

Applicant: Gail Manning: Hennepin County
Consultant: Marcie Weslock; Elan Design Lab, Inc.
Project: Hennepin County Medical Examiner Facility
Location: 14300 County Road 62: Minnetonka
Rule(s): 2,3,4, 5, 11 and 12
Reviewer: BCO

General Background & Comments

The project proposes the construction of the Hennepin County Medical Examiners facility to be located on a portion of the Hennepin County Home School (CHS) property located at 14300 County Road 62 in Minnetonka. The CHS property is the western portion of the 160 acres owned by the County located north of County Road 62. The Medical Examiners proposed building and parking lot are to be located on approximately 9.6 acres of the CHS property that currently includes the four southernmost cottages. The cottages are proposed to be razed.

The project site information is:

- Site Area: 160.3 acres
- Existing Impervious Area: 14.662 acres (638,677 square feet)
- Proposed Impervious Area: 16.29 acres (709,592 square feet)
- A net increase of 70,916 square feet (1.628 acres)
- 11.1% increase in the total site impervious area
- Disturbed and reconstructed site impervious area: 86,075 square feet (1.976 acres)
- 13.5% of the existing site impervious area will be disturbed and reconstructed
- Total Disturbed Area: 9.569 acres (416,826 square feet)

The Nine Mile Creek Watershed District's Rule for Redevelopment, Rule 4.2.3, states, if a proposed activity will disturb more than 50% of the existing impervious surface on a parcel or will increase the imperviousness of the parcel by more than 50%, storm water management will apply to the entire project parcel. Otherwise, the storm water requirements will apply only to the disturbed and reconstructed areas and additional impervious area on the parcel. The project will increase the site impervious area by 11.1%. The disturbed and reconstructed impervious area is 13.5% of the existing impervious surface of the property. The storm water criteria in Section 4.3.1 applies to the 9.569 acres (416,826 square feet) of disturbed area that

includes 70,916 square feet of new impervious and 86,075 square feet of disturbed and reconstructed impervious area (totally 156,991 square feet).

The District's requirements for both storm water management and erosion and sediment control apply to the project because more than 50 cubic yards of material will be disturbed and more than 5000 square feet altered, Rules 4.2.1a and b and 5.2.1a and b.

The Glen Lake branch of Nine Mile Creek, including a 10+ acre wetland complex, forms the eastern boundary of the project area. The overall County property is riparian to the entire wetland complex. A wetland boundary has been determined and approved on October 6, 2015 by the City of Minnetonka, being the LGU administering the requirements of WCA. A MnRAM Assessment for the wetland has determined the wetland as a medium value wetland requiring a minimum 20 foot and average 40 foot wetland buffer, Rule 3.4.1b. The average slope of the hillside on the east side of the wetland and the embankment along County Road 62 exceeds 12% for a distance greater than 50 feet therefore, in accordance with Rule 3.4.2, the buffer is required to extend to the top of the slope. This is identified on plan sheet CJ101 prepared by Elan Design Lab.

The Atlas 14 100-year frequency flood elevation of the Glen Lake Branch at this location is 902 M.S.L. There are no floodplain impacts proposed by the project.

Silt fence, inlet protection and a rock construction entrance are shown to be installed to provide for erosion control.

Exhibits

1. Permit Application dated September 17, 2019.
2. Plan sheets not dated but received with the permit application on September 18, 2019 prepared Elan Design Lab, Inc.
3. Storm water management computations dated September 18, 2019, supplemented October 4, 2019 prepared by Elan Design Lab, Inc.
4. Geotechnical Report dated September 12, 2019 prepared by intertek psi...
5. Wetland delineation report dated June, 2015 prepared by Hennepin County Environmental Services. Notice of Decision by the City of Minnetonka dated October 6, 2015 approving the wetland boundary determination on the site.
6. MnRAM Assessment prepared by Hennepin County Environmental Services, July 2016, for the wetland complex.
7. Figures showing the existing and proposed site impervious areas submitted October 8, 2019.

2.0 Floodplain Management and Drainage Alterations

The 100-year flood elevation of the Glen Lake branch of Nine Mile Creek, along the east boundary of the site, is 902 M.S.L. The project does not propose any work or impacts within the floodplain of the creek.

3.0 Wetlands Management

A wetland boundary determination for the wetland complex located in the center of the Hennepin County property, also forming the eastern boundary of the project site, has been approved by the City of Minnetonka, Notice of Decision dated October 15, 2015, being the LGU administering the requirements of the Wetland Conservation Act in Minnetonka. No wetland impact are proposed. The wetland boundary determination is valid for 5 years from its acceptance date.

A MnRAM assessment, prepared by Hennepin County Environmental Services, has been submitted identifying the wetland as a "medium value" wetland requiring a minimum buffer width of 20 feet and an average buffer width of 40 feet. We are in agreement with the MnRAM determination. The wetland documentation submitted shows that:

- No work is proposed within either the wetland or wetland buffer.
- The 40 foot average wetland buffer requires an area of 827,040 square feet. The average wetland buffer area to be provided is 858,040 square feet.
- Because the slope of the hillside along the eastern side of the wetland complex and the embankment along County Road 62 is on average 12% or greater over a distance of 50 feet or more up-gradient of the wetland, the buffer must extend to the specified distance under section 3.4.4 or to the top of the slope, whichever is greater, Rule 3.4.2. The plans prepared by Elan Design Lab show the buffer extending to the top of the slope on the east and south sides of the wetland complex.

Buffer markers as described in Rule 3.4.5 will be required to be installed.

4.0 Stormwater Management

Stormwater management (rate control, volume retention and water quality treatment) for compliance with Rule 4.3.1 is to be provided within three surface basins (Basins 1, 2 and 3) to be constructed on the site. One additional basin, Basin 2A, is to be constructed primarily for pretreatment of runoff prior to discharging to an area that provides volume retention.

The existing and proposed 2, 10 and 100 year frequency discharges from the site are:

Frequency	Existing Discharge to Wetland Complex c.f.s.	Proposed Discharge to Wetland Complex c.f.s.
2 year	4.0	<1.0
10 year	6.1	<1.0
100 year	15.1	9.2

Frequency	Existing Discharge to CHS Access Road c.f.s.	Proposed Discharge to CHS Access Road c.f.s.
2 year	2.0	<1.0
10 year	3.0	<1.0
100 year	6.0	<1.0

There are two discharge points from the site. Rule 4.3.1b is met.

A volume retention of 14,391 cubic feet is required for 1.1-inches of runoff from the 156,991 square feet of new and disturbed and reconstructed impervious area. The storm water management basins will provide 53,902 cubic feet of volume retention. The geotechnical report identifies the on-site underlying soils in the areas proposed for volume retention as sand (SP) beneath approximately 8+ feet of silty sand (SM). The material over the sand is to be excavated, removed and replaced with a mixture of sand and silty sand (SP-SM) creating a material with an infiltration rate of 0.45 inches/hour based on the Minnesota Stormwater Manual. This is to be done for the three basins proposed for volume retention, as necessary. Using this infiltration rate, an area of 7,995 square feet at a maximum depth of 1.8 feet is required for the 14,391 cubic feet of volume retention to be drawn down within 48 hours. An area of 35,450 square feet is to be provided within the basins (7,995 square feet required). Rule 4.3.1a is met.

The District's water quality criterion requires a 60% annual removal efficiency for phosphorus and 90% annual removal efficiency for total suspended solids. The results of a MIDS calculator indicate the 3 BMP's, that are to provide water quality management, will provide an annual removal efficiency of 100% for total suspended solids (1597 lbs.) and an annual removal efficiency of 100% for total phosphorus (8.79 lbs.). Rule 4.3.1c is met.

District Rule 4.3.3c states that all new and reconstructed buildings must be constructed such that the low floor elevation is at least two feet above the 100-year high water elevation or one foot above the emergency overflow of a constructed facility. In addition, all new and reconstructed buildings must be constructed such that no opening where surface flow can enter the structure is less than two feet above the 100-year high water elevation of an adjacent facility or waterbody.

The following table shows a comparison of the 100-year frequency high water elevation of the four BMP's and the low floor/low opening elevation of the proposed structure, 940 M.S.L.

BMP - Basin	100-year H.W. Elevation (M.S.L.)	Low Floor/ Low Opening Elevation 940 M.S.L.	Separation (feet)
1	910.7	940	29.3
2	931.2	940	8.8
2A	937.4	940	2.6
3	925.7	940	14.3

The geotechnical report indicates that groundwater was encountered at varying elevations throughout the site. The following table shows the relationship between the proposed BMP's and groundwater.

BMP-Basin	Bottom Elevation of BMP (M.S.L.)	Groundwater Elevation M.S.L.	Separation (feet)
1	908	904	4.0
2	930	905	25
2A	937	905	32
3	924	914	10

A minimum separation of 3 feet is required between the bottom of an infiltration facility and groundwater.

Pretreatment of storm water prior to discharging to an infiltration facility, Rule 4.3.1a (i), will be provided by either a sump manhole or sedimentation basin (Basin 2A upstream of Basin 3) upstream of the infiltration BMP.

In accordance with Rule 4.3.4, a post-project chloride management plan must be provided that will, 1) designate an individual authorized to implement the chloride-use plan and 2) designate a MPCA certified salt applicator engaged in the implementation of the chloride-use plan for the site.

5.0 Erosion and Sediment Control

The submitted erosion and sediment control plan includes silt fence and/or filter log at the limits of construction, inlet protection and a rock construction entrance at the entryway onto the site. The project contact is Marcie Weslock, Elan Design Lab, Inc.

11.0 Fees

Because the property owner is a public entity, no fees are charged.

Rules 2.0-6.0 \$0



12.0 Sureties

Because the property owner is a public entity, the District's financial assurance requirements do not apply.

Sureties for the project are:

\$0

Findings

The proposed project includes the information necessary, plan sheets and erosion control plan, for review.

1. Rules 4 and 5 are met.

Recommendation

Approval, contingent upon:

1. General Conditions
2. In accordance with Rule 4.3.5, submission of a document signed by an official with authority with Hennepin County being a public entity assuming the maintenance obligation for the on-site storm water management facilities and wetland buffer.

By accepting the permit, when issued, the applicant agrees to the following stipulations:

1. Per Rule 4.5.6, an as-built drawing of the storm water facilities, including a stage-volume relationship in tabular form, for the three basins (BMP's) constructed conforming to the design specifications as approved by the District must be submitted.
2. Wetland buffer markers installed as described in Rule 3.4.5. The wetland boundary is identified on Sheet CJ101 of the plans prepared by Elan Design Lab.
3. Submission of a plan for post-project management of Chloride use on the site. The plan must include 1) the designation of an individual authorized to implement the chloride use plan and 2) the designation of a Minnesota Pollution Control Agency certified salt applicator engaged in the implementation of the chloride-use plan for the site.

NEW REGIONAL MEDICAL EXAMINER FACILITY
MINNETONKA, MN



HENNEPIN COUNTY
A 2205 GOVERNMENT CENTER
300 SOUTH 6TH STREET
MINNEAPOLIS, MN 55487
COUNTY PROJECT NO. 1002306



739 SECOND AVE SOUTH, SUITE 1300,
MINNEAPOLIS, MN 55402-2455
T: 612.338.8741



LABORATORY EQUIPMENT DESIGN
MCCLAREN, WILSON & LAWRIE
11798 N LAKE RIDGE PKWY,
ASHLAND, VA 23005 T: 804-228-7473



CIVIL ENGINEERING
ELAN DESIGN LAB
601 NORTH THIRD STREET, SUITE 120,
MINNEAPOLIS, MN 55401 T: 612-260-7980

DF/

LANDSCAPE ARCHITECTURE
DAMON FARBER
421 SECOND AVE NORTH, SUITE 410,
MINNEAPOLIS, MN 55401 T: 612-332-7522



TELECOMMUNICATIONS ENGINEERING
TRUE NORTH CONSULTING
140 THIRD STREET SOUTH,
STILLWATER, MN 55082 T:651-705-1251

KEY PLAN



REVISIONS

NO.	DESCRIPTION	DATE

FILE LOG

Activity	BY

DATE

NOT FOR CONSTRUCTION

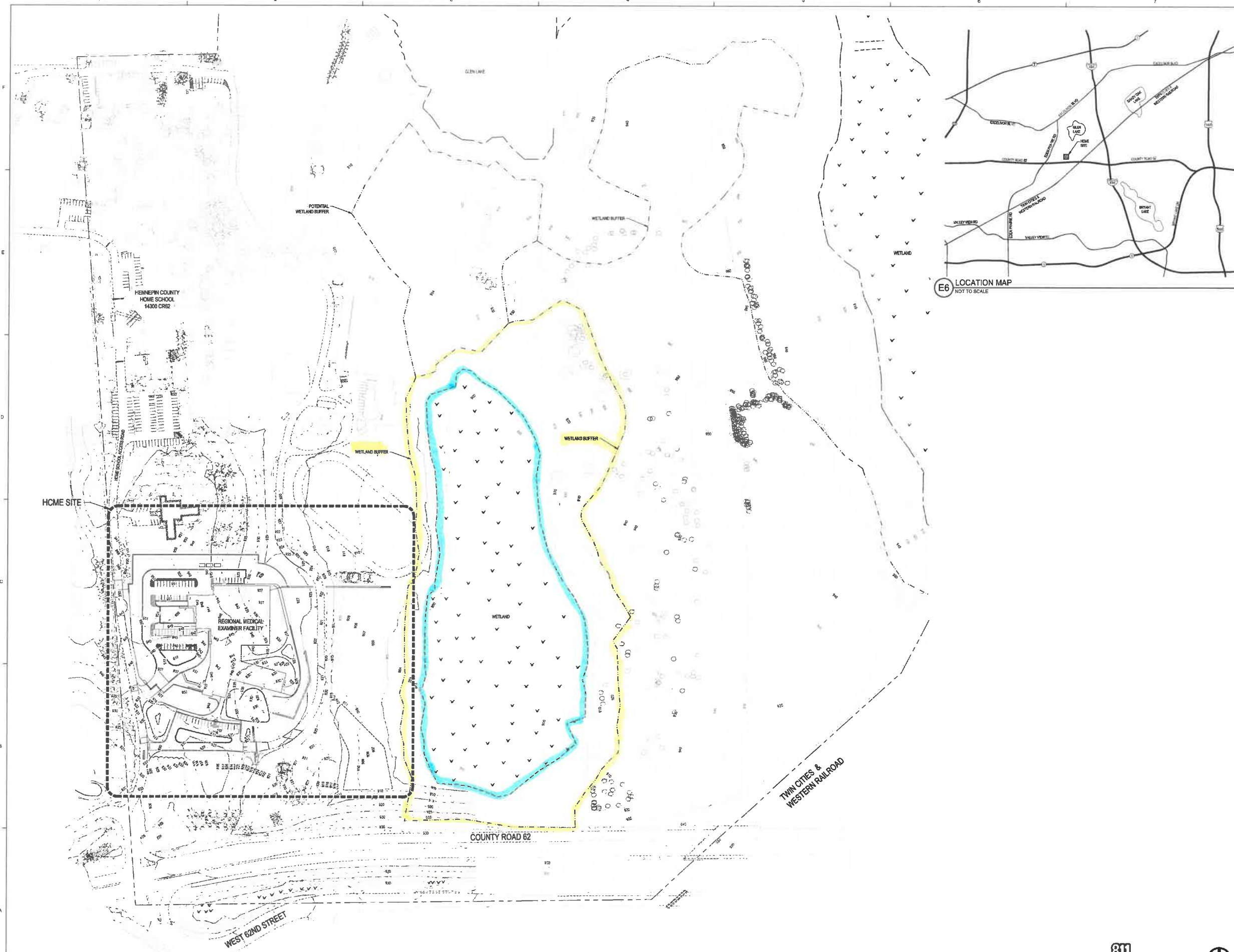
WATERSHED SUBMITTAL

ELAN Project No. LAD18010
09/18/2018

LOCATION & VICINITY MAP



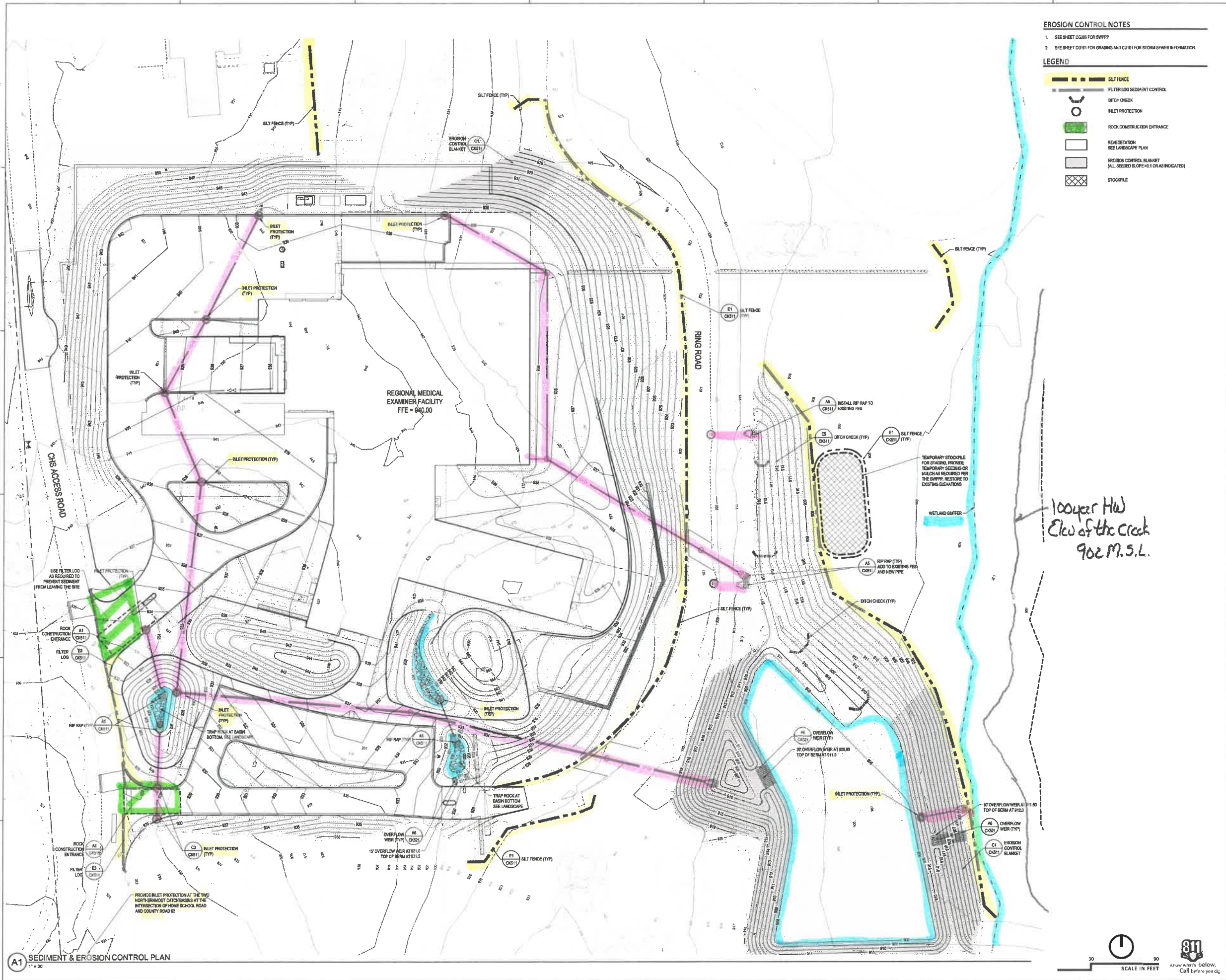
CJ101



E6 LOCATION MAP
NOT TO SCALE

A1 VICINITY MAP
1" = 100'

SCALE IN FEET
0 100 300



EROSION CONTROL NOTES

- SEE SHEET CG200 FOR SWPPP
- SEE SHEET CG201 FOR GRADING AND CIVIL FOR STORM SEWER INFORMATION

LEGEND

- SILT FENCE
- FILTER LOG SEDIMENT CONTROL
- DITCH CHECK
- INLET PROTECTION
- ROCK CONSTRUCTION ENTRANCE
- REVEGETATION SEE LANDSCAPE PLAN
- EROSION CONTROL BLANKET (ALL SEEDED SLOPE > 0.1 OR AS INDICATED)
- STOCKPILE

NEW REGIONAL MEDICAL EXAMINER FACILITY
MINNETONKA, MN

Hennepin County
A 2208 GOVERNMENT CENTER
300 SOUTH 6TH STREET
MINNEAPOLIS, MN 55487
COUNTY PROJECT NO. 1002306

LOADAV
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MCCLEAREN, WILSON & LAWRIE
11708 N LAKE RIDGE PKWY,
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861 NORTH THIRD STREET, SUITE 120,
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MINNEAPOLIS, MN 55401 T: 612-332-7522

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TELECOMMUNICATIONS ENGINEERING
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140 THIRD STREET SOUTH,
STILLWATER, MN 55082 T: 651-705-1251

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE

FILE LOG

ACTIVITY	BY

NOT FOR CONSTRUCTION

WATERSHED SUBMITTAL

ELAN Project No. LAD18010
09/18/2019

SEDIMENT & EROSION CONTROL PLAN

CG201

VOLUME 1
CITY SUBMITTAL



A1 SEDIMENT & EROSION CONTROL PLAN
1" = 30'