15 and 22 subject to removing the structure from within the proposed easement on Lot 2, obtaining required demolition and building permits, designating the south side of the existing dwelling unit on Lot 2 as the primary Means of Egress and changing the address, maintaining an unobstructed primary egress, bringing all buildings, the well and the septic system into compliance including bringing the septic system for Lot 2 into compliance within ninety days from the date the final plat is recorded, paying a \$200/lot drainage fee, accepting money of \$2500/lot in lieu of park land, meeting the recommendations of the City Engineer and Building and Zoning Official, and meeting all City, State and County requirements. All present in favor, motion carried. This application will be placed on the City Council's Tuesday, February 21, 2023 agenda.

COMMISSION BUSINESS:

City Council Update

Vice Chair Dixson informed the Commissioners that the City Council concurred with the recommendation to approve the commercial site plan/building permit request for Northland Mfg. Inc. at 17808 Central Avenue NE. There will not be a Planning Commissioner present at the February 21, 2023 City Council meeting.

ADJOURNMENT:

Motion by Heaton, seconded by Fisher, to adjourn the Planning Commission meeting at 6:08 p.m. All present in favor, motion carried.

Jennifer Bohr Building and Zoning Clerk

CITY OF HAM LAKE PLANNING COMMISSION REQUEST APPLICATION INSPECTION REPORT

MTG DATE: March 13, 2023

INSPECTION ISSUED TO: Dave Ringler
APPLICANT/CONTACT: Sherry Saxon/Rusty Edmonds
TELEPHONE NUMBER: <u>Site Mgr= Rusty Edmonds, 763-434-5400 or flamingoterrace@continentalcommunities.com</u> Sherry Saxon (out of state) 630-645-8109
BUSINESS/PLAT NAME: Flamingo Terrace MHC, LLC
ADDRESS/LOCATION OF INSPECTION: 17100 Hwy 65 NE, Ham Lake, MN 55304
APPLICATIONFOR: Manufactured Home Site Plan
RECOMMENDATION:

DATE:
PLANNING COMMISSIONER SIGNATURE:



PLANNING REQUEST

CITY OF HAM LAKE

15544 Central Avenue NE Ham Lake, MN 55304

hone (763) 434-9555 Fax (763) 235-1697
Date of Application 11 10 20	
14/00	Date of Receipt _11-23-2020
Meeting Appearance Dates:	Receipt # 88 9/3
Planning Commission $\frac{3-13-2}{2}$	7,23
- S Gammasion	City Council
Please check request(s):	
Metes & Bounds Conveyance	Control time on the cold and the last
Sketch Plan	Commercial Building Permit
Preliminary Plat Approval*	Certificate of Occupancy Home Occupation Permit
Final Plat Approval	Conditional Has Beauty (1)
Rezoning*	Conditional Use Permit (New)*
Multiple Dog License*	Conditional Use Permit (Renewal)
	X Other Comm/Manufactured Home
*NOTE: Advisory Signage is required for land use a application also requires a Public Hearing	Sitt Play
	alterations and future road connections. This J. Such fees shall be deducted from deposit.
Development/Business Name:	30 Terrace MHC 11C
Address I continue I	3
Legal Description of property: 08-32-23-	July 65 NE HAM Lake MN
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Notes: Mobile Home Park Expa	t Zoning 6-M Proposed Zoning
Notes: 1100112 Home Park Expa	nsion
Applicanore States	
	AXON
Business Name:	ice MHCIIC
Address 2015 Spring Rol	Suite Car
city Chik Road	20114 600
30 (1)	State C Zip Code SOS
Phone 645-8109 Cell Phone 17	1-6031856 - 120 11E 2310
Email address Storou Savon	continental communities com
THE STATE STATE OF THE STATE OF	continental communities com
You are advised that the 60-day review period requinot begin to run-until all of the required items have it	rod by Minney 1 at 1
not begin to run-until all of the required items have k	been received by the city of t
	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
SIGNATURE	DATE () (a) 247
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ACTION BY, BISTAFF US	SE ONI V_
Action Bi: Planning Commission	VIEI
City Council	

Flamingo Terrace Manufactured Home Community

Summary of Proposed Expansion Project (January 1, 2023)

Project Description

Following its acquisition of the manufactured home community known as "Flamingo Terrace" October 26, 2018, Flamingo Terrace MHC, LLC, a Delaware limited liability company, engaged the services of local engineers and consultants for the purpose of determining the viability of expanding the existing community to create additional home sites. To accommodate the new home sites within the proposed Expansion Area the Project:

- (a) Extends Edgewood, Heather and Mapleton Drives to the east, linking them with an extension of Pinewood Drive to the south.
- (b) Improves and enhances the infrastructure of the community.
- (c) Creates an additional storm shelter structure.
- (d) Creates a private park for the community.
- (e) Enhances landscaping.
- (f) Enhances the "curb appeal" of the community as viewed from U.S. Highway 65.

Expansion Area

The portion of the property known as "Flamingo Terrace" subject to this application is depicted on the Civil Site Plan along the east side of the existing community bordering the U.S. Highway 65 right-of-way (the "Expansion Area"). The Expansion Area and home sites created will be fully integrated with the existing improvements of Flamingo Terrace.

Property Ownership & Management

Continental Communities is one of the largest fully-integrated real estate operating companies that exclusively owns and operates affordable, high-quality, manufactured housing communities throughout the United States. Since its formation in June 1997, it has acquired and currently operates multiple manufactured home housing communities in Minnesota and other states providing safe, enjoyable and affordable housing for families and active retiree-oriented residents. The Flamingo Terrace manufactured home community has on-site full-time management.

History

Flamingo Terrace was first developed as a manufactured home community by the Osborne family in 1963. In 1982 the community was expanded by the addition of 53 additional home sites and appropriate infrastructure was installed and upgraded. As owned and operated by the Osborne family the Expansion Area appears to have been used for marketing and sale of manufactured homes. A portion of the Expansion Area was previously zoned CD-1 (commercial development district) which permitted such commercial use but precluded the Expansion Area from being improved as additional home sites. In addition, improvement of the Expansion Area with home sites was inconsistent with the then applicable Comprehensive Plan.

Acting upon the Applicant's request and with the assistance of City staff the Council amended the Comprehensive Plan and the CD-1 portion of the Expansion Area was rezoned Residential

Manufactured Homes (R-M). Notwithstanding the rezoning and Comprehensive Plan changes, practical difficulties in connection with developing the Expansion Area including density restrictions and uncertainties raised by the Covid pandemic frustrated the Applicant's objective. The opportunity to proceed, however, resurfaced and has been reevaluated following the amendment to the R-M zone by Ordinance 21-12 adopted October 18, 2021. Following the change of the Comprehensive Plan, the zoning, and the text amendment to the R-M zone the Applicant has made the determination that the proposed expansion is viable. Therefore, this Application respectfully requests approval for a 16 home site project within the Expansion Area which meets all current requirements of the R-M district.

R-M District Required Features

- (a) Streets paved and curbed according to same standards as R-1 subdivisions. The Civil Site and Paving Plan accompanying this application evidences compliance.
- (b) Central water system (no individual private wells). Flamingo Terrace utilizes two on-site wells that provide water service to the community. Bergerson-Caswell, Inc. evaluated the wells and report that one well is used as a full-time backup with all water requirements coming from the main well. Also confirmed is adequate capacity from this two well configuration to accommodate the additional 16 home sites. Potable water for each individual home site will be provided in accordance with the Site Utility Plan.
- (c) Central sewer system privately owned and maintained. The existing private sewer system has adequate capacity to accommodate the proposed 16 new home sites. The existing waste water treatment plant (WWTP) has the capacity of 45,000 gallons per day (GPD) while the current flow is approximately 30,000 GPD. According to WHKS & Company, the project WWTP engineer calculates the additional 16 home sites are easily accommodated. Each new home site will be connected to the existing system in accordance with the Site Utility Plans accompanying this application.
- (d) Minimum size of manufactured home to be 600 square feet. As indicated on the Site Plan each respective home site meets this criteria.
- (e) Density of not less than 0.08 acres per dwelling unit with a minimum lot size of 36 feet by 100 feet. As indicated on the Site Plan this requirement is met.
- (f) Structure setback of 20 feet in front yard and 10 feet on side and back yard. This criteria is met as evidenced by the Site Plan.
- (g) Private park on suitable soils of a size equal to at least 10% of total development area. The private park and related green area as depicted on the Civil Site Plan creates a private park area consistent with the requirement.
- (h) Paved driveways to all dwelling units. This criteria is met.
- (i) Concrete sidewalks along all curbs to City specifications. This criteria is met as shown on Civil Site Plan.
- (j) Landscaping acceptable to the City. A Landscape Plan has been submitted in connection with this Application. As an added amenity and safety factor a split-rail fence is provided along the park perimeter and the U.S. Highway 65 right-of-way.
- (k) Full impound of storm water runoff. The criteria is met as evidenced by the Storm Water Pollution Prevention Plan and related support documentation.

- (l) Concrete block storm shelter to State specifications. As noted on the Site Plan, a storm shelter is being added which meets Minnesota State structural requirements and consists of 240 square feet and will accommodate 60 people. Based upon the calculations required for Minnesota Department of Health approval this accommodates the expansion and is in a location consistent with requirements.
- (m) No on-street parking. This will be complied with and enforced by management through signage and resident communication.
- (n) Underground utilities. Underground utilities will be installed in accordance with the Utility Plan and applicable Code requirements.
- (o) Provision of screened and fenced tenant outside storage area of a size equal to or greater than 200 square feet per dwelling unit. Storage areas are designated on the Site Plan.

Community Improvement Plan

Since its acquisition of Flamingo Terrace in October 2018 a "Community Improvement Plan" has been implemented and is ongoing to upgrade and improve the infrastructure and aesthetics of the community. The Community Improvement Plan includes the following:

- The Community Office and Laundry Facility have been refurbished.
- The Laundry Facility has been upgraded (new/additional guest seating, upgraded entrance doors, interior painting, etc.).
- Security Cameras have been added to the Community Office, Laundry Facility and Car Wash.
- New community entrance signage and landscape amenities have been installed enhancing the primary entrance.
- Roadways throughout the community have been repaired and replaced where necessary.
- A new storm sewer drainage system has been installed.
- The Community Office Space has been reconfigured.
- New resident mailbox clusters have been installed.
- Signage throughout the community has been improved.
- Tennis court has been resurfaced into a three-season sports court.
- Car wash equipment has been updated.
- Additional and upgraded recreational playground equipment has been installed.
- The Residential Apartment Unit exterior has been ungraded.

Benefits of the Expansion Project

An expansion of Flamingo Terrace will have the following benefits:

- 1) The new home sites will contain new, attractive manufactured homes that will enhance the "curb appeal" of the community along Highway 65.
- 2) Park area and green space will be created with the expansion providing a more attractive and cohesive entrance area.
- 3) The new roadway configuration will significantly improve the traffic flow in the community, enhancing resident safety and will allow easier movement for public life safety vehicles (fire trucks, etc.).
- 4) The existing single family residential structure and shed will be removed.
- 5) A current access point between the community and Highway 65 will be abandoned.
- 6) The expansion will provide additional affordable housing in Ham Lake.

P:\Attorney\Glj\1-Client Folders\Continental Communities LLC\Flamingo Terrace - Summary of Project-D7.docx

CITY OF HAM LAKE

STAFF REPORT

To:

Members of the Planning Commission

From:

Mark Jones, Building Official

Subject:

Flamingo Terrace Expansion

Introduction/Discussion:

Flamingo Terrace MHC LLC wants to expand its Manufactured Home Park, at 17100 Highway 65 NE, by adding 16 new home sites. This expansion will be on the east side of the property on a mostly undeveloped area along Highway 65. Currently a dwelling unit and an accessory building are located in the proposed development area. The existing dwelling unit and accessory building will be demoed for this expansion.

Flamingo Terrace has a well that provides potable water (domestic water) to each of the units and has its own waste water treatment on site, which is governed and license by Minnesota Pollution Control Agency (MPCA).

Recommendation:

I recommend approval of the expansion on the conditions that Flamingo Terrace MCH LLC's waste water treatment system meet MPCA standards for design, construction, and operation, that the City is provided with a copy of the MPCA State Disposal System (SDS) permit for the waste water treatment system on location, and any subsequent renewals of the MPCA SDS permit, that all new potable water lines and waste water piping meet Minnesota Plumbing code and State Plumbing review notes, (Contractor/installer must obtain all required permits and all inspections must be done before covering the lines and piping.) that the storm shelter meets state specifications and that all City codes are met.



Office (763) 862-8000 Fax (763) 862-8042

Memorandum

Date:

March 8, 2023

To:

Planning Commissioners

From:

David A. Krugler, City Engineer

Subject:

Flamingo Terrace Manufactured Home Community Expansion

Introduction:

The addition of 16 manufactured homes is proposed for the 08-32-23-24-0001 parcel, that is zoned R-M, Residential-Manufactured Homes. The proposal includes the removal of two existing buildings. A 200 scale aerial photo, 400 scale half-section map and a 500 scale zoning map are attached.

Discussion:

The Title Sheet, Construction Notes, Details and Project Legend, Details, Existing Topography and Removals Plan, Grading, Drainage, Erosion and Sediment Control Plan, Staking Plan, Utility Plan and Paving and Restoration Plan received February 28th, 2023 and the Stormwater Pollution Prevention Plan and Stormwater Management Plan received December 5, 2022 address prior review comments.

Two buildings are proposed to be demolished between the extensions of Heather Drive and Edgewood Drive. A demolition permit will be required for the removals.

Comments were received from the Minnesota Department of Labor and Industry (MnDLI) regarding the proposed water piping, existing sanitary treatment plant and subsequent sanitary sewer to meet Minnesota Plumbing Code for material, size and slope which is governed by Minnesota Rules 7080 and the Municipal Plumbing Code Chapter 4714. The MnDLI confirmed that the existing sanitary treatment plant operated by Flamingo Terrace has adequate capacity for the proposed expansion. The February 24th contingent approval report is attached. Revisions to pipe grades were incorporated into the February 28th plan revisions. The Minnesota Department of Health (MDH) reviewed the plans to ensure compliance for safe drinking water and capacity. The MDH review is set to expire March 19th. Extension of the permit will be required. The Minnesota Pollution Control Agency (MPCA) reviewed the existing treatment plant and stated the plant will have adequate capacity for the proposed expansion. The MPCA permit is set to expire on March 24th. Extension of the permit will be required.

A concrete block storm shelter is required per 9-210.2a of City Code. The location has been identified on the plans to the northwest of the proposed stormwater pond. Plans for the structure are required before a building permit can be considered for issuance.

City Code 9-210.2a also requires private park space on suitable soils, of a size equal to a minimum of 10 percent of total development area. The total improvement area is 3.4 acres which equates to a minimum of 14,810 square feet of park area. The plans show a total of 15,515 square feet is provided, in two areas along the east side of the proposed development.

The Flamingo Terrace expansion plan was approved by the Coon Creek Watershed District (CCWD) Board of Managers at their April 12th 2021 meeting. The revised January 9th Notice of Permit Application Status is attached. An Operations and Maintenance Agreement for Stormwater Facilities has been executed between the Flamingo Terrace Manufactured Home Community and CCWD for on-site stormwater treatment. The only condition remaining for the issuance of the CCWD permit is payment of the \$4,170 escrow. Grading cannot commence until the CCWD issues their permit.

MnDOT has provided the attached Drainage Permit for drainage that flows into the Trunk Highway ditch, that expired September 2021. The permit will need to be renewed or re-issued by MnDOT before grading can commence.

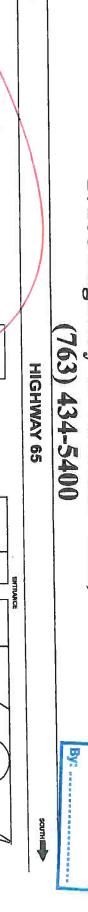
Recommendation:

It is recommended that the Flamingo Terrace Manufactured Home Community Expansion plans be recommended for approval conditioned on the storm shelter plans be provided and approval by the Building Official, permit renewals are provided for the MnDOT Drainage Permit, the MDH Watermain Extension Permit and the MPCA Disposal System Permit prior to construction.

FLAMINGO TERRACE 17100 Highway 65 NE Ham Lake, MN (763) 434-5400

RECEIVED

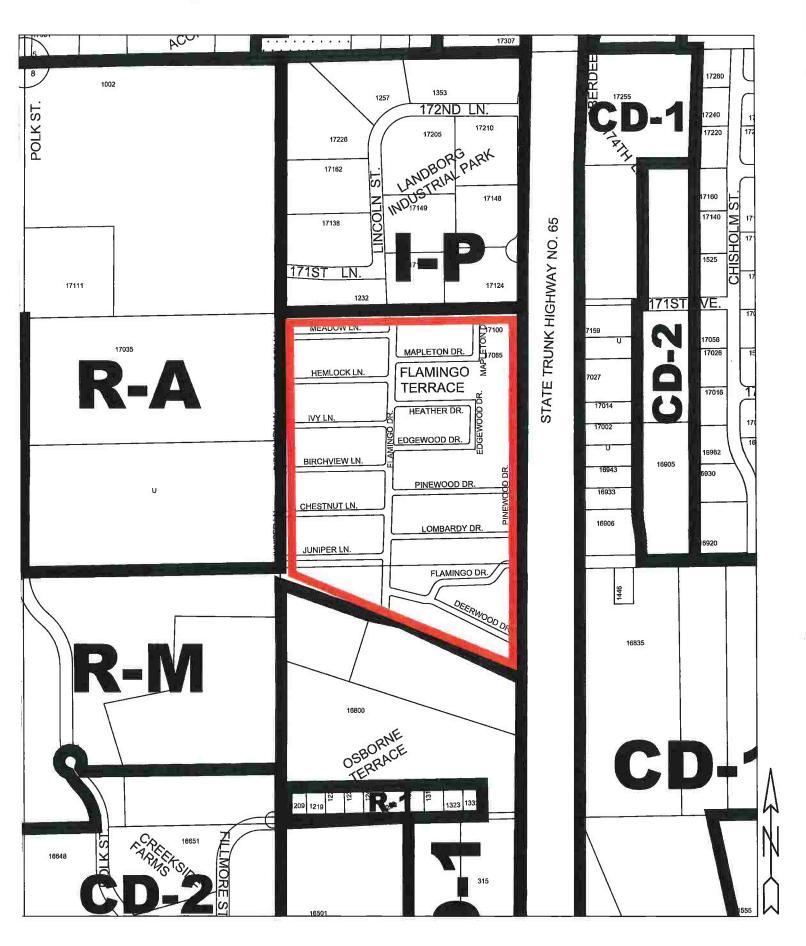
SEP 14 2022







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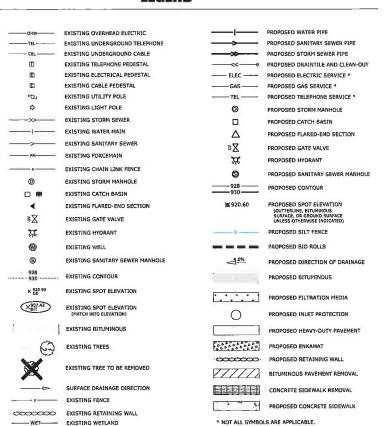


FLAMINGO TERRACE EXPANSION

TITLE SHEET, LEGEND, & EXISTING CONDITIONS

HAM LAKE, MINNESOTA

LEGEND

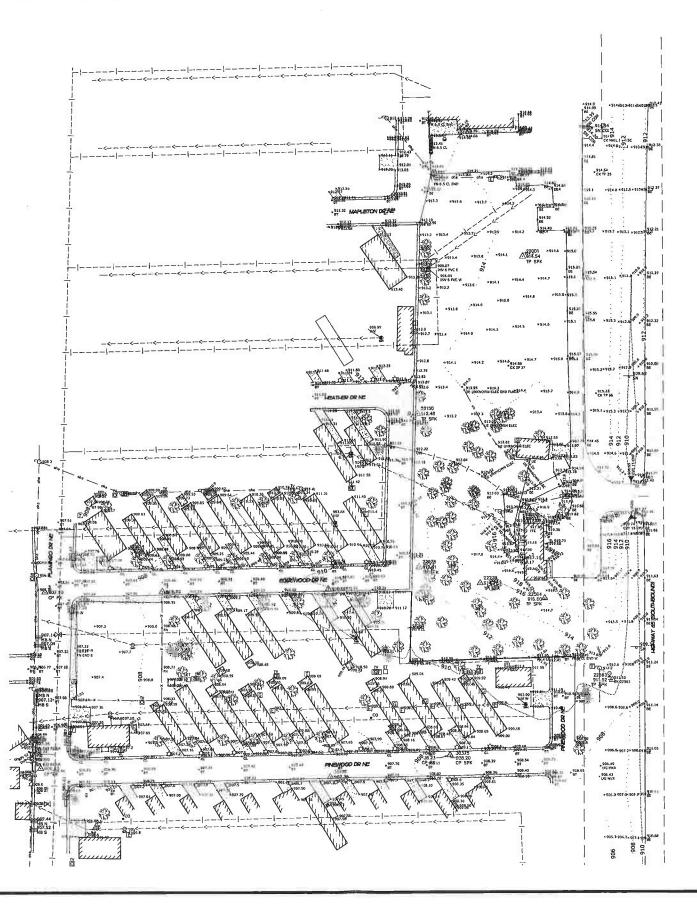


CALL *811" FOR EXISTING UTILITIES LOCATIONS PRIOR TO ANY EXCAVATIONS.

INSTALLATIONS SHALL CONFORM TO THE CITY STANDARD SPECIFICATIONS AND DETAIL PLATES (IF APPLICABLE)

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





VICINITY MAP



ORIGINAL DATE: AUGUST 13, 2020

DESIGN BY

PROJ. NO. M.Q.A. 20-1925

M.Q.A.

CHCKD BY:

PREPARED FOR: SHERRY SAXON



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

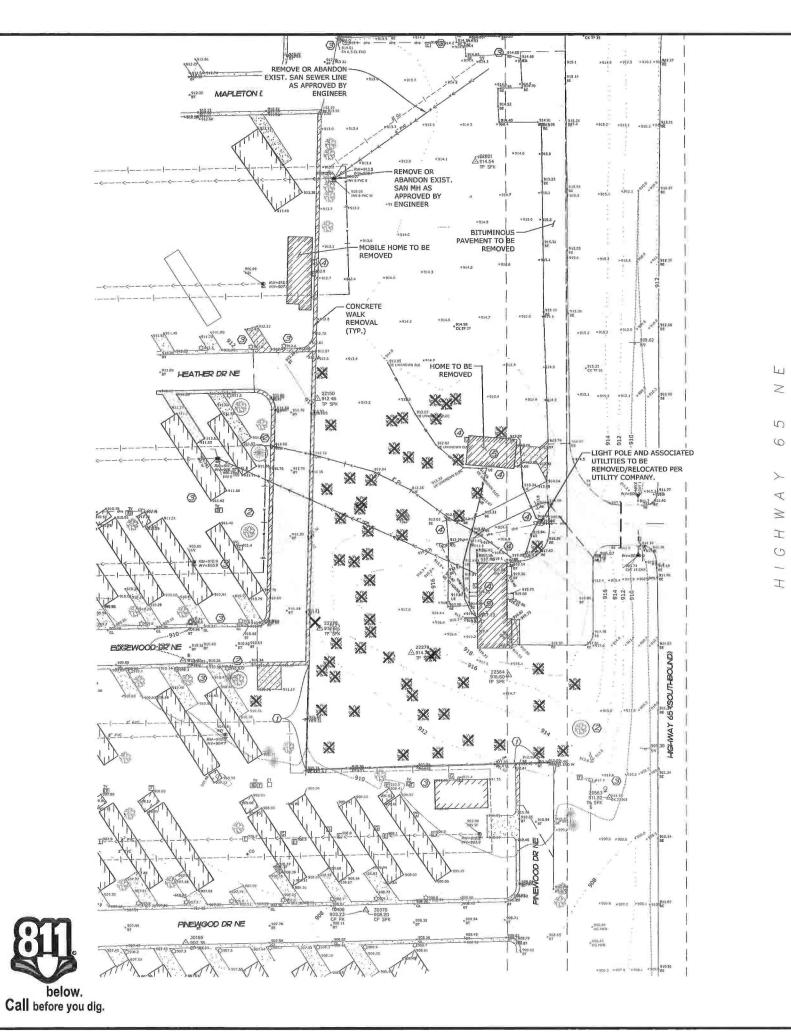
NORTH



SHEET INDEX

- TITLE SHEET, LEGEND & EXISTING CONDITIONS
- SITE REMOVALS PLAN
- CIVIL SITE PLAN
- GRADING, DRAINAGE & EROSION CONTROL PLAN
- SITE UTILITY PLAN C5.1 DETAILS
- C5.2 DETAILS

- C6.1 STORM WATER POLLUTION PREVENTION PLAN
- C6.2 STORM WATER POLLUTION PREVENTION PLAN



LEGEND

EXISTING CHAIN LINK FENCE

BURIED UTILITY PIPING, TO BE REMOVED; OR PROPERLY LEGALLY SEALED AND ABANDONED IN-PLACE.

EXISTING TREE TO BE SAVED/PRESERVED

EXISTING TREE TO BE REMOVED

SILT FENCE/TREE PRESERVATION FENCE

KEYED NOTES:

- REMOVE PORTION(S) OF CHAN-LINK FENCE AS NEEDED FOR STREET CONSTRUCTION, STORM SEWER, AND/OR GRADING.
- 2 TREE TO BE PROTECTED AND/OR SAVED.
- PROTECT/PRESERVE EXIST. UTILITY. COORDINATE ANY NECESSARY DISRUPTION OF SERVICE WITH OWNER AND/OR ENGINEER.
- EXISTING UTILITY TO BE REMOVED. COORDINATE DISCONNECTIONS
 WITH OWNER AND/OR UTILITY OWNER.
- 5 BUILDING STRUCTURE AND APPURTENANCES ASSOCIATED WITH THE BUILDING (RETAINING WALLS, STOOPS, WALKS, ETC.) ARE TO BE PROPERLY & LEGALLY REMOVED BY A CERTIFIED DEMOLITION CONTRACTOR, WITH PERMITS/APPROVALS AS NEEDED.

DATE
REVISION DESCRIPTION
W.G.Y. SOLUTION
TO STATE THE PROPERTY OF STATE STATE

Licensed Professional Engineer under the laws of the State of Minnesota.

M. M. M. M. M. M. CHARLES W. PLOWE

FLAMINGO TERRAGE EXPANSION HAM LAKE, MINNESOTA

PREPARED FOR: SHERRY SAXON



SITE PLANNING & ENGINEERING

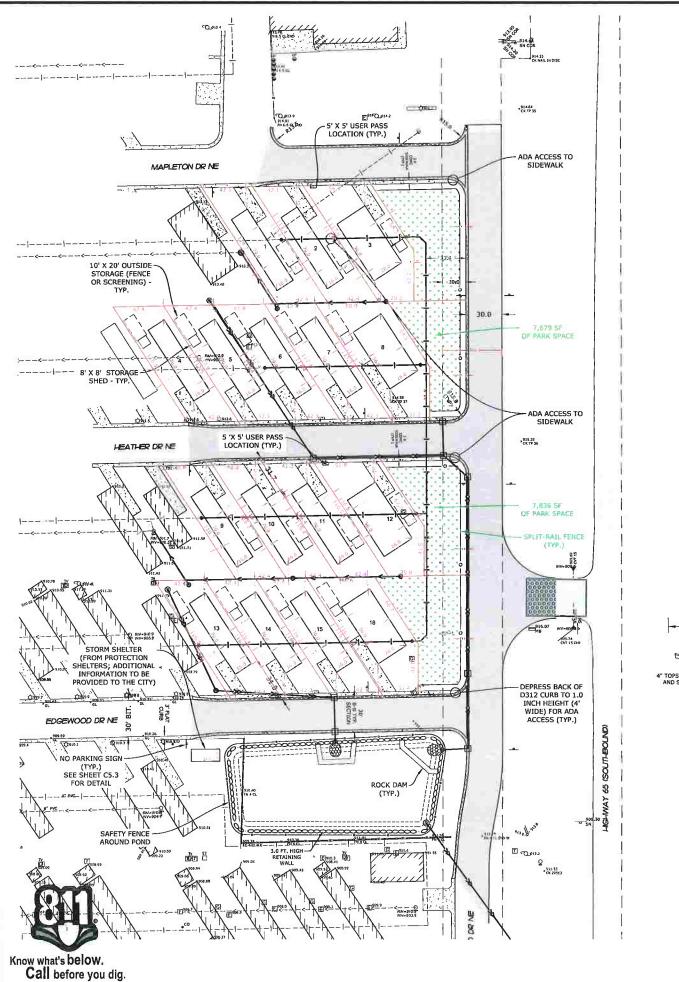
PLOWE ENGINEERING, INC.

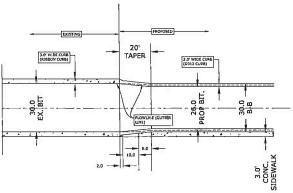
6776 LAKE DRIVE SUITE 110 LINO LAKES, MN 55014 PHONE: (651) 361-8210 FAX: (651) 361-8701

NORTH

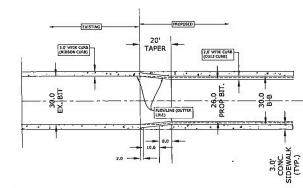


SITE REMOVALS PLAN 17100 MN-65 C1

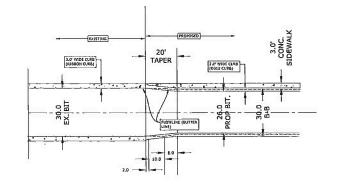




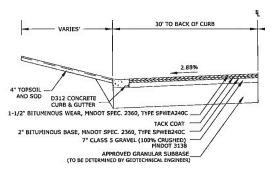
CONNECTION TO EXISTING STREET N.T.S. (MAPLETON DR)



CONNECTION TO EXISTING STREET N.T.S. (HEATHER DR)

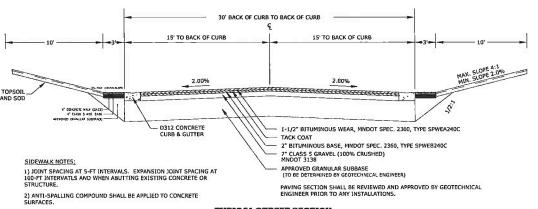


CONNECTION TO EXISTING STREET N.T.S. (EDGEWOOD DR)



PAVING SECTION SHALL BE REVIEWED AND APPROVED BY GEOTECHNICAL ENGINEER PRIOR TO ANY INSTALLATIONS.

PINEWOOD DR. STREET SECTION (FACING NORTH)



TYPICAL STREET SECTION

CURB & BITUMINOUS NOTES

RESTORE DISTURBED STREET TO EXISTING OR BETTER SECTION.

CURB ENDS SHALL TERMINATE IN A THREE-FOOT BEAVER TAIL.

BACKFILLING OF CURB IS INCIDENTAL TO CURB INSTALLATION.

ENGINEERING, INC.

PREPARED FOR: SHERRY SAXON

FLAMINGO TERRACE

DESIGN BY R.L.S.

M.Q.A. CHCKD BY: PROJ. NO. M.Q.A. 20-1925

ORIGINAL DATE:

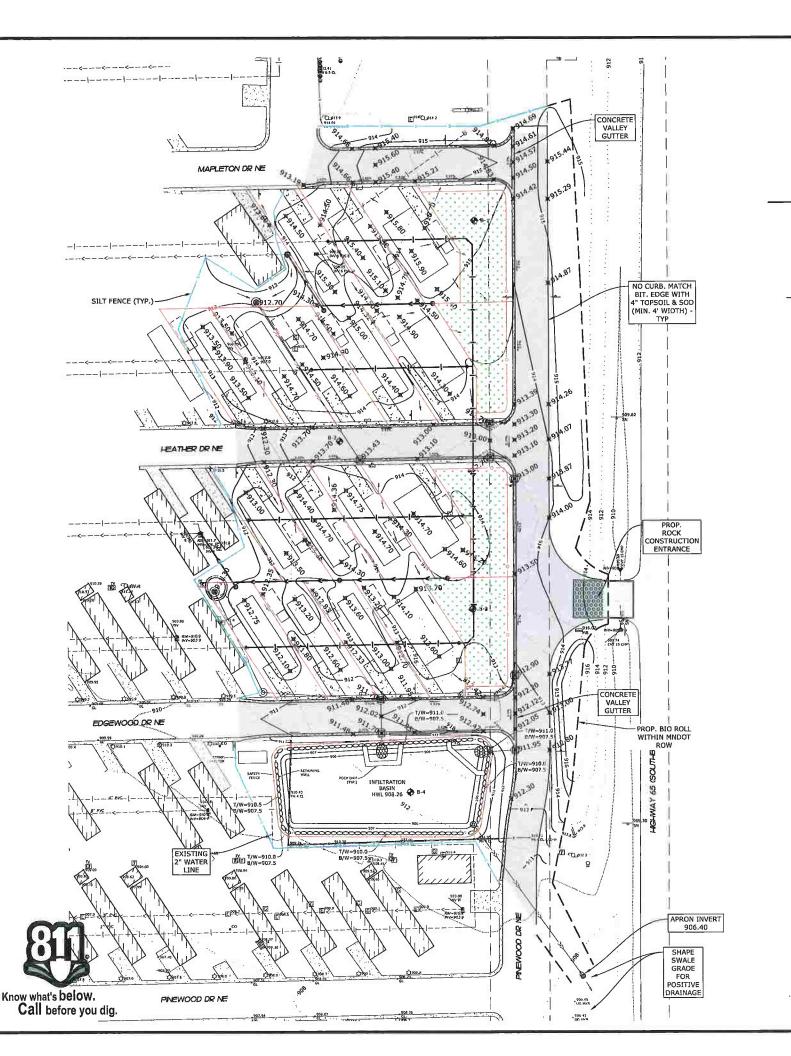
AUGUST 13, 2020

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

NORTH

ALL DIMENSIONS ARE TO BACK OF CURB UNLESS OTHERWISE NOTED.

CIVIL SITE & PAVING PLAN 17100 MN-65



SITE SEQUENCING

SECTION A-A

SECTION B-B

ROCK DAM

NOT TO SCALE

SOIL BORING INFO:

ALL PROPOSED SPOT ELEVATIONS ARE GUTTER LINE OR FINISHED GROUND ELEVATIONS UNLESS

SOILS IN ALL DISTURBED PERVIOUS AREAS TO BE DECOMPACTED.

TABLE ELEV.

905.60

903.00

901.00

897.40

BORING SURFACE

5

916.60

914.00

910.40

907.90

- PRIOR TO ANY GRADING OPERATIONS, THE CONTRACTOR SHALL INSTALL ROCK CONSTRUCTION ENTRANCE (LOCATIONS TO BE
 DETERMINED COORDINATE WITH OWNER) AND PERIMETER SLIT FENCE AS SHOWN ON PLAN. (CONTACT CITY TO INSPECT EROSION
 CONTROL MEASURES PRIOR TO GRADING OPERATIONS, IF NECESSARY) ADDITIONAL SLIT FENCE MAY BE NECESSARY IF LOCAL
- THE CONTRACTOR SHALL PROVIDE ALL SOD, SEED, MULCH AND FERTILIZER WHICH SHALL CONFORM WITH THE FOLLOWING MNDOT SPECIFICATIONS AS MODIFIED BELOW.

ITEM		MNDOT SPECIFICATION/NOTES
SOD		3878
SEED **		3876
_	FABLISHMENT OMMERCIAL TURF ESIDENTIAL TURF	MNDOT MIX 25-131 (220 LBS/ACRE) MNDOT MIX 25-131 (120 LBS/ACRE)
SOIL-	FALL COVER SPRING/SUMMER BUILDING COVER 1-2 YEARS COVER 2-5 YEARS COVER	MNDOT MIX 21-112 (100 LBS/ACRE) MNDOT MIX 21-111 (100 LBS/ACRE) MNDOT MIX 21-113 (110 LBS/ACRE) MNDOT MIX 22-111 (30.5 LBS/ACRE) MNDOT MIX 22-112 (40 LBS/ACRE)
MULCH		3882 (TYPE 1 - DISC ANCHORED)
FERTILIZER		3881
WOOD FIBER BLA	NKET	3865 (CATEGORY 2)

- ** SEEDED AREAS SHALL BE EITHER MULCHED OR COVERED BY FIBROUS BLANKETS TO PROTECT SEEDS AND LIMIT EROSION.
- ALL EXPOSED SOILS MUST HAVE TEMPORARY EROSION CONTROL PROTECTION OR PERMANENT COVER WITHIN SEVEN (7) DAYS.
- THE CONTRACTOR SHALL MAINTAIN SILT FENCE, INCLUDING THE REMOVAL OF ACCUMULATED SEDIMENT, THROUGH
 CONSTRUCTION. SILT FENCE TO BE REMOVED ONLY AFTER COMPLETION OF CONSTRUCTION AND UPON ESTABLISHM
- THE CONTRACTOR SHALL PROVIDE WOOD FIBER BLANKET FOR ALL AREAS OF CONCENTRATED FLOW AND FOR ALL SLOPES 3:1 OR GREATER
- PROTECT ALL STORM WATER MANAGEMENT FACILITIES FROM CONSTRUCTION RUN-OFF. CONTRACTOR TO INSTALL AND CONSTRUCT SAID
 FACILITIES ONCE SITE HAS BEEN STABILIZED.
- IF ANY SLOPES APPEAR TO BE FAILING. THE CONTRACTOR SHALL PROVIDE ADDITIONAL SILT FENCE, BIOROLLS AND EROSION CONTROL BLANKET AS NEEDED.
- THE CONTRACTOR SHALL FINAL GRADE SWALE AREAS UPON STABILIZATION OF UPSTREAM AREAS
- UPON GRADING COMPLETION THE CONTRACTOR SHALL PROVIDE NATIVE TOPSOIL WITH SOD OR SEED, AND MULCH ANCHORED WITH A

OTHER POLLUTION CONTROL MEASURES

CONSTRUCTION WASTE MATERIALS - ALL WASTE MATERIALS GENERATED AS A RESULT OF SITE CONSTRUCTION SHALL BE COLLECTED AND REMOVED ACCORDING TO ALL LOCAL AND/OR STATE WASTE MANAGEMENT REGULATIONS BY A LICENSED SOLID WASTE MANAGEMENT COMPANY. THE CONTRACTOR WILL ENSURE THAT ALL SITE PERSONNEL ARE INSTRUCTED IN THESE PRACTICES.

HAZARDOUS WASTES - ALL HAZARDOUS WASTE MATERIALS SHALL BE STORED PROPERLY TO PREVENT SPILLS AND VANDALISM. WHEN NECESSARY, HAZARDOUS WASTES WILL BE DISPOSED OF IN THE MANNER SPECIFIED BY LOCAL AND/OR STATE REGULATION OR BY THE MANUFACTURER.

SANITARY WASTE - ALL SANITARY WASTE WILL BE COLLECTED FROM THE PORTABLE UNITS BY A LOCAL, LICENSED WATER MANAGEMENT COMPANY, AS REQUIRED BY LOCAL REGULATION.

OFFSITE VEHICLE TRACKING - A ROCK CONSTRUCTION ENTRANCE HAS BEEN PROVIDED TO HELP REDUCE VEHICLE TRACKING OF SEDIMENTS. IF A STREET, ALLEY, SIDEWALK OR OTHER PUBLIC PLACE SHOULD BECOME SOLED OR LITTERED, THE CONTRACTOR SHALL CAUSE SUCH SOLILING OR LITTERING TO BE CLEANED UP BY SWEEPING NOT LATER THAN THE END OF THE WORKING DAY IN WHICH SUCH SOILING OR LITTERING THE WORKING DAY IN WHICH SUCH SOILING OR LITTERING SHALL HAVE OCCURRED OR BEEN OBSERVED. DUMP TRUCKS HAULING LOOSE MATERIALS (SAND, TOPSOIL, ETC.)

VEHICLE CLEANING - NO ENGINE DEGREASING IS ALLOWED ON-SITE. EXTERNAL WASHING OF VEHICLES TO BE CONFINED TO A DEFINED AREA ("BONE YARD") ON-SITE. CONTRACTOR TO PROVIDE DESIGNATED TRUCK WASHOUT AREA WITH APPROPRIATE SIGNAGE. WASHOUT ARRA IS TO BE A MINIMUM OF 50' FROM DITCHES, PONDS, OR OTHER STORMWATER FEATURES. ALL LIQUID AND SOLID WASTE GENERATED BY WASHOUT OPERATIONS MUST BE CONTAINED IN A LEAK-PROOF CONTAINNENT FACILITY OR IMPERMEABLE LINER (E.G. COMPACTED

SPILL PREVENTION AND CONTROL - ALL VEHICLES WILL BE CHECKED FOR LEAKING OIL AND FLUIDS. VEHICLES LEAKING FLUIDS WILL NOT BE ALLOWED ON-SITE. SPILL KITS WILL BE STORED ON-SITE AND ALL SPILLS WILL BE CLEANED UP IMMEDIATELY DISCOVERY. SPENT ABSORBENT MATERIALS AND RAGS WILL BE HAULED OFF-SITE IMMEDIATELY AFTER THE SPILL IS CLEANED UP AND PROPERTY DISPOSED OF. SPILL PREVENTION AND CONTROL MEASURES SHALL BE IMPLEMENTED ONCE CONSTRUCTION BEGINS.

SOIL STOCKPILES - INSTALL SILT FENCE OR OTHER EFFECTIVE SEDIMENT CONTROLS AROUND ALL TEMPORARY SOIL STOCKPILES. LOCATE SOIL OR DIRT STOCKPILES SUCH THAT DOWNSLOPE DRAINAGE LENGTH IS NO LESS THAN 8 M (25 FEET) FROM THE TOE OF THE PILE TO A SURFACE WATER, INCLUDING STORMWATER CONVEYANCES SUCH AS CURB AND GUTTER SYSTEMS, OR GOUNDITS AND DITCHES UNLESS THERE IS A BYPASS IN PLACE FOR THE STORMWATER. IF REMAINING FOR MORE THAN 7 DAYS, STABILIZE THE STOCKPILES BY MULCHING, VEGETATIVE COVER, TARRS, OR OTHER MEANS, DURING STREET REPAIR, COVER CONSTRUCTION SOIL OBIT STOCKPILES LOCATED CLOSER THAN 8 M (25 FEET) TO A ROADWAY OR DRAINAGE CHANNEL WITH TARPS, AND PROTECT STORM SEWER INLETS WITH SILT SOCKS

PROVIDE WIMCO (OR APPROVED EQUAL) FOR INLET PROTECTION AT ALL EXISTING STORM SEWER INLETS THAT WILL RECEIVE RUN-OFF DURING CONSTRUCTION. INLET PROTECTION TO REMAIN IN-PLACE UNTIL AT LEAST 70% OF SITE VEGETATION HAS BEEN ESTABLISHED

CONTRACTOR TO PROVIDE DESIGNATED CONCRETE TRUCK WASHOUT AREA WITH APPROPRIATE SIGNAGE. KEEP WASHOUT AREAS AS FAR AS PRACTICAL FROM STORM DRAINS, DITCHES AND PONDS. DO NOT ALLOW RUN-OFF FROM THIS AREA BY CONSTRUCTING A TEMPORARY PIT OR BERMED AREA LARGE ENOUGH FOR LIQUID AND SOLID WASTE. AFTER WASTE CONCRETE IS SET, REPAK-UP AND DISPOSE OF

THE CONTRACTOR MUST DISCHARGE TURBID OR SEDIMENT-LADEN WATERS RELATED TO DEWATERING (E.G., PUMPED DISCHARGES, TRENCH/DITCH CUTS FOR DRAINAGE) TO A TEMPORARY OR PERMANENT SEDIMENTATION BASIN ON THE PROJECT SITE UNLESS INFRASIBLE. THE CONTRACTOR MAY DISCHARGE FROM THE TEMPORARY OR PERMANENT SEDIMENTATION BASINS TO SURFACE WATERS IF THE BASIN WATER HAS BEEN SUBJUALTY CHECKED TO ENSURE ADEQUATE TREATMENT HAS BEEN OBTAINED IN THE BASIN AND THAT NUISANCE CONDITIONS (SEE MINN. R. 7050.0210, SUBP. 2) WILL NOT RESULT FROM THE DISCHARGE. IF THE WATER CANNOT BE DISCHARGED TO A SEDIMENTATION BASIN PRIOR TO ENTERING THE SUBFACE WATER, IT MUST BE TREATED WITH THE APPROPRIATE BMPS, SUCH THAT THE DISCHARGE DOES NOT ADVERSELY AFFECT THE RECEIVING WATER OR DOWNSTREAM PROPERTIES.

R.L.S. M.Q.A. CHCKD BY: PROJ NO. M.Q.A. 20-1925 ORIGINAL DATE: AUGUST 13, 2020

FLAMINGO TERRACE

REPARED FOR: SHERRY SAXON



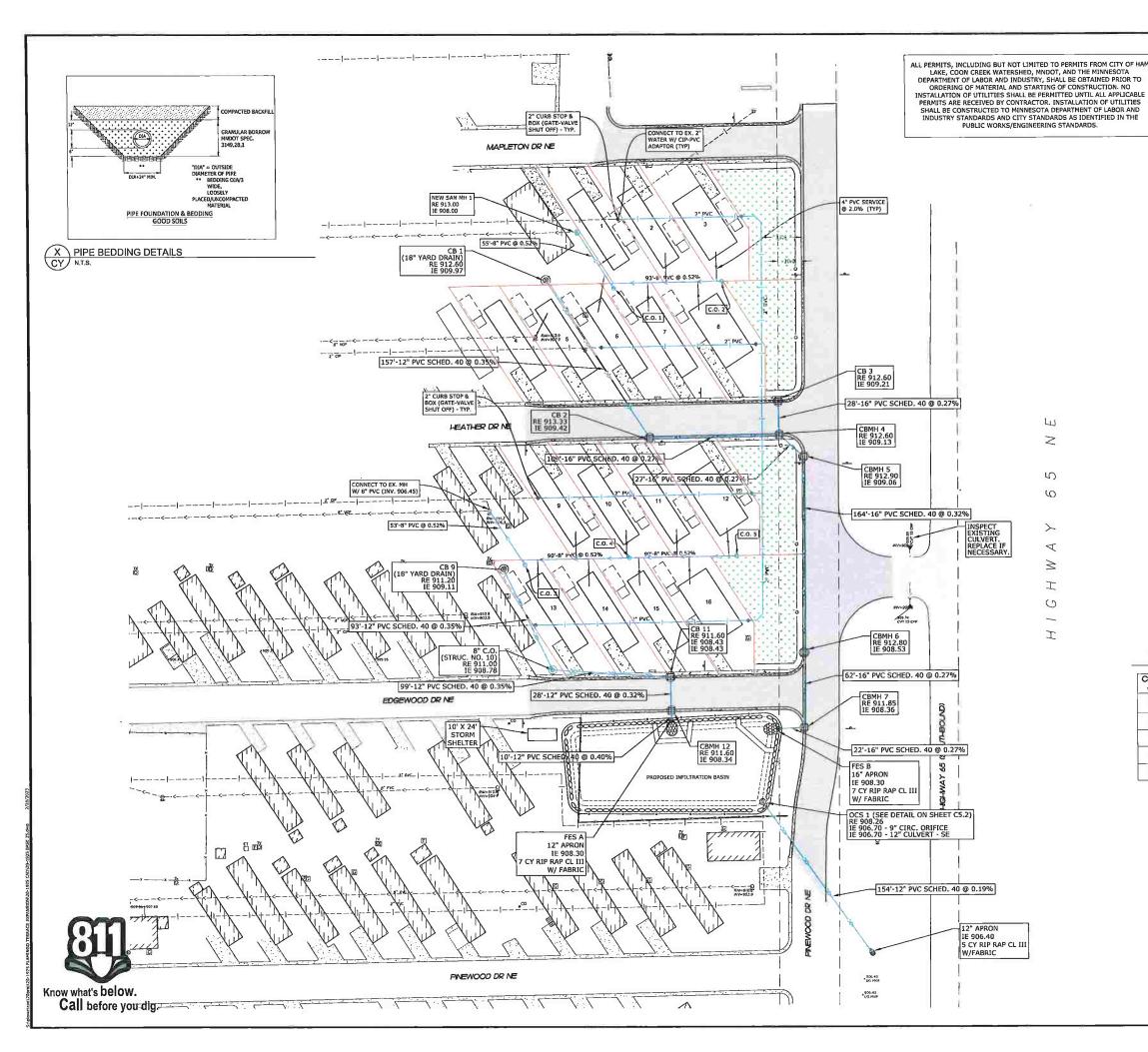
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NORTH



GRADING, DRAINAGE, AND EROSION CONTROL PLAN 17100 MN-65



EXISTING WATER MAIN LOCATION AND SIZE SHALL BE VERIFIED IN THE FIELD PRIOR TO CONSTRUCTION. NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO ANY

TRACER WIRE WILL BE LAID WITH ALL PVC WATER MAINS, VALVE BOXES, AND HYDRANTS.

MAINTAIN MINIMUM 7.5-FT COVER TO TOP OF ALL WATER MAIN PIPE.

SANITARY SEWER NOTES

PROPOSED SCHEDULE 40 PVC SANITARY SEWERS MUST MEET ASTM D1785, D2665, F891, OR F1488 WITH APPROVED FITTINGS (SEE TABLE 701.2). SOLVENT WELDED JOINTS MUST USE ASTM F656 PURPLE PRIMER AND ASTM D2564 CEMENT. THE SEWER MUST BE INSTALLED BY OPEN-TRENCH ON A CONTINUOUS GRANULAR BED PER SECTION 314.4.1. ASTM D2241 PVC IS NOT AN APPROVED MATERIAL FOR BUILDING SEWERS.

PROPOSED SANITARY SEWER SERVICES SHALL BE 4" (OR 6" IF REQUIRED) PVC SCHEDULE 40 AT A MINIMUM OF 2.0%.

STORM SEWER NOTES

STORM SEWER PIPE SHALL BE PVC SCHEDULE 40 MEETING ASTM D1785, D2665, F891, OR F1488 WITH APPROVED FITTINGS (SEE TABLE 701.2). SOLVENT WELDED JOINTS MUST USE ASTM P655 PURPLE PRIMER AND ASTM D2564 CEMENT. THE SEWER MUST BE INSTALLED BY OPEN-TRENCH ON A CONTINUOUS GRANULAR BED PER SECTION 314.4.1. ASTM D2241 PVC IS NOT AN APPROVED MATERIAL FOR BUILDING SEWERS.

STORM SEWER LENGTHS INCLUDE THE LAYING LENGTH OF THE FLARED-END SECTION. LAYING LENGTH OF APRON TO BE DEDUCTED FROM PAYMENT LENGTH OF PIPE.

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.

SANITARY CLEANOUTS:

C.O.	RIM (TOP) ELEV.	8" INVERT ELEV.
1	914.38	908.29
2	914.45	908.77
3	912.14	906.73
4	913.40	907.20
5	914.10	907.67

SHOWN MAY BE TIONS

STR.	SIZE	CASTING
1	18" YARD DRAIN	-
2	2' x 3'	NEENAH R-3067
3	2' x 3'	NEENAH R-3067
4	48" DIA.	NEENAH R-3067
5	48" DIA.	NEENAH R-3067
6	48" DIA.	NEENAH R-3067
7	48" DIA.	NEENAH R-3067
8	18" YARD DRAIN	_
9	18" YARD DRAIN	_
10	8" DIA. CLEANOUT	_
11	2' x 3'	NEENAH R-3067
12	48" DIA.	NEENAH R-3067
OCS 1	SEE DETAIL	
Α	FES	_
В	FES	_

SITE UTILITY PLAN 17100 MN-65

WATER MAIN NOTES

PROPOSED WATER MAIN SHALL BE 2" PVC W/ TRACER WIRE. TWO-INCH PVC PIPE MUST MEET ASTM D2241 OR ASTM D1785 (SEE TABLE 604.1 AND SECTION 605.12). AN ACCESSIBLE BLUE 14 AWO MINIMUM TRACER WIRE SUITABLE FOR DIRECT BURY MUST BE USED (SEE SECTION 604.10.1).

PROPOSED WATER SERVICE SHALL BE HDPE CONFORMING TO ASTM D2737, FOR "ENDO-PURE" WATER SERVICE TUBBIS, PE 4710-200 PSI, SIDR 7 (IPS) AS MANUFACTURED BY ENDOT INDUSTRIES, COMPLETE WITH TRACING WIRE AND LOCATION BOXES AS REQUIRED BY CITY. APPURTENANT FITTINGS FOR HOPE PIPE SHALL BE PER MANUFACTURERS RECOMMENDATION, AS APPROVED BY CITY ENGINEERING DEPARTMENT. 1.0" MINIMUM INSIDE DIAMETER REQUIRED.

PE WATER SERVICES MUST BE INSTALLED PER THE MANUFACTURER'S INSTRUCTIONS (SEE TABLE 604.1 AND SECTION 605.8), JOINTS MUST BE HEAT FUSED OR USE APPROVED INSERT FITTINGS WITH STANLESS STEEL CLAMPS, AN ACCESSIBLE BLUE 14 AWG MINIMUM TRACER WIRE SUITABLE FOR DIRECT BURY MUST BE PROVIDED (SEE SECTION 604.10.1).

VALVE SHUTOFFS WILL BE 2" CUR8 STOP & BOX (OR APPROVED EQUAL).

MECHANICAL JOINTS SHALL BE USED FOR WATER MAIN PIPES 4" IN DIAMETER AND LARGER, RUBBER GASKETS SHALL CONFORM TO AWWA C111 (ANSI A21.11).

FIELD VERIFY SIZE, ELEVATION, AND LOCATION OF EXISTING STORM SEWER AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO ANY INSTALLATIONS.

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.

ELEV.	ELEV.	
914.38	908.29	*PROPOSED INVERT ELEVATIONS
914.45	908.77	HERE ARE BASED ON CALCULATE ELEVATIONS OF EXISTING SANITA
912.14	906.73	SEWER. MINOR ADJUSTMENTS M NEEDED FOR PROPOSED ELEVATI
913.40	907.20	SHOWN, BUT IN NO CASE SHOUL PROPOSED 8' SANITARY PIPE BE
914.10	907.67	THAN 0.52%.

or the	5/6/21	REVISED SAN, CO SPACING; ADJI
2	5/25/21	REVISED SAN CO LABELING; CB
	11/3/22	REVISED UTILITIES FOR SITE PLA
	11/18/22	REVISED PIPE SIZES AND SLOPE
4	12/29/22	REVISED RIPRAP QUANTITIES AN
)	2/28/23	REVISED SANITARY SLOPES, CO
1822/		

DRAWN BY. DESIGN BY

CHCKD BY: PROJ. NO.

ORIGINAL DATE: AUGUST 13, 2020

M.Q.A. 20-1925

FLAMINGO TERRACE EXPANSION

PREPARED FOR: SHERRY SAXON



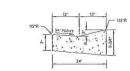
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ENGINEERING, INC.

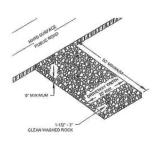
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NORTH

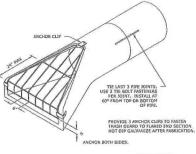




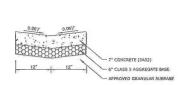
D312 MODIFIED CONCRETE CURB & GUTTER



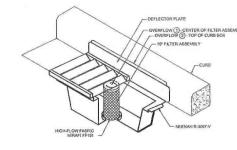
ROCK CONSTRUCTION ENTRANCE N.T.S.



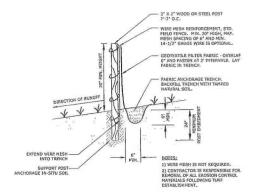
FLARED-END SECTION W/ TRASHGUARD
N.T.S.



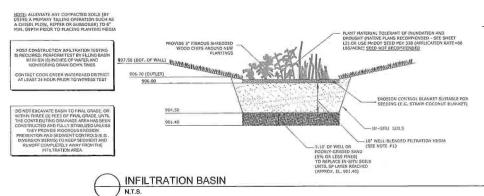
CONCRETE GUTTER SWALE



WIMCO INLET PROTECTION N.T.S.



SILT FENCE



PLANTING SUGGESTIONS

BOTTOM OF BASIN SIDE SLOPES	
NATIVE PLANTINGS	NATIVE PLANTINGS
GIANT BUR-REED	BIG BLUESTEM
WOOL GRASS SEDGE	BLUE JOINT GRASS
CORD GRASS	SWITCH GRASS
BLUE FLAG IRIS	BLUE VERVAIN
SWAMP MILKWEED	PRAIRIE BLAZINGSTAR
TAMARACK	TAMARACK
JOE-PYE WEED	NEW ENGLAND ASTER
NEW ENGLAND ASTER	RED-OSIER DOGWOOD
PRAIRIE BLAZINGSTAR	SANDBAR WILLOW
BONESET	BLACK CHOKECHERRY
BLACK WILLOW	BLACK WILLOW

- 5. USE LOW-IMPACT, EARTH MOVING EQUIPMENT (WIDE TRACK OR MARSH TRACK EQUIPMENT, OR LIGHT-EQUIPMENT WITH TURF-TYPE TIRES.)

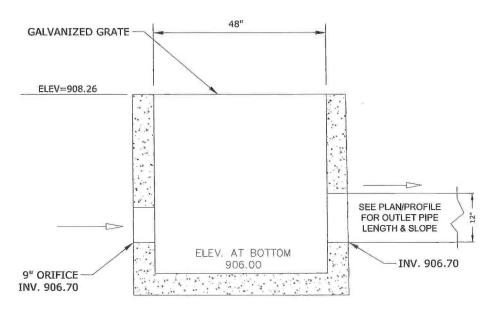
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FLAMINGO TERRACE Expansion Ham lane, minnesota

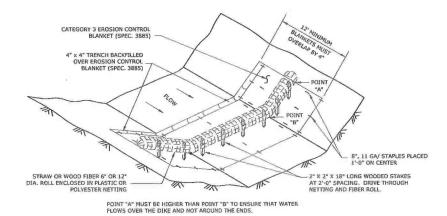
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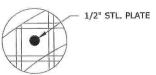
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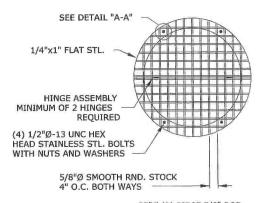








DETAIL "A-A"



57"Ø (2) PIECE 5/8" ROD POND SKIMMER GRATE

GRATE NOTES:

1) GRATE TO BE MADE IN TWO (2) PIECES 2) ALL METAL SHALL BE HOT-DIPPED GALVANIZED

GALVANIZED GRATE
N.T.S.



oder my direct supervision and that I am a
Licensed Professional Engineer under the
laws of the State of Minnesota.

Make Level Messon

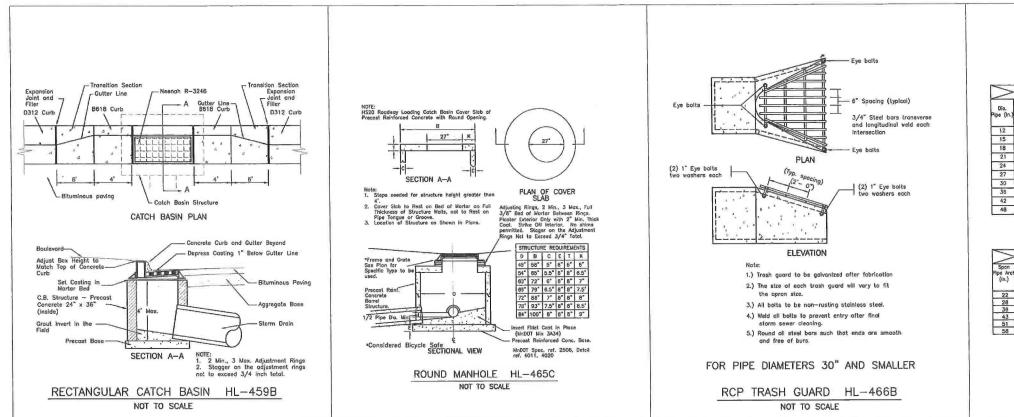
AMINGO TERRACE
EXPANSION

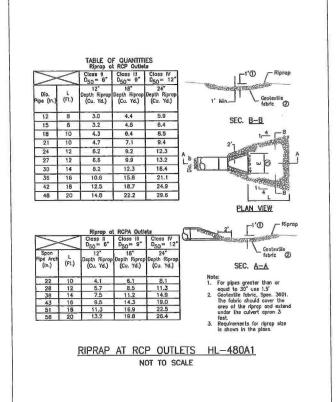
PREPARED FOR: SHERRY SAXON

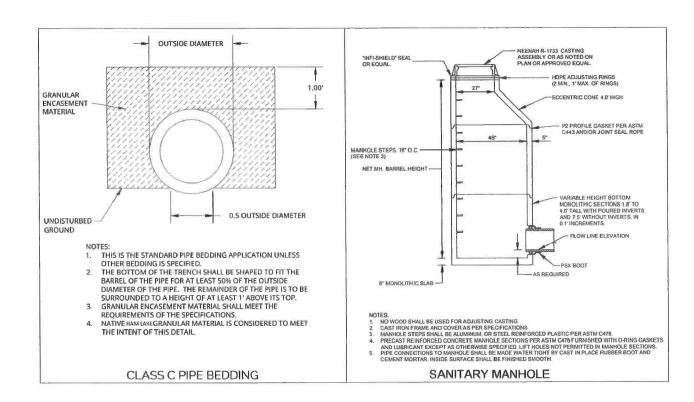


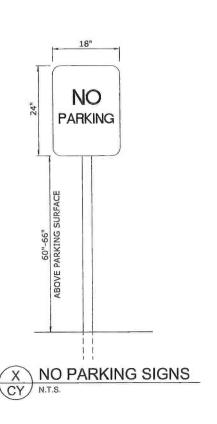
SITE PLANNING & ENGINEERING PLOWE

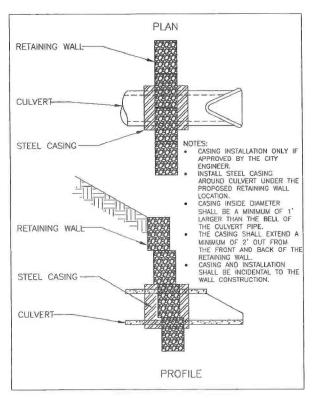
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RETAINING WALL CULVERT CASING DETAIL CY N.T.S.

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EXPANSION HAM LAKE, MINNESOTA

PREPARED FOR: SHERRY SAXON



ENGINEERING, INC.

6776 LAKE DRIVE SUITE 110 LINO LAKES, MN 55014 PHONE: (651) 361-8210 FAX: (651) 361-8701 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 FINA CLEAN OUT, OR TRANSFERRING PORTIONS OF A SITE TO ANOTHER PARTY. THE PERMITTEES' COVERAGE UNDER THIS PERMITTEES' COVERAGE UNDER THIS PERMITTERS AT MIDNIGHT ON THE SUBMISSION DATE OF THE NOT, [MINH, R. 7907]

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. 7030]

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]

5.3 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 TEMPOR SEDIMENT BASINS AND ANY OF THE PERMANENT STORMWATER TREATMENT SYSTEMS REQUIRED IN SECTION 15. (MINN. R.

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

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 SURFAC WATER THE SITE MAP MUST INDIGATE 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, IMINN. R. 70901 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 DRAIN TO PUBLIC WATERS FOR WHICH THE DIRK HAS PROMULGATED TWORK IN WATER RESTRICTIONS' DURING SPECIFIED FISH SPAWNING TIME FRAMES, BINN, R, 709()

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: . TEMPORARY SEDIMENT BASIN AS DESCRIBED IN SECTION 14; AND

5. FORLINGARY PROJECTS, IF THE PERMANENT STORMWATTER 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 FORDERS AS DESCRIBED IN TIEM 81.7 AND ITEM 23.11, IMMN. R. 7000.

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 USED, [MNN. 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. 70901

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 REQUIRED LOCAL, STATE OR FEDERAL REVIEW CONDUCTED FOR THE PROJECT, FOR PURPOSES OF THIS PERMIT, MITIGATION MEASURES MEANS ACTIONS NECESSARY TO AVOID, MINIMIZE, OR MITIGATE FOR MIPACTS RELATED TO ENGISION 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, IMINN. R. 70901

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 WATER(S), AND ANY UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (USEPA) APPROVED TOTAL MAXIMUM DAILY LOAD (TMOL) FOR THE POLLUTANT(S) OR STRESSOR(S) DESCRIBED IN (TEM 23.7 PERMITTEES' IDENTIFICATION MUST INCLUDE THOSE TMOLS 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. MAMES OF PERSONNEL REQUIRED TO BE TRAINED; AND
b. DATES OF TRAINING AND NAME OF INSTRUCTOR(S) AND ENTITY PROVIDING TRAINING; AND

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, IMINN. B. 70901 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 OPERATORS 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 9.18. [MINN. R. 7090]

5.23 THE SWPPP MUST IDENTIFY THE PERSONIS), ORGANIZATIONS, 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 SQL COMPACTION AND PRESERVE TOPSOIL, MINIMIZING SQL 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:

THE EXPECTED AMOUNT, FREQUENCY, INTENSITY, AND DURATION OF PRECIPITATION; AND
 THE NATURE OF STORMMATER RUNOFF AND RUN-ON AT THE SITE, INCLUDING FACTORS SUCH AS EXPECTED FLOW FROM IMPERVIOUS SURFACES, SUPES, AND SITE DRAWAGE FEATURES, AND
 THE STORMWATER YOULDIE, VELOCITY, AND PEAK FLOWPATES TO MINIMIZE DISCHARGE OF POLLUTANTS IN STORMWATER AND TO MINIMIZE CHANNEL AND STREAMBANK EROSION AND SOUR IN THE IMMEDIATE VICINITY OF DISCHARGE POINTS, AND

THE RANGE OF SOIL PARTICLES SIZES EXPECTED TO BE PRESENT, I MINN, R. 7090)

6.1 SWPPP AMENDMENTS. [MINN. R. 7090]

6.2 ONE OF THE INDIVIDUALS DESCRIBED IN ITEM 21.24 OR ITEM 21.28 OR ANOTHER QUALIFIED INDIVIDUAL MUST COMPLETE ALL SWPPP CHANGES, CHANGES INVOLVING THE USE OF A LESS STRINGENT BAP MUST INCLUDE A JUSTIFICATION DESCRIBIN HOW THE REPLACEMENT BAP IS EFFECTIVE FOR THE SITE CHARACTERISTICS, (MINN. R. 7050)

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, OPER MAINTENANCE, WEATHER OR ESASONAL CONDITIONS HAVING A SIGNIFICANT EFFECT ON THE DISCHARGE OF POLLUT SURFACE WATERS OR GROUNDWATER, (MINN. R. 7090]

SURFACE WATERS OR GROUNDWATER, (MNN. R. 7089)

A PERMITTERS MUST AMEND THE SWPPP TO INCLUDE ADDITIONAL OR MODIFIED BMPS AS NECESSARY TO CORRECT PROBLEMS (DENTIFIED OR ADDRESS SITUATIONS WHENEVER INSPECTIONS OR INVESTIGATIONS BY THE SITE OWNER OR OPERATOR, USER A OR MPCA OFFICIALS INDICATE THE SWPP 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 DETRIED IN MINN. R. 7050,0210, SUBP. 2) OR THE SWPPP IS NOT CONSISTENT WITH THE OBJECTIVES OF A USERA APPROVED TIMEL, (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 EN

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] 3. PERMITTEES MUST MINIMIZE THE NEED FOR DISTURBANCE OF PORTIONS OF THE PROJECT WITH STEEP SLOPES. WHEN TEEP SLOPES MUST BE DISTURBED, SPERMITTEES MUST USE TECHNIQUES SUCH AS PHASING AND STABILIZATION PRACTICES SESIGNED FOR STEEP SLOPES (C.G., SLOPE DRAINING AND TERRACING), [MINN. R. 709]

DESIGNED FOR STEEP SLOPES (E.G., SLOPE DRAINING AND TERNACIONS), MINN. N. (709)

8A 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 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 NEGLIBED ON CONSTRUCTED BASE COMPONENTS OF ROADS, PARKING LOTS AND SIMILAR SURFACES. STABILIZATION IS NEGLIBED ON TEMPORARY STOCKPILES WITHOUT SIGNIFICANT SILT, CLAY OR ORGANIC COMPONENTS (E.G., CLEAN AGGREGATE STOCKPILES) DEMOLITION CONCRETE STOCKPILES, DEMONITY PROVIDES 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

6.8 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 CONNECTINIG TO A SURFACE WATER OR PROPERTY EDGE. PERMITTEES MUST COMPLETE STABILIZATION OF REMAININE PORTIONS OF TEMPORARY OR PERMANENT DITCHES OR SWALES WITHIN 7 CALENDAR DAYS AFTER CONNECTINO TO A SURFACE WATER OR PROPERTY EDGE AND CONSTRUCTION OF THE DITCH TEMPORARILY OR PERMANENTLY DAYS.

8.7 TEMPORARY OR PERMANENT DITCHES OR SWALES BEING USED AS A SEDIMENT CONTAINMENT SYSTEM DURIN CONSTRUCTION (WITH PROPERLY DESIGNED ROCK-OTICH CHECKS, BIG ROLLS, SILT, DIKES, ETC.) DO NOT NEED TO STABILIZED, PERMITTEES MUST STABILIZE THESE AREAS WITHIN 24 HOURS AFTER THEIR USE AS A SEDIMENT.

8.8 PERMITTEES MUST NOT USE MULCH, HYDROMULCH, TACKIFIER, POLYACRYLAMIDE OR SIMILAR EROS PRACTICES WITHIN ANY PORTION OF THE NORMAL WETTED PERMINETER OF A TEMPORARY OR PERMANE OR SWALE SECTION WITH A CONTINUOUS SLOPE OF GREATER THAN 2 PERCENT, MINN R. 7505)

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, IMINN. 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. 7080]

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

2 PERMITTEES MUST ESTABLISH SEDIMENT CONTROL BMPS ON ALL DOWNGRADIENT PERIMETERS OF THE SITE AND OWNGRADIENT AREAS OF THE SITE THAT DRAIN TO ANY SURFACE WATER, INCLUDING CURB AND GUTTER SYSTEMS, ERMITTEES MUST LOCATE SEDIMENT CONTROL PRACTICES UPGRADIENT OF ANY BUFFER XONES, PERMITTEES MUST INSTALL EDIMENT CONTROL PRACTICES BEFORE ANY UPGRADIENT LAND-DISTURBING ACTIVITIES BEGIN AND MUST KEEP THE EDIMENT CONTROL PRACTICES IN PLACE UNTIL THEY ESTABLISH PERMANENT COVER, IMIN. R. 7 X89]

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 BMP TO ELIMINATE THE OVERLOADING AND AMEND THE SWPPP TO IDENTIFY THESE ADDITIONAL PRACTICES AS REQUIRED IN ITEM 63, MININ R. 70001 6.3. [MINN, R, 7090]

OS, DIMMAN, A. 1990)

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. 7690]

SEA FLOATING SILT CURTAIN PLACED IN THE WATER IS NOT A SEDIMENT CONTROL BMP TO SATISFY ITEM 8.2 EXCEPT WHEN WORKING ON A SHORELINE OR BELOW THE WATER LINE. IMMEDIATELY AFTER THE SHORT TERN 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 STILL DRAIN TO A SURFACE WATER, (MINN, R. 7080)

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 COMPLETED. PERMITTEES MUST RE-INSTALL SEDIMENT CONTROL PRACTICES BEFORE THE N PRECIPITATION EVENT EVENT EVENT BY THE SHORT-TERM ACTIVITY IS NOT COMPLETE. [MINN. R. 7802]

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. 70901 9.8 PERMITTERS MAY REMOVE ONCE VINLET PROTECTION FOR A PARTICULAR INLET A SPECIFIC SAFETY CONCENN (E.G. STREET FLOODING/FREZING) IS IDENTIFIED BY THE PERMITTERS OR THE STREET STREET SAFETY CONCENN (E.G. STREET FLOODING/FREZING) IS IDENTIFIED BY THE PERMITTERS OR THE STREET STREET SAFETY CONCENN (E.G. STREET FLOODING/FREZING) IS IDENTIFIED BY THE PERMITTERS OR THE STREET STREET SAFETY CONCENN (E.G. STREET FLOODING/FREZING) IS IDENTIFIED BY THE PERMITTERS OR THE STREET SAFETY CONCENN (E.G. STREET SAFETY (E.G. STREET SAFETY (E.G. STREET SAFETY (E.G. STREET SA 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, IMINN, R. 70901

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 ONTO THE STREET, IMINN, R. 7990]

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, LINUESS INFEASIBLE, IMINN. R. 70901 9.16 PERMITTEES MUST DIRECT DISCHARGES FROM BMPS TO VEGETATED AREAS UNLESS INFEASIBLE. [MINN. R. 7090]

9.10 PERMITTEES MUST DIRECT DISCHARGES FROM BIMPS TO VEGETATED AREAS UNLESS INFEASIBLE, UNINN. IT. (200)
9.17 PERMITTEES MUST PRESERVE A 50 FOOT NATURAL BUFFER OR, IF A BUFFER IS INCEASIBLE ON THE SITE, PROVIDE
REDUXDANT (DOUBLE) PERIMETER SEDIMENT CONTROLS WHEN A SURFACE WATER IS LOCATED WITHIN 50 FEET OF THE
PROJECTS EARTH DISTURBANCES AND STORMWATER FLOWS TO THE SURFACE WATER, PERMITTEES MUST INSTALL
PERIMETER SEDIMENT CONTROLS AT LEAST 5 FEET APART UNLESS LIMITED BY LACK OF AVAILABLE SPACE. NATURAL BUFFERS
ARE NOT RECURSED ADJACENT TO ROAD DITCHES, JUDICIAL DITCHES, COUNTY TOTCHES, STORMWATER CONVEYANCE
CHANNELS, STORM DRAIN INLETS, AND SEDIMENT BASINS, IP PRESERVING THE BUFFER IS INFEASIBLE, PERMITTEES MUST
DOCUMENT THE REASONS IN THE GWYPP. SHEET PILING IS A REDUNDANT PERMITTER CONTROL IF INSTALLED IN A MANNER
THAT RETAINS ALL STORMWATER, IMNN, 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 SECIFICATIONS AND WITH ACCEPTED ENGINEERING PRACTICES, DOSING SPECIFICATIONS AND SEDIMENT REMOVAL DESIGN SECIFICATIONS APPROVIDED BY THE MANUFACTURER OR SUPPLIER. THE PERMITTEES MUST USE CONVENTIONAL EROSION AND SEDIMENT CONTROL 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]

10.1 DE PRINTERINO PIND ENGINE UNIVERSITIES. (INITIALIS.) TO SEDIMENT LADEN WATERS RELATED TO DEWATERING OR BASIN DRAINING (E.G., PUMPED DISCHARGES, TRENCHIDITCH CUI'S FOR DRAINAGE) TO A TEMPORARY OR PERMANENT SEDIMENT BASIN ON THE PROLECT SITE UNLESS INFEASIBLE PERMITTEES MAY DEWATER TO SURFACE WATERS IF THEY VISUALLY COTE OF SMICH ADEQUATE TREATMENT HAS BEEN OST ANDED AND INJURANCE CONDITIONS (SEE MINN. R. 7050.0216). SUBP. 2) WILL NOT RESULT ADDITIONS (SEE MINN. R. 7050.0216). SUBP. 2) WILL NOT RESULT ASSURANCE WATERS IN THE PRINTERS SUBSTITUTE AND THE MAY SUBPLIF HAS THE DISCHARGE DES NOT ADVERSELY AFFECT THE SURFACE WATER OR DOWNSTREAM PROPERTIES. (MINN. R. 7050.0216).

10.3 IF PERMITTEES MUST DISCHARGE WATER CONTAINING OIL OR GREASE, THEY MUST USE AN OIL-WATER SEPARA 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 CAUSE EROSION OR SCOUR IN THE IMMEDIATE VICINITY OF DISCHARGE POINTS OR INUNDATION OF WETLANDS IN THE DIATE 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 BECINNING OF THE TEITRE MEMOREMENT PROCESS, OR INCORPORATE THE BACKWASH WATER IN THE THAT DOES NOT CAUSE EROSION, MINNER, R. 7698)

11.1 INSPECTIONS AND MAINTENANCE, IMINN, R, 70901

11.2 PERMITTEES MUST ENSURE A TRAINED PERSON, AS IDENTIFIED IN 11EM 21.2.B, WILL INSPECT THE ENTIRE CONSTITE AT LEAST ONCE EVERY SEVEN (7) DAYS DURING ACTIVE CONSTRUCTION AND WITHIN 24 HOURS AFTER A RAINI GREATER THAN 1/2 INCH IN 24 HOURS. MINN. R. 70901

11.3 PERMITTEES MUST INSPECT AND MAINTAIN ALL PERMANENT STORMWATER TREATMENT BMPS. IMINN. R. 70901 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 MONFUNCTIONAL 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 11.5. PERMITTEES MAY TAKE ADDITIONAL TIME IF FIELD CONDITIONS PREVENT ACCESS TO THE AREA, [MINN. R, 709].

PREVENT ACCESS TO THE AREA, [MINN. R. 7990]

11.5 DURING EACH INSPECTION, PERMITTEES MUST INSPECT SURFACE WATERS, INCLUDING DRAINAGE DITCHES AND CONVEYANCE SYSTEMS BUT NOT CUBB AND GUTTER SYSTEMS, FOR EVIDENCE OF EROSION AND SEDIMENT DEPOSITION. PERMITTEES MUST REMOVE ALL DELTAS AND SEDIMENT DEPOSITED IN SURFACE WATERS, INCLUDING ORAINAGE WAYS, CATCH BASINS, AND OTHER DRAINAGE SYSTEMS AND RESTAULTE 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 LECAL, REGULATION, OR PHYSICAL ACCESS CONSTRAINTS, PERMITTEES MUST USE AL REASONABLE EFFORTS TO OSTAIN ACCESS. IP PRECLUDED, REMOVAL AND STABILIZATION MUST TAKE PLACE WITHIN SEVEN DAYS OF OSTAINING ACCESS. PERMITTEES ARE RESPONSIBLE FOR CONTACTING ALL COCAL, REGIONAL, STATE AND FEDERA AUTHORITIES AND RECEIVING ANY APPLICABLE PERMITS, PRIOR TO CONDUCTING ANY WORK IN SURFACE WATERS, [MINN. R. 7990]

THIS 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, IMINA. 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

IF COUNTRIES TRANSPORT, DAY

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. 7080 TO

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:

B. NAME OF PERSONS CONDUCTING INSPECTIONS; AND

C. ACCURATE FINDINGS OF INSPECTIONS, INCLUDING THE SPECIFIC LOCATION WHERE CORRECTIVE ACTIONS ARE NEEDED;

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 OSTAIN RAINFALL AMOUNTS BY SITHER A PROPERLY MAINTAINED RAIN GAUGE INSTALLED ONSITE, 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 (LE., COLOR, ODOR, SETTLED OR SUSPENDED SOLIDS, OIL SHEEN, AND OTHER OBVIOUS INDICATORS OF POLLUTATIS); 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. 7080]

12.3 PERMITTEES MUST PLACE PESTICIDES, FERTILIZERS AND TREATMENT CHEMICALS UNDER COVER (E.G., PLASTIC SHEETING OR REPORARY ROOFS) OR PROTECT THEM BY SIMILARLY EFFECTIVE MEANS DESIGNED TO MINIMIZE CONTACT WITH STORM/MATER, (MINN. R. 7/80).

12.4 PERMITTEES MUST STORE HAZARDOUS MATERIALS AND TOXIC WASTE, (INCLUDING OIL, DIESEL FUEL, GASOLINE HYDRAULIC FLUIDS, PAINT SOLVENTS, PETROLELIMASASED PRODUCTS, WOOD PRESERVATIVES, ADDITIVES, CURING COMPOUNDS, AND ACIDS) IN SEALED CONTAINERS TO PREVENT SPILLS, LEAKS OR OTHER DISCHARGE. STORAGE AND DISPOSAL OF HAZAROUUS WASTE MATERIALS MUST BE IN COMPLIANCE WITH MINN. R. CH. 7045 INCLUDING SECOND. CONTAINMENT AS APPLICABLE (MINN. R. 7050).

12.5 PERMITTEES MUST PROPERLY STORE, COLLECT AND DISPOSE SOLID WASTE IN COMPLIANCE WITH MINN. R. CH. 7035.
[MINN. R. 7035]

[AINN. R. 7039]

12.5 PERMITTEES MUST PROPERLY DISPOSE SANITARY WASTE IN ACCORDANCE WITH MINN. R. CH. 7041, MINN. R. 7041

12.7 PERMITTEES MUST TREOPERLY 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 HEMICALS,

INCLUDING FUEL, FROM ANY AREA WHERE CHEMICALS OR FUEL WILL BE LOADED OR UNLOADED INCLUDING THE USE OF DRIP
PAIS OR ASPOSIBENTS UNLESS INFEASBLE PERMITTEES MUST ENSURE ADEQUAYS EXPUPLIES ARE AVAILED AT ALL TIMES

TO CLEAN UP DISCHARGED MATERIALS AND THAT AN APPROPRIATE DISPOSAL METHOD IS AVAILABLE FOR RECOVERED

SPILLED MATERIALS, PROPRITTEES MUST REPORT AND CLEAN UP SPILLS MIMEDIATELY AS REQUIRED BY MINN. STAT. 115.001

USING DRY CLEAN UP MEASURES WHERE POSSIBLE, MINN. STAT. 115.001

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, BELATED 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 MPOR RULES, PERMITTEES MUST INSTALL A SIGN INDICATING THE LOCATION OF THE WASHOUT FACILITY, MINN. R. 7035, MINN.

13.1 PERMIT TERMINATION CONDITIONS, IMINN, 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 PERENNAL VEGETATION WITH A DENSITY OF 70 PERCENT OF ITS EXPECTED FINAL, GROWITH, VEGETATION IS NOT RECUIRED 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 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. 7399]

13.4 PERMITTEES MUST REMOVE ALL SEDIMENT FROM CONVEYANCE SYSTEMS PRIOR TO SUBMITTING THE NOT, IMINN. 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 STRUCTUS FINISHED AND TEMPORARY EROSION PREVENTION AND DOWNGRADIENT PERMITER CONTROL IS COMPLETE, THE RESELLS TO THE HOMEOWARE, AND THE PERMITTEE DISTRIBUTES THE MPCA'S "HOMEOWNER FACT SHEET" TO THE HOMEOWARE, MINN. R. 7.0991

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, IMINN, R. 70901

14.2 WHERE FIVE (5) OR MORE ACRES OF DISTURBED SOIL DRAIN TO A COMMON LOCATION, PERMITTEES MUST PROVIDE TEMPORARY SEDIMENT BASIN TO PROVIDE TREATMENT OF THE RUNOFF SEFORE IT LEAVES THE CONSTRUCTION SITE OFFICE STREAM CONTROL OF THE RUNOFF SEFORE IT LEAVES THE CONSTRUCTION SITE OFFICE ACTION OF THE RUNOFF SEFORE IT LEAVES THE CONSTRUCTION SITE OF STREAM CONTROL OF THE RUNOFF SEFORE IT LEAVES THE CONSTRUCTION SITE OF THE RUNOFF SEFORE IT LEAVES THE CONSTRUCTION SITE OF THE RUNOFF SEFORE IT LEAVES THE CONSTRUCTION SITE OF THE RUNOFF SEFORE IT LEAVES THE CONSTRUCTION SITE OF THE RUNOFF SEFORE IT LEAVES THE CONSTRUCTION SITE OF THE RUNOFF SEFORE IT LEAVES THE CONSTRUCTION SITE OF THE RUNOFF SEFORE IT LEAVES THE RUNOFF SEFORE IT LEAVES THE CONSTRUCTION SITE OF THE RUNOFF SEFORE IT LEAVES THE CONSTRUCTION SITE OF THE RUNOFF SEFORE IT LEAVES THE CONSTRUCTION SITE OF THE RUNOFF SEFORE IT LEAVES THE CONSTRUCTION SITE OF THE RUNOFF SEFORE IT LEAVES THE CONSTRUCTION SITE OF THE RUNOFF SEFORE IT LEAVES THE CONSTRUCTION SITE OF THE RUNOFF SEFORE IT LEAVES THE CONSTRUCTION SITE OF THE RUNOFF SEFORE IT LEAVES THE CONSTRUCTION SITE OF THE RUNOFF SEFORE IT LEAVES THE SEFORE SEF

14.3 THE TEMPORARY BASIN MUST PROVIDE LIVE STORAGE FOR A CALCULATED VOLUME OF RUNOFF P 24-HOUR STORM FROM BACH AGRE DRAINED TO THE BASIN OR 1,800 CUBIC FEET OF LIVE STORAGE PE WRICHEVER IS GREATER, IMIN. R. 7080]

14.4 WHERE PERMITTEES HAVE NOT CALCULATED THE TWO (2)-YEAR, 24-HOUR STORM RUNOFF AMOUNT, THE TEMPORARY BASIN MUST PROVIDE 3,000 CUBIC FEET OF LIVE STORAGE PER ACRE OF THE BASINS' 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]

INDIVINAY A COMMINISTREES MUST DESIGN THE OUTLET STRUCTURE TO WITHDRAW WATER FROM THE SURFACE TO MINIMIZE THE DISCHARGE OF POLLUTANTS. PERMITTEES 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 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 23.11, (MINN. R. 7080)

14.9 PERMITTEES MUST CONSTRUCT THE YEMPORARY 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 14.9 IS INFEASIBLE, PERMITTEES MUST INSTALL EFFECTIVE SEDIMENT CONTROLS SUCH AS SMALLER SEDIMENT BASINS ANDIORS SEDIMENT TRAPS, SILT FENCES, VEGETATIVE BUFFER STRIPS OR ANY APPROPRIATE COMBINATION OF MEASURES AS DICTATED BY INDIVIDUAL SITE CONDITIONS. IN DETERMINING WHETHER INSTALLING A SEDIMENT BASIN IS INFEASIBLE, PERMITTEES MUST CONSIDER PUBLIC SAFETY AND MAY CONSIDER FACTORS SUCH AS SITE SOLIS, SLOPE, AND AVAILABLE AREA ON-SITE. PERMITTEES MUST IT THIS DETERMINATION OF INFEASIBILITY IN THE SWPPP, IMINN, R. 7090

15.1 PERMANENT STORMWATER TREATMENT SYSTEM, IMINN, R. 70901

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, EROGISION IN RECEIVING CHANNELS OR ON DOWNSLOPE PROPERTIES, OR A SIGNIFICANT ADVERSE IMPACT TO WETLANDS CAUSED BY INUNDATION OR DECREASE OF FLOW. [MINN. R. 7080] 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 PERVIOUS 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., INFLITRATION OR OTHER) WHEN DESIGNING THE PERMANENT STORMWATER TREATMENT SYSTEM. IF THIS PERMIT PROHIBITS INFLITRATION AS DESCRIBED IN ITEM 16.14 THROUGH ITEM 16.21, PERMITTEES MAY CONSIDER A WET SEDIMENTATION BASIN, FILTRATION BASIN OR REGIONAL POND. THIS PERMIT DOES NOT CONSIDER WET SEDIMENTATION BASIN, FILTRATION BASIN OR REGIONAL POND. THIS PERMIT DOES NOT CONSIDER WET SEDIMENTATION BASIN OR SYSTEMS TO BE VOLUME REDUCTIO PRACTICES, (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 THIS PERMIT PROHIBITS INFILTRATION AS DESCRIBED IN ITEM 16.14 THROUGH ITEM 16.21, PERMITTEES MAY CONSIDER A WET SEDIMENTATION BASIN, PILTRATION BASIN OR REGIONAL POND. THIS PERMIT DOES NOT CONSIDER WET SEDIMENTATION BASINS AND FILTRATION SYSTEMS TO BE VOLUME REDUCTION PRACTICES, MININ.R. 7500]

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]

INFILITATION PROHIBITIONS), PERMIT LEES MOST DOCUMENT IN THE REVISIONS IN THE SYMPPE, IDMIN, R. 1990]

16.7 PERMITTEES MUST DISCHARGE THE WATER QUALITY VOLUME TO A PERMANENT STORMWATER TREATMENT SYSTEM PRIOR TO DISCHARGE TO A SURFACE WATER, FOR PURPOSES OF THIS TEM, SURFACE WATERS DO NOT INCLUDE MANY PRIOR TO DISCHARGE TO A SURFACE WATER. FOR PURPOSES OF THIS TEM, SURFACE WATERS DO NOT INCLUDE MANY FOR THIS TEMPORATION TO STEME. (ININ. R. 7.050) 15.8 WHERE THE PROXIMITY TO BEDDOCK PRECLUBES THE INSTALLATION OF ANY OF THE PREMIARNS TOST IM, (MINN. R. 7090)

15.8 WHERE THE PROXIMITY TO BEDDOCK PRECLUBES THE INSTALLATION OF ANY OF THE PREMIARNS TOST WAYATER
TREATMENT PRACTICES REQUIRED BY SECTIONS 15 THROUGH 19, PERMITTEES MUST INSTALL OTHER TREATMENT SUCH AS
GRASSES SWALES, SMALLER PONDS, 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 AND TO A WAY PERMITTEES MIST MAKE A REASONABLE ATTEMPT TO OBTAIN ADDITIONAL RIGHT-OF-WAY, EASEMENT OR THE PERMISSION FOR STORMWATER TREATMENT DURING THE PROJECT PLANNING PROCESS, OCCHENTATION OF THESE THE PROJECT PLANNING PROCESS (CHENTATION OF THESE THE PROJECT PLANNING PROCESS (CHENTATION OF THESE THE PROJECT PLANNING PROCESS (PROTEST AS DESCRIBED IN 116 SWEPP). PERMITTEES MUST STILL CONSIDER VOLLIME REDUCTION PRACTICES FIRST AS DESCRIBED IN 15.9 IF PERMITTEES CANNOT OBTAIN ADDITIONAL RIGHT-OF-WAY, EASEMENT OR OTHER PERMISSION, THEY MUST AND ADDITIONAL RIGHT-OF-WAY, EASEMENT OR OTHER PERMISSION, THEY MUST AND ADDITIONAL RIGHT-OF-WAY, EASEMENT OR OTHER PERMISSION, THEY MUST AND ADDITIONAL RIGHT-OF-WAY, EASEMENT OR OTHER PERMISSION, THEY MUST ADDITIONAL RIGHT-OF-WAY, EASEMENT OR OTHER PERMISSION, THEY MUST ADDITIONAL RIGHT-OF-WAY AND ADDITIONAL RIGHT-OF-WAY AND ADDITIONAL RIGHT-OF-WAY AND ADDITIONAL RIGHT-OF-WAY AND ADDITIONAL RIGHT-OF-WAY.

16.1 INFILTRATION SYSTEMS. [MINN. R. 7090]

16,2 INFILTRATION OPTIONS INCLUDE, BUT ARE NOT LIMITED TO: INFILTRATION BASINS, INFILTRATION TRENCHES, RAINWATER ARDENS, BIORETENTION AREAS WITHOUT UNDERDRAINS, SWALES WITH IMPERMEABLE CHECK DAMS, AND NATURAL BEPRESSIONS. IF PERMITTEES UTILIZE AN INFLITATION SYSTEM TO MEET THE REQUIREMENTS OF THIS PERMIT, THEY WILL COORPORATE THE DESIGN PARAMETERS IN 11EM 16.3 THROUGH ITEM 16.2 THROUGH THE STATE FOLLOW THE INFLITATION PROHIBITION IN ITEM 16.14 ANYTIME AN INFLITATION SYSTEM IS DESIGNED, INCLUDING THOSE NOT REQUIRED BY THIS

18.3 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).

6.4 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 INFILITATION AREA, MINN. R. 7,090]

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. IMINN. R. 7991)

16.6 PERMITTES 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 INITIATIVENT ON SYSTEM. (MINN. R. 7050) 16.7 PERMITTEES MUST DESIGN INFILITATION SYSTEM KOUTES STORMWATER TO THE INFILITATION SYSTEM, [MINK. R. 7080]
16.7 PERMITTEES MUST DESIGN INFILITATION SYSTEMS TO PROVIDE A WATER QUALITY VOLUME (CALCULATED AS MISTANTANEOUS VOLUME) OF ONE (1) INCH OF RUNDEF, 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, [MINK. R. 7080]

VOUG 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, PERMITTEES MUST ROUTE ADDITIONAL 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 INFILTROMETER TEST IN THE LOCATION OF THE INFILTRATION PRACTICE FOR DETERMINING INFILTRATION RATES. [MINN. R. 7090] INTIL LYANION PROULINE FOR DETERMINING INTIL MOTIVATION AND MAINS. P. 7999]

RE11 FOR DESIGN PURPOSES, PERMITTEES MUST DIVIDE FIELD MEASURED INFILTRATION RATES BY 2 AS A SAFETY FACTOR OR PERMITTEES CAN USE SOIL-BORNIC RESULTS WITH THE INFILTRATION RATE CHART IN THE MINNESOTA STORMWATER MANUAL TO DETERMINE DESIGN INFILTRATION RATES, WHEN SOIL BORNINGS INDICATE TYPE A SOILS, PERMITTEES 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 AS INCHES PER HOUR, MINN. R. 7899]

16.12 PERMITTEES MUST EMPLOY APPROPRIATE ON-SITE ESTIME OF SUBJECT A MINIMUM OF THREE (3) FEET OF SEPARATION FROM THE SEASONALLY SATURATED SOILS (OR FROM BEDROCK) AND THE BOTTOM OF THE PROPOSED INFILTRATION SYSTEM. JUNIN. R. 78091

. 6.13 PERMITTEES MUST DESIGN A MAINTENANCE ACCESS, TYPICALLY EIGHT (8) FEET WIDE, FOR THE INFILTRATION SYSTEM. MAIN. R. 70901

16.15 THIS PERMIT PROHIBITS PERMITTEES FROM CONSTRUCTING INFILTRATION SYSTEMS WHERE INFILTRATING STO MAY MOBILIZE HIGH LEVELS OF CONTAMINANTS IN SOIL OR GROUNDWATER, PERMITTEES MUST EITHER COMPLETE

WAT MUSELLE HIGH LEVELS OF CONTAMINATIS IN SOIL OR GROUNDWATER, PERMITTEES MUST EITHER COMPLETE THE MPCA'S CONTAMINATION SCREENING CHECKLIST OR CONDUCT THEIR OWN ASSESSMENT TO DETERMINE THE SUITABILITY FOR INFILITATION, PERMITTEES MUST RETAIN THE CHECKLIST OR ASSESSMENT WITH THE SWIPP, FOR MORE INFORMATION AND TO ACCESS THE MPCA'S "CONTAMINATION SCREENING CHECKLIST" SEE THE MINNESOTA STORIMATER MALL, MINN. R. 16.16 THIS PERMIT PROHIBITS PERMITTEES FROM CONSTRUCTING INFILTRATION SYSTEMS IN AREAS WHERE SOIL INFILTRATION RATES ARE FIELD MEASURED AT MORE THAN 8.3 INCHIES PER HOUR UNLESS THEY AMEND SOILS TO SLOW THE INFILTRATION RATE BELOW 8.3 INCHES PER HOUR, MINN. F. 7090]

TABLE BELLVIT 4.3 INCLINES FER THOUR (MININEN). 1999 (1) 1 THIS PERMITY 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 SATURATES OSLO. OR THE TOP OF BEDROCK, MININEN, 7939)

18,18 THIS PERMIT PROHIBITS PERMITTEES FROM CONSTRUCTING INFILTRATION SYSTEMS IN AREAS OF PREDOMINATELY HYDROLOGIC SOIL GROUP TYPE D SOILS (CLAY), [MINN. R. 7696]

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

 N. AN ERA WITHIN A DWSMA CLASSIFIED AS MODERATE VULNERABILITY UNLESS A REGULATED MS4 PERMITTEE
PERFORMED OR APPROVED A HIGHER LEVEL OF ENGINEERING REVIEW SUFFICIENT TO PROVIDE A FUNCTIONIX
TREATMENT SYSTEM AND TO PREVENT 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.

16.20 THIS PERMIT PROHIBITS PERMITTEES FROM CONSTRUCTING INFILTRATION SYSTEMS IN AREAS WITHIN 1,000 FEET UPGRADIENT OR 100 FEET DOWNGRADIENT OF ACTIVE KARST FEATURES. [MINN. R. 7090]

16.21 THIS PERMIT PROHIBITS PERMITTEES FROM CONSTRUCTING INFILTRATION SYSTEMS IN AREAS THAT RECEIVE RUNOFF FROM THE FOLLOWING INDUSTRIAL FACILITIES NOT AUTHORIZED TO INFILTRATE STORMWATER UNDER THE NPOES STORMWATER PROUSTRIAL FACILITIES NOT AUTHORIZED TO INFILTRATE STORMWATER UNDER THE NPOES STORMWATER UNDUSTRIAL ACTIVITIES. AUTOMOBILE SALVAGE AVAIDS, SCAPE RECYCLING AND WASTE RECYCLING AFFOLITIES; HAZAROOUS WASTE TREATMENT, STORAGE, OR DISPOSAL FACILITIES; OR AIR TRANSPORTATION FACILITIES THAT CONDUCT DELIGING ACTIVITIES, IMMIN. A, 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 PERMITTEES UTILIZE A FILTRATION SYSTEM TO MEET THE PERMANENT STORMWATER TREATMENT REQUIREMENTS OF THIS PERMIT, THEY MUST COMPLY WITH HEMS 17.3 THROUGH 17.11, MINN. R. 7090)

COMPLY WITH TIEMS 17.3 IPROUGH 17.1 (MINN, R. 1009)
17.3 PERMITTEES MUST NOT INSTALL FILTER MEDIA JUNIT 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. 709)
BERMS) TO KEEP SEDIMENT AND RUNOFF COMPLETELY AWAY FROM THE FILTRATION AREA, (MINN, R. 709) 17.4 PERMITTEES MUST DESIGN FILTRATION SYSTEMS TO REMOVE AT LEAST 80 PERCENT OF TSS. [MINN. R. 7090]

17.5 PERMITTEES MUST USE A PRETREATMENT DEVICE SUCH AS A VEGETATED FILTER STRIP, SMALL SEDIMENTATION BASIN, WATER QUALITY INLET, FOREBAY OR HYDRODYNAMIC SEPARATOR TO REMOVE SETTLEABLE SOLIDS, FLOATING MATERIALS, AND OILS AND GREASE FROM THE RUNOFF, TO THE MAXIMUM EXTENT PRACTICABLE, BEFORE RUNOFF ENTERS THE FILTRATION SYSTEM, [MINN. R. 7090] 12.76 PERMITTEES 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 OFF INCREASE OF IMPERVIOUS SUFFACES CREATED BY THE FROLECT, (MINN. R. ANOTHER SYSTEM ON THE SITE, FROM THE OFF INCREASE OF IMPERVIOUS SUFFACES CREATED BY THE FROLECT, (MINN. R.

17.7 PERMITTEES MUST DESIGN THE FILTRATION SYSTEM TO DISCHARGE ALL STORMYATER (INCLUDING STORMWATER IN EXCESS OF THE WATER QUALITY VOLUME) ROUTED TO THE SYSTEM THROUGH THE UPPERMOST SOIL SURFACE OR REGINEERED BEDIA SUFFACE 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. 7020]

17.8 PERMITTEES 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 PERMITTEES MUST EMPLOY APPROPRIATE ON-SITE TESTING TO ENSURE A MINIMUM OF THREE (3) FEET OF SEPARATION BETWEEN THE SEASONALLY SATURATED SOILS (OR FROM BEDROCK) AND THE BOYTOM OF THE PROPOSED FILTRATION SYSTEM, MINN. R. 7080]

17.10 PERMITTEES 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 PERMITTEES MUST DESIGN A MAINTENANCE ACCESS, TYPICALLY EIGHT (8) FEET WIDE, FOR THE FILTRATION SYSTEM.
[MINN. R. 7080]

STORM WATER POLLUTION PREVENTION PLAN 17100 MN-65

HCKD BY: | PROJ. NO. M.Q.A. RIGINAL DATE AUGUST 13, 2020

DESIGN B

R.L.S.

M.Q.A.

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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)

18.3 PERMITTEES MUST DESIGN THE BASIN TO HAVE A PERMANENT VOLUME OF 1,800 CUBIC FEET OF STORAGE BELOW THE CUTLET 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 NO DEPTH GREATER THAN 10 FEET. PERMITTEES MUST CONFIGURE THE BASIN TO MINIMIZE SCOUR OR RESUSPENSION OF SOLIDS, IMINN. R. 7080]

18.4 PERMITTEES MUST DESIGN THE BASIN TO PROVIDE LIVE STORAGE FOR A WATER QUALITY VOLUME (CALCULATED AS AN INSTANTANEOUS VOLUME) OF ONE (1) INCH OF MINDS THE VOLUME OF STORMAYTER TREATE OF THE MOST HER SYSTEM ON THE STIFF, PROM THE NET MORRAGE WINNER/OS STORAGES GREATED BY THE PROJECT, IMMN. R.

18.5 PERMITTEES MUST DESIGN BASIN OUTLETS SO THE WATER QUALITY VOLUME DISCHARGES AT NO MORE THAN 5.66 CUBIC FEET FER SECOND (CFS) PER ACRE OF SURFACE AREA OF THE BASIN, MINN. R. 7090) 18.6 PERMITTEES MUST DESIGN BASIN OUTLETS TO PREVENT SHORT-CIRCUITING AND THE DISCHARGE OF FLOATING DEBRIS. BASIN OUTLETS MUST HAVE ENERGY DISSIPATION, MINN. R. 7090)

18.7 PERMITTEES 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 PERMITTEES MUST DESIGN A MAINTENANCE ACCESS, TYPICALLY EIGHT (8) FEET WIDE, FOR THE BASIN. [MINN. R. 7090]
18.9 PERMITTEES MUST LOCATE BASINS OUTSIDE OF SURFACE WATERS AND ANY BUFFER ZONE REQUIRED IN ITEM 23.11.
PERMITTEES MUST DESIGN BASINS TO AVOID DRAINING WATER FROM WETLANDS UNLESS THE IMPACT TO THE WETLAND COMPLIES WITH THE REQUIREMENTS OF SECTION 22, [MINN. R. 7980]

18.10 PERMITTEES MUST DESIGN BASINS USING AN IMPERMEABLE LINER IF LOCATED WITHIN ACTIVE KARST TERRAIN. [MINN, R

19.1 REGIONAL WET SEDIMENTATION BASINS. [MINN. R. 7090]

19.1 NEGIONAL WELL SEDIMENT IA TION BASINS, IMINN. R., 7090]
19.2 WHEN THE ENTIRE WATER COLALITY VOLUME CANNOT BE RETAINED ONSITE, PERMITTEES 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 WIST DE MITIGATED FOR SEE SECTION 22). THE OWNER MUST ENDER THE REGIONAL BASIN CONFORMS TO ALL REQUIREMENTS FOR A WET SEDMENTATION BASIN AS DESCRIBED IN TIEMS 18.3 THROUGH 18.10 AND MUST BE LARGE ENQUIRED TO ACCOUNT FOR THE ENTIRE AREA THAT ORANIS TO THE REGIONAL BASIN, PERMITTEES 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 BROYDIDE A LUCK STORAGE VOLUME OF ONE INCH IT MISS ALL THE IMPERVIOUS AREA PARAINIST OF ITE BASIN. AND MUST PROVIDE A LUCK STORAGE VOLUME OF ONE INCH IT MISS ALL THE IMPERVIOUS AREA PARAINIST OF ITE BASIN. PERMITTEES AUST WITH A STANDARD AND MUST DEATH OF THE PROJECT AND THE REGIONAL BASIN. THE OWNER MUST DETAIN WRITTEN AUTHORIZATION FROM THE APPLICABLE LIGU OR PRIVATE ENTITY THAT OWNS AND MAINTAINS THE REGIONAL BASIN. THE OWNER MUST DETAIN WRITTEN AUTHORIZATION FROM THE APPLICABLE LIGU OR PRIVATE ENTITY THAT OWNS AND MAINTAINS THE REGIONAL BASIN. THE OWNER MUST DETAIN WRITTEN AUTHORIZATION FROM THE APPLICABLE LIGU OR PRIVATE ENTITY THAT OWNS AND MAINTAINS THE REGIONAL BASIN. THE OWNER MUST DETAIN WRITTEN AUTHORIZATION FROM THE APPLICABLE LIGU OR PRIVATE ENTITY THAT OWNS AND MAINTAINS THE REGIONAL BASIN. THE OWNER MUST DETAIN WRITTEN AUTHORIZATION FROM THE APPLICABLE LIGU OR PRIVATE ENTITY THAT OWNS AND MAINTAINS THE REGIONAL BASIN. THE OWNER MUST DETAIN WRITTEN AUTHORIZATION FROM THE APPLICABLE LIGU OR PRIVATE ENTITY THAT OWNS AND MAINTAINS THE REGIONAL BASIN. THE OWNER MUST DETAIN WRITTEN AUTHORIZATION FROM THE APPLICABLE LIGU OR PRIVATE ENTITY THAT OWNS AND MAINTAINS THE

20.1 SWPPP AVAILABILITY. [MINN. R. 7090]

20.2 PERMITTEES MUST KEEP THE SWPPP, INCLUDING ALL CHANGES TO IT, AND INSPECTIONS AND MAINTENANCE RECORDS AT THE SITE DURING NORMAL WORKING HOURS BY PERMITTEES WHO HAVE OPERATIONAL CONTROL OF THAT PORTION OF THE SITE, JIMIN. 7, 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.

A. INDIVIDUALS PREPARING THE SWPPP FOR THE PROJECT.

B. INDIVIDUALS 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

C. INDIVIDUALS PERFORMING OR SUPERVISING THE INSTALLATION, MAINTENANCE AND REPAIR OF BMPS, IMINN, R. 70901 2. INDIVIDUALS TO NAME OF A PROSECULAR INSTRUCTION OF A PROPERTY OF A PR

23.1 ADDITIONAL REQUIREMENTS FOR DISCHARGES TO SPECIAL (PROHIBITED, RESTRICTED, OTHER) AND IMPARIED WATERS. [MINN. R. 7090]

23.6 DISCHARGES TO THE TROUT STREAMS (OTHER SPECIAL WATER) LISTED IN MINN. R. 6264.0050. SUBP. 4 MUST INCORPORATE THE BMPS OUTLINED IN ITEMS 23.9. 23.10, 23.11, AND 23.12. [MINN.R.6264.0050, SUBP. 4]

23.9 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 TEMPORARLY OR PERMANENTLY CEASES, (NINN, R. 786)

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, [MINN.R. 7090]

LOCATIONS THAT SERVE AN AREA WITH FIVE (5) OR MORE ACRES DISTURBED AT ONE TIME, [MINN.R. 7090]
23.11 PERMITTEES MUST INCLUDE AN UNDISTURBED BUFFER ZONE OF NOT LESS THAN 100. LINEAR FEET FROM A SPECIAL
WATER (NOT INCLUDING TRIBUTARIES) AND MUST MAINTAIN THIS BUFFER ZONE AT ALL TIMES, BOTH DURING CONSTRUCTION
AND AS A PERMINENT FEATURE POST CONSTRUCTION, EXCEPT WHERE A WATER CROSSING OR OTHER ENCORCIMENT IS
NECESSARY TO COMPLETE THE PROJECT, PERMITTEES MUST FULL DOCUMENT THE CIRCUMSTANCE AND RESSONS THE
BUFFER PROJECTOR OCHMENT IS NECESSARY IN THE SWIPPP AND FULL DOCUMENT THE CIRCUMSTANCE AND RESSONS THE
BUFFER PROJECTOR OF EXISTING BMFENVIOUS SURFACE WITHIN THE GUFFER PERMITTEES MUST MUST MUST ADDITIONAL OR REDUNCANT
DOUBLE; DISPOSARY AND MUST DOCUMENT THIS IN THE SWIPPP FOR THE PROJECT, (MINN.R. 7000) ADDITIONAL OR REDUNCANT
DOUBLE; DISPOSARY HOR PROJECT OR THE PROJECT, (MINN.R. 7000) ADDITIONAL OR REDUNCANT
MINIMIZES AND MUST DOCUMENT THIS USE OF THE PROJECT. (MINN.R. 7000) ADDITIONAL OR REDUNCANT
MINIMIZES AND WINCREASE IN THE TEMPERATURE OF TROUT STREAMS RESULTING FROM THE ONE (1) AND TWO (2) YEAR 24-HOUL
PRECIPITATION EVENTS. THIS INCLUDES ALL TRIBUTARIES OF DESIGNATED TROUT STREAMS LOCATED WITHIN THE SAME PUBLIC
LAND SURFEY SYSTEM (PLSS) SECTION, PERMITTEES MUST INCORPORATE OR OR OR FORE OF THE FOLLOWING MEASURES, IN
ORDER OF PREFERENCE:

2. PROVIDE STORMWATER INFELTRATION OR OTHER VOLUME REDUCTION PRACTICES AS DESCRIBED IN THE 154 AND 15.5. TO

a. PROVIDE STORMWATER INFELTRATION OR OTHER VOLUME REDUCTION PRACTICES AS DESCRIBED IN ITEM 15.4 AND 15.5, TO REDUCE RUNOFF, INFELTRATION SYSTEMS MUST DISCHARGE ALL STORMWATER ROUTED TO THE SYSTEM WITHIN 24 HOURS. b. PROVIDE STORMWATER FILTRATION AS DESCRIBED IN SECTION 17, FILTRATION SYSTEMS MUST DISCHARGE ALL STORMWATER ROUTED TO THE SYSTEM WITHIN 24 HOURS.

c. MINIMIZE THE DISCHARGE FROM CONNECTED IMPERVIOUS SURFACED BY DISCHARGING TO VEGETATED AREAS, OR GRASS SWALES, AND THROUGH THE USE OF NON-STRUCTURAL CONTROLS.

d. IF POINDING IS USED, THE DESIGN MUST INCLUDE AN APPROPRIATE COMBINATION OF MEASURES SUCH AS SHADING, VEGETATED SWALE DISCHARGES OR CONSTRUCTED WETLAN HEATMENT CLIS THAT LIMIT TEMPERATURE INCREASES. T POIND MUST BE DESIGNED AS O RRY POIND AND SHOULD DRAW DOWN IN 24 PURPS OR LESS.

9. OTHER METHODS THAT MINIMIZE ANY INCREASE IN THE TEMPERATURE OF THE TROUT STREAM. [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 PERMIT WILL REMAIN IN EFFECT UNTIL THE MISCALISHES AN INDIVIDUAL PERMIT, MINN. R. 700.0210, SUBP. 6] 24.3 IF THE PERMITTEE CANNOT MEET THE TERMS AND CONDITIONS OF THIS GENERAL PERMIT, AN OWNER MAY REQUEST AN INDIVIDUAL PERMIT, IN ACCORDANCE WITH MINN, R, 7681,0216 SUBP, 6, (MINN, R, 7681,0216, SUBP, 6)

24.4 ANY INTERESTED PERSON MAY PETITION THE MPCA TO REQUIRE AN INDIVIDUAL NPDES/SDS PERMIT IN ACCORD/ WITH 40 CFR 122.28(B)(3), [40 CFR 122.29(B)(3)]

24.5 PERMITTESS MUST MAKE THE SWPPP, INCLUDING ALL INSPECTION REPORTS, MAINTENANCE RECORDS, TRAINING RECORDS AND OTHER INFORMATION REQUIRED BY THIS PERMIT, AVAILABLE TO FEDERAL, STATE, AND LOCAL OFFICIALS WITHIN THREE (3) DAYS UPON REQUEST FOR THE DURATION OF THE PERMIT AND FOR THREE (3) YEARS FOLLOWING THE NOT. (MINN. R, 7808).

[MINN, R. 7090]
24.5 PERMITTEES MAY NOT ASSIGN OR TRANSFER THIS PERMIT EXCEPT WHEN THE TRANSFER OCCURS IN ACCORDANCE WITH THE APPLICABLE REQUIREMENTS OF ITEM 3.7 AND 3.8 [MINN, R. 7090]
24.7 NOTHING IN THIS PERMIT MUST BE CONSTRUED TO RELIEVE THE PERMITTEES FROM CIVIL OR CRIMINAL PENALTIES FOR NONCOMPLIANCE WITH THE TERMS AND CONDITIONS PROVIDED HERRIN, NOTHING IN THIS PERMIT MUST BE CONSTRUED TO PRECLUDE THE INITIATION OF ANY LEGAL ACTION OR RELIEVE THE PERMITTEES FROM ANY RESPONSIBILITIES, LABILITIES, OR PENALTIES TO WHICH THE PERMITTEES IS AND A CRIMINER OF ANY DESIGNATION OF A CRIMINER OF ANY DESIGNATION OF A CRIMINER OF

INTERIOR 3.7 OF THE PERMITTERS THE SOMETHER THE ROLL AS RECOVERED WEST COMPARISON OF THIS PERMIT OR THE APPLICATION OF ANY PROVISION OF THIS PERMIT TO ANY CIRCUMSTANCES IS HELD INVALID, THE APPLICATION OF SUCH PROVISION TO OTHER CIRCUMSTANCES, AND THE REMAINDER OF THIS PERMIT THIS PROTECTION THOSE PROVISION TO OTHER CIRCUMSTANCES, AND THE REMAINDER OF THIS PERMIT MUST NOT BE AFFECTED THEREOF, MININ, R. 709.

24.9 THE PERMITTEES MUST COMPLY WITH THE PROVISIONS OF MINN. R 7001.0150, SUBP. 3 AND MINN. R. 7001.1090, SUBP. 1(A), 1(B), 1(I), 1(I), 1(I), 1(I), 1(I), 1(I), 1(II), 1(III), 1(II), 1(II), 1(II), 1(II), 1(II), 1(II), 1(II), 1(II), 1(III), 1(II), 1(II), 1(III), 1(IIII), 1(III), 1(IIII), 1(III), 1(I

(18), 1(0), 1(1), 1(0), 1(1), 1(K), NAD 1(L), IMININ, K. IZAU]
2.10 THE FERMITTEES MIST ALLOW ACCESS AS PROVIDED IN 40 CFR 122.41(1) AND MINN, STAT, SECT, 115.04. THE PERMITTEES
MUST ALLOW REPRESENTATIVES OF THE MPCA OR ANY MEMBER, EMPLOYEE OR AGENT THEREOF, WHEN AUTHORIZED BY IT,
UPON PRESENTATION OF CREDENTIALS, TO ENTER UPON ANY PROPERTY, PUBLIC OR PRIVATE FOR THE PURPOSE OF
OBTAINING INFORMATION OR EXAMINATION OF RECORDS OR CONDUCTING SURVEYS OR INVESTIGATIONS, (40 CFR 122.41(1))

24.11 FOR THE PURPOSES OF MINN. R. 7000 AND OTHER DOCUMENTS THAT REFRENCE SPECIFIC SECTIONS OF THIS PERMIT.
"STORMWATER DISCHARGE DESIGN REQUIREMENTS" CORRESPONDS TO SECTIONS 5, 6 AND 14 THROUGH 21; "CONSTRUCTION
ACTIVITY REQUIREMENTS" CORRESPONDS TO SECTIONS 7 THROUGH 13; AND "APPENDIX A" CORRESPONDS TO SECTIONS 22
AND 23, [MINN. R. 7000]

FLAMINGO TERRACE EXPANSION

PROJECT LOCATION ADDRESS: 17100 MN-65, HAM LAKE, MN

NARRATIVE - PERMANENT STORMWATER TREATMENT SYSTEMS

PERMANENT STORMWATER MANAGEMENT TREATMENT SYSTEMS PER MPCA RULES, CITY OF HAMLAKE, AND COON CREEK WATERSHED DISTRICT ARE REQUIRED FOR THIS PROJECT.

SITE IMPERVIOUS AREAS

	BEFORE CONSTRUCTION	AFTER CONSTRUCTION
TOTAL SITE AREA	4.34	ACRES
TOTAL ESTIMATED IMPERVIOUS	1.13 ACRES	1.89 ACRES
TOTAL ESTIMATED PERVIOUS	3.21 ACRES	2.45 ACRES

APPROX. D.76 ACRE INCREASE IN IMPERVIOUS

TOTAL DISTURBED AREA

SITE MAP W/ EXISTING AND FINAL GRADES AND DESIGN CALCULATIONS SEE "STORMWATER DRAIMAGE REPORT" FOR EXISTING AND PROPOSED AREA MAPS, DENOTING DRAIMAGE 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
COUNTY DITCH 58	DITCH	NO	NO
INFILTRATION BASIN	BASIN	NO	NO

YES NO NIA THE SURFACE WATER PRESERVED?

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

TEMPORARY SEDIMENTATION BASINS

YES NO NA

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 INC. NO. N/A THROUGH 16.21?

ADDITIONAL STORMWATER MITIGATION MEASURES

- ARE THERE ANY STORMWATER MITIGATION MEASURES PER:
 YES NO ENVIRONMENTAL PENERS PER:
 - - ARCHAEOLOGICAL REVIEW?

 - OTHER LOCAL, STATE OR FEDERAL REVIEW?

I VIENT LOCAL, STATE ON FEUERVA REVIEW,

IF YES TO ANY OF THE ABOVE, DESCRIBE THE MITIGATION MEASURES, FOR

PURPOSES OF THIS PERMIT, MITIGATION MEASURES MEANS ACTIONS

NECESSARY TO AVOID, MINIMEZ OR MITIGATE FOR IMPACTS RELATED TO

EROSION PREVENTION, SEDIMENT CONTROL, THE PERMANENT STORM/MATER

TREATMENT SYSTEM, POLLUTION PREVENTION MANAGEMENT MEASURES AND

DISCHARGES ASSOCIATED WITH THE PROJECTS CONSTRUCTION ACTIVITY.

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.
THE CITY OF HAM LAKE SHALL NOT BE RESPONSIBLE FOR LONG-TERM OPERATIONS AND
MAINTENANCE OF THE STORMWATER MANAGEMENT FACILITIES.

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	MNDOT MIX 21-111 (100 LBS/ACRE)
SOIL-BUILDING COVER	MNDOT MIX 21-113 (110 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)
FERTILIZER	3881
WOOD FIBER BLANKET	3885 (CATEGORY 0)

* 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	2,350	LINEAR FEET
RIP-RAP W. GEO-FABRIC	15	CUBIC YARDS
TURF REINFORCEMENT MAT (ENKAMAT)		SQUARE YARDS
SEED & MULCH (GENERAL)	2	ACRE
ROCK CONSTRUCTION ENTRANCE	1	EACH
SOD	-	SQUARE YARDS
EROSION CONTROL BLANKET	-	SQUARE YARDS
INLET PROTECTION	11	EACH

NARRATIVE - TIMING FOR INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURE

NARRATIVE - TIMING FOR INSTALLATION OF EROSION AND SEDIMENT CONTE

1. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN AND SWIPP

MUST BE AVAILABLE ON THE PROJECT SITE AT ALL TIMES

2. CONTRACTOR SHALL INSTALL SIT FERNCE AS SHOWN ON PLAN.

2.1. ADDITIONAL SILT FENCE MAY BE NECESSARY IF LOCAL CONDITIONS REQUIRE.

2.2. THE CONTRACTOR SHALL MAINTAIN SILT FERNCE, INCLUDING THE REMOVAL OF

ACCUMULATED SEDIMENT. THROUGH COMPLETION OF BUILDING CONSTRUCTION.

2. SILT FENCE SHALL REMAIN IN-PLACE UNITL SITE HAS BEEN STABILZED.

3. CONTRACTOR SHALL INSTALL THE ROCK CONSTRUCTION ENTRANCE WHEREVER
CONSTRUCTION TRAFTIC ENTERS ONTO EXISTING PAVED SURFACES.

4. CONTRACTOR SHALL DEFRORM SITE GRADING ON A PAREA BASIS TO

MINIMIZE UNSTABILIZED AREAS.

5.1. CONTRACTOR SHALL BEFRORM SITE GRADING ON A PAREA BASIS TO

MINIMIZE UNSTABILIZED AREAS.

5.1. CONTRACTOR SHALL SITE MEDIATELY INITIATE STABILIZATION OF EXPOSED SOIL

AREAS, AS DESCRIBED IN ITEM 8.4 OF THE PERMIT, AND COMPLETE THE

STABILIZATION WITHIN SEVEN (T) CALENDAR DAYS AFTER THE CONSTRUCTION

ACTIVITY IN THAT PORTION OF THE SITE TEMPORARILY OR PERMANENTLY

CEASES.

ACTIVITY IN THE CONTROL OF THE CONTRIBUTING DRAINAGE AREA HAS BEEN CONSTRUCTED AND FULLY

CONTRIBUTING DRAINAGE AREA HAS BEEN CONSTRUCTED AND FULLY STABLIZED.

7. 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.

ALL EROSION AND SEDIMENT CONTROL MEASURES SHOWN ON THE PLANS OR IMPLEMENTED IN THE FIELD SHALL BE IN ACCORDANCE WITH THE CITY AND RPDES

TRACTOR TO PROVIDE ADDITIONAL SILT FENCE, BIOROLLS, EROSION CONTROL KET, OR OTHER APPROVED EQUAL FOR ANY SLOPES THAT APPEAR TO BE

10. CONTRACTOR TO STABILIZE SOIL STOCKPILES; STABILIZATION SHALL BE INITIATED 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/FLOWED ONTO ADJACENT STREETS OR AS

COORDINATE SMALL UTILITIES INSTALLATIONS (GAS, PHONE, ELECTRIC, GAS, ETC.)
AFTER CURB & GUTTER INSTALLATION.

NO EPA-APPROVED IMPAIRMENTS WITHIN ONE MILE.

BEST MANAGEMENT PRACTICES (BMPS)" MEANS THE MOST EFFECTIVE AND PRACTICABLE TREST MANAGEMENT PRACTICES (BMPS) MEANS THE MOST EFFECTIVE AND PRACTICABLE MEANS OF EROSION PREVENTION AND SEDIMENT CONTROL, AND WATER OUALITY MANAGEMENT PRACTICES THAT ARE THE MOST EFFECTIVE AND PRACTICABLE MEANS OF TO CONTROL, PREVENT, AND MIMILIZE 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 DESCRIVATED FOR MINIMIZED THE DESCRIVATED AND MINIMIZED THE DESCRIVATED AND MINIMIZED AND MINIMIZED THE DESCRIVATED AND MINIMIZED THE DESCRIVATED AND MINIMIZED MINIMIZED AND MINIMIZED DESIGNATED AREA-WIDE PLANNING AGENCIES. [MINN. R. 7090]

DESIGNATED AREATMENT FEMALINE FUNDAMENTAL TO STATE OF THE PROPERTY 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 IS PART OF A LANGER COMMON PLAN OF DEVELOPMENT OR SALE IF THE LANGER COMMON PLAN WILL UITMATELY DISTURB EQUAL TO OR GREATER THAN ONE ACRE. THIS INCLIDES A DISTURBANCE TO THE LAND THAT RESULTS IN A CHANGE IN THE TOPOGRAPHY. EXISTING SOIL COVER, BOTH VEGETATIVE AND NON-VEGETATIVE, OR THE EXISTING SOIL TOPOGRAPHY THAT MAY RESULT IN ACCELERATED STORMWATER RUNOFF THAT IN LEAD TO SOIL. EROSION AND MOVEMENT OF SEGMENT. CONSTRUCTION ACTIVITY ODES 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, OF TOOL THE MINISTRANCE FERT PARKED TO MINISTRAIN THE VISIONING LINE AND OXIDE, HYDRAULIC CAPACITY, AND ORIGINAL PURPOSE OF THE FACILITY. ROUTHE 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 ANDIOR SOLIDIEY A CONSTRUCTION SITE TO BRASE CONSTRUCTION ACTIVITY. DEWATERING MAY REQUIRE A MINNESOTA DEPARTMENT OF NATURAL RESOURCES WATER APPROPRIATION PERMIT AND, IF DEWATERING WATER IS CONTAMINATE, DISCHARGE OF SUCH WATER MAY REQUIRE AN INDIVIDUAL MECA PROSESSOS FERMIT, IMINN, R. 70891

"EROSION PREVENTION" MEANS MEASURES EMPLOYED TO PREVENT EROSION SUCH AS SOIL STABILIZATION PRACTICES, PERMANENT COVER OR CONSTRUCTION PHASING, [MINN. R. 7890]

TERMENT CONTRACTOR' MEANS THE PARTY WHO SIGNS THE CONSTRUCTION CONTRACT WITH THE CWINER 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, IS SOME CASES, THE OWNER IS THE GENERAL CONTRACTOR. IN THESE CASES, THE OWNER IS THE PROPERTY 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, IMINN. R.

"HOMEOWNER FACT SHEET" MEANS AN MPCA FACT SHEET AVAILABLE ON THE MPCA CONSTRUCTION STORMWATER WEBSITE FOR PERMITTERS 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)

/1930)
"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-DISTRIBING ACTIVITIES TEMPORABLY OR PERMAMENTLY CEASE, IF THE PERMITTEES KNOW THAT CONSTRUCTION WORK ON THAT PORTION OF THE SITE WILL BE TEMPORARILY CEASED FOR 14 OR NOTE ADDITIONAL CALENDAR DAYS OR T CALENDAR DAYS OR TO CALENDAR DAYS OR TO CALENDAR DAYS WHERE ITEM 23.9 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

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. [MINN. R. 7090]

IMPERVIOUS SURFACE* MEANS A CONSTRUCTED HARD SURFACE THAT EITHER PREVENTS ON THE PRIVATE THE ENTRY OF WATER INTO THE SOIL AND CAUSES WATER TO RIN OF THE SURFACE IN GREATER QUARTITIES AND AT AN INCREASED RATE OF FLOW THAM PRIOR TO DEVELOPMENT. EXAMPLES INCLUDE ROOFTOPS, SIDEWALKS, DRIVEWAYS, PARKING LOTS, AND CONCRETE, ASPHALT, OR GRAVEL ROADS, SRIDGES OVER SURFACE WATERS ARE

AND CONCRETE, ASPHALT, OR GRAVEL ROADS, BRIDGES OVER SURFACE WATERS ARE CONSIGERED IMPERVIOUS SURFACES, MINN. R. 7890]
"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 AMENDEQ (33 U.S.C. 1251 ET SEQ. SECTION 1342 AND 49 OFF PARTS 122, 123, 124 AND 459), (MINN. R. 7999)

NATURAL BUFFER" MEANS AN AREA OF UNDISTURBED COVER SURROUNDING SURFACE WATERS WITHIN WHICH CONSTRUCTION ACTIVITIES ARE RESTRICTED, NATURAL BUFFER NGLUDES THE VEGETATION, EXPOSED ROCK, OR BARREN GROUND THAT EXISTS PRIOR O

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

RATOR' MEANS THE PERSON (USUALLY THE GENERAL CONTRACTOR), FIF RNMENTAL AGENCY, OR OTHER ENTITY DESIGNATED BY THE OWNER WH GOVERNMENTAL ASSENCY, ON OTHER ENTITY DESIGNATED STITLE OWNER WHO HAS DAY TO DAY OPERATIONAL CONTROL AND/OR THE ABILITY TO MODIFY PROJECT FLANS AND SPECIFICATIONS RELATED TO THE SWPPP. THE PERMIT APPLICATION MUST LIST THE OPERATOR AS A PERMITTEE. SUBCONTRACTORS HIRED BY AND UNDER SUPERVISION OF THE GENERAL CONTRACTOR ARE NOT OPERATORS. [MINN. R. 7090]

THE GENERAL COUNT AND THE PERSON, FIRM, GOVERNMENTAL AGENCY, OR OTHER ENTITY 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 CONTRACTING GOVERNMEN AGENCY RESPONSIBLE FOR THE CONSTRUCTION ACTIVITY, [MINN. R. 7080]

PERMANENT COVER* MEANS SURFACE TYPES THAT YILL PREVENT SOIL FAILURE UNDER EROSWE CONDITIONS. EXAMPLES INCLUDE: GRAVEL, CONCRETE, PERENNIAL COVER, OR OTHER LANDSCAPED MATERIAL THAT YILL PREMANENTLY ARREST SOIL EROSION. PERMITTEES MUST ESTABLISH A UNIFORM PERENNIAL VEGETATIVE COVER (I.E., EVENLY DISTRIBUTED, WITHOUT LARGE SORT OF THE MATIVE BACKGROUND VEGETATIVE COVER ON ALL ARREST SOIL COVERED BY PERMANENT STRUCTURES, OR EQUIVALENT 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 MYCA AND ARE RESPONSIBLE FOR COMPLIANCE WITH THE TERMS AND CONDITIONS OF THIS PERMIT, IMINN, R. 70901

TRIO FERMIT, (MINUS, N. 7090)

"FROJECTIS," MEANS ALL CONSTRUCTION ACTIVITY PLANNED ANDIOR CONDUCTED UNDER A PARTICULAR PERMIT, THE PROJECT OCCURS ON THE SITE OR SITES DESCRIBED IN THE PERMIT APPLICATION, THE SWYPP AND IN THE ASSOCIATED PLANS, SPECIFICATIONS AND CONTRACT DOCUMENTS, (MINUS, R. 7090)

"PUBLIC WATERS" MEANS ALL WATER BASINS AND WATERCOURSES DESCRIBED IN MINN. STAT. SECT. 103G.005 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)

DRAIN INLE! PROTECTION, (MINN. R. 7091)

**STABILEZ" - STABILEZ" - STABILEZATION MEANS THE EXPOSED GROUND SURFACE HAS BEEN COVERED BY APPROPRIATE MATERIALS SUCH AS MULCH, STAKED SOD, RIPRAP, EROSION CORTROL BLANKER, 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 TONIACRE), [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 FO "STORM WATER POLICIAL IN PREVENTION FOR SWYPP!" MEANS A PLAN FOR INSTORMWATER DISCHARGE THAT INCLIDES ALL REQUIRED CONTENT UNDER IN SECTION 5 THAT DESCRIBES THE EROSION FREVENTION, SEDIMENT CONTROL AND WASTE CONTROL BMPS AND PERMANENT STORMWATER TREATMENT SYSTEM, MINN. R. 7090]

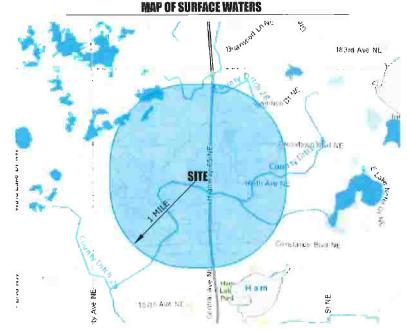
BWIPS AND PERMANDERS OF MARINE IT REAL INERTY STEEMS, LANCE, PONDS, MARSHES, SHUFFACE WATER OR WATER WATER OR WATERWAYS, RESERVAND, R

"WATERS OF THE STATE" (AS DEFINED IN MINN. STAT. SECT. 116.01, SUBP. 22) MEANS ALL STREAMS, LAKES, PONDS, MARSHES, WATERCOURSES, WATERWAYS, WELLS, SPRINGS RESERVOIRS, SOUTHERS, IRRIGATION SYSTEMS, DRAINAGE SYSTEMS AND ALL OTHER BODIES OF ACCUMULATIONS OF WATER, SURFACE OR UNDERGROUND, NATURAL OR MATIFICIAL, PUBLIC ARE CONTAINED WITHIN, FLOW THROUGH, OR BORDER UPON THE STATE OR ANY PORTION THEREOF, MINN. STAT. 115.01, SUBP. 221 "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. R. 7050.0188, SUBP. 1A.B.) MEANS THOSE AREAS THAT ARE MUNDATED OR SATURATED BY SURFACE WATER OR GROUNDWATER AT A REMUNDATED OR SATURATED BY SURFACE WATER OR GROUNDWATER AT A REGOURCY AND DURATION SUFFICIENT TO SUPPORT, AND MODER NORMAL CIRCUMSTANCES DO SUPPORT, A PREVALENCE OF VEGETATION TYPICALLY DADPTED FOR LEFT IN SATURATED SOIL CONDITIONS. WET LANDS GENERALLY INCLUDE SWAMPS, MARSHES, BOOS, AND SIMILAR AREAS, CONSTRUCTED WETLANDS DESIGNED FOR WAGTEWATER THE MEMORY ARE NOT WATERS OF THE STATE. WETLANDS AMOST HAVE THE

A PREDOMINANCE OF HYDRIC SOILS; AND
 NUNDATED 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

UNDER NORMAL CIRCUMSTANCES SUPPORT A PREVALENCE OF SUCH VEGETATION. [MINN. R. 7050.0186, SUBP. 1A.B]



STORM WATER POLLUTION PREVENTION PLAN 17100 MN-65

M.Q.A. ORIGINAL DATE AUGUST 13, 2020

DRAWN BY: M.Q.A.

CHCKD BY:

EXPANSION

REPARED FOR: SHERRY SAXON



ENGINEERING, INC.

LINO LAKES, MN 55014 PHONE: (651) 361-8210 FAX: (651) 361-8701

ADAM GINKEL
PLOWE ENGINEERING, INC.
6776 LAKE DRIVE
LINO LAKES MN 55014
(551) 361-8234
ADAM@plowe.com

DOCUMENTATION OF TRAINED INDIVIDUALS

University of Minnesota Adam Ginkel

Design of Construction SWPPP (May 31 2023)



ADDRESS 1 _______ ADDRESS 2 _____

G OR SUPERVISING THE INSTALLATION, MAINTENANCE AN REPAIR OF BMPS. [MINN. R. 7090]

ADDRESS 1



Division of Construction Codes and Licensing REPORT ON WATER/SEWER SERVICE CONNECTION PLANS

PROJECT: Flamingo Terrace Expansion, 17100 Highway 65 NE, Ham Lake, Anoka County, Minnesota, Plan

No. PB-R2212-0113

OWNERSHIP: Flamingo Terrace MHC LLC, 17100 Highway 65 NE, Andover, MN 55304 Plowe Engineering, 6776 Lakes Drive, Suite 110, Lino Lakes, MN 55014

Plans Dated: August 13, 2020 with revisions through November 18, 2022; signature date December 5, 2022

Initial Date Received: December 20, 2022 Last Date Received: December 20, 2022 Date Approved: February 24, 2023

This review is limited to the provisions of the Minnesota Plumbing Code, Minnesota Rules, Chapter 4714 and assumes the data on which the design is based are correct. Approval is contingent upon meeting the requirements listed below. A copy of the approved plans and this report must be retained at the project location.

INSPECTIONS: This project will be inspected by the local municipality. The contractor/installer must obtain all required inspection permits from the Ham Lake Building Official, Mark Jones. All plumbing installations must be tested and inspected in accordance with the requirements of the Minnesota Plumbing Code. No plumbing work may be covered prior to inspection.

REQUIREMENT(S):

- 1. All plumbing shall be installed in accordance with Chapter 4714. All pipe, fittings, materials, and devices shall be listed or labeled by a third-party listing agency and comply with the applicable standards referenced in the code (see Sections 301.2 and 1701.1).
- 2. All sanitary drainage piping within the property lines of the premises that is not located in a municipal utility easement where the city of Ham Lake owns and maintains the sewer mains is subject to the Minnesota Plumbing Code. No municipal utility easements appear to be shown on the drawings. Sheet C3 indicates the installation of new 8-inch sanitary sewer sewers sloped at 0.4% slope. This configuration will not meet the minimum slope requirements of Section 718.1 nor the minimum fixture unit loading requirements of Table 717.1. Eight-inch sanitary sewers are required to have a minimum slope of \(^{1}\)₁₆-inch per foot or 0.52% with a minimum loading of 1,500 drainage fixture units at that slope. Each mobile home is assigned 12 drainage fixture units (see Table 702.1). Loadings less than the required minimums for 8-inch sewers in Table 717.1 require approval by the Ham Lake Building Official prior to installation. The building official is not required to approve loadings below the minimums in Table 717.1.

Sheet C4 appears to indicate two new sewers each serving eight and six mobile home sites respectively. These sewers should be 4-inch or 6-inch maximum in size to minimize risk of solids deposition. Four-inch or 6-inch sewers require \(\frac{1}{8}\)-inch per foot minimum slope where site conditions preclude \(\frac{1}{4}\)-inch per foot (see Section 718.1).

3. Schedule 40 PVC sanitary or storm sewers must meet ASTM D1785, D2665, F891, or F1488 with approved fittings (see Table 701.2). Solvent welded joints must use ASTM F656 purple primer and ASTM D2564 cement. The sewer must be installed by open-trench on a continuous granular bed per Section 314.4.1. ASTM D2241 PVC is not an approved material for building sewers.

Flamingo Terrace Expansion Plumbing Plan No. PB-R2212-0113 Page 2 of 2 February 24, 2023

- 4. Sheet C4 indicates 2-inch PVC water distribution mains. Two-inch PVC pipe must meet ASTM D2241 or ASTM D1785 (see Table 604.1 and Section 605.12). An accessible blue 14 AWG minimum tracer wire suitable for direct bury must be used (see Section 604.10.1).
- 5. Polyethylene (PE) water services meeting ASTM D2737 must be installed per the manufacturer's instructions (see Table 604.1 and Section 605.6). Joints must be heat fused or use approved insert fittings with stainless steel clamps. An accessible blue 14 AWG minimum tracer wire suitable for direct bury must be provided (see Section 604.10.1).
- 6. Fittings connecting plastic pipe to other types of plastic water piping must use approved transition fittings designed for the specific transition (see Section 605.16.2). These fittings must be installed per the manufacturer's instructions.
- 7. Testing shall be in accordance with Sections 609.4 and 712.0.
- 8. The water distribution system shall be disinfected per Section 609.9.
- 9. The licensing authority may require additional plans, information, and fee. Changes to the plumbing system may result. Any significant plumbing changes must be approved by this office prior to installation.

NOTE(S):

- 1. The scope of this project consists of the addition of 16 new mobile home sites at an existing facility. The plumbing installation includes water and sewer service connections and mains to serve the new sites and a site storm drainage system.
- 2. This facility will be served by existing water supply wells and an individual sewage disposal system.
- 3. The plans do not indicate potable water or sanitary sewer service connections to the storm shelter.
- 4. All sanitary mains and storm sewers are indicated to be schedule 40 PVC.

Authorization may be withdrawn if installation does not begin within one year. Additional requirements may result from changed conditions or additional information.

Approved:

Bradley C. Erickson Public Health Engineer

Plumbing Plan Review and Inspections Unit

Bradley Citil

http://www.doli.state.mn.us/business/get-licenses-and-permits/plumbing-plan-review

bradley.erickson@state.mn.us

651/284-5880

cc: Mark Jones, Building Official Plowe Engineering Inc. Flamingo Terrace MHC LLC

File



Protecting, Maintaining and Improving the Health of All Minnesotans

Division of Environmental Health PLAN REVIEW APPROVAL

Plans and specifications on watermain: Flamingo Terrace Expansion, Ham Lake, Anoka County, Plan No. 210399, PWSID 1020002

OWNERSHIP:

Flamingo Terrace Mobile Home Park - Continental Community,

17100 Highway 65 Northeast, Ham Lake, Minnesota 55304

SUBMITTER(S):

Daniel Van Voorhis, 2015 Spring Road, Suite 600, Oak Brook, Ilinois 60523

Plowe Engineering, c/o Mr. Mohammed Abughazleh, 6776 Lake Drive, Suite 110,

Lino Lakes, Minnesota 55014

Date Received: March 10, 2021

Date Reviewed: March 19, 2021

APPROVAL: Based on the information provided to the Minnesota Department of Health (MDH) for review, this project is approved, contingent upon the project meeting all of the requirements listed below. Construction must be according to the plans and specifications provided to MDH.

LIMITED SCOPE: This review is limited to the project design's effect on the safety and sanitary quality of the drinking water and assumes the data on which the design is based are correct. Examination is based on MDH rules and applicable standards. This report applies to this project only, and not to any additional parts of the water system. The project designer is responsible for the project's features and equipment effectiveness.

ALTERATIONS: MDH must approve any changes that deviate from the approved plans before any changes are made. Otherwise, the construction will be considered installed without proper approval.

INSPECTIONS: It is the responsibility of the owner or owner's agent to contact MDH for any inspections that are listed in the requirements of this report. The project owner must retain the plans at the project location.

This project consists of the installation of approximately 1,050 lineal feet of 2-inch diameter C901 HPDE watermain for the addition of 21 new lots to the site. The new watermain will also create loops on existing dead ends to improve flow and water quality.

Requirement(s):

1. With the current amount of storage, there is sufficient system capacity to provide water to the additional lots.

Flamingo Terrace Expansion PWSID 1020002 Watermain Plan No. 210399 Page 2 March 19, 2021

- 2. It is recommended that the system consider adding an additional well for more firm capacity.
- 3. A minimum vertical separation of 18 inches is required at all watermain and sewer main (house, storm, sanitary and force) crossings. One full length of water pipe shall be centered at the point of crossing so both joints will be equidistant and as far from the sewer as possible.
- 4. All tees, bends and hydrants should be provided with reaction blocking, tie rods or joints designed to prevent movement.
- 5. The watermain should be pressure tested at 150 psi for at least two hours with not more than a 2 psi pressure drop during the last hour of the test.
- 6. Disinfection of the watermain shall be performed according to AWWA Standard C651. However, if the tablet or continuous feed methods are used, the completed watermain shall be disinfected with at least 50 ppm available chlorine rather than the 25 ppm dose specified in AWWA Standard C651.
- 7. When temporary watermains and water services are used, the following requirements must be met:
 - a. Piping used for temporary watermain shall meet the requirements of MDH. The temporary watermain shall be disinfected in accordance with AWWA Standard C651, with the exception that a minimum chlorine residual of 50 ppm shall be used. The watermain and service lines must be tested for bacteriological quality prior to use in accordance with AWWA Standard C651.
 - b. The temporary water service piping shall be approved by the local administrative authority. MDH requires that the temporary water service line meet the National Sanitation Foundation (NSF) Standard 61. Otherwise, the service line material must meet the requirements of the Plumbing Code, Minnesota Rules, chapter 4714, and must be approved by the manufacturer for above ground use. The temporary water service lines must be disinfected in accordance with either AWWA Standard C651 (with the exception listed above) or the Minnesota Plumbing Code, Minnesota Rules, part 4714.609.9. The watermain and service lines must be tested for bacteriological quality prior to use in accordance with AWWA Standard C651.

Note(s):

1. Plans and specifications must be submitted to the Department of Labor and Industry for review of the sewer piping and water service lines to the requirements of the Minnesota Plumbing Code.

Flamingo Terrace Expansion PWSID 1020002 Watermain Plan No. 210399 Page 3 March 19, 2021

- 2. It is understood that the system is exploring options to replace their storage tank. It is recommended that any public water supply with more than 150 living units provide elevated storage instead of hydropneumatic tanks.
- 3. With the current wells, any tank replacement should provide at least 650 gallons of actual storage unless other calculations are provided to justify a different size of available water storage.

The approval is valid for two years from the date of this letter. If project construction has not begun within the two-year period, plans and specifications must be resubmitted to MDH for approval before any construction takes place. While the project has been contingently approved, changed conditions or additional information may result in additional requirements.

If you have any questions regarding information contained in this report, please contact me at 651-201-4684 or david.weum@state.mn.us.

Approved:

David Weum, P.E.

Public Health Engineer
Section of Drinking Water Protection

P.O. Box 64975

St. Paul, Minnesota 55164-0975

DW:bcl

cc: Daniel Van Voorhis

Mr. Mohammed Abughazleh, Plowe Engineering



Permit for the Construction and Operation of a Disposal System

Sanitary Sewer Collection System	Flamingo Terrace Collection System (Al#245588)
Wastewater treatment plant	Flamingo Terrace Mobile Home Park
Project title	Flamingo Terrace Expansion
Project proposer	Flamingo Terrace Expansion MHC, LLC
Design engineer	Plowe Engineering, Inc.
Sanitary Sewer Extension Permit number	81779
Issuance date	March 24, 2021

The state of Minnesota, on behalf of its citizens through the Minnesota Pollution Control Agency (MPCA), authorizes the Permittee to construct and operate a sanitary sewer disposal system at the facilities named above in accordance with the requirements of this permit.

The goal of this permit is to protect water quality in accordance with the U.S. Clean Water Act, Minnesota statues and rules, and federal laws and regulations.

This permit is effective on the issuance date identified above.

Questions on this permit? For questions specific to this project contact the MPCA compliance staff assigned to the wastewater treatment facility. Facility specific staff assignments can be found at http://www.pca.state.mn.us/index.php/view-document.html?gid=19145.

Project description

	Number of		Design flow per unit	Total flow
Project component	components	Unit type	(gallons per day)	(gallons per day)
Homes	21	homes	200	4,200

Special conditions

None

General conditions

The following General Conditions are applicable for all projects that require a Sanitary Sewer Extension Permit issued by the Minnesota Pollution Control Agency (MPCA). These General Conditions, as well as any Special Conditions listed above, must be followed.

1. This permit authorizes the Permittee to perform the activities described herein under the conditions set forth. In issuing this permit, the State/MPCA assumes no responsibility for any damage to permits, property or the environment caused by the activities of the Permittee in the conduct of its actions, including those activities authorized, directed or undertaken pursuant to this permit. To the extent the State/MPCA may have any liability

for the activities of its employees that liability is explicitly limited to that provided in the Torts Claims Act, Minn. Stat. § 3.736.

- 2. In addition to this permit, the Permittee may be required to obtain a National Pollutant Discharge Elimination System (NPDES) Permit to discharge stormwater associated with construction activity. Construction activity includes clearing, grading, and excavation. Additional information can be found at http://www.pca.state.mn.us/water/stormwater-c.html.
- 3. If an effluent will result from the project, the Contractor shall submit to the MPCA plans, for approval, to provide for the following:
 - a. Water from dewatering operations including effluents from construction activities shall only be discharged when the effluent complies with the applicable water quality and effluent standards. Dewatering shall be performed using well points when feasible and practical. All other dewatering shall be performed so as not to result in increased turbidity in the receiving water. This may require the use of desilting ponds to reduce suspended solids. When the MPCA requires, permits must be obtained.
 - b. A Disposal System Permit shall be obtained by the Contractor from the MPCA prior to any hydraulic dredging, tunneling, or other activity including an effluent which may contain potential pollutants.
- 4. This permit shall not release the Permittee from any liability or obligation imposed by Minnesota or Federal statutes or local ordinances and shall remain in force subject to all conditions and limitations now or hereafter imposed by law. The permit shall be permissive only and shall not be construed as stopping or limiting any claims against the Permittee for damage or injury to persons or property, or any waters of the State resulting from any acts, operations or omissions of the Permittee, its agents, contractors or assigns for damages to State property, or for any violation of the terms or conditions of this permit.
- 5. No major alterations or additions to the disposal system shall be made without the written consent of the MPCA.
- 6. The use of the disposal system shall be limited to the treatment and/or disposal of the sewage, industrial waste, other wastes or substances described in the plans and/or permit application and associated material filed with the MPCA. The MPCA may modify, suspend, or revoke in whole or in part, this permit by taking direct enforcement action, for any just cause including failure: (a) to comply with the terms stated herein; or (b) to comply with MPCA water quality regulations and standards presently in force. Nothing herein shall prohibit the MPCA from exercising its emergency powers.
- 7. The Permittee acknowledges that nothing contained herein shall prevent the future adoption by the MPCA or its predecessors of any pollution control regulations, standards, orders or statutes more stringent than those now in existence or prevent the enforcement and application of such regulations, standards, orders or statutes to the Permittee.
- 8. The MPCA, its officers, employees and agency review and comment upon engineering reports and construction plans and specifications solely for the limited purpose of determining whether such report, plans and specifications will enable the facilities to reasonably comply with the regulations and criteria of the MPCA.
- 9. This permit has not been reviewed by the U.S. Environmental Protection Agency and is not issued pursuant to Section 402 of the Federal Water Pollution Control Act Amendments of 1972.
- 10. The review of plans and specifications and permit applications is made in accordance with Minn. Stat. § 115.07. Approval of plans and permits is based upon the assumption that the information provided by the applicant is correct and that all necessary legal requirements have been or will be satisfied.
 - Permit applications are examined with regard to the design features that apply to the operation and maintenance of, the degree of treatment to be provided, the effectiveness and reliability of the system, and compliance of the existing treatment and disposal system. The basis for design review is the most current editions of the following:
 - Recommended Standards for Wastewater Facilities, Great Lakes-Upper Mississippi River Board of State and Provincial Public Health and Environmental Managers.

- Standard Utility Specifications, City Engineers Association of Minnesota.
- Standard Specifications for Construction, Minnesota Department of Transportation.
- Other accepted engineering references for sewer design and construction.
- 11. Permit applications are recommended for approval on the basis that the system is to collect only domestic sewage and such industrial or other waste as may have been provided for in the design. Sump pumps, foundation drains, or footing drains to collect groundwater and roof drains or other surface water conduits should not be connected to the sanitary sewer system.
- 12. Adequate field supervision and inspection by a qualified representative of the owner should be provided at all times during construction to assure that the project is constructed in compliance with the approved plans and specifications.
- 13. The MPCA assumes no responsibility for the integrity of structures or physical features, or for the reliability, durability or efficiency of specific items of propriety equipment or material. All applicable federal, state and local laws, regulations or ordinances must be followed in the design, location and construction of proposed sewer systems or treatment works. The MPCA reserves the right to withdraw its approval of this permit if construction is not undertaken within a reasonable period after issuance.
- 14. The Permittee shall comply with all rules, regulations, and requirements of the Minnesota Environmental Quality Board prior to construction of the proposed project. This permit is not effective until the Permittee completes all applicable environmental review (Environmental Assessment Worksheet or Environmental Impact Statement) which may be required for the project.

a) Permitted Uses

- Single Family Dwellings, except Manufacture Mobile Homes
- Structures ancillary to the dwelling including Non-Commercial
 - Radio Towers less than forty-five feet (45') in height.
- Public Parks
- Schools
- Full-size (9 hole +) golf courses
- Publicly Owned Buildings
- Underground Utilities
- Above Ground Transmission Lines and poles existing prior to the Enactment Date
- Private Dog Kennels meeting requirements of Article 5-150
- Home Occupations under Article 9-350
- Accessory Buildings under Article 9-370
- Licensed Day Care Facilities in Dwellings Occupied as Residences
- Beauty Shops having no employees and one station, and possessing Home Occupation Permits issued under 9-350
- Dog grooming businesses having no employees, and possessing Home Occupation Permits issued under Article 9-350

b) Conditional Uses

- Public Utility Structures
- Firewood Sales
- Boarding Houses or Duplexes capable of meeting the provisions of Article 10-300 (Livability) as to each housekeeping unit

c) Temporary Conditional Uses

- Therapeutic Massage Facilities
- Raising Chickens
- Raising of Pigeons under Article 9-330.9

9-210.2 Residential – Manufactured Mobile Home (R-M) R-M districts are intended for privately owned residential communities consisting of manufactured mobile homes, each of which is intended for occupancy by a single housekeeping unit, which communities are commonly known as "mobile home parks".

a) Required Features

- Streets Paved and curbed according to same standards as R-1 subdivisions
- Central Water System (No individual private Wells)
- o Central Sewer System, Privately owned and maintained
- Density of not less than one-half acre per dwelling unit
- Minimum size of Manufactured Home to be 600 square feet
- Structure Setbacks according to same standards as R-1 Subdivisions
- Private Park on suitable soils, of a size equal to at least 10% of total development area
 - o Paved Driveways to all dwelling units
 - Concrete sidewalk along all curbs, to City specifications
 - Landscaping acceptable to City
 - o Full impoundment of stormwater runoff
- Concrete Block Storm Shelter to State Specifications
 - No on-street parking
 - o Underground utilities
 - Provision of Screened and fenced Tenant outside storage area of a size equal to or greater than 150 square feet per dwelling unit

o b) Permitted Uses

- Maintenance Buildings (to be used for mobile home park equipment)
- Manufactured Homes
- Underground Utilities
- A single office structure for park management, of not more than 1500 square feet
- Storm Shelter
- o Park
- Outside Tenant Storage Area

c) Conditional Uses and Temporary Conditional Uses

- None
- **9-210.3** Rural Single Family Residential (R-A) R-A districts are intended for residential dwellings occupied by a single housekeeping unit, located in unplatted areas.
 - **9-210.31 Permitted Uses:** The following shall be permitted uses in the R-A Districts:



NOTICE OF PERMIT APPLICATION STATUS

Project:

Flamingo Terrace Expansion

Date:

January 9, 2023

Applicant:

Sherry Saxon

2015 Spring Rd Suite 600 Oak Brook, IL 60523

Permit Application#:

20-172

Purpose:

Expansion of mobile home park with 21 new mobile homes

and adding an infiltration basin

Location:

17100 Highway 65, Ham Lake

At their meeting on April 12, 2021 the Board of Managers of the Coon Creek Watershed District **conditionally approved** the above referenced project with 3 conditions and 2 stipulations. **This is NOT a permit.**

Since your last submittal on 12/29/2022, the following 1 condition remains which must be addressed before permit issuance (please see note below on how to address conditions).

1. Receipt of escrows.

Please note that there are also 2 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 20-172

Eileen, Weigel

Danielle Tourtillott, Stantec Tom Collins, City of Ham Lake

Note: Please respond to each of these items in writing when resubmitting the revised plans to the District. Resubmittals can be sent via email to permitsubmittals@cooncreekwd.org. **Please submit written responses below the**

original typed comments, using extra sheets as necessary, addressing comments from the District. If you have any questions, feel free to contact Erin Edison at (763) 755-0975. Pursuant to Coon Creek rule 7.3 deficiencies must be addressed and resubmitted within 60 days. Failure to so shall be deemed a withdrawal of the permit application.





To:

Erin Edison, Tim Kelly

From:

Brady Schmitz, Stantec Consulting Services

Inc.

Coon Creek Watershed

District

Copy:

Eileen Weigel, P.E., Stantec Consulting

Services Inc.

PAN: 20-172

Date:

January 6, 2022

Reference: Flamingo Terrace Update

Exhibits:

1. Construction Plans (10 sheets); by Plowe, dated 12/29/2022, received 12/29/2022.

In Response to the Coon Creek Watershed District "Notice of Permit Application Status" dated December 9, 2022:

1. Receipt of escrows. NO

Findings: Updated plans were received which included changes from the approved plans per city comments. Changes identified from the approved plans include:

Minor changes to grading around FES A

Minor changes to storm sewer

Extension of rip rap at pipe outlets

These changes have been reviewed and all requirements are still met.

Recommendation: Approval with 1 Condition and 2 Stipulations:

Conditions:

1. Receipt of escrows.

Stipulations:

1. Submittal of as-builts for the following stormwater management practices, including volumes and critical elevations:

Stormwater Treatment Practices	Number
Infiltration basins	1
Sediment Forebay	2
Outlet Control Structure	1

2. Completion of a post construction infiltration test on the infiltration basin by filling the basin to a minimum depth of 6 inches with water and monitoring the time necessary to drain, or multiple double ring infiltration tests to ASTM standards. The Coon Creek Watershed District shall be notified prior to the test to witness the results.



Document Management System #	
District M2 Permit #	D-21-93763
C.S. 0208	т.н. 65
R.P.	

		_{C.S.} 0208	тн 65		
MINNESOTA DEPARTMENT OF TRANSPORTATION		C.S	T.H		
DRAINAGE PERMIT APPLICATION		R.P.	TOWNED AND DOMORPHICAL STATE OF THE STATE OF		
The second secon			(THIS SECTION FOR MnDOT OFFICE USE ONLY.)		
	HNICAL SUBMITTALS (S. ICT OFFICE OF MINNES		COMPLETED FORM AND TRANSPORTATION		
APPLICANT	TELEPHONE	ADDRESS (Street, C	ADDRESS (Street, City, State, Zip)		
PLOWE ENGINEERING, INC.	651 361 8233	6776 LAKE DR NE			
DE OPENER OF STREET	THE THE PARTY		LINO LAKES MN 55014		
PROPERTY OWNER CONTINENTAL PROPERTIES MHC, LL	TELEPHONE 6306458116	2015 Spring Road,	ADDRESS (Street, City, State, Zip) 2015 Spring Road, Suite 600 Oak Brook, IL 60523		
PARTY PERFORMING WORK to be determined	TELEPHONE 6306458116		ADDRESS (Street, City, State, Zip) 2015 Spring Road Suite 600 Oak Brook IL 60523		
LOCATION OF PROPOSED WORK (City/Township)		(N-S-E-W)			
Highway 65 in Ham Lake	Anoka	0 Miles of			
TYPE OF DRAINAGE (check all that apply)	IF YES, WHICH ONE?				
Change-RW AREA TO BE DRAINED	PIPE SIZE AND TYPE		CASING SIZE AND TYPE		
3.04 AC	12" DIA				
LEGAL DESCRIPTION OF PROPERTY (Attach extra	pages as needed)				
PART OF NW 1/4 SEC 8 T 32	pages as access,				
PERMITS FROM OTHER AFFECTED REGULATO	DRY AGENCIES THAT THE	APPLICANT WAS REQUI	RED TO OBTAIN		
Coon Creek Watershed permit pending					
WORK TO START ON OR AFTER 4/1/2021	124	WORK TO BE COMPLE	CTED BY 9/1/2021		
COMMENTS					
Proposed storm water pond will collect runoff to allow a	controlled discharge rate to MN	DOT ROW not to exceed exis	ting rates.		
APPI	ICANT'S ACCEPTANCE, W	ATVER AND INDEMNIEC	ATION		
			tions of this permit to the satisfaction of the Minnesota		
			polication will be started until the application has been		
The applicant is aware of circumstances, dangers or h and the applicant assumes the risk of such circumstan			f way that could result in injury, loss, damage or death, or not.		
The applicant also understands that this permit may	also he subject to the approve	l of local road authorities he	iving joint supervision over said street or highway, and		
			Board and/or any other affected governmental agencies.		
The undersigned applicant expressly agrees that expense	nt for negligent gets of the Stat	to its agents and employees	the applicant or his/hor agents or contractor shall		
The undersigned applicant expressly agrees that except for negligent acts of the State, its agents and employees, the applicant or his/her agents or contractor shall assume all liability for, and save the State, its agents and employees, harmless from any and all claims for damages, actions or causes of action arising out of the work					
to be done in connection with this application and permit.					
NAME AND TITLE		EMAIL ADDRESS			
CHUCK PLOWE		CHUCK@PLOWE.COM			
ENGINEERING DEPT SUPERVISOR		<u> </u>			
		SIGNATURE			
	DO NOT WRITE BI	ELOW THIS POINT			
In consideration of the applicant's agreement to comp to this permit, permission is hereby granted for the w following special provisions:		licable laws and the conditio			
	ED STANDARD COND	ITIONS AND SPECIA	L PROVISIONS		
PERMIT NOT VALID U	NLESS BEARING AUTHOR	IZED Madot SIGNATUR	E AND PERMIT NUMBER		
8/1/23 APPROVED By E. Buck Craig at 4:30 pm, Jul 01, 2021					
DATE ALL WORK TO BE COMPLETED BY	AUTHORIZED Mn	DOT SIGNATURE	DATE OF AUTHORIZED SIGNATURE		

Roadway Regulations Supervisor	Deposit to be returned upon satisfactory completion of all work	Bond #
DATE WORK COMPLETED	(The date when the work is completed must be reported to the MnDOT District Permits Office)	

THIS PERMIT IS SUBJECT TO THE FOLLOWING CONDITIONS:

The installation authorized in this permit will be inspected by Phil Flater, 651-234-7910, MN/DOT Roadway Regulation Inspector. The applicant or its contractor will notify MN/DOT's inspector at least three days prior to starting the installation. Any questions the applicant may have pertaining to MN/DOT's storm water facilities shall be presented at this time. MN/DOT's inspector will approve all highway materials prior to placement, and the total installation must meet with his/her satisfaction.

Attached is a drainage map that satisfies the requirements for MN/DOT storm water utility locates per Minnesota Statutes 216D and Minnesota Rules 7560.0250. By acceptance of a permit from MN/DOT, the applicant agrees that it, and all of its agents or contractors, shall use MN/DOT's drainage map to identify the location of MN/DOT drainage facilities as satisfaction of the requirements of Minnesota Statutes Ch. 216D and Minnesota Rules 7650.0250 with respect to MN/DOT's storm water drainage facilities.

This permit authorizes the applicant to change the drainage in TH65 R/W in the city of Ham Lake as shown on applicant's revised plan sheet(s).

Any lane closures shall be approved by this office at 651-234-7910, 3 days prior to the lane closure. The hours of the lane closure shall be determined by this office.

The applicant shall provide in-house inspection at all times while working on trunk highway right of way.

The applicant shall furnish, install and maintain all required traffic control devices according to the Minnesota Field Manual on Temporary Traffic Control Zone Layouts (see web page @ www.dot.state.mn.us/trafficeng/), while performing the construction authorized by this permit. <u>Due to the Twin City rush hour restrictions, no work involving interference with or causing a distraction to traffic will be allowed from 6:00 AM to 9:00 AM, or from 3:00 PM to 6:00 PM. unless authorized by the MN/DOT Permit Office at 651-234-7919.</u>

If the temporary traffic control zone is to remain in one place for more than 3 days or involves a detour, road closure or a situation where the typical layouts do not apply, the applicant shall prepare a specific Traffic Control Plan for approval by Mn/DOT prior to start of any construction.

Temporary lane restrictions will be permitted as detailed at the following link: http://www.dot.state.mn.us/metro/trafficeng/laneclosure/index.html

All persons while performing authorized work on Mn/DOT Right of Way shall be required to wear a Mn/DOT approved <u>High Visibility Safety Vest</u> and <u>Soft Cap/Hard Hat.</u> Any authorized night work requires all personnel to wear a Mn/DOT approved full night safety suit (pants and jacket).