



STAFF REPORT

DATE: 8/17/2021

REGULAR

TO: Mayor and City Council

FROM: Ken Roberts, Planning Director

AGENDA ITEM: **Variance – Direct Access for a Place of Worship**

REVIEWED BY: Ben Prchal, City Planner

INTRODUCTION:

The City has received a request from Rev. John Burns of the Carmelite Hermitage for a variance from the City Code requirement about direct access for a place of worship. He is making this request in order to eventually add a chapel to the Carmelite's site located at 8249 Demontreville Trail. In this case, the applicant is asking for City approval for a variance as part of constructing a new driveway to provide access to their property. (Please see his letter, maps and attached plans for more information about this request.)

BACKGROUND:

On December 3, 1991, the City Council approved a variance from the section of the City Code about having frontage a public road for the Carmelite Monastery. The Carmelites made this request so they could construct a building on their parcel (which does not have frontage on a public road).

On August 20, 2019, the City Council approved the requests of the Carmelites for a variance to the City standard requiring direct access for a place of worship and a conditional use permit for the construction of a chapel on their property located 8249 Demontreville Trail.

On August 18, 2020, the City Council approved the extension of the CUP as contemplated by Condition No. 7 of the 2019 approval resolution and City Code § 154.106(K). Specifically, staff recommended the City Council approve a time extension that provided the Carmelites one year after the resolution of both lawsuits to build their chapel.

On August 9, 2021, the Commission Planning held a public hearing and considered the latest direct-access variance request for the Carmelites located 8249 Demontreville Trail. The Commission recommended approval of the variance request, subject to the conditions listed in the staff report.

ISSUE BEFORE THE CITY COUNCIL:

The City Council is being asked to review, consider and make a determination about the above mentioned variance request.

VARIANCE REQUEST DETAILS/ANALYSIS:

<i>Deadline for Action:</i>	Application Complete – 7/12/2021 60 Day Deadline – 9/11/2021 Extension Letter Mailed – N/A 120 Day Deadline – N/A
<i>Applicable Regulations:</i>	Article V - Zoning Administration and Enforcement Article XIV – Public and Semi-Public Districts Variance Request: The Carmelite Hermitage of the Blessed Virgin Mary requests a variance from the direct access requirement for places of worship as outlined in Section 154.600(B)(2) of the City Code.

Reason for Request. The reason for the variance request is to facilitate the construction of a chapel on their site. The City Code requires places of worship (such as chapels and churches) to have “direct access” to a public street classified by the Comprehensive Plan as a major collector or arterial. The Carmelites property is land locked and does not have frontage on Demontreville Trail. The Comprehensive Plan classifies Demontreville Trail as a major collector street.

The applicants are proposing to construct a new 20-foot-wide bituminous driveway to the north and east of the existing driveway that now crosses the Jesuits property that provides access to the Carmelites facility. The proposed driveway will provide access to the Carmelites facility and should not interfere with the Jesuits use of their property. The Jesuits submitted a letter of support dated July 14, 2021 for the proposed location of the new driveway.

REVIEW AND ANALYSIS/FINDINGS

An applicant must establish and demonstrate compliance with the variance criteria set forth in Lake Elmo City Code Section 154.109 before the City may grant an exception or modification to city code requirements. These criteria are listed below, along with comments from Staff about the applicability of these criteria to the applicant’s request.

- 1) **Practical Difficulties.** A variance to the provision of this chapter may be granted by the Board of Adjustment upon the application by the owner of the affected property where the strict enforcement of this chapter would cause practical difficulties because of circumstances unique to the individual property under consideration and then only when it is demonstrated that such actions will be in keeping with the spirit and intent of this chapter. Definition of practical difficulties - “Practical difficulties” as used in connection with the granting of a variance, means that the property owner proposes to use the property in a reasonable manner not permitted by an official control.

FINDINGS: *The addition of a chapel to Carmelites site has been planned since at least 1991 when the City first approved a Master Plan for their site. The Carmelites have been using the existing driveway to Demontreville Trail for access to their site since that time. The proposed chapel is a reasonable additional use of the Carmelites facility and property and the addition of a new driveway to Demontreville Trail for access purposes solves their access needs.*

- 2) Unique Circumstances.** The plight of the landowner is due to circumstances unique to the property not created by the landowner.

FINDINGS: *According to the applicant, the existing lot layout with the access easement to Demontreville Trail has been in place since 1904. This is a unique situation with circumstances not created by the landowner or the current land users – the Carmelite Monks.*

- 3) Character of Locality.** The proposed variance will not alter the essential character of the locality in which the property in question is located.

FINDINGS: *The proposed variance will allow the Carmelites to use the proposed driveway for access for their facilities including the proposed chapel. By using the proposed driveway to Demontreville Trail, the Carmelites will not be altering the essential character of the locality (or area) in which their property is located.*

- 4) Adjacent Properties and Traffic.** The proposed variance will not impair an adequate supply of light and air to properties adjacent to the property in question or substantially increase the congestion of the public streets or substantially diminish or impair property values within the neighborhood.

FINDINGS: *The proposed variance to allow the use of the proposed driveway for access for their facilities and the proposed chapel. It will not impair an adequate supply of light and air to properties adjacent to the subject property, increase congestion of public streets or substantially diminish or impair property values within the neighborhood. The expected traffic levels on Demontreville Trail with the addition of the proposed chapel and the new driveway is expected to remain about the same as it has been for the past ten years.*

CITY ENGINEER REVIEW:

The applicant submitted to the City the proposed construction plans for the new driveway. The City Engineer reviewed the proposed plans and provided comments about them in his memo dated August 4, 2021. He noted that this driveway project will require a permit from the Valley Branch Watershed District and that he will need to approve the final construction plans before the applicant starts the project. This review will be to ensure the driveway can support emergency vehicles and fire apparatus and that drainage or run-off from the new driveway will be controlled and managed as it is not permitted to flow into the Demontreville Trail roadway or right-of-way in any storm event.

FIRE DEPARTMENT REVIEW:

Dustin Kalis, the City Fire Chief provided planning staff with review comments about the proposed driveway plans. He noted that the driveway will need to meet the Fire Department requirements for widths and turning radiuses and shall be constructed to support up to 75,000 pounds.

FISCAL IMPACT:

Staff has not found that the proposed variance will have any impact to the City.

OPTIONS:

The City Council may:

- Approve the proposed variance as requested.
- Approve the proposed variance with the recommended conditions.
- Deny the proposed variance, citing findings of fact for denial.

RECOMMENDATION:

Staff and the Planning Commission recommend the City Council approve the request from Rev. John Burns of the Carmelite Hermitage for a variance (an exception) from the City's requirement for direct access to a major collector or arterial street for a place of worship for the property located at 8249 Demontreville Trail.

The suggestion motions for the City Council to take action on the recommendation as follows:

“Move to adopt Resolution 2021 - 092, approving the request from Rev. John Burns of the Carmelite Hermitage for a variance (an exception) from the City's requirement for direct access to a major collector or arterial street for a place of worship for the property located at 8249 Demontreville Trail. This approval shall be subject to the City Engineer and Fire Chief approving the final driveway construction plans and the applicant receiving a permit from the Valley Branch Watershed District before starting the construction of the new driveway.”

ATTACHMENTS:

- 1) Variance request narrative dated July 9, 2021 (5 pages)
- 2) July 14, 2021 letter from the Jesuit Retreat House
- 3) Location Map
- 4) Property Line Map
- 5) Proposed driveway plans dated June 25, 2021 (18 pages)
- 6) Fire Department Review dated July 20, 2021
- 7) Engineering Review comments dated August 4, 2021
- 8) Resolution 2021 - 092

**CITY OF LAKE ELMO
WASHINGTON
COUNTY
STATE OF MINNESOTA**

RESOLUTION NO 2021 - 092

*A RESOLUTION APPROVING A VARIANCE TO ALLOW THE CONSTRUCTION OF A
CHAPEL OR PLACE OF WORSHIP ON THE PROPERTY LOCATED AT 8249
DEMONTREVILLE TRAIL BY USING A PROPOSED NEW DRIVEWAY FOR ACCESS TO
DEMONTREVILLE TRAIL*

WHEREAS, Reverend John Burns, representing the Carmelite Hermitage (the “Applicant”) of 8249 Demontreville N, Lake Elmo MN 55042, Washington County, Minnesota (the “Property”) has submitted an application to the City of Lake Elmo (the “City”) for a variance or an exception to the City Code requirement about having direct access to a collector or arterial street for a chapel or place of worship; and

WHEREAS, the applicant is requesting City approval to allow the use of a proposed driveway to Demontreville Trail for access to their site for the construction of a chapel or place of worship on their property; and

WHEREAS, the Carmelites property is landlocked but currently has access to Demontreville Trail via an existing driveway that is located in an easement that crosses an adjoining property; and

WHEREAS, the Carmelites have used the existing driveway to Demontreville Trail for access to their property since at least 1967; and

WHEREAS, the Carmelites and Jesuits have reached an agreement about the construction and use a proposed 20-foot-wide driveway to Demontreville Trail for the Carmelites to use to access to their property located 8249 Demontreville Trail; and

WHEREAS, the requested new access driveway request will not change the character of the area; and

WHEREAS, notice has been published, mailed, and posted pursuant to the Lake Elmo Zoning Code, Section 154.109; and

WHEREAS, the Lake Elmo Planning Commission held a public hearing about the variance on August 9, 2021; and

WHEREAS, the Lake Elmo Planning Commission has submitted its report and recommendations with respect to the requested variance to the City Council as part of the City Staff Memorandum dated August 17, 2021; and

WHEREAS, the City Council considered the access variance request at its August 17, 2021 meeting; and

NOW, THEREFORE, based on the testimony elicited and information received, the City Council makes the following:

FINDINGS

- 1) That the procedures for obtaining a variance are found in the Section 154.109 of the Lake Elmo Zoning Code.
- 2) That the applicant met all the variance application and submission requirements of Section 154.109 of the Lake Elmo Zoning Code.
- 3) That the proposed variance includes the following component:
 - a) That the proposed 20-foot-wide driveway will provide access to the Property from Demontreville Trail also will serve as the access for the proposed chapel or place worship on the applicant's property.
- 4) With respect to the proposed variance for the use of the proposed driveway for access for the proposed chapel, the strict enforcement of the City's zoning regulations will cause practical difficulties and the Applicants propose to use the Property in a reasonable manner not permitted by an official control.

The addition of a chapel to Carmelites site has been planned since at least 1991 when the City first approved a Master Plan for their site. The Carmelites have been using an existing driveway to Demontreville Trail for access to the site since that time. The proposed chapel is a reasonable additional use of the Carmelites facility and property and the addition of a new driveway to Demontreville Trail for access purposes solves their access needs.

It is recognized that the proposed driveway will serve the Carmelites property will connect to the public street and as such, its proposed use for a chapel will not be impactful on public infrastructure, thus the Applicants would be using the Property in a reasonable manner. The use of the proposed driveway for access to Demontreville Trail for the addition of a chapel to site is a reasonable use of the property and the proposed access.

- 5) With respect to the proposed variance for the use of the proposed driveway for access for the chapel, the plight of the Applicants is due to circumstances unique to the Property not created by the Applicants.

According to the applicant, the existing lot layout with the access easement to Demontreville Trail has been in place since 1904. This is a unique situation with circumstances not created by the landowner or the Applicant – the Carmelite Monks. Therefore, this criterion has been met with respect to the variance for using the proposed driveway for access to the Carmelites property and for the proposed chapel.

- 6) With respect to the proposed variance for using the proposed driveway for access for the proposed chapel, the proposed variance will not alter the essential character of the locality in which the Property is located.

The proposed variance will allow the Carmelites to use the proposed 20-foot-wide driveway for access for their facilities and for the proposed chapel. By using the proposed driveway to Demontreville Trail, the Carmelites will not be altering the essential character of the locality (or area) in which their property is located. Therefore, the new driveway will not alter the essential character of the neighborhood and this criterion has been met.

- 7) With respect to the proposed variance to allow the use of the proposed driveway for access to their property and for the proposed chapel, the proposed variance will not impair an adequate supply of light and air to properties adjacent to the subject property, increase congestion of public streets or substantially diminish or impair property values within the neighborhood.

The proposed variance is to allow the use of the proposed driveway for access for their facilities and for the proposed chapel. The new driveway will not impair an adequate supply of light and air to the properties adjacent to the subject property, increase congestion of the public streets or substantially diminish or impair property values within the neighborhood. The expected traffic levels on Demontreville Trail with the addition of the proposed chapel and the new driveway is expected to remain about the same as it has been for the past ten years. Therefore, this criterion has been met.

CONCLUSIONS AND DECISION

- 1) Based on the above findings that show the applicant has met all the City variance criteria with respect to the variance for having direct access to a collector or arterial street for a chapel or a place of worship, the City of Lake Elmo hereby approves the Applicants application for a variance or exception from the City standard requiring a place of worship or a chapel to have direct access to a collector or arterial street, subject to the following conditions:
- a) That the Applicant shall secure any required zoning approvals, permits and plan approvals from the City and other applicable jurisdictions for the construction of the chapel and the associated site improvements;
 - b) That the applicant revise the driveway construction plans to meet the requirements of the City Engineer and City Fire Chief as noted in their project review comments. The City Engineer and the City Fire Chief shall approve the final driveway construction plans before the applicant starts constructing the new driveway.
 - c) That the Applicant secure all other necessary approvals and permits for the construction of the new driveway including a permit from the Watershed District.

Passed and duly adopted this 17th day of August, 2021 by the City Council of the City of Lake Elmo, Minnesota.

Mayor Charles Cadenhead

ATTEST:

Julie Johnson, City Clerk

Land Use Application – Variance
Carmelite Hermitage of the Blessed Virgin Mary
9 July 2021

Property Location

All of Government Lot 4 in Section 9, Township 29 north, Range 21 west, City of Lake Elmo, Washington County, Minnesota, according to government survey containing 59.4 acres of land. Also the south 30.6 acres of Government Lot 4 in Section 4, and of the southwest quarter of the southeast quarter of said Section 4, all in Township 29 north, Range 21 west, according to government survey, being the south 688 feet thereof.

Detailed Reason for the Request

In 1954, the Discalced Carmelite Nuns of Saint Paul, a non-profit corporation under the laws of the State of Minnesota, were looking for property upon which to build a permanent monastery. They were advised of the property which they now own and entered into negotiations with the owners of the property.

On 2 February 1954, Phillip C. Mackey and his wife Bernadine R. Mackey conveyed their property, along with its easement, to the Discalced Carmelite Nuns of Saint Paul by warranty deed, dated that day, and filed for record in Washington County, Minnesota, on 4 February 1954. As part of their deed of purchase, they obtained a right of way across the neighboring property to the north (owned by the Jesuit Retreat House) which gave them access to Demontreville Trail. This right of way has existed since 1904. At the time that the Carmelite Nuns purchased their property, the right of way across the Jesuit property was the only access from a public road to the Carmelite property, and it remains the only access today. The Carmelite Nuns have used this right of way continuously for 66 years.

In 1987 Carmel of the Blessed Virgin Mary (aka Carmelite Hermitage, Carmelite Hermitage of the Blessed Virgin Mary) was incorporated in the State of Minnesota as a community of Carmelite Priests and Brothers. In December of 1991, the City of Lake Elmo approved a master plan for the Carmelite Hermitage consisting of four phases: Phase 1, consisting of a community building and garage was constructed in 1991/92. Phase 2, consisting of a central courtyard with covered walkways (cloister) was constructed in 2001/2002. Phase 3 consists of a chapel and is the building we would now like to construct. Phase 4 will consist of a guest building and library. We hope to commence Phase 4 around 2022. Additionally, in 1991 the City of Lake Elmo granted a variance to the Carmelite Hermitage because the Hermitage also uses the easement over Jesuit land to access Demontreville Trail. The Jesuit Retreat House made no objection to the variance. The Carmelite Fathers and Brothers have used the easement continuously for 34 years.

In the intervening years, the Carmelite Hermitage has built four new buildings. In 2007, it requested and received an amendment to its master plan to add an additional building. This building was built in 2008. The Carmelite Hermitage was not asked to obtain a new variance for any of these construction projects.

In 2020, the Carmelite Hermitage applied for and received a CUP from the City of Lake Elmo to construct a small chapel, shown as phase three on its master plan. An objection was raised by the Jesuit Retreat House which maintained that the Carmelite Hermitage needed a new variance to proceed with its chapel project because it does not meet the CUP requirements established by the City in 2000 and amended in 2006. Since there was doubt about the scope and language of the original variance granted to the Carmelite Hermitage, as well as doubt about the meaning of the word *direct* in the City's CUP requirements, City staff suggested that the Carmelite Hermitage apply for a new variance which would clarify all issues related to access to our property. In a spirit of cooperation, The Carmelite Hermitage agreed to apply for a new variance. The City Council granted the variance in August 2020 as well as the CUP to build the chapel.

Because of the City Council's approval of the variance and the CUP, the Jesuit Retreat House sued the City of Lake Elmo, the Carmelite Hermitage, and the Discalced Carmelite Nuns. The Carmelite Hermitage and the Discalced Carmelite Nuns reached an out-of-court settlement with the Jesuit Retreat House on November 1, 2020. The Jesuit Retreat House agreed to give the two Carmelite monasteries a new easement through its property, farther away from its retreat buildings. In return, the Carmelite Hermitage agreed to relinquish its approved variance and CUP, and to apply for a new variance and CUP based upon a new driveway to be built over the new easement. It was agreed that the new driveway would be built before the new chapel was commenced. It was further agreed that, once the new driveway is built, the Discalced Carmelite Nuns would relinquish their existing easement, and that all future traffic to the Carmelite monasteries would utilize the new driveway. It was agreed, however, that for emergencies, either road could be used by any institution or by first responders. Another clause of the agreement states that the new driveway must be built before construction on the new chapel could begin. For this reason, the Carmelite Hermitage is now applying only for a variance for the new driveway. It intends to apply for a new CUP in late fall or winter of 2021.

Variance Request, Practical Difficulties:

The Carmelite Hermitage of the Blessed Virgin Mary requests a variance from the direct access requirement of Section 154.600(B)(2) of the City Code. It further requests that the variance apply to all 90 acres of the property owned by the Discalced Carmelite Nuns of St. Paul and that the variance apply to all buildings currently existing on the property as well as all buildings shown on its approved master plan which remain to be built.

Strict enforcement of the City Code requiring direct access creates not only a practical difficulty but a serious hardship in that we would be unable to complete our monastery as planned and approved in 1991 by the City of Lake Elmo. In 1991, The City Council recognized the hardship that existed with regard to access to our property, and the Council granted us a variance at that time.

2.a.

Owner of Record

Discalced Carmelite Nuns of Saint Paul
8251 Demontreville Trail

Lake Elmo, MN 55042
651-777-3882

Officers of the Corporation

Sr. Angela Barrett
Sr. Maravillas Schwab
Sr. Marie Siegmund

Applicant

Carmelite Hermitage of the Blessed Virgin Mary
8249 Demontreville Trail
Lake Elmo, MN 55042
651-779-7351
carmelbvm@gmail.com

Officers of the Corporation

Reverend John Burns
Br. Joseph Bubanko
Br. Christopher Burnside

2.b.

Legal Description of the Property

All of Government Lot 4 in Section 9, Township 29 north, Range 21 west, City of Lake Elmo, Washington County, Minnesota, according to government survey containing 59.4 acres of land. Also the south 30.6 acres of Government Lot 4 in Section 4, and of the southwest quarter of the southeast quarter of said section 4, all in Township 29 north, Range 21 west, according to government survey, being the south 688 feet thereof.

PID

0902921120002

(Please note that the new driveway will pass over Jesuit property: PID 0402921340001)

Parcel Size

90.109 acres
3,924,760 square feet

Existing Use of the Land

Religious. Two religious communities reside on the property. The members of the communities engage in a life of prayer, worship, gardening, arts, and crafts. The public is welcome to visit the monasteries at suitable hours and to worship with them.

Current Zoning

Public Facility (PF)

2.c.

Section 154.600(B)(2)a. “Direct access is provided to a public street classified by the Comprehensive Plan as major collector or arterials.”

2.d.

The Carmelite Hermitage of the Blessed Virgin Mary and the Discalced Carmelite Nuns of St. Paul intend to build a new driveway over land owned by the Disabled Carmelite Nuns and the Jesuit Retreat House and terminating on Demontreville Trail which is a major collector street. The Carmelite monasteries request a variance from the direct access requirement of Section 154.600(B)(2) of the City Code. It further requests that the variance apply to all 90 acres of the property owned by the Discalced Carmelite Nuns of St. Paul and that the variance apply to all buildings currently existing on the property as well as all buildings shown on its master plan which remain to be built.

2.e.

In December of 1991, the City of Lake Elmo approved the master plan of the Carmelite Hermitage consisting of four phases: Phase 1, consisting of a community building and garage was constructed in 1991/92. Phase 2, consisting of a central court yard with covered walkways (cloister) was constructed in 2001/2002. Phase 3 consists of a chapel and is the building we would now like to construct. Phase 4 will consist of a guest building and library. Additionally, the City of Lake Elmo granted a variance to the Carmelite Hermitage in 1991 since the Hermitage also used the easement over Jesuit land to access Demontreville Trail. The Jesuit Retreat House made no objection to the variance.

When the Carmelite Hermitage applied in 2019 for a CUP in order to build a chapel (phase 3 of its master plan), an attorney for the Jesuit Retreat House sent a letter to the City Attorney contending that the variance of 1991 is not valid for the construction of the chapel because the CUP code enacted by the City in 2000 and amended in 2006 requires direct access to a collector road or major arterials. The City Attorney stated that an argument can be made that the Carmelite Hermitage do not have direct access. Furthermore the City Attorney contended that the 1991 variance applied only to the building which we built in 1991. We disputed this interpretation because it contradicted the practice of the City to date. We have built several buildings since 1991, including one in 2007 which required an amendment to our master plan, and in none of these cases did the City require a new variance. Nevertheless, we have agreed to apply for a new variance in order to clarify all issues related to access to our property.

2.f.

The circumstances of our property are quite unique in that the property has never bordered a public road since it was divided from the property to the north of it in 1904. At that time, an unrestricted easement through the northern property was given in order that the southern property could have access to Demontreville Trail. The Discalced Carmelite Nuns received this easement as part of their deed of purchase.

In 2011 the Carmelite nuns acquired three small lots that border their property as well as Hidden Bay Trail. The lots are undeveloped and have no driveways into them. Hidden Bay Trail is not a collector road or major arterial street. It is not suitable as an access road to our property.

Strict enforcement of the City Code requiring direct access creates not only a practical difficulty but a serious hardship in that we would be unable to complete our monastery as planned and as approved by the City of Lake Elmo in 1991.

2.g.

Our plight was in no way created by ourselves; it is rather the result of the division of the property in 1904. Our circumstances were recognized as unique by the City Council in 1991, and for this reason the Council granted us a variance.

2.h.

Granting a variance will in no way alter the essential character of the neighborhood. The only change to the existing neighborhood will be the addition of a new driveway onto Demontreville Trail a few hundred feet east of the existing driveway to the Jesuit Retreat House. The new driveway will enter Demontreville Trail at a point which is removed from other existing driveways and with good visibility in both directions. This section of Demontreville Trail contains only a few homes with very large lot sizes. There will be no disturbance to neighbors. Traffic to the monasteries will remain more or less as it has been in the past ten years.



Demontreville Jesuit Retreat House

8243 Demontreville Trail N

Lake Elmo, MN 55042-9545

Phone: 651-777-1311 E-mail: demontreville@aol.com

Mr. Ken Roberts
Planning Director
City of Lake Elmo
3800 Laverne Avenue North
Lake Elmo, MN 55042

July 14, 2021

Dear Ken,

I am writing in regard to the proposed driveway for the Carmelite Nuns and Hermits on the property of the Demontreville Jesuit Retreat House (8243 Demontreville Trail N, Lake Elmo, MN 55042).

With the approval of the Board of Directors of Jesuit Retreat House, and as its Director, I approve the proposed construction of a driveway for the Carmelite Nuns and the Carmelite Hermits which will run from Demontreville Trail to the Carmelite property through land owned by Jesuit Retreat House.

Sincerely,

Thomas A. Lawler S.J.

Fr. Thomas Lawler, S.J.

Director

RECEIVED

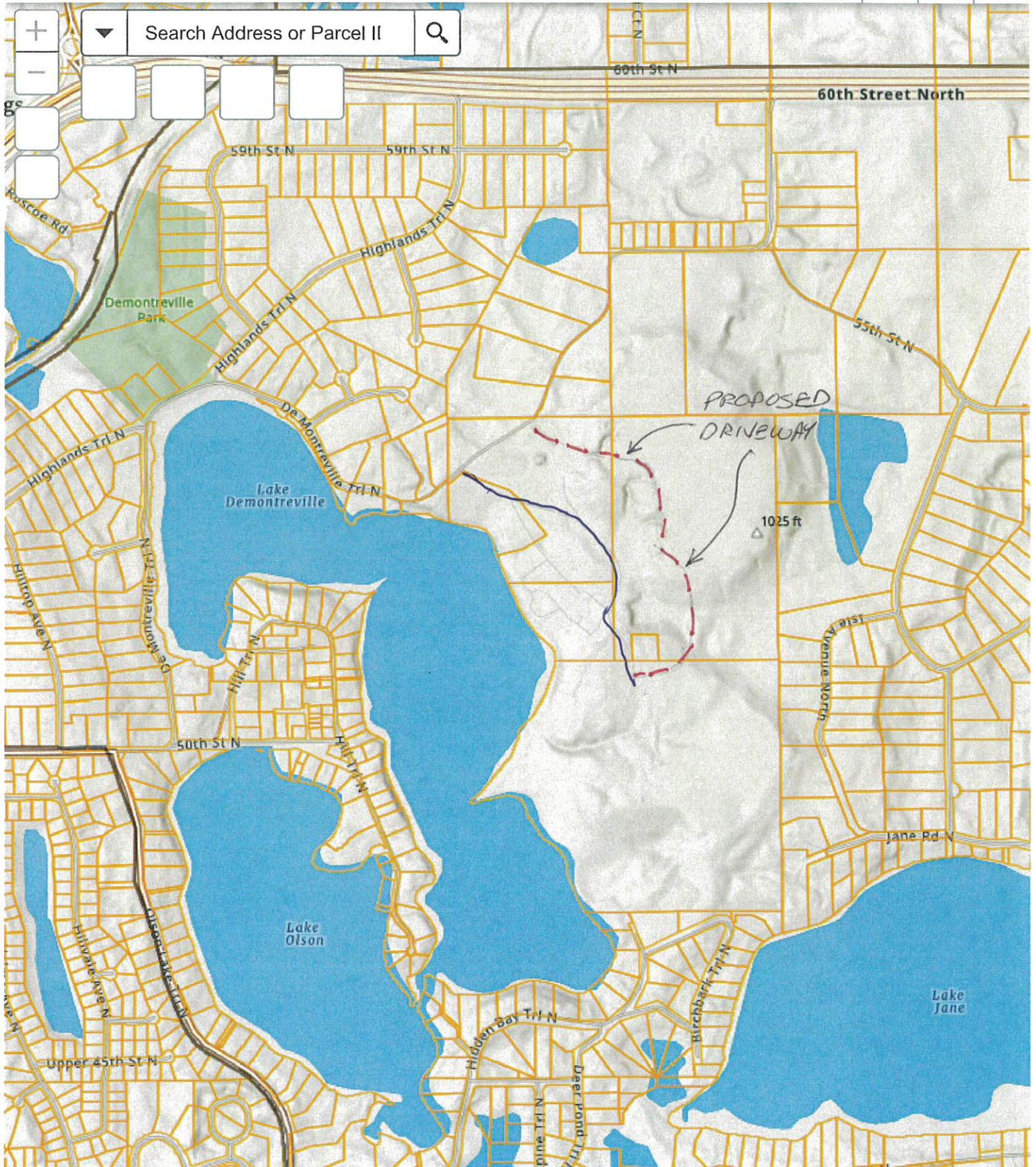
JUL 16 2021

CITY OF LAKE ELMO

Parcel Viewer - Quick Access

Beta

Washington Co.



LOCATION MAP

Parcel Viewer - Quick Access

Beta

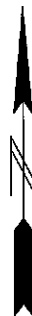
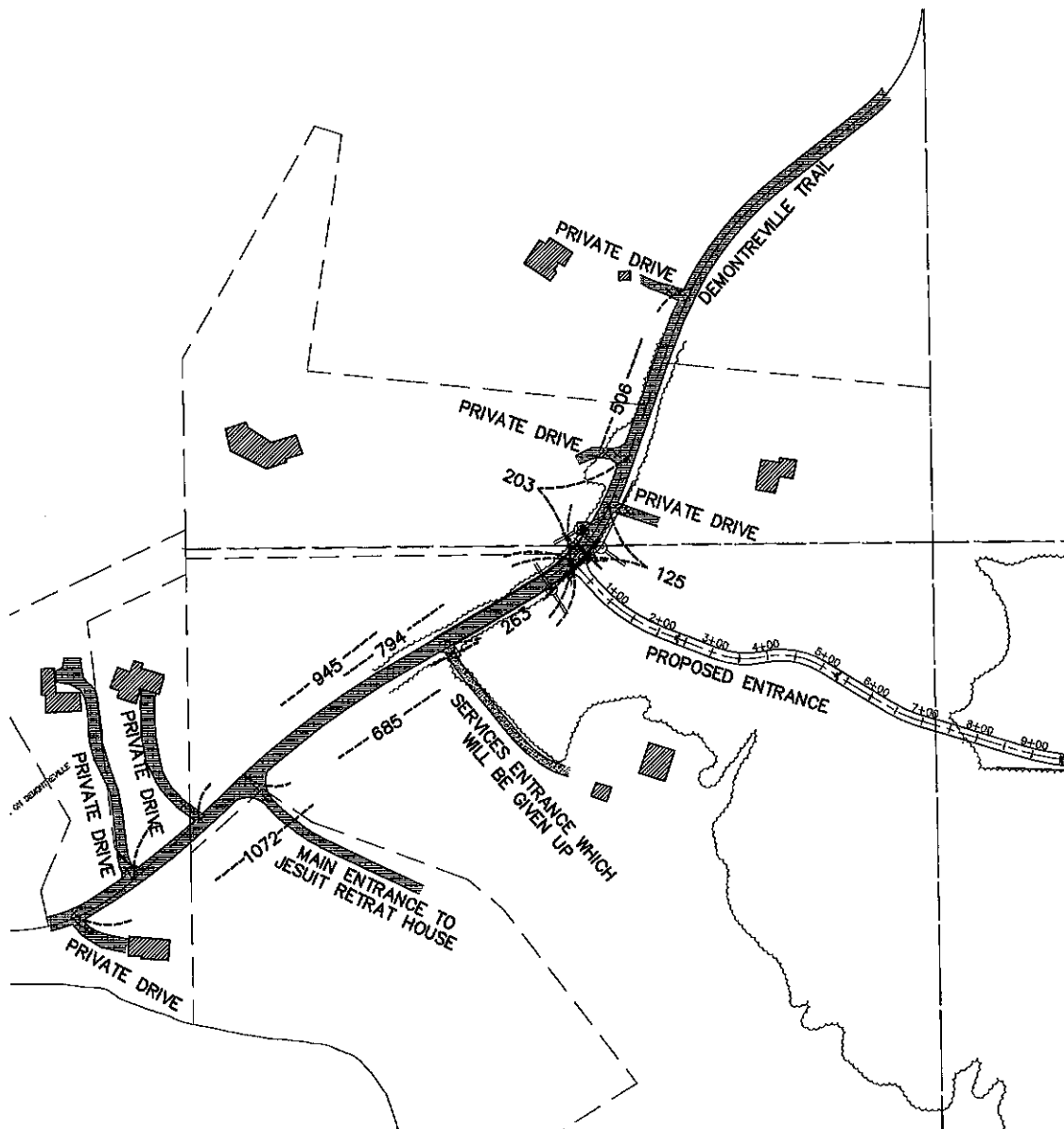
Washington Co.



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PROPERTY LINE MAP



Sheet
1 of 1

PIONEERengineering

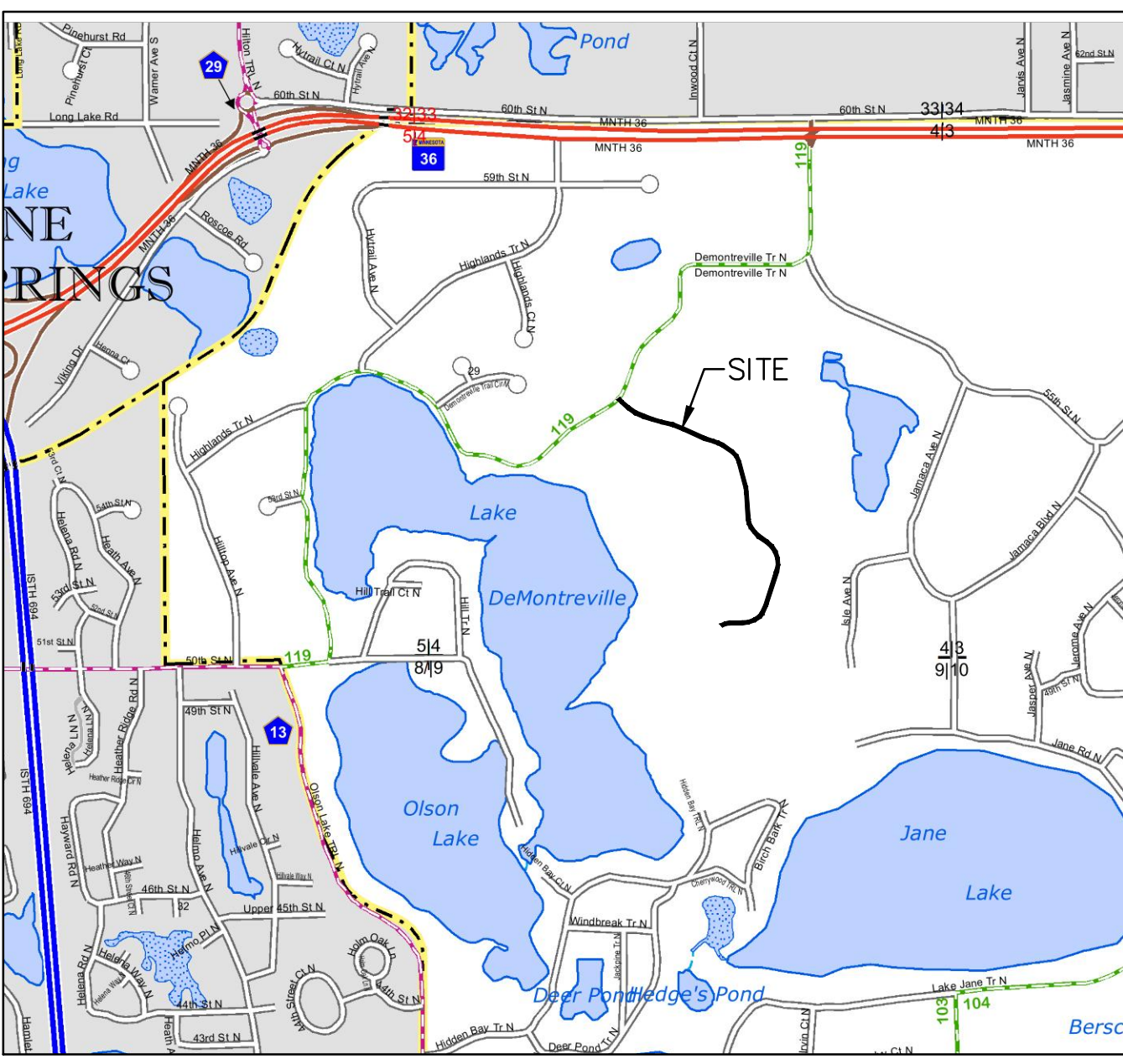
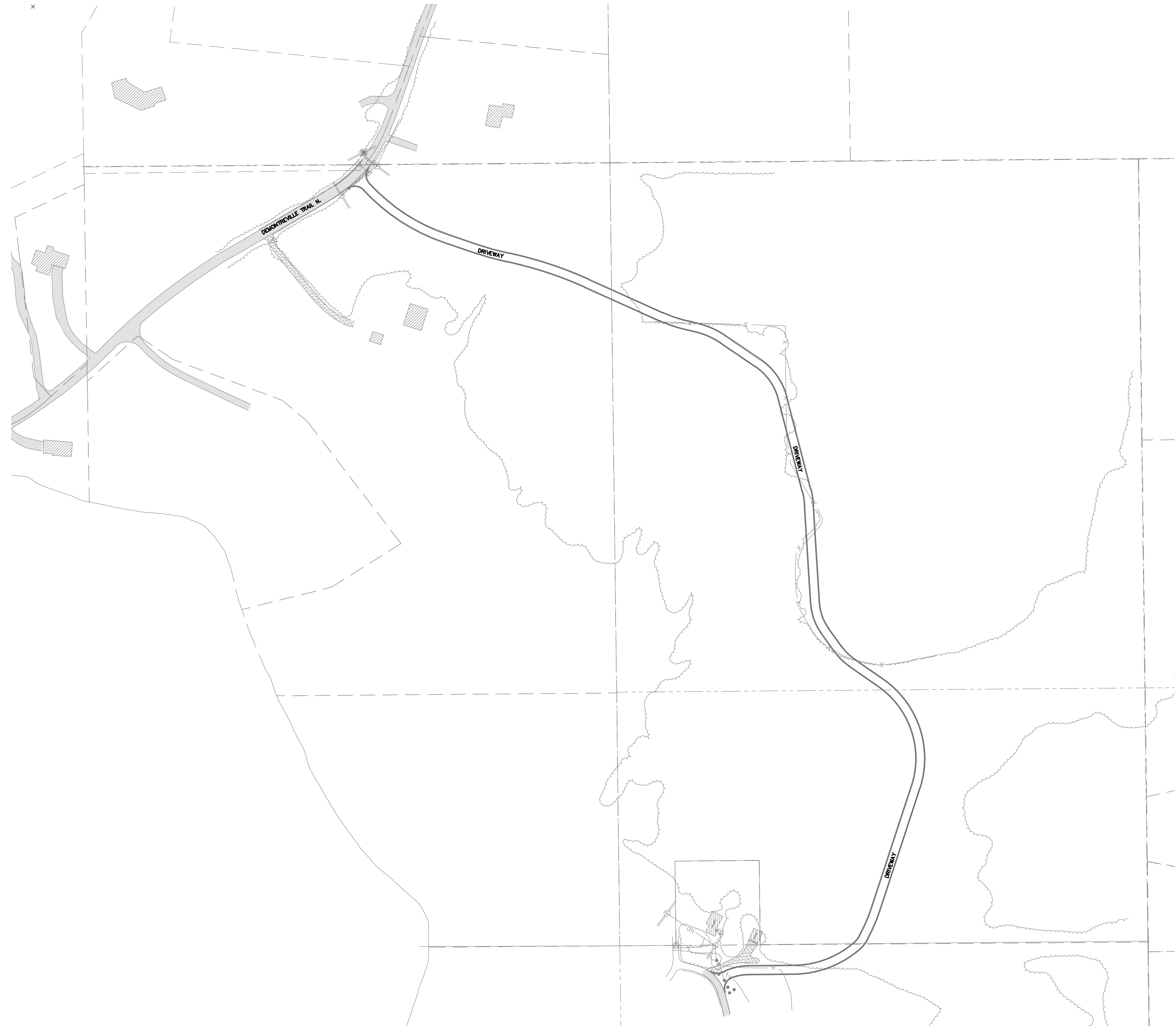
CIVIL ENGINEERS LAND PLANNERS LAND SURVEYORS LANDSCAPE ARCHITECTS
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Cad File:
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Date: 2-4-21
Revised: 2-16-21, 2-17-21

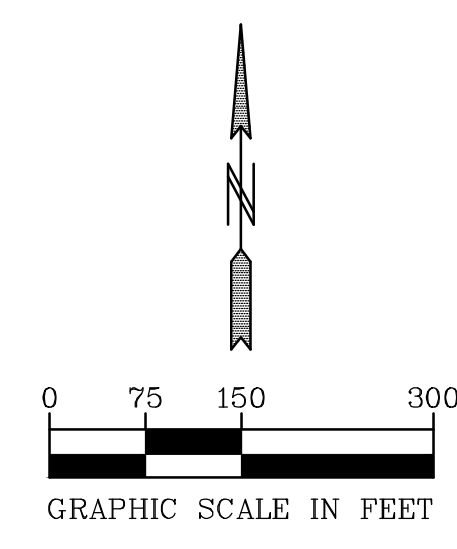
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Sketch for:
**CARMELITE MONASTERY
DRIVEWAY**

CARMELITE MONASTERY DRIVEWAY FINAL GRADING UTILITY & STREET CONSTRUCTION PLAN LAKE ELMO, MINNESOTA



LOCATION MAP

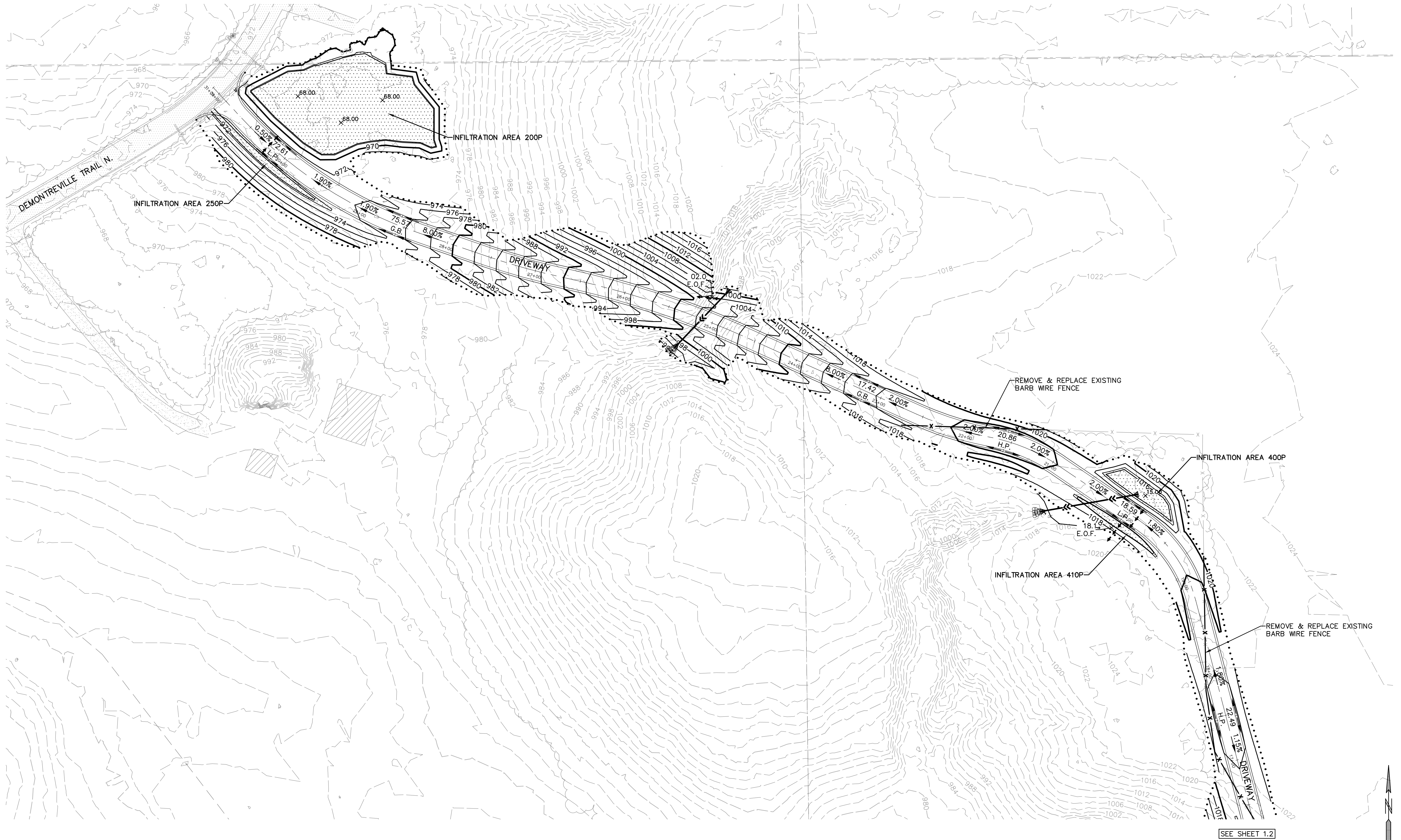


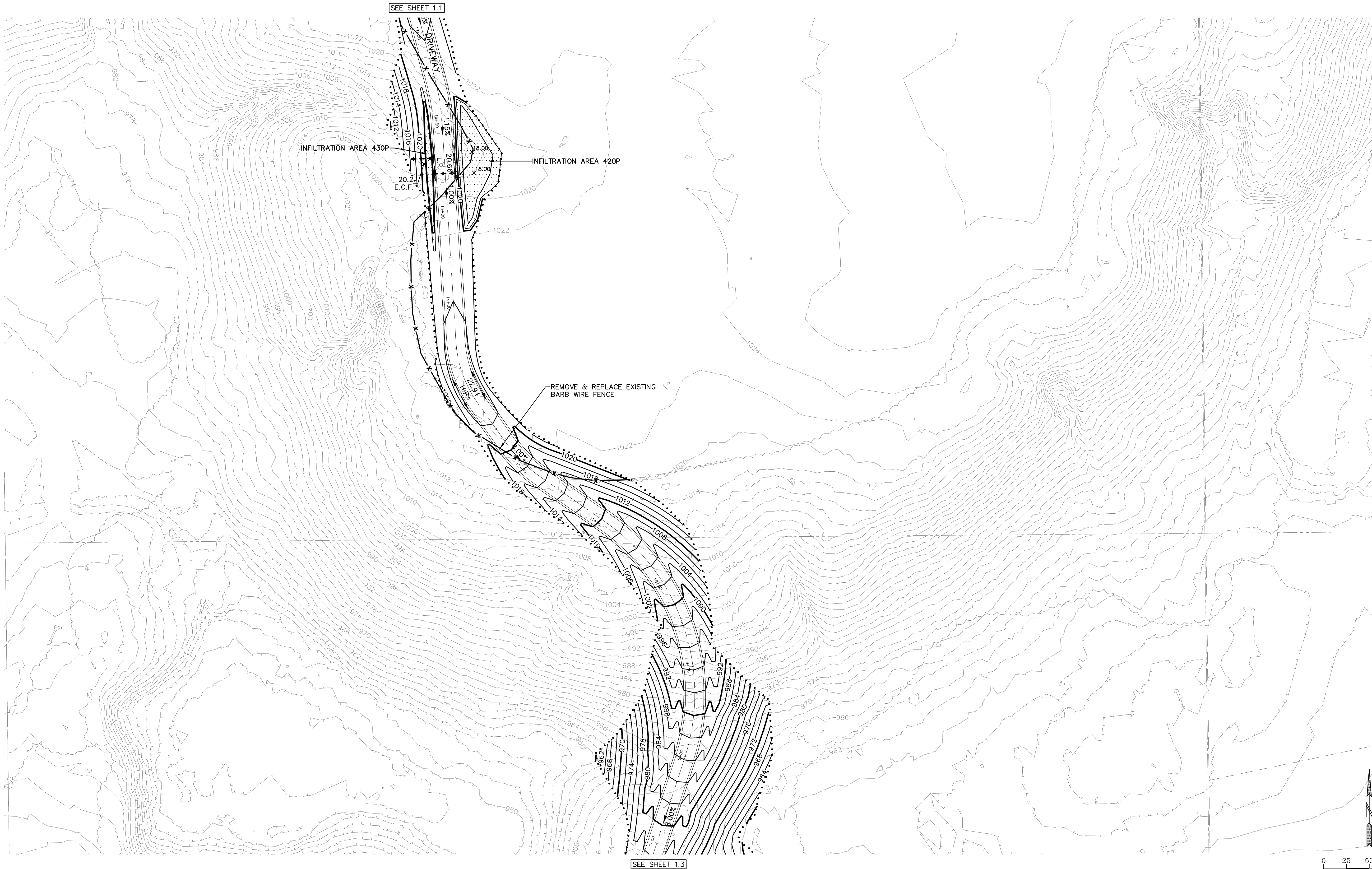
SHEET INDEX	
0.1	COVER
0.2	LEGEND
1.1-1.3	GRADING PLAN
2.1-2.3	EROSION CONTROL PLAN
3.1	SEEDING PLAN
4.1	SWPPP
5.1-5.2	GRADING DETAILS
6.1	WALKING PATH CONSTRUCTION
7.1	STORM SEWER CONSTRUCTION
8.1-8.3	DRIVEWAY CONSTRUCTION
9.1	CITY DETAILS

LEGEND			
EXISTING	PROPOSED	FUTURE	DESCRIPTION
			SANITARY MANHOLE
			SANITARY SEWER (SANITARY & WATERMAIN PLANS)
			SANITARY SEWER (STORM SEWER PLANS)
			FORCE MAIN
			HYDRANT
			GATE VALVE
			REDUCER
			CURB STOP
			WATERMAIN (SANITARY & WATERMAIN PLANS)
			WATERMAIN (STORM SEWER PLANS)
			CATCH BASIN
			BEEHIVE
			STORM MANHOLE
			FLARED END SECTION
			CONTROL STRUCTURE
			STORM SEWER (SANITARY & WATERMAIN PLANS)
			STORM SEWER (STORM SEWER PLANS)
			CULVERT
			PERFORATED DRAIN TILE
			SOLID DRAIN TILE SERVICE
			CASING
			UNDERGROUND ELECTRIC LINE
			UNDERGROUND FIBER OPTIC LINE
			UNDERGROUND GAS PIPELINE
			UNDERGROUND PETROLEUM PIPELINE
			UNDERGROUND TELEPHONE LINES
			UNDERGROUND TELEVISION LINE
			OVERHEAD UTILITY LINES
			SURMOUNTABLE CURB & GUTTER
			B-STYLE CURB & GUTTER
			RIBBON CURB & GUTTER
			EDGE OF BITUMINOUS
			YELLOW PAVEMENT STRIPING (SINGLE/DOUBLE)
			WHITE PAVEMENT STRIPING (SINGLE/DOUBLE)
			PHASE LINE
			CENTERLINE
			2' CONTOUR LINE
			10' CONTOUR LINE
			BASIN OUTLET LINE
			BASIN HIGH WATER LINE
			PROPOSED SPOT ELEVATION
			EMERGENCY OVERFLOW
			DRAINAGE FLOW ARROW
			DELINEATED / PROPOSED WETLAND LINE
			WETLAND BUFFER
			TREE LINE
			FEMA FLOODPLAIN BOUNDARY
			RETAINING WALL
			FENCE (BARBED WIRE)
			FENCE (CHAIN LINK)
			FENCE (WOOD)
			CONSERVATION AREA SIGN
			WETLAND BUFFER SIGN
			TYPE III BARRICADE
			LIGHT POLE
			STREET SIGNS
			PEDESTRIAN RAMP
			BOUNDARY
			RIGHT OF WAY
			LOT LINE
			EASEMENT
			SET BACK LINE
			SECTION LINE
			RESTRICTED ACCESS
HATCH PATTERNS			
	GRAVEL SURFACE		WETLAND
	BITUMINOUS SURFACE		WETLAND UPLAND BUFFER
	CONCRETE SURFACE		WETLAND MITIGATION
	RIP RAP		PERMANENT TURF RESTORATION
	SELECT BACKFILL MATERIAL		PERMANENT WET BASIN SEEDING
	EROSION CONTROL BLANKET MNDOT CATEGORY PER PLAN		UPLAND/NATURAL AREA SEEDING

TOPOGRAPHIC SYMBOLS	
	CATCH BASIN
	CATCH BASIN BEEHIVE
	FLARED END SECTION
	GATE VALVE
	HYDRANT
	WATER SERVICE
	WATER WELL
	MONITORING WELL
	CLEANOUT
	HAND HOLE
	MANHOLE OTHER THAN SANITARY OR STORM
	SANITARY OR STORM MANHOLE
	LAWN SPRINKLER VALVE
	LAWN SPRINKLER HEAD
	UTILITY POLE
	TRANSFORMER BOX
	FIBER OPTIC BOX
	ELECTRIC BOX
	NATURAL GAS METER
	LIGHT POLE
	SEMAPHORE
	TELEPHONE BOX
	CABLE BOX
	CAST IRON MONUMENT
	FOUND IRON PIPE
	JUDICIAL LAND MARK
	PK NAIL
	CONTROL POINT
	SPIKE
	FLAG POLE
	TEST HOLE
	MAILBOX
	SIGN
	BOLLARD
	CONSERVATION POST
	DECIDUOUS TREE
	CONIFEROUS TREE
	SHRUB / BUSH
EROSION & SEDIMENT CONTROL	
	STANDARD EROSION CONTROL
	HEAVY-DUTY EROSION CONTROL
	SECONDARY EROSION CONTROL FENCE
	EROSION CONTROL AT BACK OF CURB
	TREE FENCE
	TEMPORARY DIVERSION DITCH
	CATCH BASIN INLET PROTECTION
	STRAW BIO ROLLS
	ROCK BERM
	SUMPED RIP RAP PERMANENT ENERGY DISSIPATER
	DISCHARGE LOCATION
	GRAVEL CONSTRUCTION ENTRANCE
	TEMPORARY OUTLET FLOATING SKIMMER
	BASIN ACCESS 8% SLOPE MAX.
	STABILIZED EMERGENCY OVERFLOW
	STEEP SLOPE 3:1 (H:V) (33.3%) OR STEEPER GRADE
CURB LEGEND	
	= TOP OF CURB ELEVATION FOR SURMOUNTABLE CURB
	= TOP OF CURB ELEVATION FOR SURMOUNTABLE CURB (TIP OUT GUTTER)
	= TOP OF CURB ELEVATION FOR B618 CURB
	= TOP OF CURB ELEVATION FOR B618 CURB (TIP OUT GUTTER)
	= BITUMINOUS ELEVATION

ABBREVIATIONS	
A	ALGEBRAIC DIFFERENCE
B-B	BACK TO BACK
BV	BUTTERFLY VALVE
BOC	BACK OF CURB
BFE	BASE FLOOD ELEVATION
BMP	BEST MANAGEMENT PRACTICE
CL	CENTER LINE
CB	CATCHBASIN
CBMH	CATCHBASIN MANHOLE
CMP	CORRUGATED METAL PIPE
CO	CLEAN OUT
CS	CURB STOP
DIP	DUCTILE IRON PIPE
DT	DRAIN TILE
EL/ELEV	ELEVATION
EX	EXISTING
FES	FLARED END SECTION
F-F	FACE TO FACE
FM	FORCEMAIN
GB	GRADE BREAK
GND	GROUND
GV	GATE VALVE
HP	HIGH POINT
HYD	HYDRANT
HWL	HIGH WATER LEVEL
INV	INVERT
K	CURVE COEFFICIENT
L	LENGTH
LF	LOWEST FLOOR
LO	LOOKOUT
LO	LOWEST OPENING
LP	LIQUID PETROLEUM
LP	LOW POINT
MH	MANHOLE
PC	POINT OF CURVATURE
PCC	POINT OF COMPOUND CURVATURE
PI	POINT OF INTERSECTION
PL	PROPERTY LINE
PRC	POINT OF REVERSE CURVATURE
PVT	POINT OF TANGENCY
PVC	POINT OF VERTICAL CURVATURE
PVC	POLYVINYL CHLORIDE PIPE
PVI	POINT OF VERTICAL INTERSECTION
R	RADIUS
R	RAMBLER
RCP	REINFORCED CONCRETE PIPE
ROW	RIGHT OF WAY
SSWR	SANITARY SEWER
STA	STATION
STRM	STORM SEWER
SWPPP	STORM WATER POLLUTION PROTECTION PLAN
TNH	TOP NUT HYDRANT
TYP	TYPICAL
WM	WATER MAIN
WO	WALKOUT
LOT INFORMATION	
(TYPICAL SECTION NOT TO SCALE)	





SEE SHEET 1.2



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I hereby certify that this plan was prepared by
me or under my direct supervision and that I
am a duly Licensed Professional Engineer
under the laws of the State of Minnesota

Name
Paul J. Chernie
Reg. No. 19860 Date 06-25-2021

Revisions

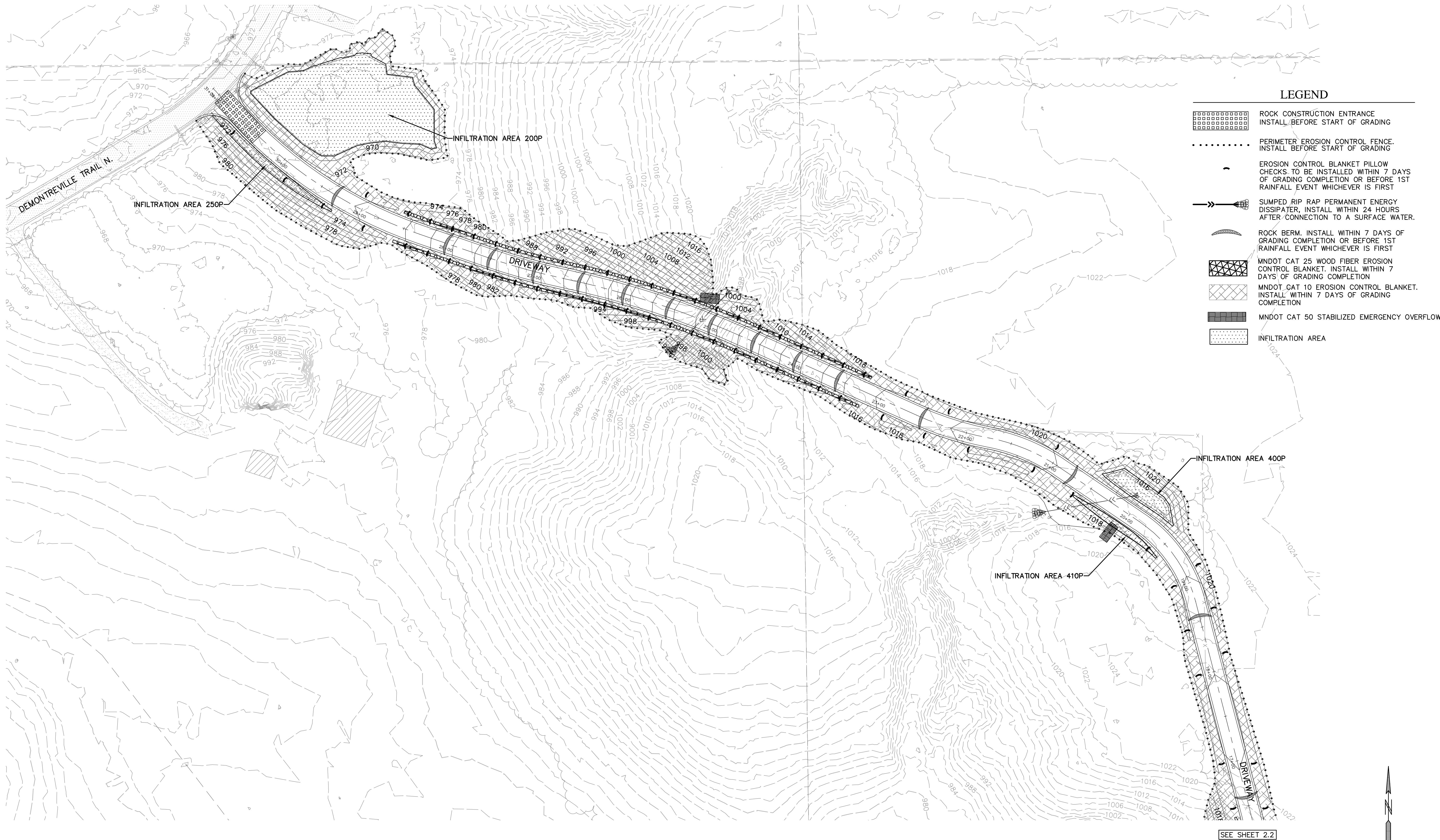
Date 06-25-2021
Designed PJC
Drawn MSN

GRADING PLAN

CARMELITE HERMITAGE
8249 DEMONTREVILLE TRAIL NORTH
LAKE ELMO, MN 55042

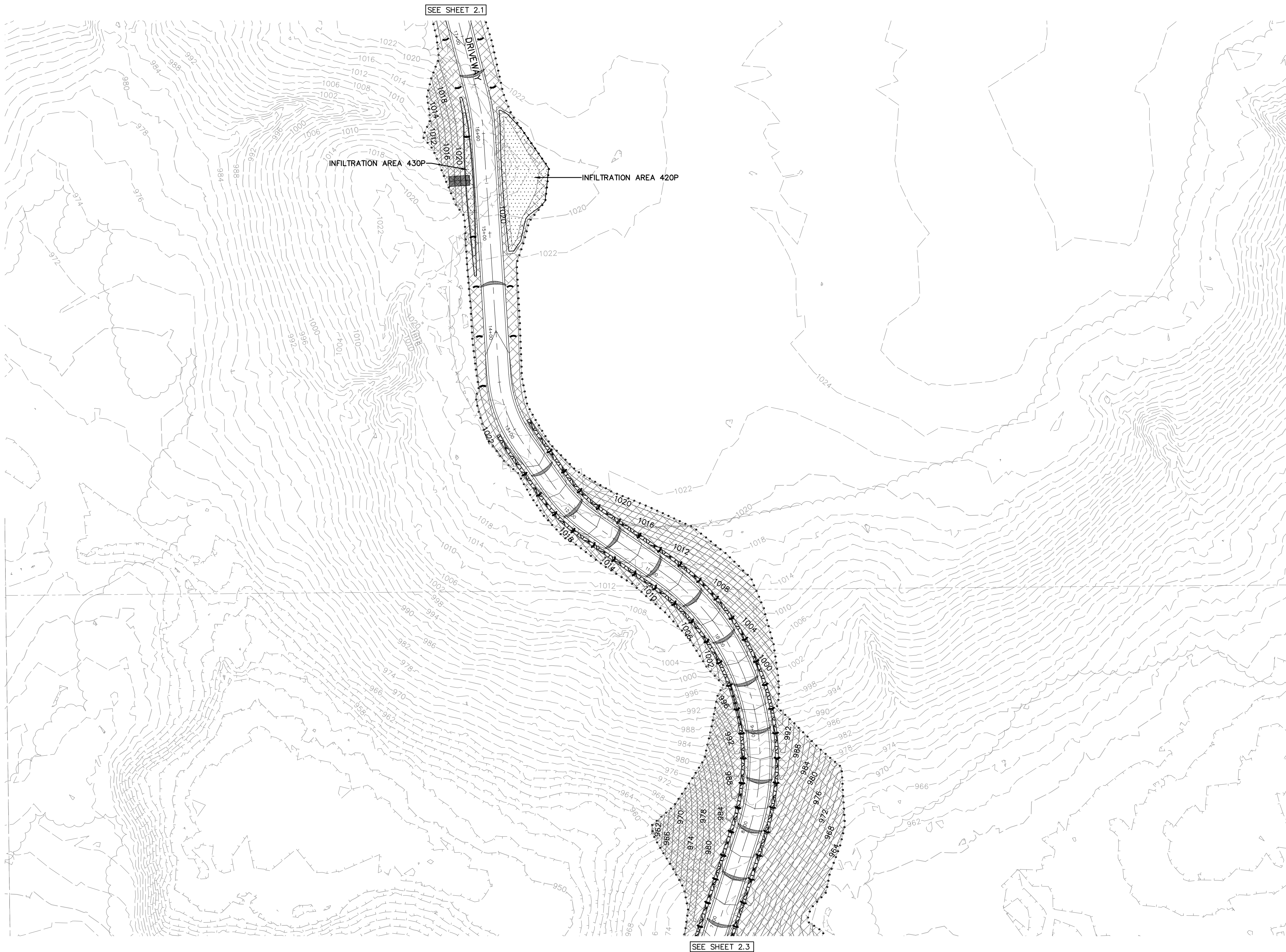
CARMELITE MONASTERY DRIVEWAY
LAKE ELMO, MINNESOTA

1.3 OF 18



LEGEND

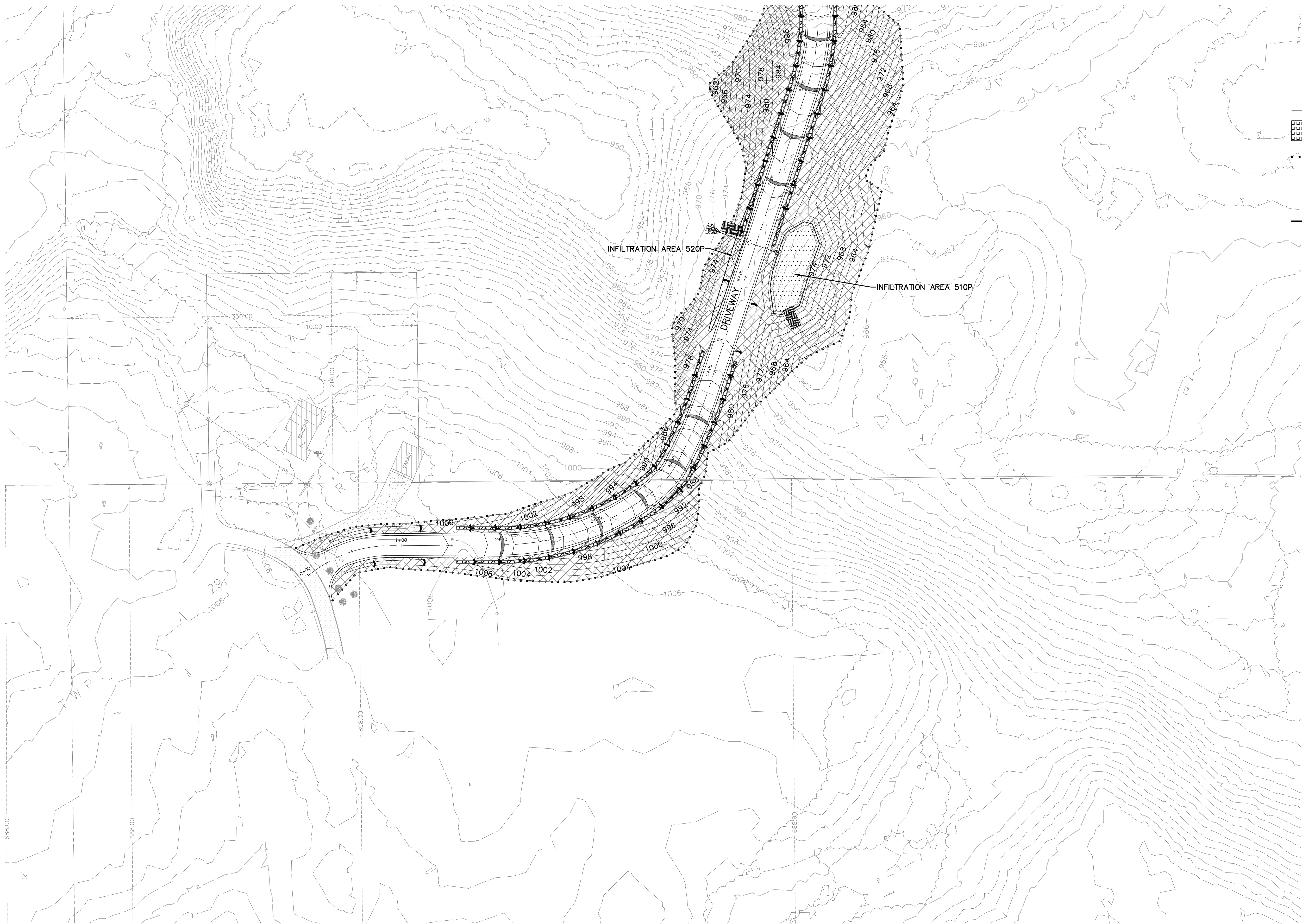
- ROCK CONSTRUCTION ENTRANCE
INSTALL BEFORE START OF GRADING
- PERIMETER EROSION CONTROL FENCE.
INSTALL BEFORE START OF GRADING
- EROSION CONTROL BLANKET PILLOW
CHECKS TO BE INSTALLED WITHIN 7 DAYS
OF GRADING COMPLETION OR BEFORE 1ST
RAINFALL EVENT WHICHEVER IS FIRST
- SUMPED RIP RAP PERMANENT ENERGY
DISSIPATER, INSTALL WITHIN 24 HOURS
AFTER CONNECTION TO A SURFACE WATER.
- ROCK BERM. INSTALL WITHIN 7 DAYS OF
GRADING COMPLETION OR BEFORE 1ST
RAINFALL EVENT WHICHEVER IS FIRST
- MNDOT CAT 25 WOOD FIBER EROSION
CONTROL BLANKET. INSTALL WITHIN 7
DAYS OF GRADING COMPLETION
- MNDOT CAT 10 EROSION CONTROL BLANKET.
INSTALL WITHIN 7 DAYS OF GRADING
COMPLETION
- MNDOT CAT 50 STABILIZED EMERGENCY OVERFLOW
- INFILTRATION AREA



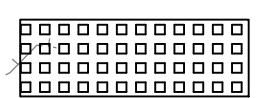
LEGEND

- ROCK CONSTRUCTION ENTRANCE
INSTALL BEFORE START OF GRADING
- PERIMETER EROSION CONTROL FENCE.
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INSTALL WITHIN 7 DAYS OF GRADING
COMPLETION
- MNDOT CAT 50 STABILIZED EMERGENCY OVERFLOW
- INFILTRATION AREA

SEE SHEET 2.2



LEGEND



ROCK CONSTRUCTION ENTRANCE
INSTALL BEFORE START OF GRADING



PERIMETER EROSION CONTROL FENCE.
INSTALL BEFORE START OF GRADING



EROSION CONTROL BLANKET PILLOW
CHECKS TO BE INSTALLED WITHIN 7 DAYS
OF GRADING COMPLETION OR BEFORE 1ST
RAINFALL EVENT WHICHEVER IS FIRST



SUMPED RIP RAP PERMANENT ENERGY
DISSIPATER, INSTALL WITHIN 24 HOURS
AFTER CONNECTION TO A SURFACE WATER.



ROCK BERM. INSTALL WITHIN 7 DAYS OF
GRADING COMPLETION OR BEFORE 1ST
RAINFALL EVENT WHICHEVER IS FIRST



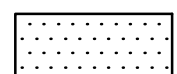
MNDOT CAT 25 WOOD FIBER EROSION
CONTROL BLANKET. INSTALL WITHIN 7
DAYS OF GRADING COMPLETION



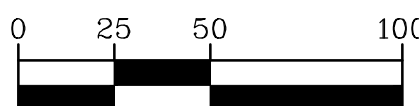
MNDOT CAT 10 EROSION CONTROL BLANKET.
INSTALL WITHIN 7 DAYS OF GRADING
COMPLETION



MNDOT CAT 50 STABILIZED EMERGENCY OVERFLOW



INFILTRATION AREA



GRAPHIC SCALE IN FEET

00-ENG-120111-SHEET-EROS

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I hereby certify that this plan was prepared by
me or under my direct supervision and that I
am a duly Licensed Professional Engineer
under the laws of the State of Minnesota

Name
Reg. No.

Paul J. Chernie

19860

Date 06-25-2021

Revisions

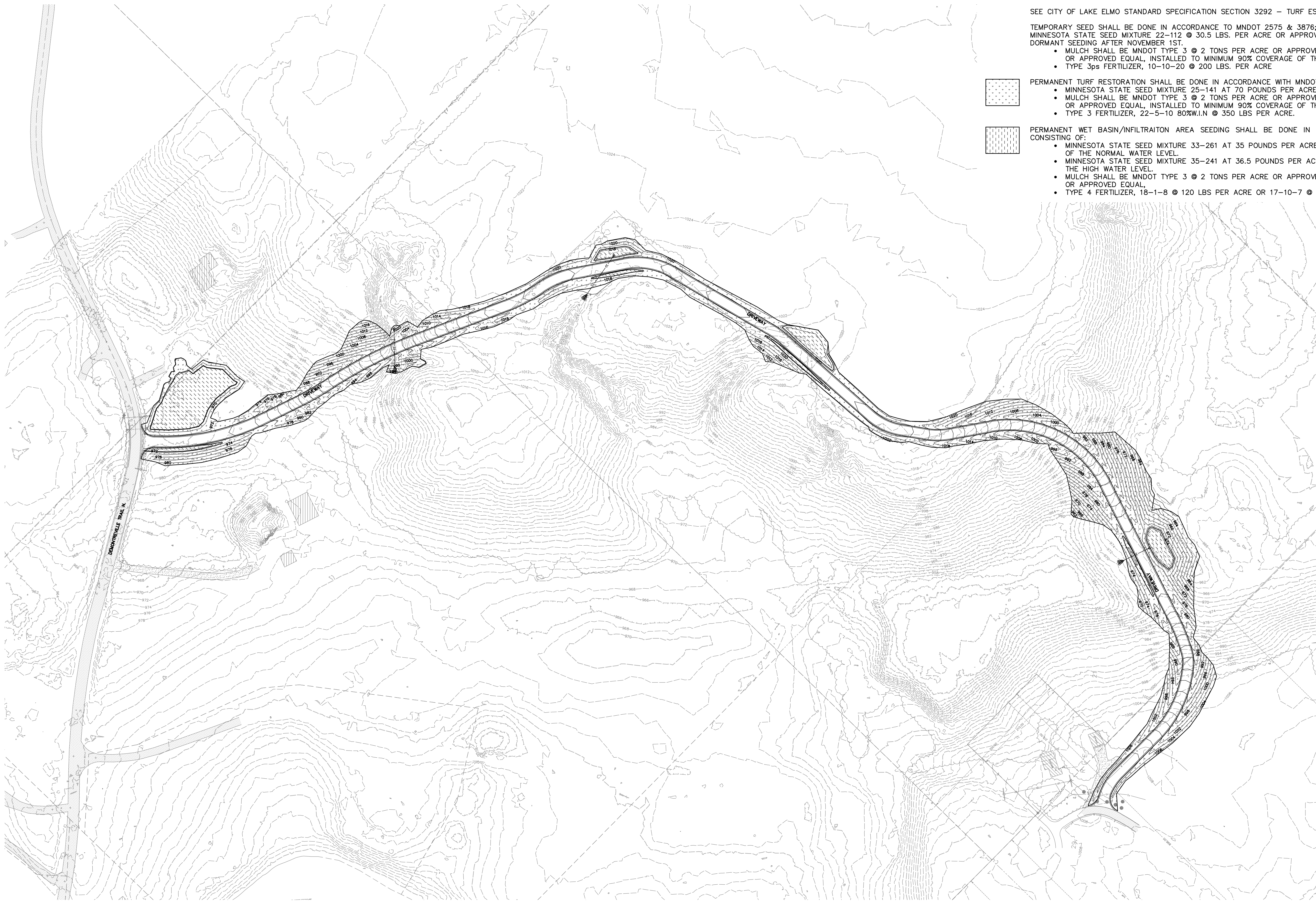
Date	06-25-2021
Designed	PJC
Drawn	MSN

EROSION CONTROL PLAN

CARMELITE HERMITAGE
8249 DEMONTREVILLE TRAIL NORTH
LAKE ELMO, MN 55042

CARMELITE MONASTERY DRIVEWAY
LAKE ELMO, MINNESOTA

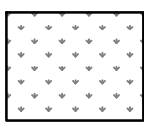
2.3 OF 18



SEE CITY OF LAKE ELMO STANDARD SPECIFICATION SECTION 3292 – TURF ESTABLISHMENT AND RESTORATION

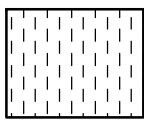
TEMPORARY SEED SHALL BE DONE IN ACCORDANCE TO MNDOT 2575 & 3876; CONSISTING OF:
MINNESOTA STATE SEED MIXTURE 22-112 @ 30.5 LBS. PER ACRE OR APPROVED EQUAL. DOUBLE SEED RATE FOR DORMANT SEEDING AFTER NOVEMBER 1ST.

- MULCH SHALL BE MNDOT TYPE 3 @ 2 TONS PER ACRE OR APPROVED EQUAL AND DISK ANCHORED IN PLACE OR APPROVED EQUAL, INSTALLED TO MINIMUM 90% COVERAGE OF THE SURFACE AREA DISTURBED.
- TYPE 3ps FERTILIZER, 10-10-20 @ 200 LBS. PER ACRE



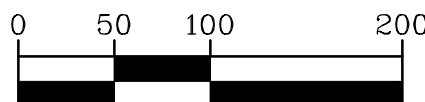
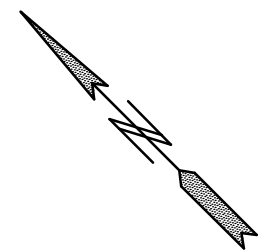
PERMANENT TURF RESTORATION SHALL BE DONE IN ACCORDANCE WITH MNDOT 2575 & 3876 CONSISTING OF:

- MINNESOTA STATE SEED MIXTURE 25-141 AT 70 POUNDS PER ACRE.
- MULCH SHALL BE MNDOT TYPE 3 @ 2 TONS PER ACRE OR APPROVED EQUAL AND DISK ANCHORED IN PLACE OR APPROVED EQUAL, INSTALLED TO MINIMUM 90% COVERAGE OF THE SURFACE AREA DISTURBED.
- TYPE 3 FERTILIZER, 22-5-10 80%W.I.N @ 350 LBS PER ACRE.



PERMANENT WET BASIN/INFILTRATION AREA SEEDING SHALL BE DONE IN ACCORDANCE WITH MNDOT 2575 & 3876 CONSISTING OF:

- MINNESOTA STATE SEED MIXTURE 33-261 AT 35 POUNDS PER ACRE TO BE PLANTED 10 FEET ON EITHER SIDE OF THE NORMAL WATER LEVEL.
- MINNESOTA STATE SEED MIXTURE 35-241 AT 36.5 POUNDS PER ACRE TO BE PLANTED FROM THE 33-261 TO THE HIGH WATER LEVEL.
- MULCH SHALL BE MNDOT TYPE 3 @ 2 TONS PER ACRE OR APPROVED EQUAL AND DISK ANCHORED IN PLACE OR APPROVED EQUAL.
- TYPE 4 FERTILIZER, 18-1-8 @ 120 LBS PER ACRE OR 17-10-7 @ 150 LBS PER ACRE



GRAPHIC SCALE IN FEET

00-ENG-120111-SHEET-SEED

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I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota

Name Paul J. Cherno
Reg. No. 19860 Date 06-25-2021

Revisions

Date 06-25-2021
Designed PJG
Drawn MSN

SEEDING PLAN

CARMELITE HERMITAGE
8249 DEMONTREVILLE TRAIL NORTH
LAKE ELMO, MN 55042

CARMELITE MONASTERY DRIVEWAY
LAKE ELMO, MINNESOTA

3.1 OF 18

STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

TO COMPLY WITH THE GENERAL STORMWATER PERMIT FOR CONSTRUCTION ACTIVITY

THE FULL SWPPP IS A SEPARATE DOCUMENT AVAILABLE UPON REQUEST

CONSTRUCTION ACTIVITY INFORMATION

PROJECT NAME: CARMELITE MONASTERY DRIVEWAY/CARMELITE HERMITAGE CHAPEL
PROJECT LOCATION:
DEMONTREVILLE TRAIL N, LAKE ELMO, MN
WASHINGTON COUNTY
LATITUDE/LONGITUDE: 45.028218, -92.936335

TOTAL PROJECT AREA DISTURBED: 8.9 ACRES
TOTAL EXISTING IMPERVIOUS AREA: 0.7 ACRES
TOTAL PROPOSED IMPERVIOUS AREA: 2.8 ACRES

RECEIVING WATERS:
LAKE DE MONTREVILLE

DATES OF CONSTRUCTION:

CONSTRUCTION START DATE: SEPTEMBER 1, 2021 EST. COMPLETION DATE: DECEMBER 31, 2023

CONTACT INFORMATION

PROJECT OWNER
CARMELITE HERMITAGE
REV. JOHN BURNS
8249 DEMONTREVILLE TRAIL NORTH
LAKE ELMO, MINNESOTA 55042
CARMELBVM@GMAIL.COM

CONTRACTOR:
T.A. SCHIFSKY & SONS, INC.
2370 HIGHWAY 36 E
NORTH ST. PAUL, MINNESOTA 55109
651-777-1313

GENERAL CONSTRUCTION PROJECT INFORMATION

THE CONSTRUCTION OF NEW CHAPEL & PARKING LOT FOR CARMELITE HERMATICE. THIS WILL INCLUDE THE DRIVEWAY CONNECTION BEING CONSTRUCTED TO DEMONTREVILLE TRAIL N. THIS CONSTRUCTION WILL COMPLETE GRADING, INSTALLATION OF WATER SERVICE, STORM SEWER, CONCRETE CURB AND GUTTER, BITUMINOUS RURAL DRIVEWAY SECTION, LANDSCAPING, EROSION CONTROL AND TURF ESTABLISHMENT.

BASED ON THE NRCS SOIL REPORT GENERATED FOR THE SITE, SOILS ENCOUNTERED ON SITE ARE EXPECTED TO BE PRIMARILY SAND AND SILTY SAND.

GENERAL SITE INFORMATION (III.A)

- THE PROJECT IS REQUIRED TO MEET THE CONSTRUCTION STORMWATER REQUIREMENTS FOR THE NPDES GENERAL STORMWATER PERMIT AND MNDOT SPEC. 1717, 2573, AND 2575.
- THE CONTRACTOR SHALL INSTALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES PRIOR TO STARTING WORK WITHIN THE APPLICABLE PORTION OF THE SITE.
- LOCATIONS, TYPE AND QUANTITY OF TEMPORARY AND PERMANENT EROSION CONTROL MEASURES CAN BE FOUND WITHIN THE CONSTRUCTION PLANS.
- THE PROJECT IS NOT LOCATED WITHIN 1 MILE AND FLOWS TO AN IMPAIRED WATER BODY. THEREFORE, THE PROJECT WILL NEED TO STABILIZE ALL EXPOSED SOILS NO LATER THAN 7 DAYS. DITCHES OR RAVINES THROUGHOUT THE PROJECT THAT ARE DISTURBED SHALL BE STABILIZED WITHIN 24 HOURS.
- THE CONTRACTOR SHALL INSTALL ADDITIONAL BMP'S AS NECESSARY AS DIRECTED BY THE ENGINEER TO PREVENT SEDIMENT TRANSPORT.
- INLET PROTECTION, SILT FENCE AND BIOROLLS SHALL BE INSTALLED IN THE FIELD AS SHOWN ON THE PLANS AS DIRECTED BY THE ENGINEER.

ENVIRONMENTALLY SENSITIVE AREAS:

- IMPAIRED WATERS – THERE ARE **NO** IMPAIRED WATERS.
- TMDL – THERE ARE **NO** ESTABLISHED TMDL PLANS.
- SCIENTIFIC OR NATURAL AREAS – THERE ARE **NO** SNA WITHIN 1 MILE OF THE PROJECT.
- KARST AREA – THE PROJECT IS **NOT** LOCATED WITHIN A KARST AREA.
- CALCAREOUS FENS – THE PROJECT DOES **NOT** DISCHARGE TO A FEN.

TRAINING (21.1)

THE CONTRACTOR SHALL ENSURE THAT THE TRAINING REQUIREMENTS IN PART 21.1 OF THE GENERAL STORMWATER PERMIT FOR CONSTRUCTION ACTIVITY ARE COMPLIED WITH. THE INDIVIDUALS TRAINED WILL BE RECORDED IN THE SWPPP BEFORE THE START OF CONSTRUCTION OR AS SOON AS PERSONNEL FOR THE PROJECT HAVE BEEN DETERMINED.

PROVIDE INFORMATION IN THE SPACE PROVIDED BELOW FOR ADDITIONAL PERSONNEL ON THE PROJECT AS REQUIRED BY THE PERMIT.

NAME	DATE	TRAINING PROGRAM

PERMANENT STORMWATER MANAGEMENT SYSTEM (15.1)

- THE PROJECT WILL CREATE A NEW CUMULATIVE IMPERVIOUS SURFACE GREATER THAN OR EQUAL TO ONE ACRE. THE PROJECT PROPOSES TO CONSTRUCT A STORMWATER TREATMENT SYSTEM TO COLLECT RUNOFF TO BE DISCHARGED OFFSITE. TREATMENT FOR THE RUNOFF IS TO BE EXECUTED BY THE PROPOSED STORMWATER MANAGEMENT SYSTEM. CALCULATIONS DETAILING THE BASINS ARE AVAILABLE UPON REQUEST.

EROSION PREVENTION PRACTICES (8.1)

- THE CONTRACTOR SHALL PHASE THE WORK TO LIMIT THE OVERALL DISTURBANCE OF THE PROJECT AT ANY GIVEN TIME. NATURAL VEGETATIVE BUFFERS SHALL BE MAINTAINED BETWEEN THE WORK LIMITS AND ALL SURFACE WATERS OR WETLANDS THROUGHOUT THE COURSE OF CONSTRUCTION.
- THE AREAS NOT TO BE DISTURBED WILL BE DELINEATED THROUGH THE USE OF SILT FENCE, BIOROLLS AND CONSTRUCTION STAKING.
- THE CONTRACTOR SHALL MAINTAIN A NATURAL, VEGETATED BUFFER ADJACENT TO THE WETLANDS WHEREVER POSSIBLE DURING CONSTRUCTION.
- TEMPORARY COVER SHALL BE PROVIDED USING TEMPORARY SEED WITH EROSION CONTROL BLANKET OR HYDROMULCH.
- PERMANENT COVER SHALL BE PROVIDED AS DETAILED ON THE CONSTRUCTION PLANS USING SEED WITH EROSION CONTROL BLANKET OR HYDROMULCH.
- THE CONTRACTOR IS REQUIRED TO PROVIDE ANY ADDITIONAL EROSION PREVENTION MEASURES NECESSARY FOR CONFORMANCE TO THE NPDES CONSTRUCTION PERMIT THROUGHOUT CONSTRUCTION.

SEDIMENT CONTROL PRACTICES (9.1)

- SILT FENCE AND ALL OTHER DOWN GRADIENT PERIMETER CONTROL DEVICES SHALL BE INSTALLED AS SHOWN ON THE PLAN SHEETS PRIOR TO ANY LAND DISTURBANCE ACTIVITY.
- EROSION CONTROL BLANKET AND BIOROLLS SHALL BE PLACED WITHIN THE DITCH BOTTOMS WITHIN 24 HOURS AFTER FINE GRADING.
- TEMPORARY STOCKPILES LOCATED ON SITE SHALL BE SEEDED, MULCHED OR BLANKETED AND HAVE SILT FENCE OR A BMP APPROVED BY THE ENGINEER IN THE FIELD PLACED AROUND THE BASE OF THE STOCKPILE.

DEWATERING AND BASIN DRAINING (10.1)

- DEWATERING IS NOT ANTICIPATED ON THIS PROJECT. HOWEVER, IF DEWATERING IS NECESSARY, THE CONTRACTOR SHALL SUBMIT A PLAN TO THE ENGINEER FOR ACCEPTANCE.
- IF THE DEWATERING OR PUMPING PROCESS IS TURBID OR CONTAINS SEDIMENT LADEN WATER, IT MUST BE TREATED THROUGH THE USE OF SEDIMENT TRAPS, VEGETATIVE FILTER STRIPS, FLOCCULANTS OR OTHER SEDIMENT REDUCING MEASURES SUCH THAT DISCHARGE IS NOT VISIBLY DIFFERENT THAN THE RECEIVING WATER.
- DISCHARGE DIRECTLY INTO A SURFACE WATER OR WETLAND IS NOT PERMITTED.**
- ALL CONSTRUCTION DEWATERING SHALL BE DISCHARGED TO AN APPROVED LOCATION FOR TREATMENT PRIOR TO DISCHARGE TO THE RECEIVING WATER. THE DEWATERING PLAN SHALL BE DEVELOPED AND SUBMITTED TO THE ENGINEER FOR REVIEW IN ACCORDANCE WITH MNDOT SPEC. 1717.2E.
- CONDITIONS OF THE SITE MAY REQUIRE A PERMIT TO BE OBTAINED FROM THE MINNESOTA DEPARTMENT OF NATURAL RESOURCES FOR WATER APPROPRIATIONS. THE CONTRACTOR WILL BE RESPONSIBLE FOR OBTAINING ANY NECESSARY PERMITS FOR DEWATERING.

INSPECTIONS AND MAINTENANCE (11.1)

- THE CONTRACTOR SHALL IDENTIFY A CERTIFIED EROSION AND SEDIMENT CONTROL SUPERVISOR TO CONDUCT WEEKLY SITE INSPECTIONS FOR THE PROJECT.
- THE CONSTRUCTION SITE SHALL BE OBSERVED AT LEAST ONCE EVERY 7 DAYS DURING ACTIVE CONSTRUCTION AND WITHIN 24 HOURS AFTER A RAINFALL EVENT GREATER THAN 0.5 INCHES IN 24 HOURS AND 7 DAYS AFTER THAT.
- WHEN SEDIMENT IS OBSERVED UP TO APPROXIMATELY ONE-THIRD OF THE HEIGHT OF SILT FENCE, SEDIMENT SHALL BE REMOVED. SILT FENCE WILL BE REPLACED, OR SUPPLEMENTED IF IT BECOMES NON-FUNCTIONAL.
- WHEN NON-FUNCTIONAL BMP'S ARE FOUND THEY MUST BE REPAIRED, REPLACED OR SUPPLEMENTED WITH FUNCTIONAL BMP'S WITHIN 24 HOURS OF DISCOVERY OR AS SOON AS FIELD CONDITIONS ALLOW ACCESS.

POLLUTION PREVENTION MANAGEMENT MEASURES (12.1)

ALL WORK NECESSARY TO PROVIDE PROPER POLLUTION PREVENTION MEASURES SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT.

- COLLECTED SEDIMENT, ASPHALT AND CONCRETE MILLINGS, FLOATING DEBRIS, AND OTHER WASTE MUST BE DISPOSED OF PROPERLY AND MUST COMPLY WITH MPCA DISPOSAL REQUIREMENTS.
- OIL, GASOLINE, PAINT AND ANY HAZARDOUS SUBSTANCES MUST BE PROPERLY STORED, INCLUDING SECONDARY CONTAINMENT TO PREVENT SPILLS, LEAKS OR OTHER DISCHARGES. RESTRICTED ACCESS TO STORAGE AREAS MUST BE PROVIDED TO PREVENT VANDALISM. STORAGE AND DISPOSAL OF HAZARDOUS WASTE MUST BE IN COMPLIANCE WITH MPCA REGULATIONS.
- EXTERNAL WASHING OF TRUCKS AND OTHER CONSTRUCTION VEHICLES IS NOT ALLOWED ON SITE. RUNOFF MUST BE CONTAINED AND WASTE PROPERLY DISPOSED OF. NO ENGINE DEGREASING IS ALLOWED ON SITE.
- ALL LIQUID AND SOLID WASTE GENERATED BY CONCRETE WASHOUT OPERATIONS MUST BE CONTAINED IN A LEAK-PROOF CONTAINMENT FACILITY OR IMPERMEABLE LINER. A COMPACTED CLAY LINER THAT DOES NOT ALLOW WASHOUT LIQUIDS TO ENTER THE GROUND WATER IS CONSIDERED AN IMPERMEABLE LINER. THE LIQUID AND SOLID WASTES MUST NOT CONTACT THE GROUND, AND THERE MUST NOT BE RUNOFF FROM THE CONCRETE WASHOUT OPERATIONS OR AREAS. LIQUID AND SOLID WASTE MUST BE DISPOSED OF PROPERLY AND IN COMPLIANCE WITH MPCA REGULATIONS. A SIGN MUST BE INSTALLED ADJACENT TO EACH WASHOUT FACILITY TO INFORM CONCRETE EQUIPMENT OPERATORS TO UTILIZE THE PROPER FACILITIES.
- ANY SPILLS OF HAZARDOUS MATERIALS AND/OR A MINIMUM OF 5-GALLONS PETROLEUM SHALL BE IMMEDIATELY REPORTED TO THE MPCA (STATE DUTY OFFICER: 1.800.422.0798 OR 651.297.8610). ANY SPILLS ABOVE THE REPORTABLE QUANTITIES LIMITS IN THE CODE OF FEDERAL REGULATIONS (CFR) TITLE 40, PART 302 SHALL BE REPORTED TO THE EPA NATIONAL RESPONSE CENTER (1.800.424.8802). IN ORDER TO REDUCE THE RISK OF HAZARDOUS MATERIALS COMING INTO CONTACT WITH STORM WATER, THE FOLLOWING PRACTICES WILL BE FOLLOWED: A) AN EFFORT WILL BE MADE TO STORE ONLY ENOUGH PRODUCTS REQUIRED TO DO THE WORK, B) ALL MATERIALS STORED ON SITE WILL BE STORED IN A NEAT, ORDERLY MANNER IN THEIR APPROPRIATE CONTAINERS AND IF POSSIBLE, UNDER COVER, C) PRODUCTS WILL BE KEPT IN THEIR ORIGINAL CONTAINERS WITH THE ORIGINAL MANUFACTURER'S LABEL UNLESS THE ORIGINAL CONTAINER CANNOT BE RESEALED, IN WHICH CASE THE ORIGINAL LABEL AND MATERIALS SAFETY DATA SHALL BE RETAINED, D) SUBSTANCES WILL NOT BE MIXED WITH ONE ANOTHER UNLESS RECOMMENDED BY THE MANUFACTURER, E) WHENEVER POSSIBLE, ALL OF A PRODUCT WILL BE USED BEFORE DISPOSING OF THE CONTAINER, F) THE MANUFACTURER'S RECOMMENDATIONS FOR PROPER USE AND DISPOSAL WILL BE FOLLOWED, AND G) THE OPERATOR WILL INSPECT DAILY TO ENSURE PROPER USE AND DISPOSAL OF MATERIALS ON SITE. MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEANUP WILL BE CLEARLY POSTED AND SITE PERSONNEL WILL BE MADE AWARE OF THE PROCEDURES AND THE LOCATION OF THE INFORMATION AND CLEANUP SUPPLIES.
- ALL SANITARY WASTE WILL BE COLLECTED BY TEMPORARY SANITARY FACILITIES PROVIDED AT THE SITE BY THE CONTRACTOR THROUGHOUT THE CONSTRUCTION PROJECT. ALL CONSTRUCTION PERSONNEL SHALL UTILIZE TEMPORARY SANITARY FACILITIES, WHICH SHALL BE REGULARLY SERVICE BY A COMMERCIAL OPERATOR. TEMPORARY SANITARY FACILITIES SHALL BE PLACED IN A LOCATION WHERE ACCIDENTAL SPILLAGE OF THE FACILITY SHALL NOT DISCHARGE TO THE STORM SEWER SYSTEM.

FINAL STABILIZATION (4.1)

- ALL DISTURBED AREAS SHALL BE PERMANENTLY STABILIZED AS SHOWN ON THE CONSTRUCTION PLANS. METHODS TO ACHIEVE FINAL STABILIZATION INCLUDE: SEED WITH MULCH OR EROSION CONTROL BLANKET AND SOD.
- ALL AREAS SEEDED BY MEANS OF BROADCAST SEEDING SHALL BE HAND RAKED TO INCORPORATE THE SEEDS INTO THE TOPSOIL.
- EROSION CONTROL BLANKETS SHALL BE PLACED IN THE DITCH BOTTOM WITHIN 24 HOURS AFTER FINE GRADING. BIOROLLS SHALL BE PLACED IN CONJUNCTION WITH THE BLANKET IN THE DITCH BOTTOMS. THE BIOROLLS ARE INTENDED TO SERVE AS PERMANENT DITCH CHECKS.
- THE PERMITTEE WILL SUBMIT A NOTICE OF TERMINATION (NOT) WITHIN 30 DAYS AFTER FINAL STABILIZATION.

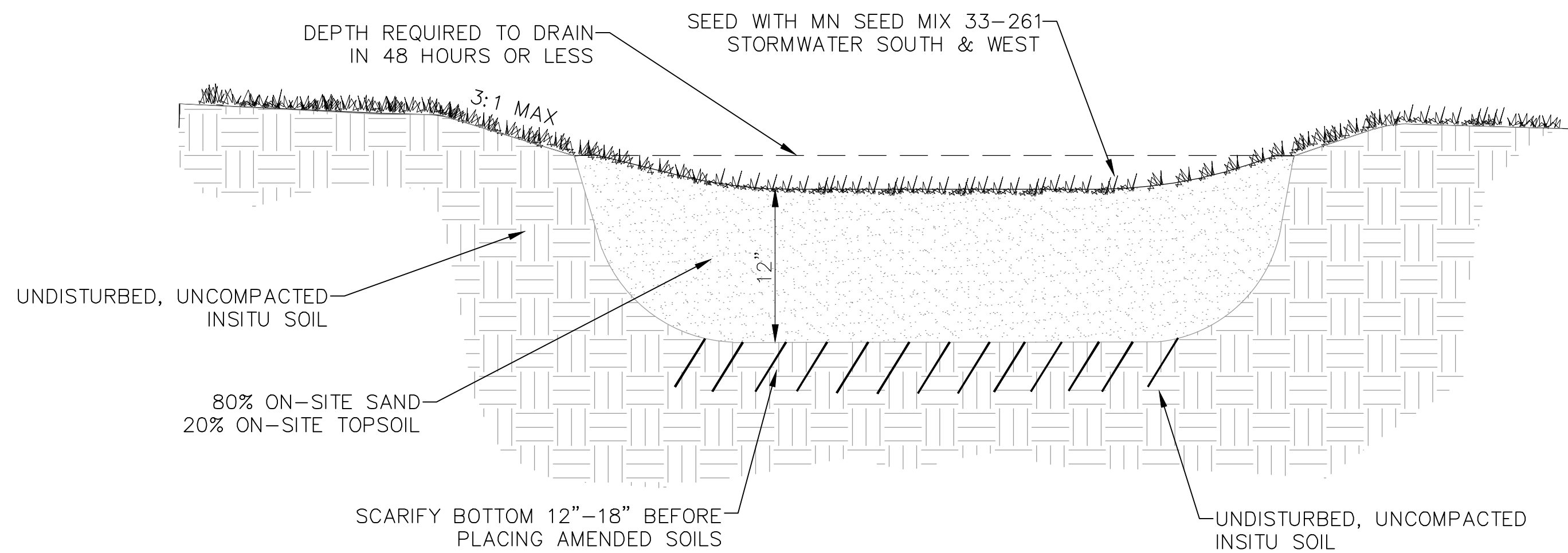
RECORDS RETENTION (5.1&6.1)

- RECORDS TO BE KEPT ON SITE DURING CONSTRUCTION INCLUDE:
 - COPY OF THE SWPPP AND AMENDMENTS
 - TRAINING DOCUMENTATION
 - INSPECTION AND MAINTENANCE RECORDS
- THIS SWPPP WILL BE AMENDED AS NEEDED AND/OR AS REQUIRED BY PROVISIONS OF THE PERMIT. ANY CHANGES TO TEH SWPPP SHALL BE NOTED BELOW AND ON THE APPLICABLE PLAN SHEETS.
- THE CONTRACTOR WILL RECORD CHANGES TO THE SWPPP AND MAINTAIN DOCUMENTATION OF THESE CHANGES ON SITE AT ALL TIMES. A SUMMARY MAINTENANCE/CONSTRUCTION OBSERVATION REPORT WILL BE RECORDED AFTER EACH SITE INSPECTION/OBSERVATION.
- THE CONTRACTOR WILL BE RESPONSIBLE TO MAINTAIN AND REPAIR THE EROSION AND SEDIMENT CONTROL BMP'S UNTIL FINAL STABILIZATION IS COMPLETE AND A NOTICE OF TERMINATION (NOT) IS SUBMITTED.

PROVIDE INFORMATION IN THE SPACE PROVIDED BELOW FOR AMENDMENTS TO THE SWPPP AS REQUIRED BY THE PERMIT.

AMENDMENT	BY	DATE

ITEM DESCRIPTION	UNIT	ESTIMATED QUANTITY
ROCK CONSTRUCTION ENTRANCE	EA	2
ROCK CONSTRUCTION MAINTENANCE	EA	2
EROSION CONTROL FENCE	LF	9742
MAINTENANCE OF PERIMETER EROSION CONTROL FENCE	YR	1
ROCK DITCH CHECK	EA	34
EROSION CONTROL BLANKET PILLOW CHECK	EA	158
STREET SWEEPING AND VACUUMING	YR	1
STORM DRAIN INLET PROTECTION	EA	2
PERMANENT SEED AND MULCH	AC	5.6
MAINTAIN SEED AND MULCH	AC	5.6
EROSION CONTROL BLANKET (MNDOT CAT. 20)	SY	20684
EROSION CONTROL BLANKET (MNDOT CAT. 25)	SY	1042
SPILL PREVENTION AND CONTROL	LS	1



INFILTRATION FACILITY CROSS SECTION

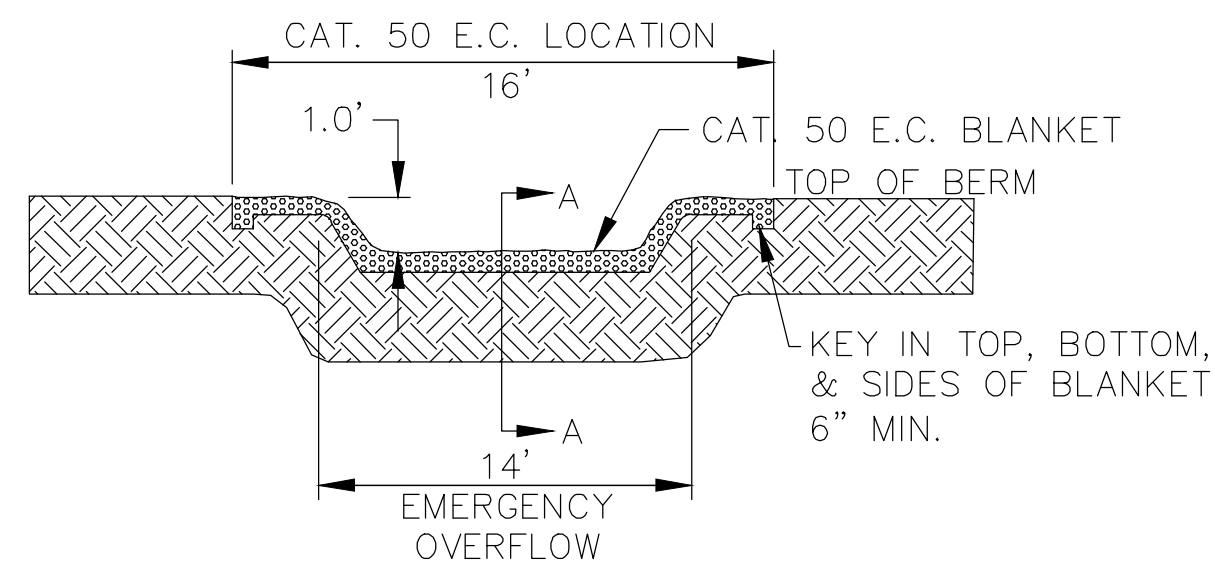
INFILTRATION BASIN CONSTRUCTION NOTES

CONSTRUCTION SEQUENCING

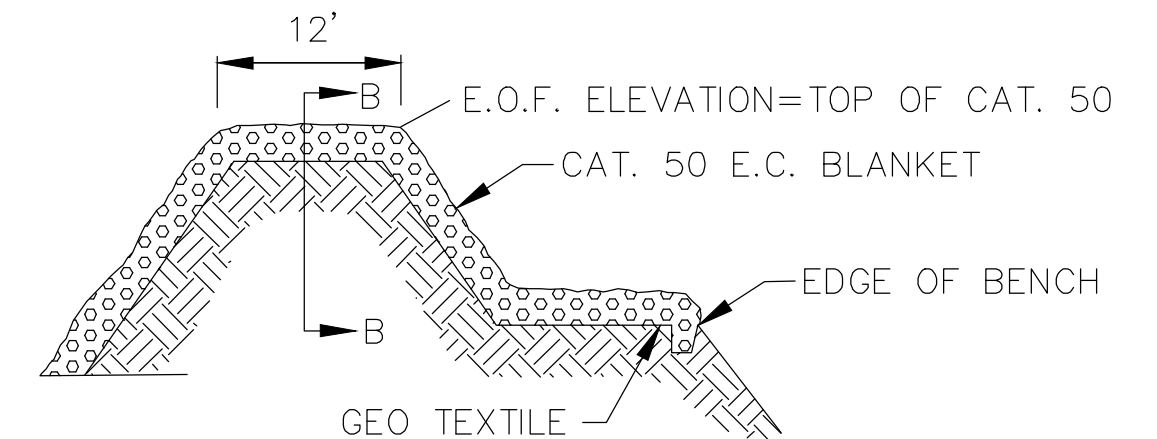
1. INSTALL SILT FENCE AND/OR OTHER APPROPRIATE EROSION CONTROL DEVICES TO PREVENT SEDIMENT FROM LEAVING OR ENTERING THE PRACTICE DURING CONSTRUCTION.
2. ALL DOWN-GRADIENT PERIMETER SEDIMENT CONTROL BMP'S MUST BE IN PLACE BEFORE ANY UP GRADIENT LAND DISTURBING ACTIVITY BEGINS.
3. PERFORM CONTINUOUS INSPECTIONS OF EROSION CONTROL PRACTICES.
4. INSTALL UTILITIES (WATER, SANITARY SEWER, ELECTRIC, PHONE, FIBER OPTIC, ETC) PRIOR TO SETTING FINAL GRADE OF RETENTION DEVICE.
5. ROUGH GRADE THE SITE. DO NOT USE RETENTION AREA AS TEMPORARY SEDIMENT BASINS.
6. PERFORM ALL OTHER SITE IMPROVEMENTS.
7. SEED AND MULCH ALL AREAS AFTER DISTURBANCE.
8. CONSTRUCT RETENTION DEVICE UPON STABILIZATION OF CONTRIBUTING DRAINAGE AREA.
9. IMPLEMENT TEMPORARY AND PERMANENT EROSION CONTROL PRACTICES.
10. PLANT AND MULCH RETENTION DEVICE.
11. REMOVE TEMPORARY EROSION CONTROL DEVICES AFTER THE CONTRIBUTING DRAINAGE AREA IS ADEQUATELY VEGETATED.

GENERAL NOTES

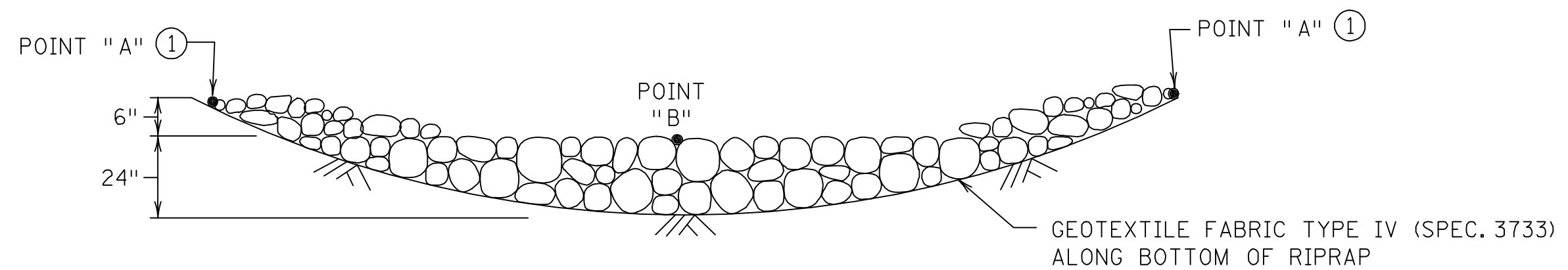
1. IN THE EVENT THAT SEDIMENT IS INTRODUCED INTO THE BMP DURING OR IMMEDIATELY FOLLOWING EXCAVATION, THIS MATERIAL SHALL BE REMOVED FROM THE PRACTICE PRIOR TO CONTINUING CONSTRUCTION.
2. GRADING OF RETENTION DEVICES SHALL BE ACCOMPLISHED USING LOW-COMPACTION EARTH-MOVING EQUIPMENT TO PREVENT COMPACTION OF UNDERLYING SOILS.
3. ALL SUB MATERIALS BELOW THE SPECIFIED BIORETENTION DEPTH (ELEVATION) SHALL BE UNDISTURBED, UNLESS OTHERWISE NOTED.
4. POST CONSTRUCTION TEST ON INFILTRATION BASIN SHALL BE REQUIRED. BASIN SHALL BE FILLED WITH WATER TO A MINIMUM DEPTH OF SIX INCHES (6") AND THE TIME TO DRAIN MUST BE DOCUMENTED. THE CITY OF LAKE ELMO MUST BE NOTIFIED PRIOR TO TESTING TO OBSERVE THE RESULTS.



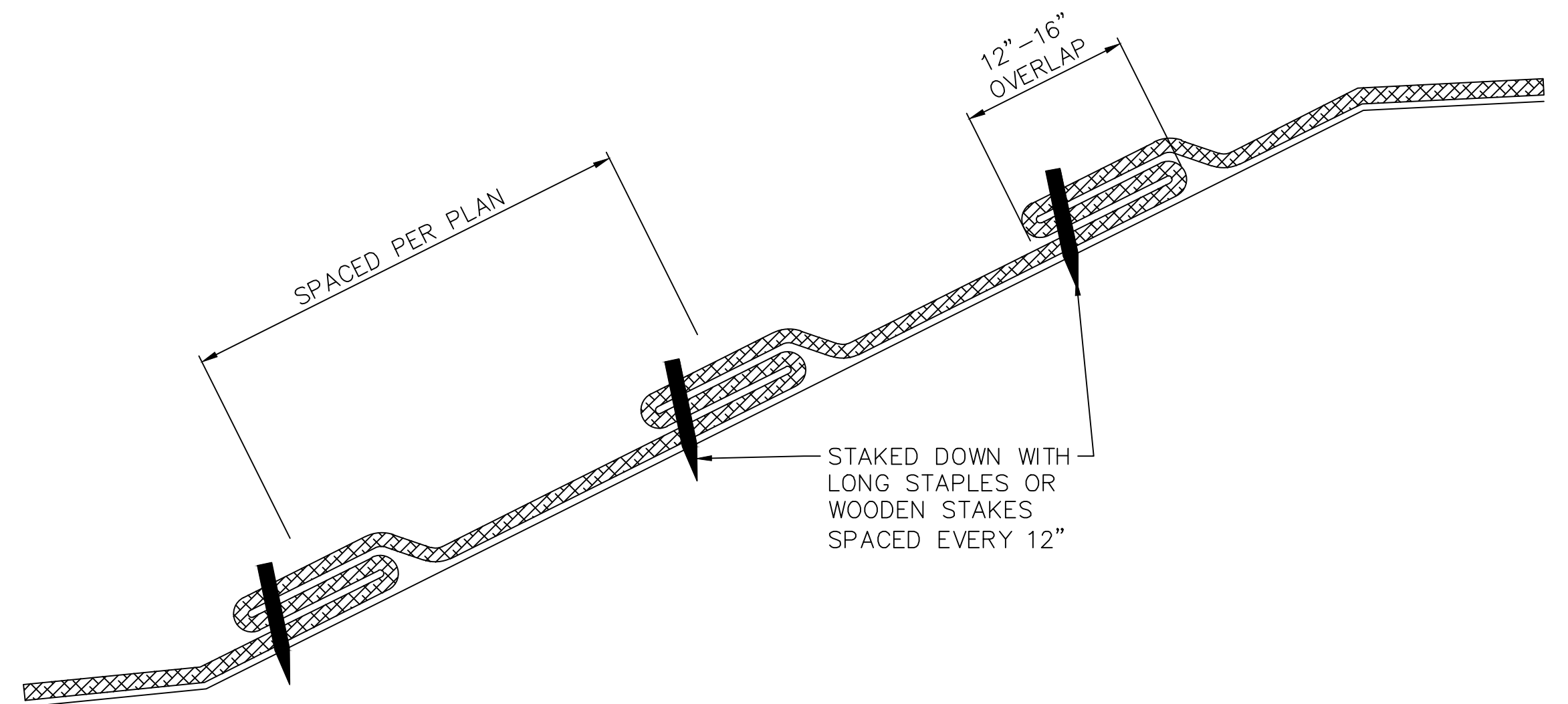
STABILIZED EMERGENCY OVERFLOW DETAIL
SECTION B-B



STABILIZED EMERGENCY OVERFLOW DETAIL
SECTION A-A



ROCK DITCH CHECKS
FILTER BERMS TYPE 3 (ROCK WEEPER) OR FILTER TYPE 5 (ROCK) ③
FOR USE ON ROUGH-GRADED AREAS
ONLY FOR USE OUTSIDE CLEAR ZONE ②



EROSION CONTROL BLANKET PILLOW CHECK DETAIL

1. THE CONTRACTOR SHALL CONDUCT OPERATIONS AND IMPLEMENT MINNESOTA POLLUTION CONTROL AGENCY (MPCA) BEST MANAGEMENT PRACTICES (BMP) TO CONTROL SITE SILTATION AND EROSION INTO DRAINAGE WAYS. THE CONTRACTOR SHALL COMPLY WITH ALL CONDITIONS AND COMPLETION DATES RELATIVE TO ALL PERMITS ISSUED FOR THE WORK TO BE COMPLETED. THE ENGINEER MAY ISSUE A STOP WORK ORDER FOR ALL DEVELOPMENT WORK AND BUILDING CONSTRUCTION FOR NONCOMPLIANCE WITH THESE MEASURES.
2. SEQUENCING. ALL SILT FENCE AND OTHER EROSION CONTROL MEASURES SHALL BE IN PLACE AND APPROVED BY ENGINEER PRIOR TO ANY REMOVALS, EXCAVATION OR CONSTRUCTION AND SHALL BE MAINTAINED UNTIL Viable TURF OR GROUND COVER HAS BEEN ESTABLISHED AND APPROVED BY THE ENGINEER.
3. SILT FENCE. THE CONTRACTOR SHALL INSTALL SILT FENCE AT THE LOCATIONS SHOWN ON THE PLANS AND IN ACCORDANCE WITH THE CITY STANDARD DETAILS. SILT FENCE DAMS AND INTERIM SUMPS SHALL BE PLACED TO INTERCEPT SILT FROM CONCENTRATED RUNOFF FROM OPEN GRADED AREAS. ADDITIONAL SILT FENCE SHALL BE REQUIRED AS DIRECTED BY THE ENGINEER.
4. STOCKPILES. ALL STOCKPILE AREAS SHALL HAVE SILT FENCE OR SEDIMENT TRAPPING SYSTEMS PLACED AROUND THE ENTIRE PERIMETER.
5. INLET PROTECTION. THE CONTRACTOR SHALL INSTALL INLET PROTECTION ON ALL EXISTING STORM SEWER INLETS IN ACCORDANCE WITH THE CITY STANDARD DETAILS. INLET PROTECTION SHALL ALSO BE PROVIDED ON ALL PROPOSED STORM SEWER INLETS IMMEDIATELY FOLLOWING CONSTRUCTION OF THE INLET. INLET PROTECTION MUST BE INSTALLED IN A MANNER THAT WILL NOT IMPOUND WATER FOR EXTENDED PERIODS OF TIME OR IN A MANNER THAT PRESENTS A HAZARD TO VEHICULAR OR PEDESTRIAN TRAFFIC.
6. TEMPORARY SEDIMENT BASINS. THE CONTRACTOR SHALL INCORPORATE TEMPORARY SEDIMENT BASINS THROUGHOUT THE CONSTRUCTION SITE TO CAPTURE RUNOFF AND SLOW THE FLOW OF WATER AND ALLOW SEDIMENT TO SETTLE OUT. TEMPORARY SEDIMENT BASINS SHALL BE INSTALLED AS DIRECTED BY THE CITY ENGINEER.
7. ROCK CONSTRUCTION ENTRANCE. A ROCK ENTRANCE SHALL BE CONSTRUCTED AND MAINTAINED AS SHOWN ON THE PLAN TO REDUCE TRACKING OF SILT AND DIRT ONTO THE PUBLIC STREETS. A GEOTEXTILE FABRIC SHALL BE PLACED UNDERNEATH THE ROCK. THE ROCK SHALL BE PERIODICALLY REPLENISHED TO MAINTAIN THE INTENDED PERFORMANCE. MUD AND DEBRIS SHALL BE REMOVED OR SCRAPED FROM TIRES AND VEHICLE UNDERCARRIAGE PRIOR TO LEAVING THE SITE.
8. STREET SWEEPING. ALL STREETS USED FOR ACCESS TO THE SITE AND HAUL ROUTES USED FOR CONSTRUCTION EQUIPMENT AND MATERIAL SUPPLIES SHALL BE CLEANED AT THE END OF EACH WORKING DAY. THE CITY OR ENGINEER MAY ORDER ADDITIONAL SWEEPING OF THE STREETS AS DEEMED REQUIRED AT DEVELOPER/CONTRACTOR EXPENSE.

STANDARD PLAN NOTES
GRADING AND EROSION CONTROL PLANS

APRIL 2019



CITY OF LAKE ELMO

STANDARD DRAWING NO.

600A

LAKE ELMO

9. DEWATERING. EACH EXCAVATION SHALL BE KEPT DRY DURING THE COURSE OF ALL WORK HEREIN, INCLUDING SUBGRADE CORRECTION, PIPE INSTALLATION, STRUCTURE CONSTRUCTION AND BACKFILLING, TO THE EXTENT THAT NO DAMAGE FROM HYDROSTATIC PRESSURE, FLOATION OR OTHER DAMAGE RESULTS. ALL EXCAVATIONS SHALL BE DEWATERED TO A DEPTH OF AT LEAST 3 INCHES BELOW THE BOTTOM OF THE CONCRETE SLAB OR PIPE TO BE INSTALLED THEREIN. THE CONTRACTOR MAY USE ANY METHOD OR COMBINATION OF METHODS FOR FOR DEWATERING HE CHOOSES; HOWEVER, ALL DEWATERING METHODS AND EQUIPMENT WHICH IN THE OPINION OF THE ENGINEER, ARE INEFFECTIVE SHALL BE ABANDONED, IMPROVED, REPLACED OR THERWISE ALTERED TO OBTAIN EFFECTIVE DEWATERING. THE CONTRACTOR SHALL PROVIDE ALL POWER, PUMPS, MATERIALS AND APPARATUS NECESSARY, AND SHALL BE RESPONSIBLE FOR DISPOSING OF THE WATER PUMPED FROM THE EXCAVATION IN A MANNER WHICH WILL NOT INTERFERE WITH OTHER WORK WITHIN THE AREA AND NOT TO DAMAGE PUBLIC OR PRIVATE PROPERTY. THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR THE CONDITION OF ANY PIPE, CONDUIT, DITCH, CHANNEL OR NATURAL WATERCOURSE UTILIZED FOR DRAINAGE PURPOSES, AND ALL EROSION, SEDIMENT OR OTHER ADVERSE RESULTS OF THEIR USE SHALL BE REPAIRED.
10. POSITIVE DRAINAGE AND PROTECTION. THE CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE THROUGHOUT THE SITE AT ALL TIMES. LOW POINTS WITHIN AND ALONG ROADWAYS ARE EXPRESSLY PROHIBITED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TEMPORARY DITCHES, PIPING OR OTHER MEANS TO FACILITATE PROPER DRAINAGE DURING CONSTRUCTION. TO PROTECT PREVIOUSLY GRADED AREAS FROM EROSION, WOOD FIBER BLANKET SHALL BE PLACED IMMEDIATELY ON STEEP SLOPES (1:3 OR GREATER) AND EMBANKMENTS, PERMANENT AND TEMPORARY PONDS, AND OUTLETS AND OVERFLOWS TO PROTECT THE COMPLETED GRADE AND MINIMIZE SILT IN THE RUNOFF.
11. DRAINAGE DITCHES. THE NORMAL WETTED PERIMETER OF ANY TEMPORARY OR PERMANENT DRAINAGE DITCH OR SWALE THAT DRAINS WATER FROM ANY PORTION OF THE CONSTRUCTION SITE, OR DIVERTS WATER AROUND THE SITE, MUST BE STABILIZED WITHIN 200 LINEAL FEET FROM THE PROPERTY EDGE, OR FROM THE POINT OF DISCHARGE INTO ANY SURFACE WATER. STABILIZATION OF THE LAST 200 LINEAL FEET MUST BE COMPLETED WITHIN 24 HOURS AFTER CONNECTING TO A SURFACE WATER. STABILIZATION OF THE REMAINING PORTIONS OF ANY TEMPORARY OR PERMANENT DITCHES OR SWALES MUST BE COMPLETE WITHIN 14 DAYS AFTER CONNECTING TO A SURFACE WATER AND CONSTRUCTION IN THAT PORTION OF THE DITCH HAS TEMPORARILY OR PERMANENTLY CEASED. TEMPORARY OR PERMANENT DITCHES OR SWALES THAT ARE BEING USED AS A SEDIMENT CONTAINMENT SYSTEM (WITH PROPERLY DESIGNED ROCK DITCH CHECKS, BIO ROLLS, SILT DIKES, ETC.) DO NOT NEED TO BE STABILIZED. THESE AREAS MUST BE STABILIZED WITHIN 24 HOURS AFTER NO LONGER BEING USED AS A SEDIMENT CONTAINMENT SYSTEM.
12. TURF ESTABLISHMENT. ALL EXPOSED SOIL AREAS MUST BE STABILIZED AS SOON AS POSSIBLE TO LIMIT SOIL EROSION BUT IN NO CASE LATER THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED.

STANDARD PLAN NOTES
GRADING AND EROSION CONTOL PLANS

APRIL 2019



CITY OF LAKE ELMO

STANDARD DRAWING NO.

600B

LAKE ELMO

13. MAINTENANCE AND INSPECTION. EROSION CONTROL MEASURES SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION AND UNTIL SATISFACTORY ESTABLISHMENT OF PERMANENT GROUND COVER IS OBTAINED. ALL EROSION AND SEDIMENTATION CONTROL MEASURES, AND STORMWATER OUTFALLS MUST BE INSPECTED WEEKLY, AND WITHIN 24 HOURS OF THE SITE RECEIVING 0.5 INCHES OF RAIN. REPAIRS MUST BE MADE ON THE SAME DAY OR FOLLOWING DAY OF THE INSPECTION. UNSATISFACTORY CONDITIONS NOT REPAIRED OR CLEANED UP WITHIN 48-HOURS OF NOTIFICATION SHALL RESULT IN A STOP WORK ORDER, AND/OR SAID WORK SHALL BE COMPLETED AT CONTRACTOR'S EXPENSE.
14. REMOVAL. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL TEMPORARY EROSION CONTROL MEASURES, STRUCTURES AND DEVICES ONLY AFTER RECEIVING ENGINEER APPROVAL. ALL DEBRIS, STAKES, AND SILTS ALONG SILT FENCES SHALL BE REMOVED AND DISPOSED OFF SITE. THE CONTRACTOR SHALL HAND RAKE SILTED AREAS ALONG THE FENCE LOCATIONS TO PROVIDE A SMOOTH FINAL GRADE AND SHALL RESTORE THE GROUND SURFACE WITH SEED OR SOD, AS REQUIRED, TO MATCH THE FINISHED GRADE TO THE ADJACENT AREA.
15. FINAL STORM SEWER SYSTEM. AT THE COMPLETION OF THE WORK AND BEFORE THE FINAL WALK THROUGH, THE CONTRACTOR SHALL REMOVE STORM SEWER INLET PROTECTION MEASURES AND THOROUGHLY FLUSH THE STORM SEWER SYSTEM. SEDIMENT AND DEBRIS SHALL BE COMPLETELY REMOVED AND CLEANED AT THE INLETS, OUTLETS, AND DOWNSTREAM OF EACH OUTLET. RIPRAP AND GEOTEXTILE FABRIC MAY REQUIRE REPLACEMENT AS DIRECTED BY THE ENGINEER TO OBTAIN A LIKE NEW INSTALLATION ACCEPTABLE TO THE CITY.
16. DITCH CHECK (BIOROLL BLANKET SYSTEM). BIOROLL AND BLANKET SYSTEMS SHALL BE BE INSTALLED AS DITCH CHECKS ONLY IN SPECIFIED LOCATIONS AS APPROVED BY THE CITY ENGINEER. BIOROLLS ARE NOT TO BE UTILIZED IN AREAS WHERE VEHICLE AND CONSTRUCTION TRAFFIC OCCUR.
17. FLOTATION SILT CURTAIN. FLOTATION SILT CURTAIN SHALL BE UTILIZED WHEN CONSTRUCTION ACTIVITIES OCCUR DIRECTLY ADJACENT TO LAKES, STREAMS OR WETLANDS IN ORDER TO CONTAIN SEDIMENTS NEAR THE BANKS OF WORKING AREAS. THE INSTALLATION OF FLOTATION SILT CURTAINS WILL BE REQUIRED AS DIRECTED BY THE CITY ENGINEER.
18. CONCRETE WASHOUT ONSITE. ALL LIQUID AND SOLID WASTES GENERATED BY CONCRETE WASHOUT OPERATIONS MUST BE CONTAINED IN A LEAK-PROOF CONTAINMENT FACILITY OR IMPERMEABLE LINER. A COMPACTED CLAY LINER THAT DOES NOT ALLOW WASHOUT LIQUIDS TO ENTER GROUND WATER IS CONSIDERED AN IMPERMEABLE LINER. THE LIQUID AND SOLID WASTES MUST NOT CONTACT THE GROUND, AND THERE MUST NOT BE RUNOFF FROM THE CONCRETE WASHOUT OPERATIONS OR AREAS. LIQUID AND SOLID WASTES MUST BE DISPOSED OF PROPERLY AND IN COMPLIANCE WITH MPCA REGULATIONS. A SIGN MUST BE INSTALLED ADJACENT TO EACH WASHOUT FACILITY TO INFORM CONCRETE EQUIPMENT OPERATORS TO UTILIZE THE PROPER FACILITIES.

STANDARD PLAN NOTES
GRADING AND EROSION CONTOL PLANS

APRIL 2019



CITY OF LAKE ELMO

STANDARD DRAWING NO.

600C

LAKE ELMO

1. RESTORE ALL DISTURBED AREAS WITH 6 INCHES OF TOPSOIL CONFORMING TO MNDOT 3877.
2. PROTECT ALL STORM SEWER INLETS AS SPECIFIED HEREIN AND MAINTAIN UNTIL STREET CONSTRUCTION IS COMPLETED.
3. MAINTAIN ALL SILT FENCE AND REPAIR OR REPLACE AS NEEDED OR REQUIRED UNTIL TURF HAS BEEN ESTABLISHED.
4. RESTORATION WORK SHALL BEGIN WITHIN 7 DAYS OF FINAL GRADING.
5. BOULEVARD AND DITCH RESTORATION INCLUDES FINE GRADING, WHICH INCLUDES THE REMOVAL OF ROCKS, DEBRIS AND SOIL CHUNKS, WHILE MAINTAINING POSITIVE DRAINAGE.

STANDARD PLAN NOTES
SITE RESTORATION PLANS

APRIL 2019

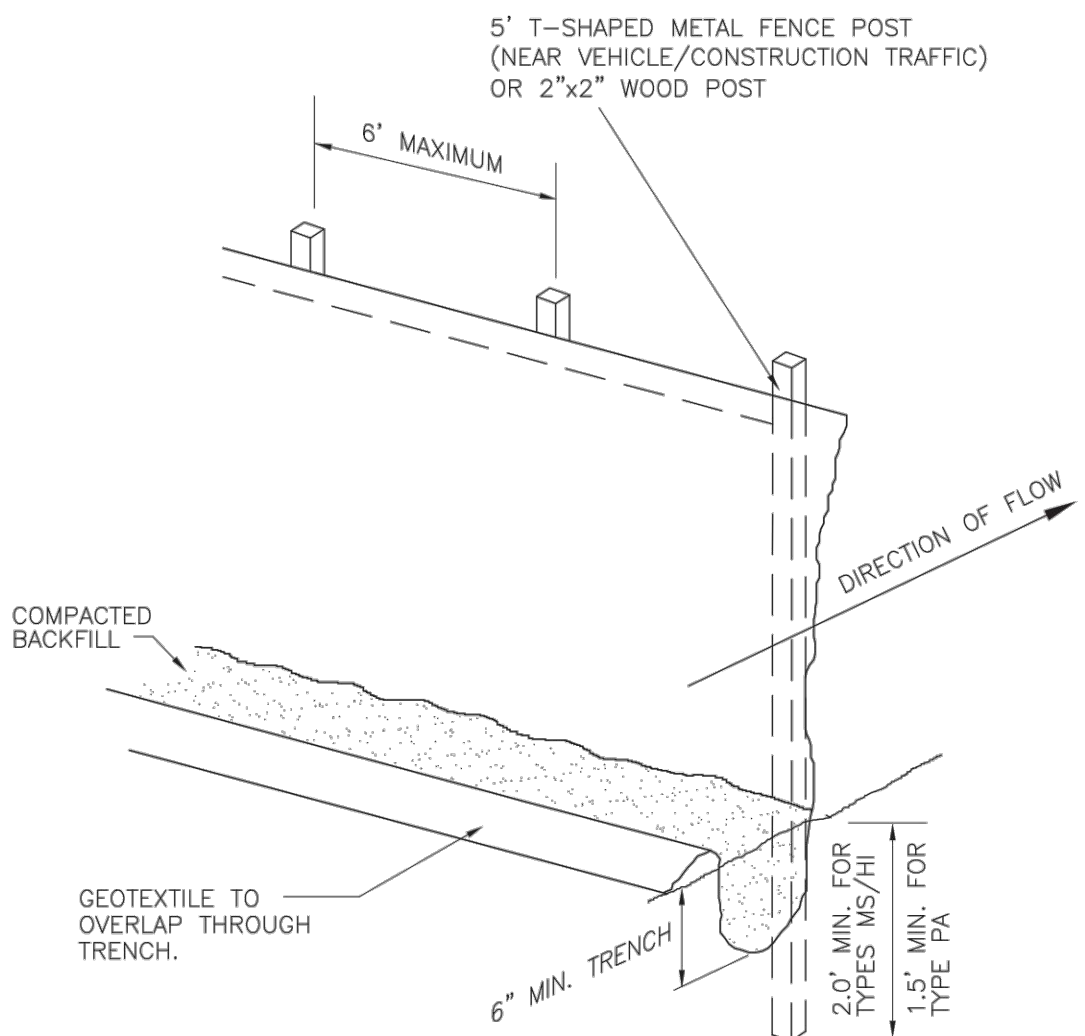


CITY OF LAKE ELMO

STANDARD DRAWING NO.

600D

LAKE ELMO



NOTE : -SILT FENCE INSTALLATION SHALL CONFORM TO MNDOT2573.3, TYPE MS/Hi NEAR VEHICLE/CONSTRUCTION TRAFFIC, TYPE PA AT ALL OTHER LOCATIONS.
-MATERIALS SHALL CONFORM TO MNDOT 3886.

SILT FENCE

APRIL 2019

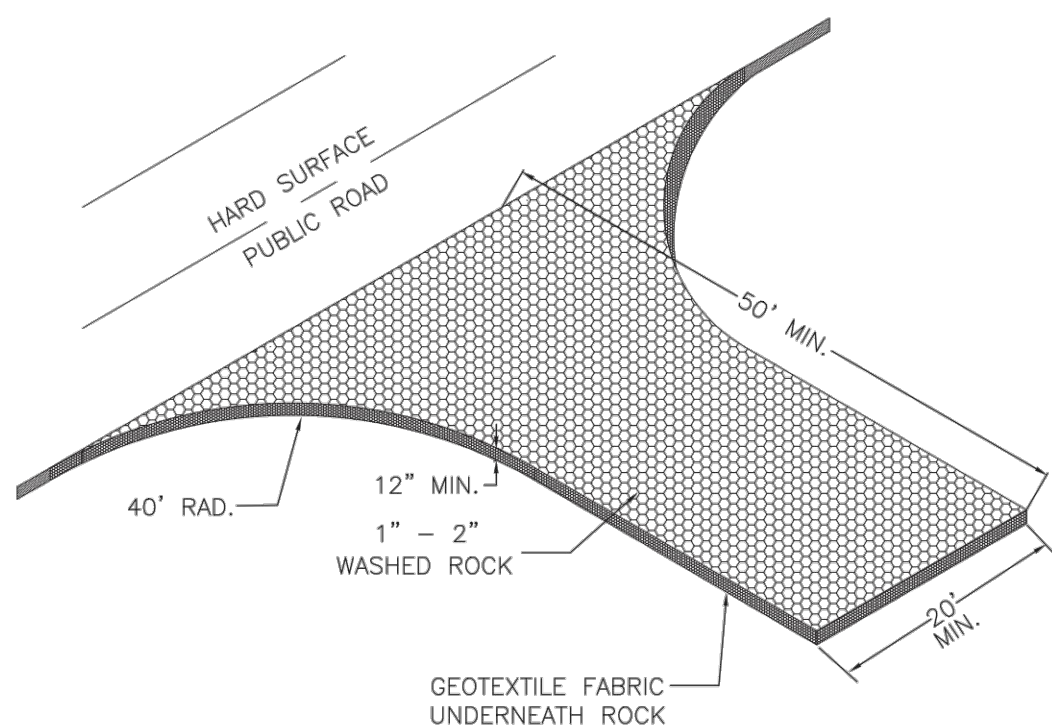


CITY OF LAKE ELMO

STANDARD DRAWING NO.

601

LAKE ELMO



- NOTES:
- ① MAXIMUM WIDTH OF CONSTRUCTION ENTRANCE IS 24 FEET.
 - ② A MNDOT 3733 TYPE V GEOTEXTILE FABRIC SHALL BE USED UNDER THE ROCK TO PREVENT MIGRATION OF THE UNDERLYING SOIL INTO THE STONE.
 - ③ CONSTRUCTION ENTRANCE IS REQUIRED FOR ALL NEW HOME CONSTRUCTION AND NEW STREET CONSTRUCTION.
 - ④ CONSTRUCTION ENTRANCE SHALL BE MAINTAINED TO PREVENT TRACKING OF MUD ONTO ROADWAYS THAT ADJOIN THE PROJECT. THIS WILL REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL ROCK OR REMOVAL AND REINSTALLATION OF THE ROCK ENTRANCE.
 - ⑤ REMOVE MUD AND DEBRIS FROM TIRES AND VEHICLE UNDERCARRIAGE PRIOR TO LEAVING THE SITE.

ROCK CONSTRUCTION ENTRANCE

APRIL 2019



CITY OF LAKE ELMO

STANDARD DRAWING NO.

605

LAKE ELMO



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2422 Enterprise Drive
Mendota Heights, MN 55120

(651) 681-1914
Fax: 681-9488
www.pioneereng.com

I hereby certify that this plan was prepared by
me or under my direct supervision and that I
am a duly Licensed Professional Engineer
under the laws of the State of Minnesota

Name
Paul J. Chernie
Reg. No. 19860 Date 06-25-2021

Revisions

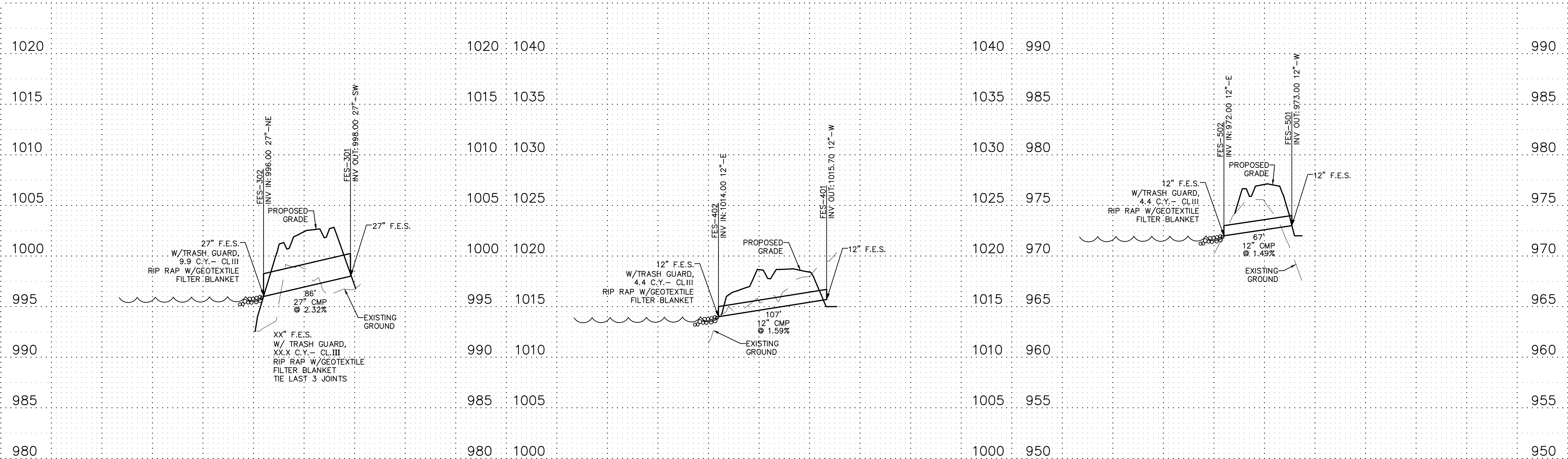
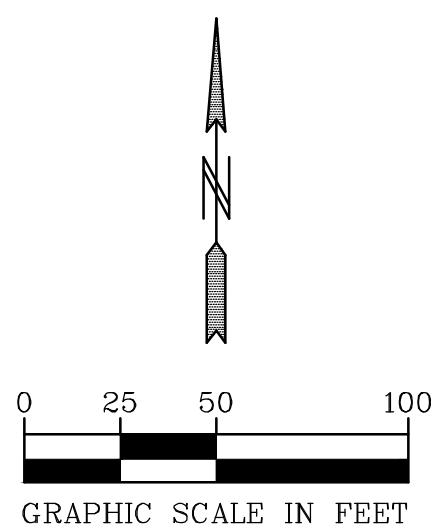
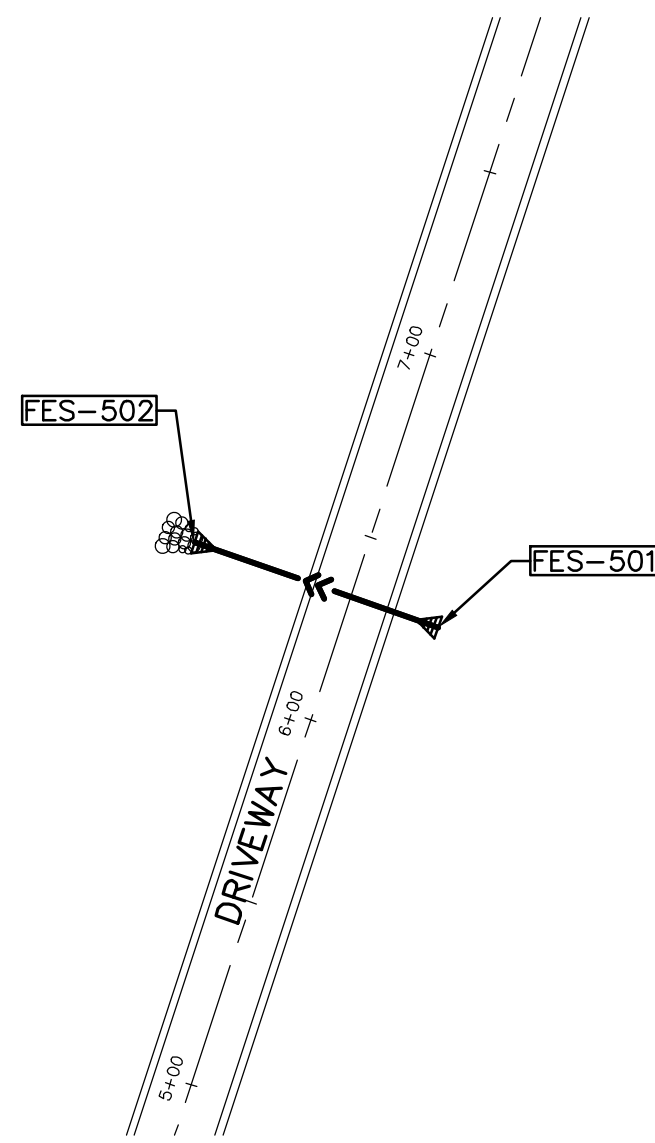
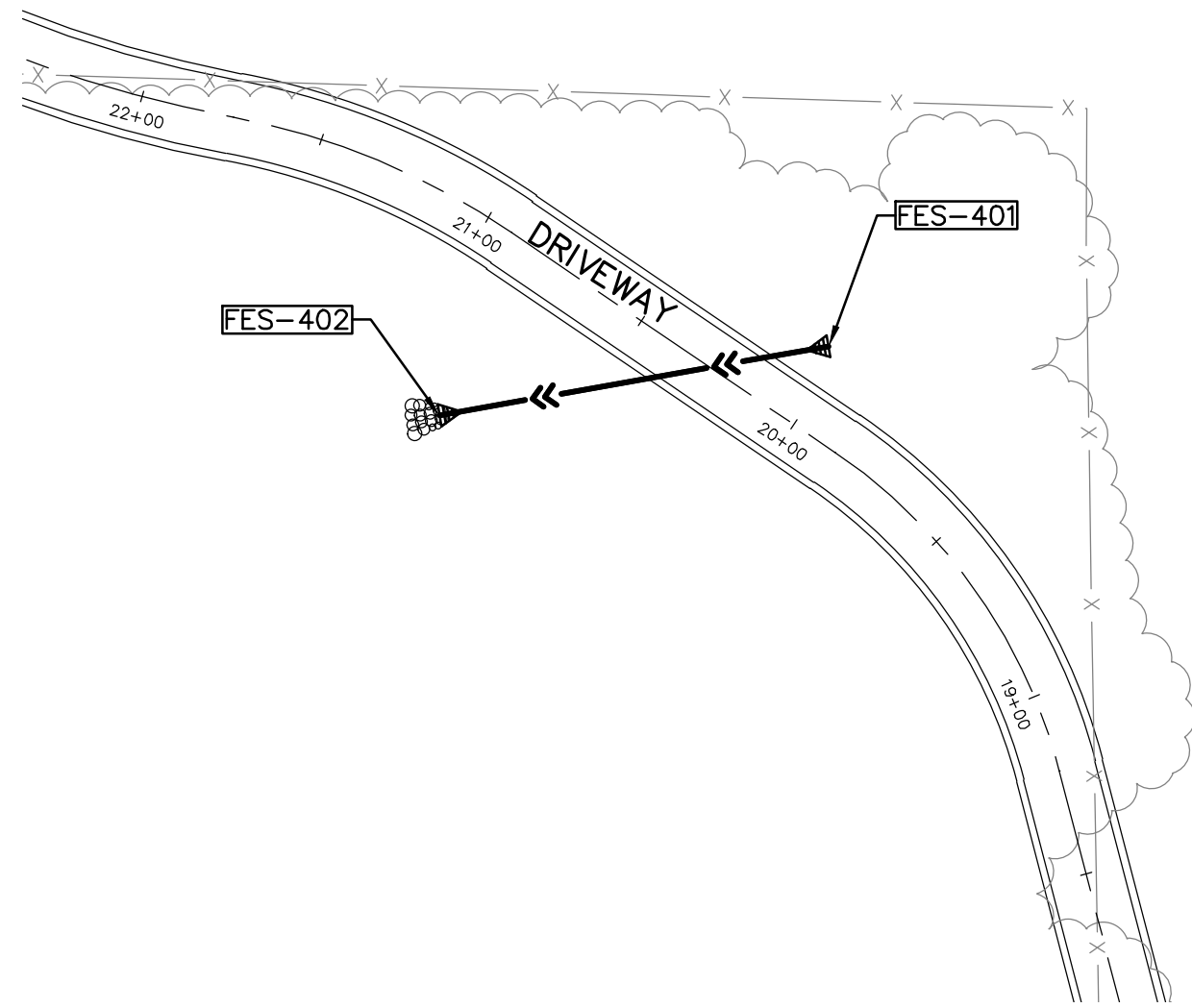
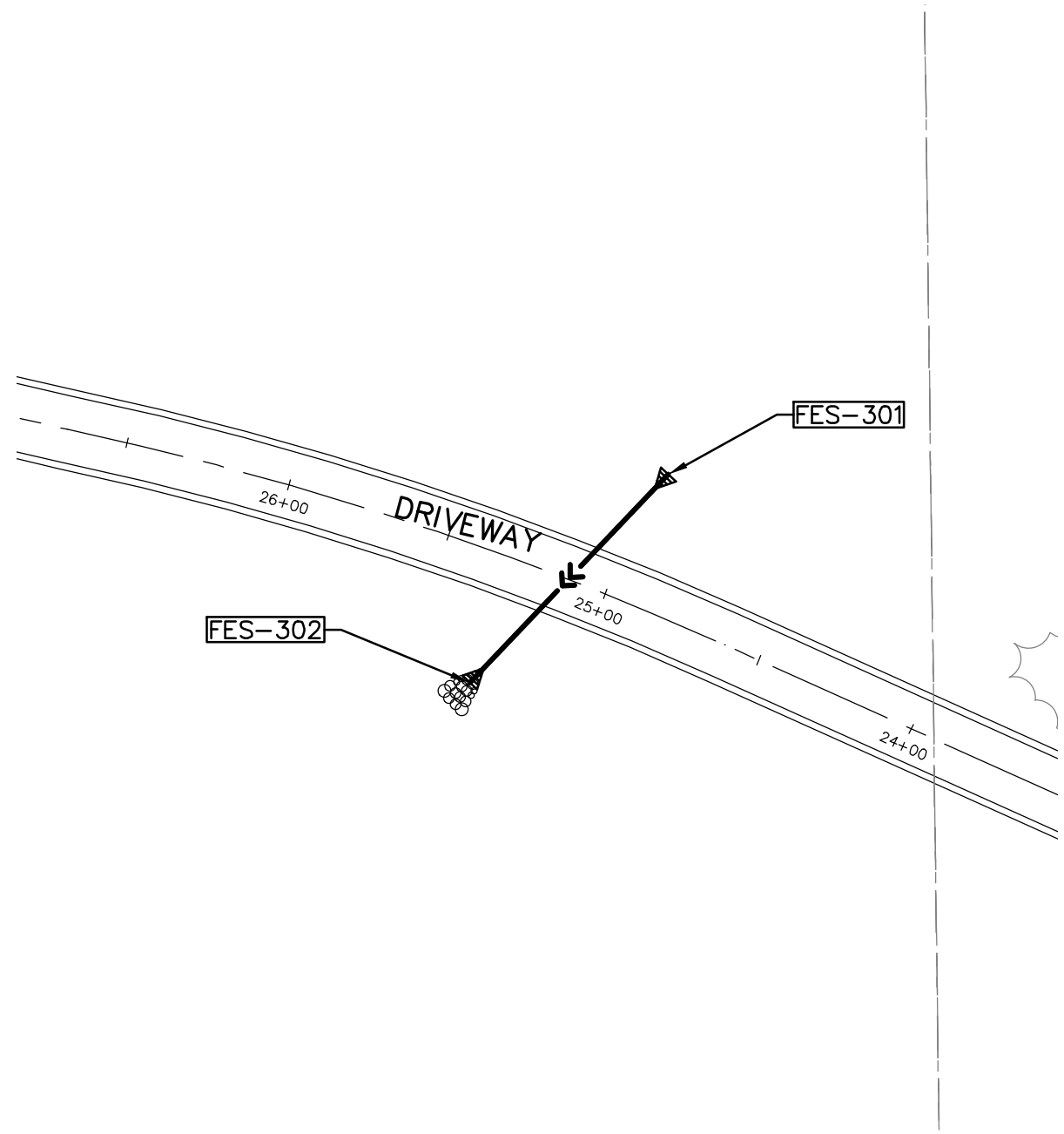
Date 06-25-2021
Designed PJC
Drawn MSN

WALKING PATH CONSTRUCTION

CARMELITE HERMITAGE
8249 DEMONTREVILLE TRAIL NORTH
LAKE ELMO, MN 55042

CARMELITE MONASTERY DRIVEWAY
LAKE ELMO, MINNESOTA

6.1 OF 18



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I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota

Name: Paul J. Chernie
Reg. No.: 19860 Date: 06-25-2021

Revisions

Date: 06-25-2021
Designed: PIC
Drawn: MSN

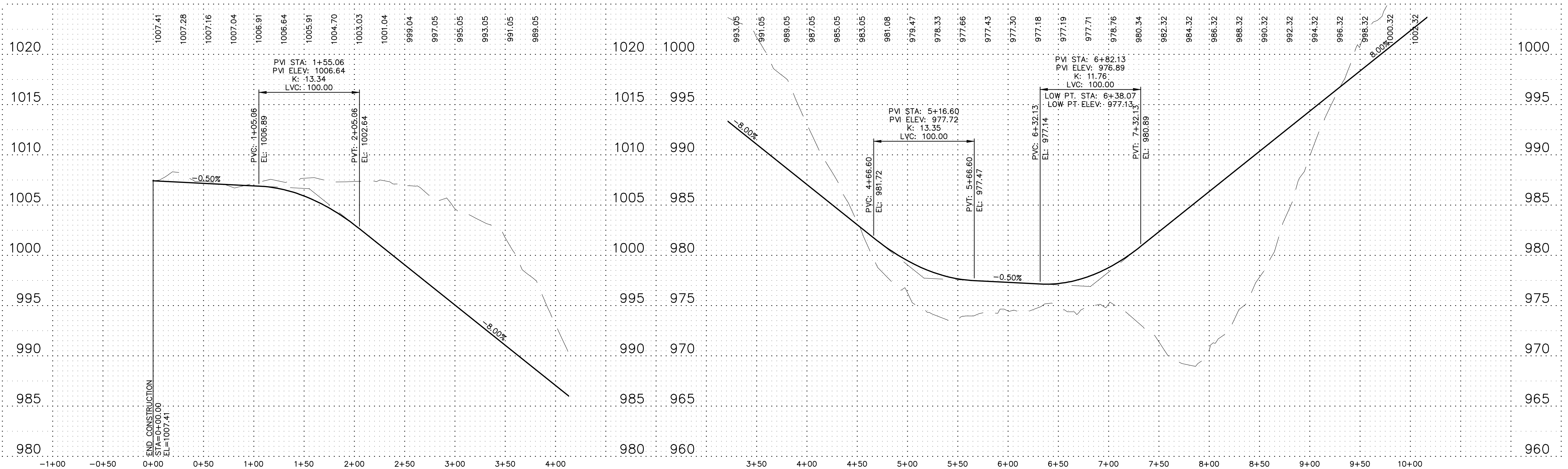
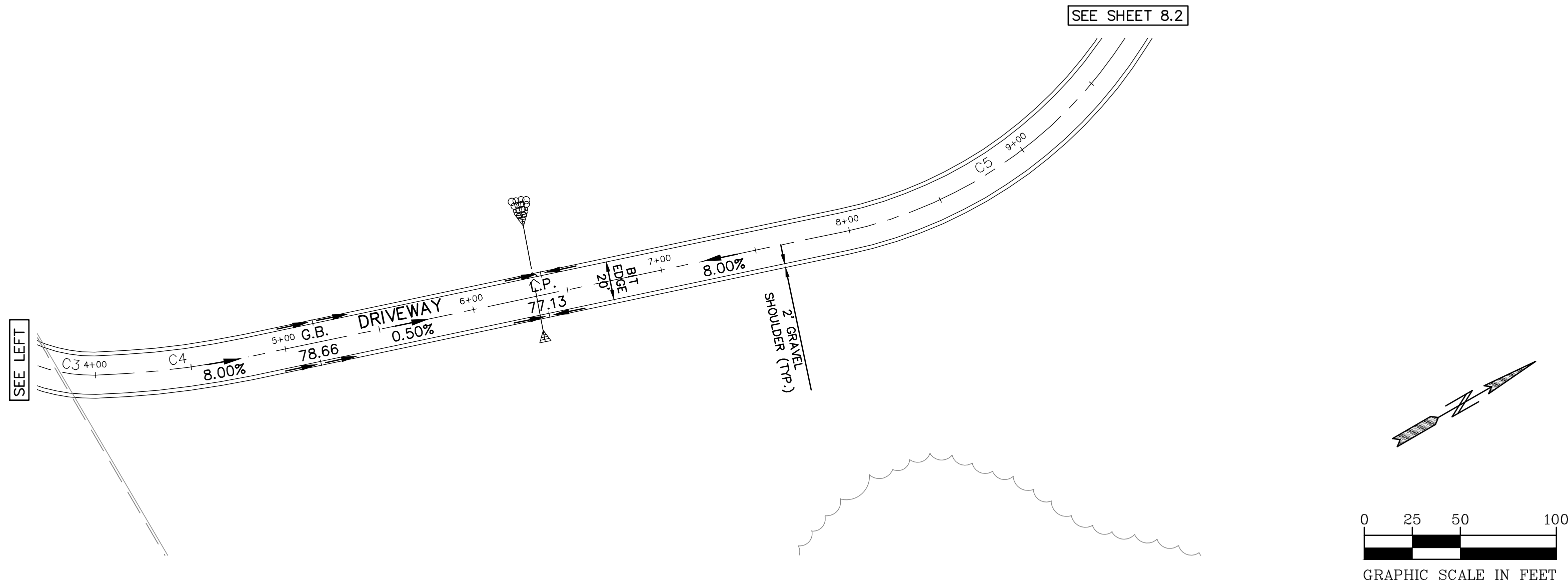
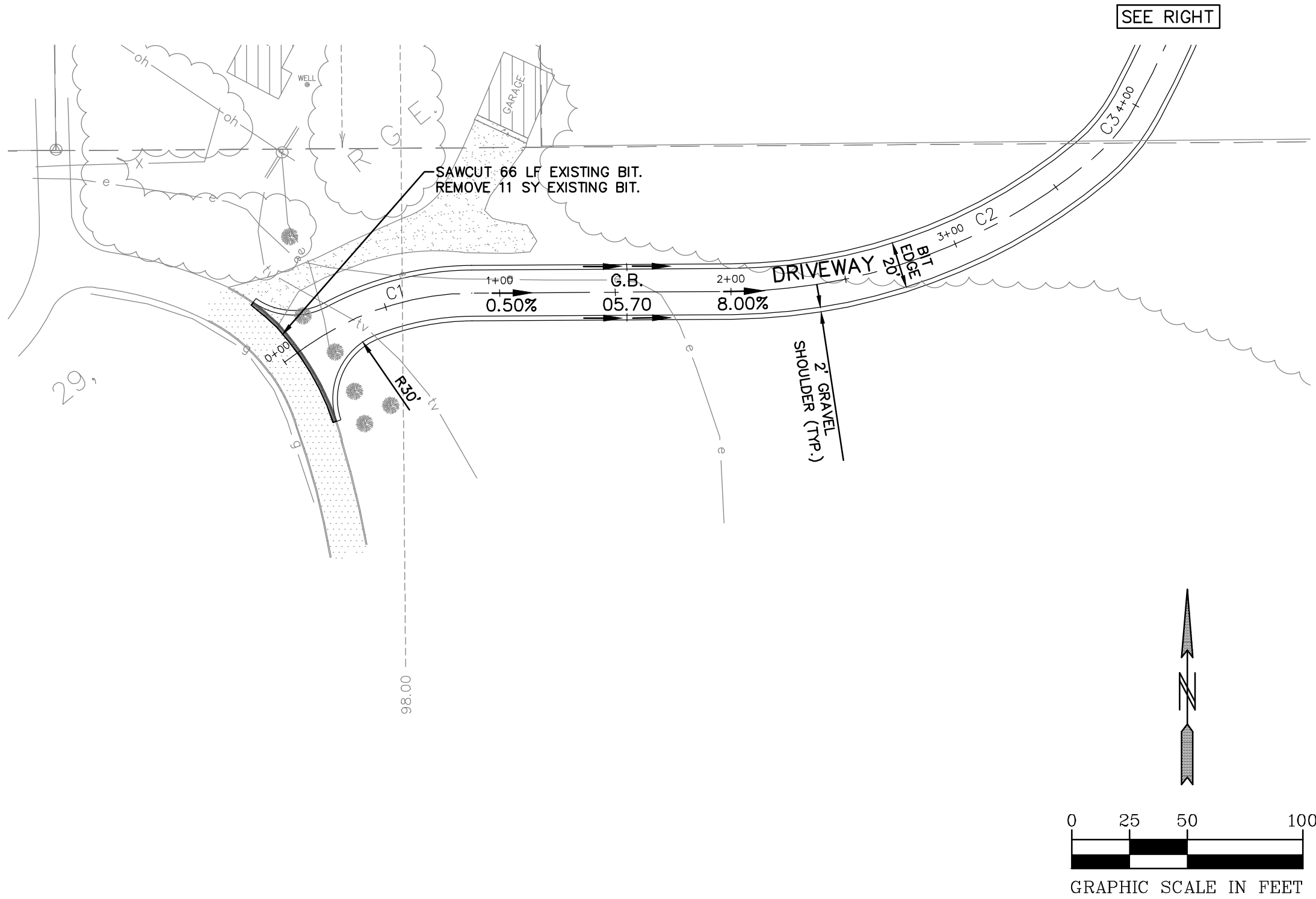
STORM SEWER CONSTRUCTION

CARMELITE HERMITAGE
8249 DEMONTREVILLE TRAIL NORTH
LAKE ELMO, MN 55042

CARMELITE MONASTERY DRIVEWAY
LAKE ELMO, MINNESOTA

7.1 OF 18

CURVE TABLE						
CURVE	DELTA	LENGTH	RADIUS	TANGENT	PC	PT
C1	35°11'59"	76.79	125.00	39.65	0+11.05	0+87.84
C2	39°29'57"	168.90	245.00	87.96	2+00.60	3+69.50
C3	21°42'44"	30.32	80.00	15.34	3+69.50	3+99.82
C4	10°15'33"	80.29	448.43	40.25	3+99.82	4+80.11
C5	73°21'56"	294.51	230.00	171.33	7+97.25	10+91.76



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Name: Paul J. Chernie
Reg. No.: 19860 Date: 06-25-2021

Revisions

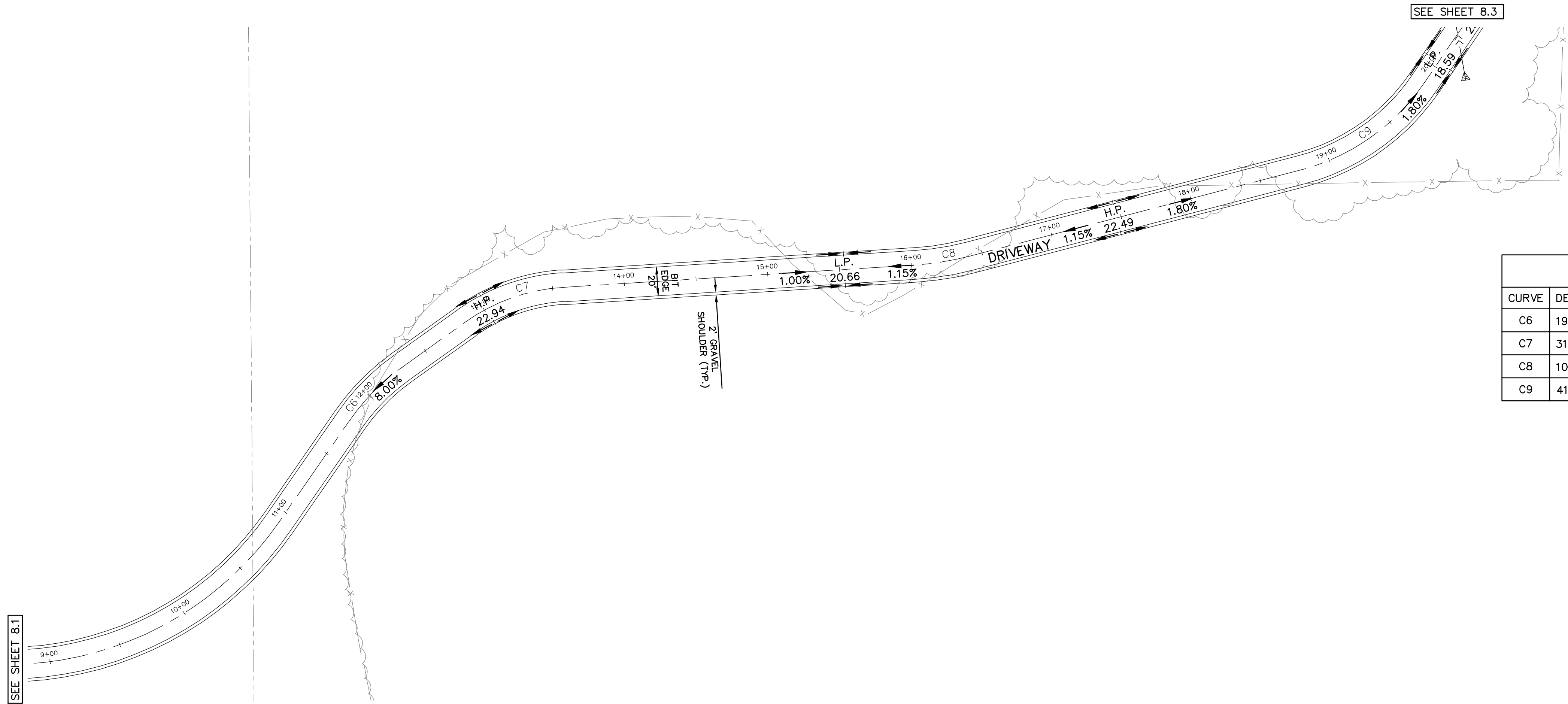
Date: 06-25-2021
Designed: PIC
Drawn: MSN

DRIVEWAY CONSTRUCTION

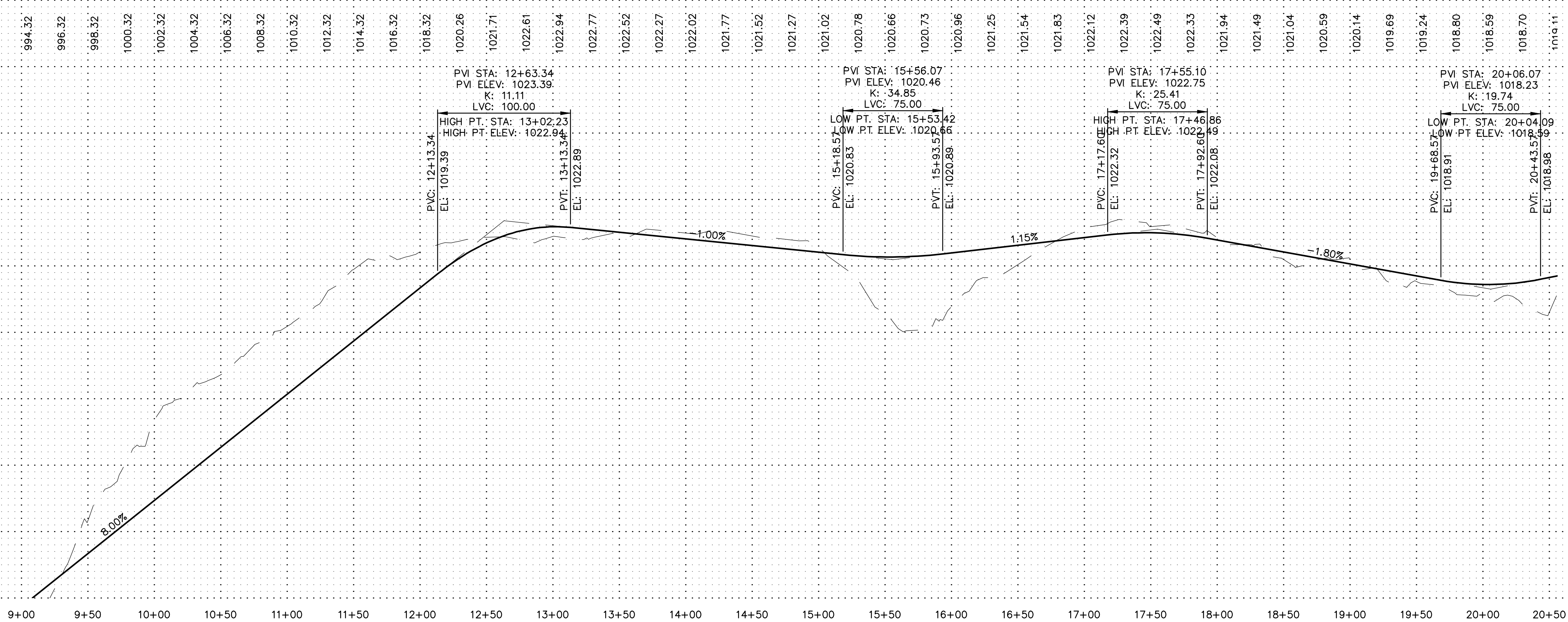
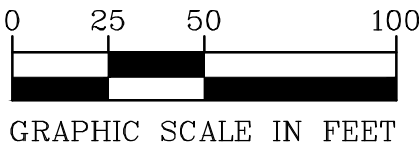
CARMELITE HERMITAGE
8249 DEMONTREVILLE TRAIL NORTH
LAKE ELMO, MN 55042

CARMELITE MONASTERY DRIVEWAY
LAKE ELMO, MINNESOTA

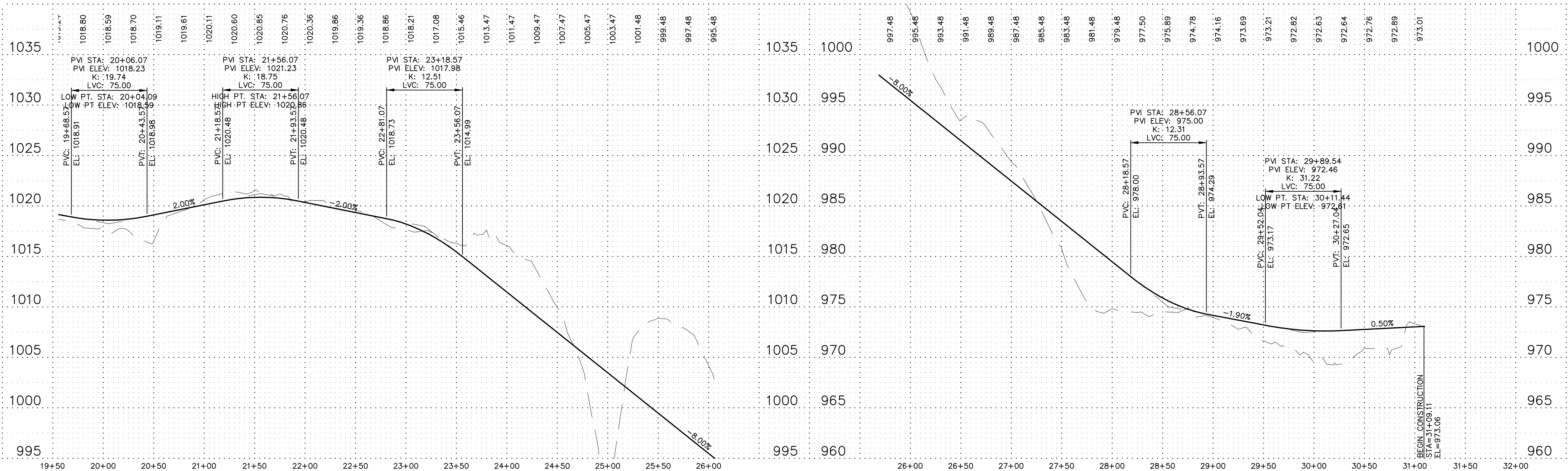
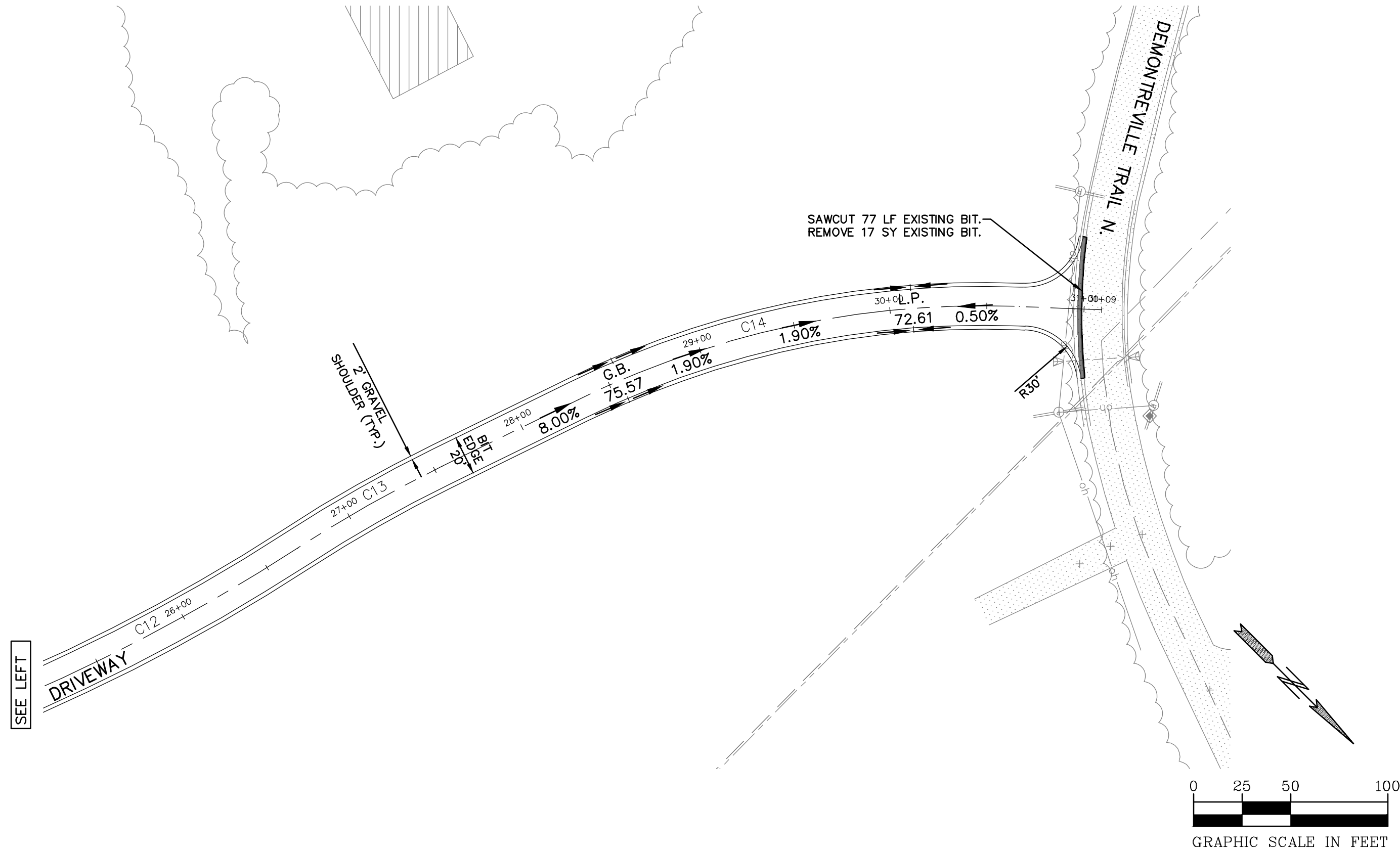
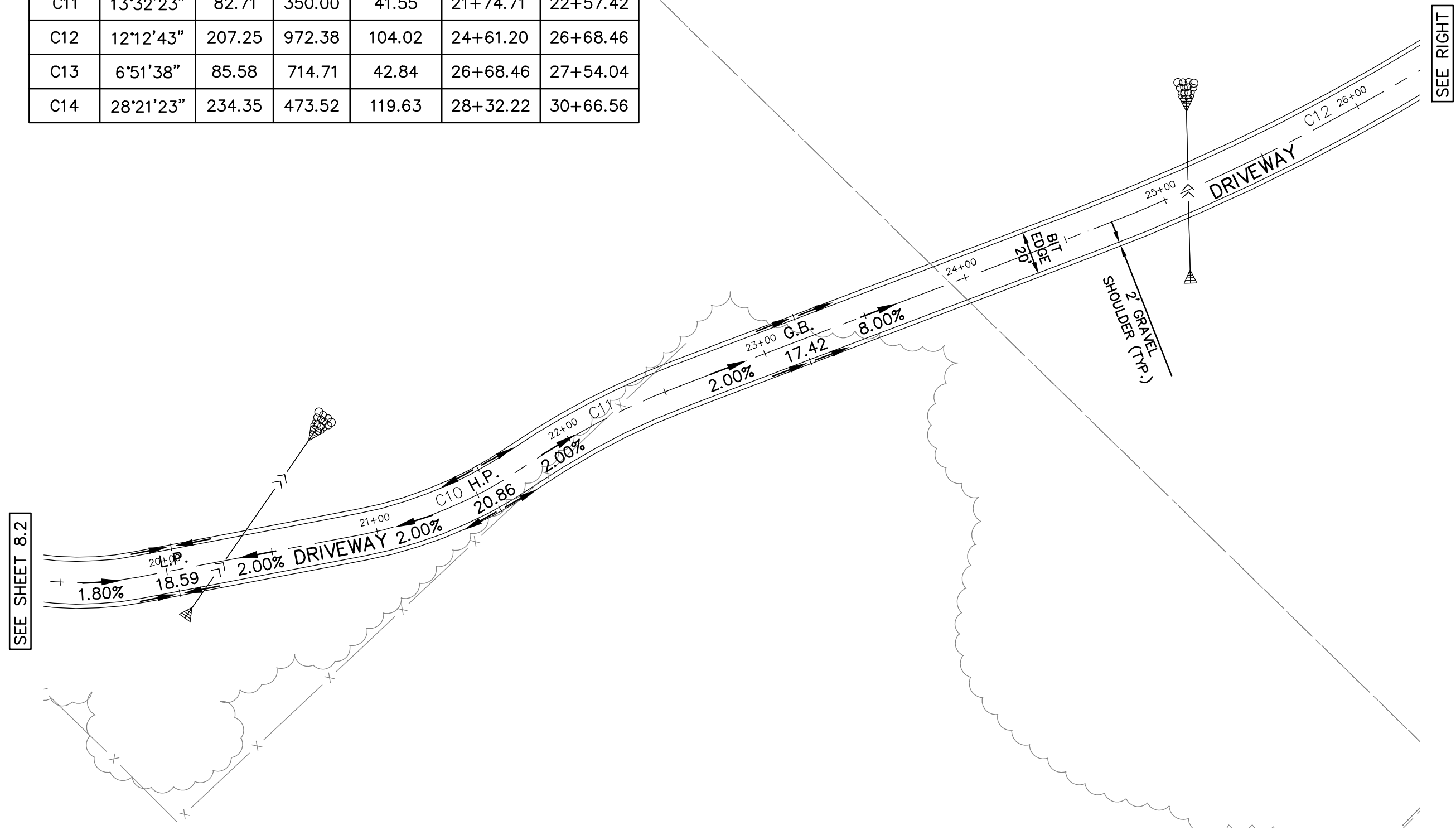
8.1 OF 18



CURVE TABLE						
CURVE	DELTA	LENGTH	RADIUS	TANGENT	PC	PT
C6	19°45'00"	51.72	150.03	26.12	11+78.30	12+30.02
C7	31°50'44"	72.26	130.00	37.09	12+84.72	13+56.98
C8	10°56'39"	38.20	200.00	19.16	16+02.61	16+40.81
C9	41°12'05"	107.86	150.00	56.38	18+78.84	19+86.70



CURVE TABLE						
CURVE	DELTA	LENGTH	RADIUS	TANGENT	PC	PT
C10	23°30'33"	82.06	200.00	41.62	20+92.64	21+74.71
C11	13°32'23"	82.71	350.00	41.55	21+74.71	22+57.42
C12	12°12'43"	207.25	972.38	104.02	24+61.20	26+68.46
C13	6°51'38"	85.58	714.71	42.84	26+68.46	27+54.04
C14	28°21'23"	234.35	473.52	119.63	28+32.22	30+66.56



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2422 Enterprise Drive
Mendota Heights, MN 55120

(651) 681-1914
Fax: 681-9488
www.pioneereng.com

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota

Name
Paul J. Chernie
Reg. No. 19860 Date 06-25-2021

Revisions

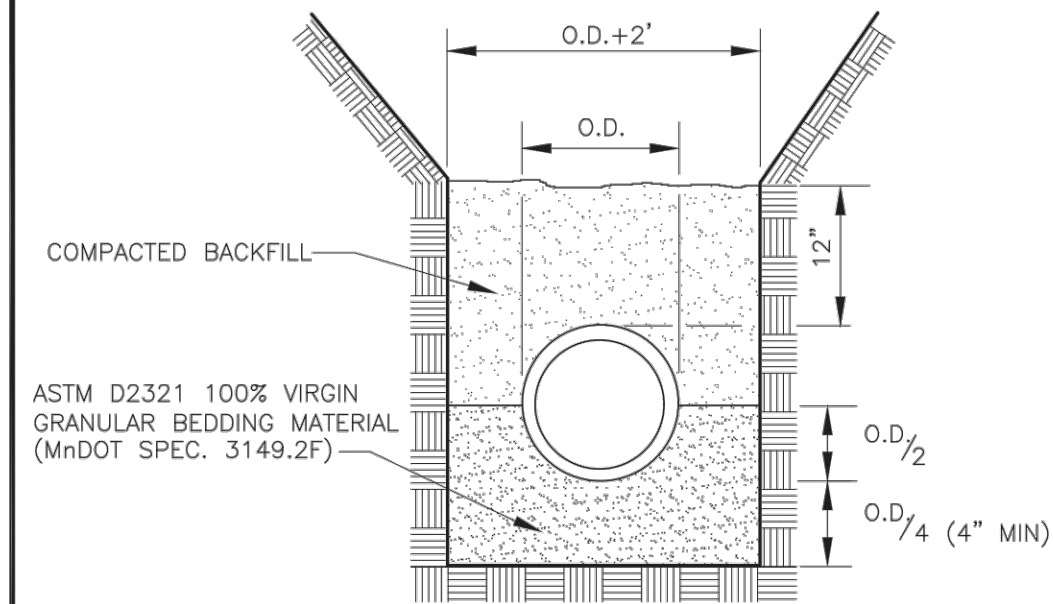
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DRIVEWAY CONSTRUCTION

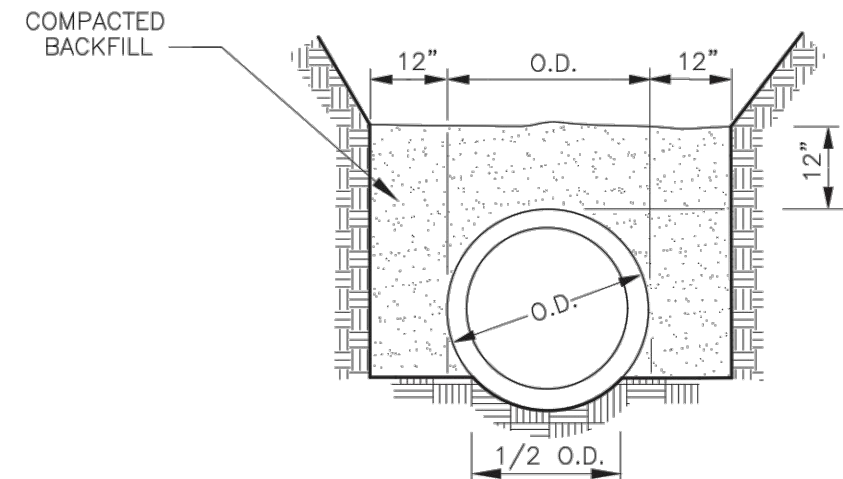
CARMELITE HERMITAGE
8249 DEMONTREVILLE TRAIL NORTH
LAKE ELMO, MN 55042

CARMELITE MONASTERY DRIVEWAY
LAKE ELMO, MINNESOTA

8.3 OF 18



GRANULAR MATERIAL BEDDING
(TO BE USED WHERE, IN THE OPINION OF THE ENGINEER, UNSTABLE MATERIAL PREVENTS USE OF THE "EARTH FOUNDATION" DETAIL)



EARTH FOUNDATION
(EXCEPT SANITARY SEWER)
PIPE FOUNDATION DETAILS

APRIL 2019

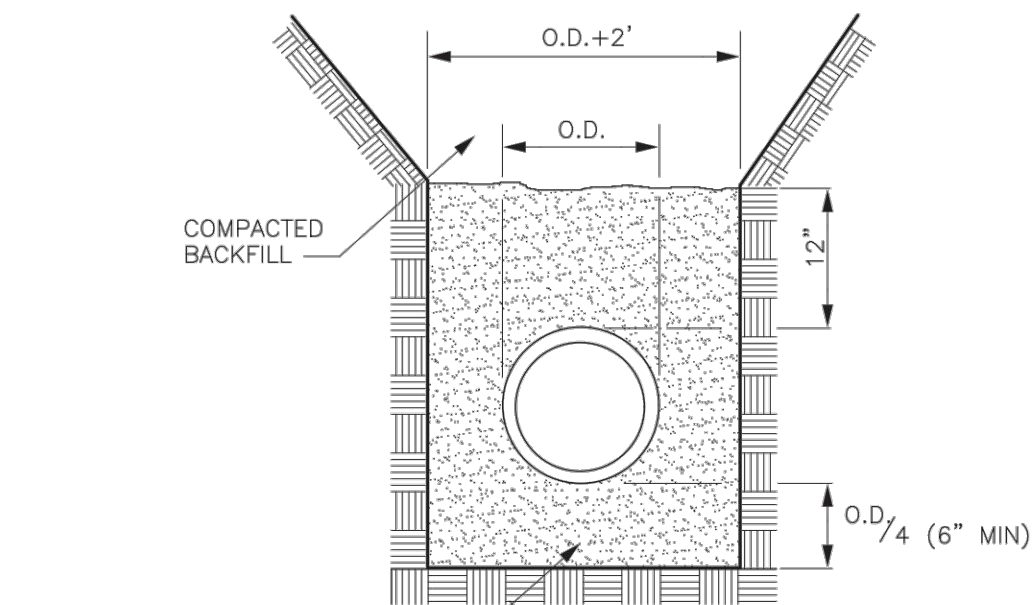


CITY OF LAKE ELMO

STANDARD DRAWING NO.

101

LAKE ELMO



ASTM D2321 100% VIRGIN
GRANULAR BEDDING MATERIAL
(MnDOT SPEC. 3149.2F)

GRANULAR MATERIAL BEDDING METHOD
(FOR PVC SANITARY SEWER PIPE)

APRIL 2019



CITY OF LAKE ELMO

STANDARD DRAWING NO.

103

LAKE ELMO

- ALL STORM SEWER AND ACCESSORIES MUST BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF LAKE ELMO STANDARD SPECIFICATIONS AND DETAILS.
- REINFORCED CONCRETE PIPE AND FITTINGS SHALL CONFORM WITH THE REQUIREMENTS OF MnDOT SPEC 3236 (REINFORCED CONCRETE PIPE) FOR THE TYPE, SIZE, AND STRENGTH CLASS SPECIFIED HEREIN.
- PRECAST CONCRETE MANHOLE AND CATCH BASIN SECTIONS SHALL CONFORM TO THE REQUIREMENTS OF ASTM C-477.
- A 1'-0" TO 1'-4" MANHOLE SECTION SHALL BE INSTALLED UNDER THE CONE SECTION TO ALLOW FOR HEIGHT ADJUSTMENT WHENEVER POSSIBLE.
- JOINTS OF MANHOLE RISER SECTIONS SHALL BE TONGUE AND GROOVE WITH RUBBER "O" RING JOINTS PROVIDED ON ALL STORM SEWER MANHOLES.
- RIP-RAP SHALL BE HAND-PLACED OVER GEOTEXTILE FABRIC AND CONFORM TO MnDOT SPEC. 3601, CLASS III, OR AS SPECIFIED HEREIN.
- THE GEOTEXTILE FABRIC USED UNDER RIP-RAP SHALL EXTEND 3 FT UNDER THE APRON.
- FURNISH & INSTALL TRASH GUARDS ON ALL FLARED END SECTIONS.
- ALL SILT SHALL BE CLEANED OUT FROM THE RIP-RAP AT THE END OF THE PROJECT.
- STORM SEWER STRUCTURES WITHIN 10 FT OF WATERMAIN ARE TO HAVE WATER TIGHT CONNECTIONS PER MDH REQUIREMENTS.
- ALL NEW STORM SEWER PIPE SHALL BE FLUSHED AND TELEVIEWED PRIOR TO SUBSTANTIAL COMPLETION - SEE SPECIFICATION SECTION 1700 - CLOSEOUT REQUIREMENTS.

STANDARD PLAN NOTES
STORM SEWER PLANS

APRIL 2019



CITY OF LAKE ELMO

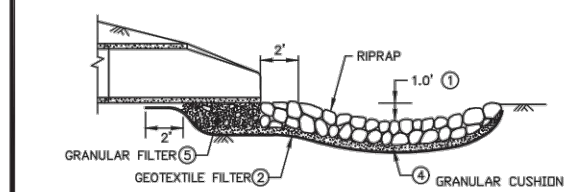
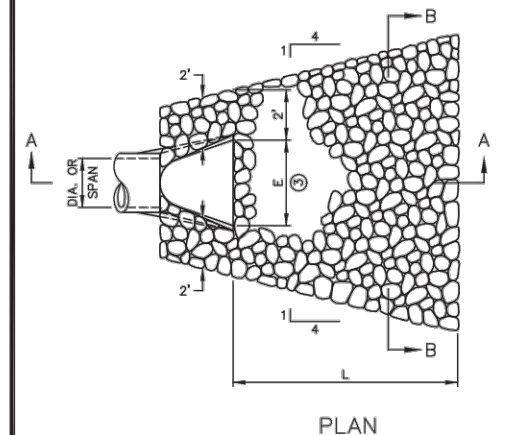
STANDARD DRAWING NO.

400A

LAKE ELMO

DIA. OF ROUND PIPE (IN.)	L (FT.)	CLASS II 45g = 6'			CLASS III 45g = 9'			CLASS IV 45g = 12'		
		GEO- TEXTILE FILTER (SQ.YD.)	GRANULAR UNDER APRON (CU.YD.)	12" DEPTH RIPRAP (CU.YD.)	GEO- TEXTILE FILTER (SQ.YD.)	GRANULAR UNDER APRON (CU.YD.)	18" DEPTH RIPRAP (CU.YD.)	GEO- TEXTILE FILTER (SQ.YD.)	GRANULAR UNDER APRON (CU.YD.)	24" DEPTH RIPRAP (CU.YD.)
12	8	16.0	0.2	3.2	19.6	0.3	4.4	23.9	0.4	6.4
18	10	22.4	0.3	4.3	25.6	0.4	6.4	30.0	0.5	8.5
21	10	24.1	0.4	4.7	27.4	0.6	7.1	30.9	0.7	9.4
24	12	28.7	0.5	6.2	33.4	0.8	9.2	37.3	1.0	12.5
27	12	31.4	0.6	6.6	35.2	0.9	9.9	39.2	1.2	13.2
30	14	37.4	0.8	8.2	41.6	1.1	12.3	46.0	1.5	16.4
36	16	45.9	1.1	10.6	50.5	1.6	15.8	55.4	2.1	21.1
42	18	52.8	1.2	12.5	57.8	1.7	16.7	63.0	2.3	24.9
48	20	61.1	1.5	14.8	66.5	2.2	22.2	72.0	2.9	29.6

SPAN OF PIPE ARCH (IN.)	L (FT.)	CLASS II 45g = 6'			CLASS III 45g = 9'			CLASS IV 45g = 12'		
		GEO- TEXTILE FILTER (SQ.YD.)	GRANULAR UNDER APRON (CU.YD.)	12" DEPTH RIPRAP (CU.YD.)	GEO- TEXTILE FILTER (SQ.YD.)	GRANULAR UNDER APRON (CU.YD.)	18" DEPTH RIPRAP (CU.YD.)	GEO- TEXTILE FILTER (SQ.YD.)	GRANULAR UNDER APRON (CU.YD.)	24" DEPTH RIPRAP (CU.YD.)
22	10	22.4	0.3	4.1	25.6	0.4	6.1	28.0	0.5	8.1
28	12	29.5	0.5	5.7	33.2	0.7	8.5	37.1	0.9	11.3
36	14	37.5	0.8	7.5	41.5	1.1	11.2	45.8	1.5	14.9
43	16	45.9	1.1	9.5	50.5	1.6	14.3	55.3	2.1	19.0
51	18	55.5	1.2	11.3	57.5	1.7	16.9	62.7	2.3	22.5
58	20	59.9	1.3	13.2	65.2	1.9	19.8	70.7	2.5	26.4



SECTION A-A

APRIL 2019



CITY OF LAKE ELMO

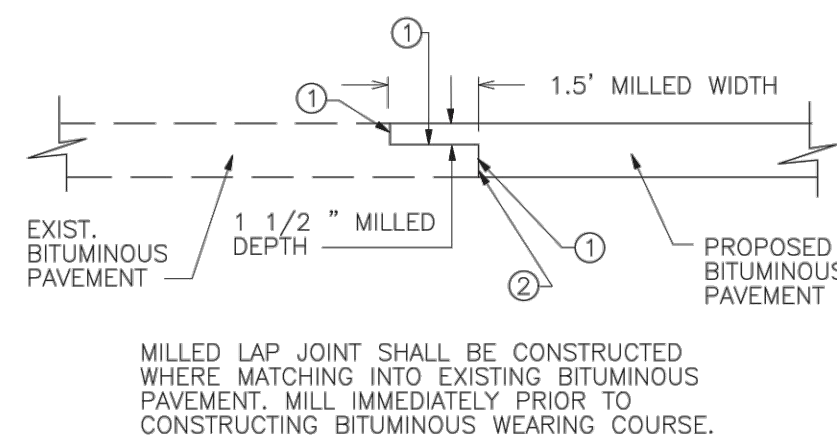
STANDARD DRAWING NO.

411

LAKE ELMO

- NOTES:
- REQUIREMENTS FOR GEOTEXTILE TYPE, RIPRAP SIZE AND THICKNESS WILL BE DESIGNATED IN THE PLANS.
 - PIPE SIZES LARGER THAN THOSE SHOWN REQUIRE A SPECIAL DESIGN.
 - FOR PIPES GREATER THAN OR EQUAL TO 36", USE 1.5'.
 - GEOTEXTILE FILTER, SPEC. 3723, SHALL COVER THE BOTTOM AND SIDES OF THE AREA DESIGNATED FOR THE RIPRAP. GRANULAR FILTER MATERIAL.
 - DIMENSION B IS GIVEN ON STANDARD PLATES 3000 AND 3010.
 - GRANULAR FILTER, SPEC. 3601, MAY BE USED AS A CUSHION LAYER. PLACE FILTER FOR SPEC. 3601. THE CUSHION LAYER IS INCIDENTAL.
 - GRANULAR FILTER OR RIPRAP, SPEC. 3601, TO EXTEND UNDER ENTIRE PORTION OF PIPE APRON. DEPTH OF MATERIAL UNDER APRON SHALL MATCH RIPRAP DEPTH, WHEN USING RIPRAP INCREASE RIPRAP QUANTITY ACCORDINGLY AND PLACE A 2" LAYER OF 1.5" CRUSHED ROCK UNDER THE APRON TO AID IN GRADING FOR APRON PLACEMENT. CRUSHED ROCK IS INCIDENTAL.

RIPRAP AT RCP OUTLETS



MILLED LAP JOINT SHALL BE CONSTRUCTED WHERE MATCHING INTO EXISTING BITUMINOUS PAVEMENT. MILL IMMEDIATELY PRIOR TO CONSTRUCTING BITUMINOUS WEARING COURSE.

- NOTES:
- APPLY BITUMINOUS TACK COAT, MnDOT SPEC. 2357.
 - SAW BITUMINOUS PAVEMENT FULL DEPTH TO ESTABLISH A NEAT LINE FROM WHICH TO EXTEND THE NEW WORK.

MILLED LAP JOINT

APRIL 2019

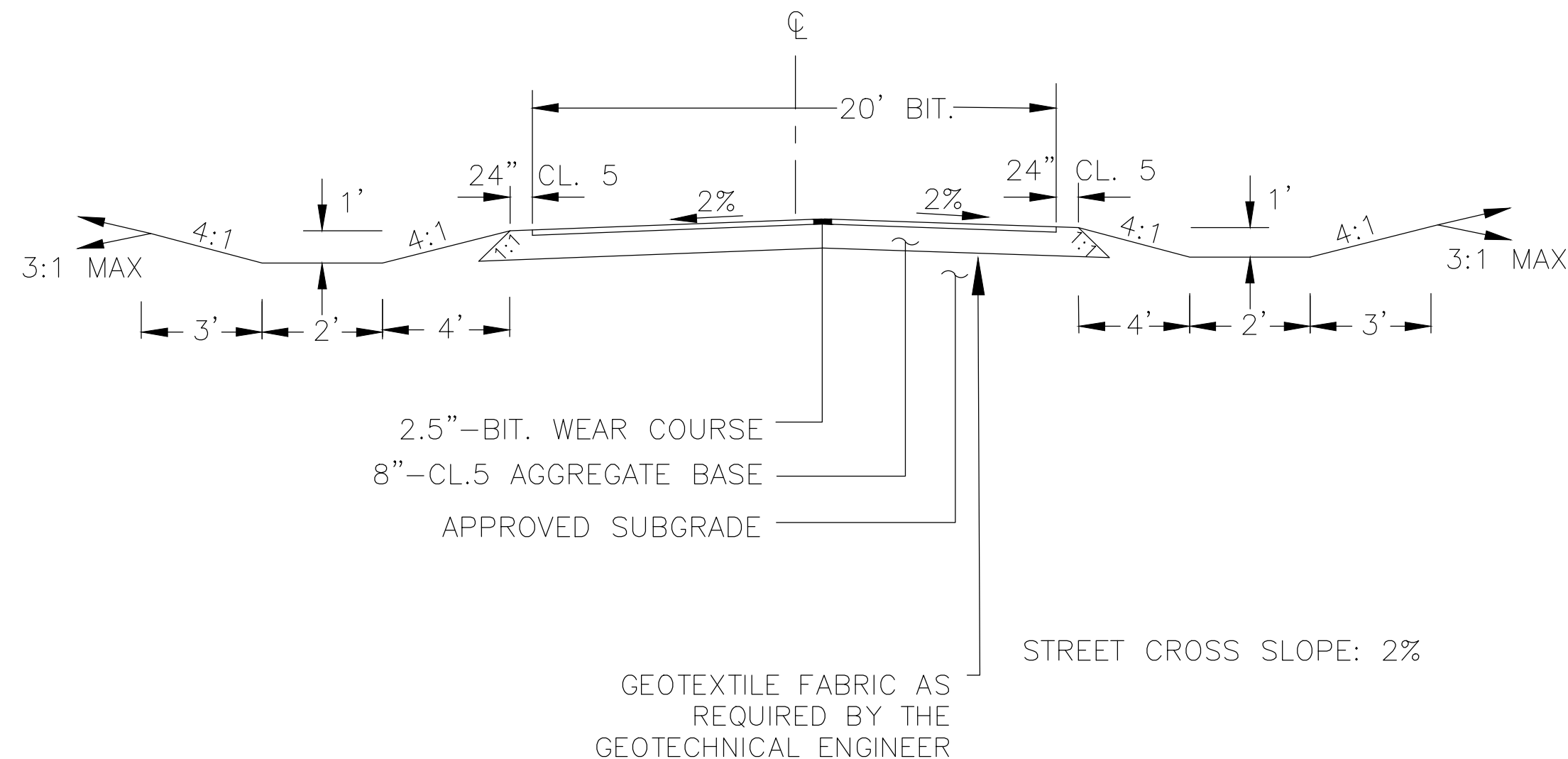


CITY OF LAKE ELMO

STANDARD DRAWING NO.

512

LAKE ELMO



GEOTEXTILE FABRIC AS
REQUIRED BY THE
GEOTECHNICAL ENGINEER

STREET CROSS SLOPE: 2%

TYPICAL DRIVEWAY SECTION

Lake Elmo Fire Department

Memorandum

To: Ken Roberts, Planning Director

From: Dustin Kalis, Fire Chief

Date: 7/20/2021

Re: Land Use Review – Variance Request - Carmelite Hermitage, 8249 Demontreville Trail



The Lake Elmo Fire Department has completed a land use review of Carmelite Hermitage, 8249 Demontreville Trail based on the Lake Elmo Planning Department packet dated 7/15/21 with the following comments:

- 1) All roads and drive lanes shall meet the Lake Elmo Fire Department requirements for widths and turning radiuses.
- 2) The approved fire apparatus access road shall be constructed with an asphalt, concrete or other approved driving surface capable of supporting the imposed load of fire apparatus weighing up to 75,000 pounds.
- 3) An approved fire apparatus turnaround shall be constructed at the end of the road if the road is a dead end. Proper fire apparatus turnaround shall be maintained if using existing drive or parking areas at the end of the new driveway.
- 4) The installation and use of gates shall be in compliance with the fire code. If a gate(s) is to be installed, provide more detailed information for review.
- 5) Building address numbers shall be plainly visible from the street fronting the property and shall contrasting color from the background.

Codes and Standards Used for this Review

This review is based on the following codes and standards as adopted and in effect in the State of Minnesota at the time of plan submittal.

- 2020 Minnesota State Fire Code

“Proudly Serving Neighbors & Friends”

MEMORANDUM

FOCUS ENGINEERING, inc.

Cara Geheren, P.E.	651.300.4261
Jack Griffin, P.E.	651.300.4264
Ryan Stempski, P.E.	651.300.4267
Chad Isakson, P.E.	651.300.4283

Date: August 4, 2021

To:	Ken Roberts, Planning Director	Re:	Carmelite Monastery Driveway
Cc:	Marty Powers, Public Works Director Chad Isakson, Assistant City Engineer		Engineering Construction Plan Review
From:	Jack Griffin, P.E., City Engineer		

An engineering review has been completed for the Carmelite Monastery Driveway Construction Plans to extend from Demontreville Trail. The submittal consisted of the following documentation received on July 12, 2021:

- Carmelite Monastery Driveway Construction Plans dated June 25, 2021.
- No Stormwater Management Plan was provided.

STATUS/FINDINGS: Engineering review comments have been provided for the above referenced Construction Plans. When submitting revised plans and specifications, please provide a point-by-point response letter that details all changes made to the plans.

FINAL CONSTRUCTION PLANS

1. Access to DeMontreville Trail North. The proposed driveway connects to DeMontreville Trail a distance of approximately 650 feet north of the Jesuit Driveway Access. The location of the proposed access must be referenced on the plans with the spacing dimensions listed from the adjacent existing driveways in both directions.
2. The proposed driveway is proposed with a 20-foot bituminous width and 2-foot gravel shoulders.
3. At the connection point to DeMontreville Trail, the proposed driveway appears to be designed to collect and divert runoff to proposed infiltration basins (Area 200P and Area 250P) on either side of the driveway. The design and construction of the driveway must be verified that runoff from the driveway is not permitted to flow into the DeMontreville Trail roadway or right-of-way for any storm event.
4. Revise plans to clearly show all property lines, right-of-way and easements.
5. Sheet 0.1. Add plan note to identify the standard of care guideline for the collection and depiction of existing subsurface utility data per CI/ASCE 38-02.
6. Sheet 1.1 – 1.3. Add culvert pipe size, material, and invert for all proposed and existing culverts.
7. Sheet 1.1 – 1.3. Add the 100-year HWL elevation and contour for all proposed infiltration basins. Add emergency overflow elevations and flow paths.
8. Sheet 1.1 – 1.3. Add proposed drainage and utility easements for each infiltration basin, incorporating the 100-year HWL elevation and contour, and maintenance access routes to all drainage structures.
9. Sheet 1.1. Revise grading plan to eliminate infiltration basin encroachments for areas 200P and 250P from the DeMontreville Trail right-of-way. Revise plans as needed to ensure the EOF flow path from 200P and 250P remain outside of the public right-of-way.

STORMWATER MANAGEMENT

1. The proposed grading and driveway construction is subject to a storm water management plan meeting State, Watershed District and City rules. Permits will be required from the Valley Branch Watershed District and the Minnesota Pollution Control Agency.
2. No Stormwater Management Plan was submitted for city review. Approval of the plans must be conditioned on the applicant submitting a Storm Water Management Report and storm sewer calculations supporting the proposed design and consistent with all city and watershed rules.
3. All storm sewer proposed for the work will remain privately owned. A Stormwater Easement and Maintenance Agreement in the city's standard form will be required for the private owned storm water management system.