Permit Application No.: <u>16-428</u> Rules: <u>Erosion Control & Stormwater Management</u>

Applicant: Dan Anderson Received:8/04/2016
Project: Serenity Hill on Halsted Bay Complete: 11/21/2016

Location: 6750 and 6710 Halstead Ave; 6701 and 6639 Bartlett Blvd; unassigned parcel

Noticed: 9/13/2016

#### **Recommendation:**

Approval of MCWD permit application on the following conditions:

- 1. Individual parcels must be combined under common ownership;
- 2. Submission of financial assurance for Erosion Control (\$6,000) and Stormwater Management (\$7,400);
- Submission of a draft declaration for maintenance of stormwater facilities for MCWD approval, then recordation; and
- 4. Reimbursement of fees.

#### Background

Dan Anderson, with the consent of current property owners Scott Berg, Mike Pint, and KD Reinhart, has applied for a Minnehaha Creek Watershed District (MCWD) permit for Erosion Control and Stormwater Management for the construction of a senior living development consisting of six multi-family residential buildings, a beach house, associated amenities, reconstruction of Halstead Avenue, and stormwater management infrastructure. Mr. Anderson proposes to acquire the properties located at 6750 Halstead Ave, 6710 Halstead Ave, unassigned parcel (Property ID 2211724430004), and 6701 Bartlett Blvd in the City of Minnetrista and 6639 Bartlett Blvd in the City of Mound and combine them under common ownership for the construction of the proposed development.

The site currently contains some small buildings, an old mobile home park, and a rural section, paved roadway. The project proposes a 3.89-acre increase of impervious cover over the 11.87-acre site. The site does not contain any wetlands. The site ultimately drains to Halsted Bay of Lake Minnetonka.

The applicant has submitted all exhibits, plans, and materials necessary to analyze compliance with MCWD rules. No variances from MCWD rule provisions are needed for approval of the permit. This permit is before the Board of Managers for determination at the request of members of the public.

## **District Rule Summary**

#### **Erosion Control**

The District exercises regulatory authority for erosion control in the Cities of Mound and Minnetrista. The Erosion Control rule is applicable for any project exceeding 5,000 square feet of land disturbance or 50 cubic yards of excavation. The proposed project involves approximately 11.25 acres of land disturbance, therefore the Erosion Control rule is triggered.

Erosion control best management practices including a rock construction entrance, silt fence, inlet protection, and tree protection are provided as necessary. A vegetative stabilization plan including the incorporation of six-inches of topsoil into underlying soils prior to final stabilization has also been provided. Concrete washout will be offsite. The NPDES permit will be obtained by the contractor prior to receipt of the MCWD permit.

Erosion control practices meet District requirements.

### Stormwater Management

The District exercises regulatory authority for Stormwater Management in the Cities of Mound and Minnetrista. The Stormwater Management rule is applicable anytime there is new impervious surface or replacement of existing impervious surface. This project proposes a 3.89-acre increase of impervious surface, therefore the rule is triggered.

For sites undergoing redevelopment that are greater than one acre with greater than 40% site disturbance, volume control, rate control, and phosphorus control requirements apply to all impervious surfaces.

Size of Site (ac)	Site Drains To	Existing Impervious (ac)	Proposed Impervious (ac)
11.87 acres (11.25 ac. Disturbed)	Lake Minnetonka (Halsted Bay)	1.11	4.00

To meet the District's volume control rule, the applicant must provide 14,250 cubic-feet of abstraction. To achieve this, the applicant proposes to construct two infiltration basins (Infiltration Basins A and B). Infiltration rates of 0.8 inches per hour and 0.6 inches per hour were used for Basin A and Basin B, respectively, based on soil borings provided by the applicant showing Type A soils for Basin A and Type B soils for Basin B. The applicant's infiltration modeling is consistent with infiltration rates provided by MPCA guidelines for these types of soils. The infiltration basins are designed to provide 16,171 cubic-feet of abstraction, which is greater than the 14,250 cubic-feet of abstraction that is required. The infiltration basins are designed to drawdown within 48-hours. The infiltration basins satisfy the volume requirement. The phosphorus requirement is met by meeting the volume requirement.

The rate control requirement mandates that there can be no-net increase in the peak runoff rate for the 1-, 10-, and 100-year storm events at the downgradient property boundary. Under existing conditions, the majority of runoff leaves the site via a culvert under Halstead Avenue. The culvert connects to Halsted Bay via a dry creek bed. A portion of runoff also leaves the site as overland flow to the south toward Halsted Bay and to the west toward Cardinal Cove Road where it then flows via a ditch to Halsted Bay. Under proposed conditions, the majority of runoff would be directed to the two infiltration basins. Infiltration Basin A overflows to Infiltration Basin B; Infiltration Basin B overflows to the existing culvert under Halstead Avenue. The remaining runoff would continue to leave the site from the south and west via overland flow. Halstead Avenue is proposed to be reconstructed from a rural road that drains southward to Halsted Bay via overland flow under existing conditions to have a 2% cross slope with curb and gutter on the north side under proposed conditions. Runoff from the north side of Halstead Avenue would enter the storm sewer system and leave the site via the culvert under Halstead Avenue; runoff from the south side of Halstead Avenue would continue to drain south to Halsted Bay via overland flow.

Rate calculations also included runoff entering the site from a 17.13-acre offsite, upstream area that drains to the project site via overland flow and a culvert under Bartlett Boulevard. The practices described above result in decreased peak runoff rates to the ultimate discharge point (Halsted Bay). There is a decrease to all drainage areas, except for a negligible increase to the west during the 100-year storm event. This increase is within modeling tolerance. Therefore, the District's rate control requirements are met:

Drainage Area	1-yr Rates (cfs)		10-yr Rates (cfs)		100-yr Rates (cfs)	
	Exist.	Prop.	Exist.	Prop.	Exist.	Prop.
Area 1 (west)	0.03	0.02	0.54	0.51	2.13	2.26
Area 2 (culvert)	3.76	1.35	16.30	16.22	53.31	41.92
Area 3 (south)	0.43	0.30	2.07	1.23	5.86	3.26
Total to Halsted Bay	4.22	1.67	18.91	18.91	61.30	47.44

This project does not propose any new point sources discharging into Halsted Bay that would require pretreatment under subsection 8(a) of the rule. Stormwater entering Halsted Bay leaves the site at decreased rates at minimal volume so there are no bounce or inundation impacts requiring analysis under subsection 8(b) of the rule. There is at least two vertical feet of separation between the proposed low opening of all structures and all 100-year high water elevations of the infiltration basins and Halsted Bay in accordance with subsection 3(e) of the rule.

Stormwater management practices meets the District's requirements.

#### Summary:

Dan Anderson, with the consent of current property owners, is proposing a senior living development consisting of six multi-family residential buildings, a beach house, associated amenities, reconstruction of Halstead Avenue, and stormwater management infrastructure that will trigger the District's Erosion Control and Stormwater Management rules. The project as proposed meets the applicable requirements under each of these District rules. Staff recommends approval of the MCWD permit application with the conditions provided above.

- Attachments:
  1. Permit Application
  2. Site Location
  3. Site Plan
  4. Existing Drainage Areas
  5. Proposed Drainage Areas

Rachel Workin Date: 12-5-2016

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Sherogexcipio. NET / Michiel J Find 612-308-5895 / 6/2-751	164	-2
WATER RESOURC Use this form to notify/apply to the Minnehaha Creek Wate their jurisdiction. Fill out this form complete 15320 Minnetor	CE PERMIT APPLICATION FORM  tershed District (MCWD) of a proposed project or work which may fall within tely and submit with your site plan, maps, etc. to the MCWD at: onka Blvd. Minnetonka, MN 55345.	
YOU MUST OBTAIN ALL REQUIRED  1. Name of each property owner: Mike Pint # 1 Sco	p a copy for your records.  D AUTHORIZATIONS BEFORE BEGINNING WORK.  Lott Berg # 2 / KD Reinhart # 3	
Mailing Address: SEE BELOW Email Address:	City: State: Zip: Fax:	-
	ot required) (licensed contractor, architect, engineer, etc. )	TO THE PARTY OF TH
Business Address: 3540 Montgomerie Ave Email Address: dabiel@thecnetreegroup.com	Danahara	**************************************
3. Project Address: 6750 Halstead Avenue State: MN Zip: 55364 Qtr Section(s): SE Lot: Block: Subdivision:	City: Minnetrista  Section(s): 22 Township(s): 117 Range(s): 24	
4. Size of project parcel (square feet or acres): 11.8 Area of disturbance (square feet): 490,050 sf	.87 ac  Volume of excavation/fill (cubic yards):90,000 cy  Area of proposed impervious surface: 3.75 ac	
5. Type of permit being applied for (Check all that  ☐ EROSION CONTROL  ☐ FLOODPLAIN ALTERATION  ☐ WETLAND PROTECTION  ☐ DREDGING  ☐ SHORELINE/STREAMBANK STABILIZATION  6. Project purpose (Check all that apply):	<ul> <li>□ WATERBODY CROSSINGS/STRUCTURES</li> <li>□ STORMWATER MANAGEMENT</li> <li>□ APPROPRIATIONS</li> <li>□ ILLICIT DISCHARGE</li> </ul>	
☐ SINGLE FAMILY HOME ☐ ROAD CONSTRUCTION ☐ UTILITIES ☐ DREDGING ☐ SHORELINE/STREAMBANK STABILIZATION  7. NPDES/SDS General Stormwater Permit Number		
8. Waterbody receiving runoff from site:Halstead E	Bay of Lake Minnetonke	1
9. Project Timeline: Start Date: August 2016  Permits have been applied for: City ☐ County  Permits have been received: City ☐ County	Completion Date:August 2017  MN Pollution Control Agency DNR COE  MN Pollution Control Agency DNR COE	The second control of
By signing below, I hereby request a permit to authorize to Rules and that the proposed activity will be conducted in contained in this application and, to the best of my knowledge.	the activities described herein. I certify that I am familiar with MCWD a compliance with these Rules. I am familiar with the information dedge and belief, all information is true, complete and accurate. I diauthorizations are obtained may be subject to federal, state and/or local	25/2
MKE PINT = DIO HILLS BORD RIA		
TIKE PINT = 5010 HILLS BORD AND NORTH OCOT BERG = 15250 LAWN DALE LAWE X	-55428-612-751-2277 = NOW HOLD MAJO16 NORTH - DAYTON MW - 612-308-5895 MORAD MY. 55364-612-308-5895	326
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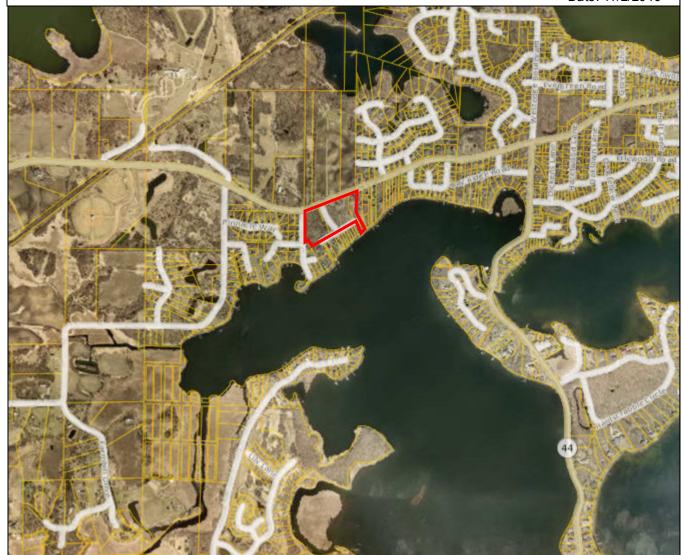
DENELAPR - DANANJORSEN



# Hennepin County Natural Resources Map

# <u>Legend</u>

Date: 11/2/2016



No results

Comments:

1 inch = 1,600 feet



This data (i) is furnished 'AS IS' with no representation as to completeness or accuracy; (ii) is furnished with no warranty of any kind; and (iii) is not suitable for legal, engineering or surveying purposes. Hennepin County shall not be liable for any damage, injury or loss resulting from this data.

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# **IMPERVIOUS SURFACE AREAS**

	PARCEL	BUILDING	PAVEMENT	TOTAL	PERCENT	
	B1, L1	37,278 SF	5,781 SF	43,059 SF	23.9%	
/	B2, L1	56,147 SF	8,288 SF	64,435 SF	39.3%	
1 1 1	B2, L2	17,880 SF	0 SF	17,880 SF	28.4%	
	ROAD	N/A	39,874 SF	39,874 SF	45.7%	

# www.stark

# PERVIOUS SURFACE AREAS

PARCEL	PARCEL PAVERS		SIDEWALK TRAIL		TOTAL	
B1, L1	10,456 SF	2,163 SF	2,471 SF	122,049 SF	137,139 SF	
B2, L1	19,498 SF	4,058 SF	5,784 SF	69,992 SF	99,332 SF	
B2, L2	3,361 SF	1,166 SF	1,943 SF	38,563 SF	45,033 SF	
ROAD	N/A	N/A	2,938 SF	44,416 SF	47,354 SF	

# w.starkengineer.co 320–249–2611 Ik Rapids, Minneso

DUFFY ENGINEERING
AND ASSOCIATES, INC
STRUCTURAL — CIVIL — SUF
MECHANICAL — ELECTRICAL
350 Highway 10 Soi
Saint Cloud, MN 56:
Phone: (320) 259—65
Fax: (320) 259—65
Email: mail@duffyeng.c

I hereby certify that this plan specification or report was prepared by me or under my direct supervision and that am a duly Licensed ENGINEER under the laws of the state of MINNESOTA

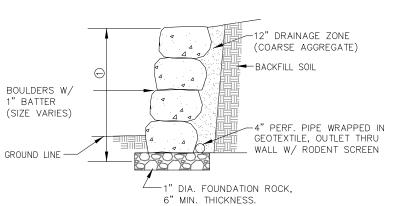
| WAYNE C.B. STARK, PE | 11-8-16 | 26093 | License No.

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	Action	PER CITY REVIEW	PER CLIENT REVIEW	PER CLIENT REVIEW	ADD LANDSCAPE WALLS	PER MCWD REVIEW		

- 1. ALL SANITARY SEWER PIPE SHALL BE SDR 26 UNLESS OTHERWISE NOTED.
- 2. WORK WITHIN THE PUBLIC ROW MUST BE COORDINATED WITH THE PUBLIC WORKS DEPARTMENTS. CONTRACTOR MUST PROVIDE 48 HOURS NOTICE PRIOR TO ANY WORK BEING PERFORMED.
- 3. THE SANITARY SEWER CONNECTION SHALL BE AN OUTSIDE DROP STRUCTURE PER CITY DETAILS.

# **SURFACING NOTES**

- 1. SUBGRADES SHALL BE SCARIFIED AND/OR COMPACTED AS NECESSARY TO ATTAIN THE REQUIRED COMPACTION DESCRIBED IN THE PROJECT SPECIFICATIONS. COMPACTION TESTING SHALL BE PERFORMED BY AN INDEPENDENT TESTING FIRM.
- 2. GRAVEL BASE COURSES SHALL BE ROLLED AND COMPACTED. TEST ROLLING OF THE GRAVEL BASE SHALL BE OBSERVED BY A SOILS ENGINEER TO VERIFY STABILITY.
- 3. SEE SHEET C3 AND THE PROJECT SPECIFICATIONS FOR DETAILS REGARDING THE CONSTRUCTION OF PAVEMENTS.
- 4. SEE ARCHITECT PLANS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION REGARDING THE CONSTRUCTION OF CONCRETE SIDEWALK AND EXTERIOR SLABS.



INSTALLATION NOTES:

① REFER TO PLANS FOR HEIGHT REQUIREMENTS.

LANDSCAPE RETAINING WALL DETAIL





SERENITY HILL ON HALS 6750 HALSTEAD AV

AND

SITE

Project No.: <u>15-134</u>

Date: <u>01-15-16</u>

Drawn by: <u>WCBS</u>

Checked by: WCBS

