3800 Laverne Avenue North
Lake Elmo, MN 55042

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www.lakeelmo.org

NOTICE OF MEETING

The City of Lake Elmo
Planning Commission will conduct a meeting on
Monday July 11th, 2022
at 7:00 p.m.

AGENDA

1. Pledge of Allegiance
2. Approve Agenda
3. Approve Minutes
    a. June 13th, 2022
    b. June 27th, 2022
4. Public Hearings
    a. CONIDTIONAL USE PERMIT FOR CHAPEL– 8249 Demontreville Trail Carmelite Hermitage of the Blessed Virgin Mary
5. New/Unfinished Business-N/A
6. Communications/Updates-N/A
7. Adjourn

***Note: Every effort will be made to accommodate person or persons that need special considerations to attend this meeting due to a health condition or disability. Please `contact the Lake Elmo City Clerk if you are in need of special accommodations.

City of Lake Elmo Planning Commission Meeting
City Council Chambers – 3800 Laverne Avenue North
Minutes of Regular Meeting of June 13, 2022

CALL TO ORDER: Commission Chair Risner called to order the meeting of the Lake Elmo Planning Commission at 7:00 p.m.

COMMISSIONERS PRESENT: Risner, Steil, Graen, Rehkamp, Vrieze

COMMISSIONERS ABSENT: Mueller

STAFF PRESENT: Planning Director Just, City Planner Ben Hetzel

Approve Agenda:
M/S/P: Risner / Steil made a motion to approve the agenda with amendments. **Vote: 5-0, motion carried unanimously.**

Approve Minutes:
M/S/P: Steil / Rehkamp made a motion to approve the 5-9-22, 5-23-22. **Vote: 5-0, motion carried unanimously.**

Public Hearings:
a. VARIANCE- 1567 Ivory Avenue N side yard setback for an accessory structure.

Al Woolhouse (Applicant) on behalf of Brenda LeCuyer (Property Owner) recently submitted an application for a side yard setback variance for the property located at 1567 Ivory Avenue N located in the subdivision of Parkview Estates Open Space PUD– Parcel 28.029.21.13.0015 (Subject Property). The property owner is proposing to construct a detached garage to the southeast of the existing home and southwest of an existing in-ground pool and patio. To do this, the applicants are requesting to encroach within the 15 foot side yard setback as required by the Open Space PUD zoning district. The proposed garage would be placed at the end of an existing driveway and abut a 5-foot drainage and utility easement located along the south property line. The applicant is requesting the maximum relief from the setback while not placing the structure within the drainage and utility easement.

City Planner Hetzel Just gave presentation and answered questions on the proposed variance.

In advance of the public hearing staff received 4 public comments from neighbors, three in support and one against the proposed variance.

Staff recommends that the Planning Commission recommend denial of the request from Al Woolhouse on behalf of Brenda LeCuyer for a variance to reduce the side yard setback to 5 feet where a minimum of 15 feet is required at 1567 Ivory Avenue N.

Applicant Al LeCuyer and Brenda LeCuyer (1567 Ivory Avenue North) spoke regarding the need for this variance. And answered questions.

Public hearing opened at 7:21 PM.

No comments from the public.

Public hearing closed at 7:22 PM.

FINDINGS OF FACT: The applicant states that meeting the required setback near the desired building location would involve the removal and replacement of a portion of professional landscaping and create a visible obstruction of an immovable playset. In addition, meeting the 15 foot setback would result in an obstruction in front of the proposed garage door due to the existing well location. The applicant is aware of the possibility to connect to city water, but also understands that it may not be required. The applicant claims that the garage cannot be built on the north side of the home due to HOA rules and septic system components. The City does not enforce HOA rules and only requires accessory structure placement to be in the side or rear yard. City code would define the front yard to the west and side yard to the north. The City has documentation indicating that the referred to septic system is located on outlot E on the other side of Ivory Ave N allowing for buildable area to the north.

The applicant has not proven that unique circumstances that justify the need for a variance were not created by the property owners. While the existing well location may not have been determined by the current property owners, there is no clarification whether the property owners are responsible for the professional landscape placement or playset location. The applicant has the opportunity to connect to city water and abandon the well, which would allow the proposed garage to meet the 15 foot side yard setback. The property owner would be establishing a self-created hardship by deciding not to connect to city water.

The proposed garage location would not alter the essential character of the surrounding area. The garage would be located in the rear yard. The structure would be screened from the neighboring homes to the northeast and southeast by existing trees. The other neighboring home to the southwest would be approximately 113 feet from the proposed garage.

The proposed variance does not impair adjacent properties. The proposed addition will not face a public street and is screened from 2 out of 3 adjacent properties by existing vegetation. The building location would also be screened from Ivory Ave due to existing trees at the driveway entrance and the existing home location. Approval of the variance would not result in increased public street congestion or diminished property values.

M/S/P: Graen/Vrieze moved to recommend approval of the request from Al Woolhouse on behalf of the property owner Brenda LeCuyer for a variance to reduce the side yard setbacks to 5 feet where a minimum of 15 feet is required at 1567 Ivory Avenue North with the recommended conditions. **Vote: 3-2** (Steil & Rehkamp – Nay) **Motion carried** (Risner, Graen, & Vrieze are in support of the location of the garage and this variance. Steil feels this should not be approved as it doesn't fit city guidelines. Rehkamp does not believe they meet the qualifications of the variance. Mueller was absent.)

b. ZONING TEXT AMENDMENT- Animal Inn Training LLC is requesting an amendment to Table 12-1 of Section 105.12.920 to allow Commercial Kennel as a conditional use in the Limited Commercial zoning district.

Katie and Corwin Cheng, owners of Animal Inn Training LLC, recently submitted an application for a Zoning Text Amendment to amend Table 12-1 of LEC 105.12.920. Animal Inn Training is an existing legal non-conforming commercial kennel that offers pet boarding, training, and grooming services. The current zoning of the property is Limited Commercial, which does not allow for Commercial Kennels as a permitted use or conditional use. Nonconforming uses may be continued through repair, replacement, restoration, maintenance, or improvement. However, continuation of a nonconforming use does not include expansion. The applicants wish to expand in the future. In order to expand, the applicant must receive approval of a Zoning Text Amendment and a conditional use permit (CUP) amendment.

City Planner Hetzel Just gave presentation and answered questions on the proposed text amendment.

Applicant Katie Cheng, 8611 34th St N, spoke regarding the reason for the text amendment change request.

Public hearing opened at 7:45 PM.

No comments from the public.

Public hearing closed at 7:45 PM.

FINDINGS OF FACT: The proposed amendment would only affect the Animal Inn property, the Prairie Ridge Office Park directly east, and the surrounding properties. The 2040 Comprehensive Plan has Animal Inn and the Prairie Ridge Office Park guided for Limited Business (LB) according to the Future Land Use Map. Once again, these are the only properties designated for the LB district. The land directly to the west is guided for Business Park (BP), which is has similar allowed uses and serves a similar purpose. There would be minimal impact on the other surrounding properties as the land to the north and south is guided for residential development, but separated by Stillwater Boulevard and railroad property.

The proposed amendment would not impact the subdivision code.

The amendment does meet the purpose of the Limited Commercial district by offering a basic convenience type service to the neighborhoods in the area that are not planned for public sanitary sewer services. In addition, there are uses that provide similar uses allowed in the Limited Commercial district. For example, a day care center is allowed as a conditional use and Veterinary Services is listed as a permitted use as per Table 12-1. By allowing commercial kennels as a conditional use, any new or expansions of commercial kennels would have to be reviewed by city staff and be in conformance with the Lake Elmo Design Guidelines and Standards Manual as stated by LEC 105.12.960. Meeting these design guidelines and standards follow the intent of the Limited Commercial district.

M/S/P: Steil/Graen moved to recommend approval of a of the request from Animal Inn Training LLC to amend Table 12-1 of LEC 105.12.920 to allow a Commercial Kennel as a Conditional Use in the Limited Commercial district. **Vote: 5-0, motion carried unanimously.** (Risner, Steil, Graen, Rehkamp, Vrieze were all in favor. Mueller was absent)

c. ZONING TEXT AMENDMENT- City initiated amendment to add a minimum 40 foot setback for buildings along 5th Street North, Hudson Boulevard, Inwood Avenue, Keats Avenue, Lake Elmo Avenue, and Manning Avenue. Amended sections to include Section 105.12.930; Section 105.12.720; Section 105.12.880.

The City Council has directed the Planning Department to pursue amendments to the Medium Density Residential (MDR) and High Density Residential (HDR) zoning districts. As development has been proposed and occurred along the new 5th Street in the South Planning Area, some buildings have been located closer to the public way than others. With the varying land use densities and intensities planned for 5th Street this is an opportunity to guide building placement along this new local street.

Director Just gave presentation and answered questions on the proposed zoning text amendments.

Public hearing opened at 8:17 PM.

No comments from the public.

Public hearing closed at 8:17 PM.

M/S/P: Risner/Steil moved to recommend adoption of the zoning text amendments to incorporate an increased building set back from the named streets in Section 105.12.720 Urban Residential Districts of Lot Dimensions and Buildings and Bulk Requirements. **Vote: 4-1** (Graen – Nay) **Motion carried.** (Graen thinks that it is the private

property owner's rights to develop their land with the current setbacks. Risner, Steil, Rehkamp, Vrieze were all in favor. Mueller was absent)

M/S/P: Steil/Risner moved to recommend adoption of the zoning text amendments to incorporate an increased building setback for residential uses from the named streets in Section 105.12.930 Commercial Districts of Lot Dimensions and Buildings and Bulk Requirements. **Vote: 4-1** (Graen – Nay) **Motion carried.** (Graen thinks that it is the private property owner's rights to develop their land with the current setbacks. Risner, Steil, Rehkamp, Vrieze were all in favor. Mueller was absent)

M/S/P: Vrieze/Rehkamp moved to recommend adoption of the zoning text amendments to incorporate an increased building set back from the named streets in Section 105.12.880 Mixed-Use Commercial and Mixed-Use Business Park Districts of Lot Dimensions and Buildings and Bulk Requirements. **Vote: 4-1** (Graen– Nay) **Motion carried.** (Graen thinks that it is the private property owner's rights to develop their land with the current setbacks. Risner, Steil, Rehkamp, were all in favor. Mueller was absent)

d. ZONING TEXT AMENDMENT- City initiated text amendment to require a minimum mix of uses in the Mixed-Use Commercial and Mixed-Use Business Park Districts. Amended sections to include Section 105.12.850; Section 105.12.860; Section 105.12.870.

The City Council has directed the Planning Department to pursue amendments to the Mixed Use Commercial (MU-C) and Mixed Use Business Park (MU-BP) zoning districts. The purpose of the MU-C district is to promote mixed use development that supports a mix of retail, commercial and residential uses that benefit from their proximity to each other. Similarly, MU-BP promotes development in the city that will have a mix of general business, business park and residential uses which allows for better integration of uses and more flexibility to respond to market demands.

Director Just gave presentation and answered questions on the proposed zoning text amendments.

Public hearing opened at 8:34 PM.

No comments from the public.

Public hearing closed at 8:34 PM.

M/S/P: Rehkamp/Steil moved to recommend adoption of the zoning test amendments to require a minimum mix of uses in the Mixed Use Commercial and Mixed Use Business Park zoning districts. **Vote: 2-3** (Graen & Risner, Vrieze – Nay) **Motion failed** (Graen doesn't think there is a need for this as there is no demand for Mixed use, he doesn't think that the city should be legislating that there needs to be, as this would affect the existing owners and could force an in-cohesive mixed uses development. Vrieze agreed with Graen. Risner was not in favor of forcing a Mixed Use. Rehkamp and Steil agree that this will provide a variety of options to a developer. Mueller was absent)

e. ZONING TEXT AMENDMENT- City initiated text amendment to Article XIII Village Mixed-Use District. Incorporate Village Medium Density Residential (V-MDR) and Village High Density Residential (V-HDR) into City Code. Amended sections to include Section 105.12.770; Section 105.12.780; Section 105.12.790; Section 105.12.820

The City of Lake Elmo Planning Department has initiated a zoning text amendment of Article XIII Village Mixed Use District to incorporate the Village Medium Density Residential (V-MDR) and Village High Density Residential (V-HDR) zoning districts into the City Code. The incorporation of these districts is in implementation of the 2040 Comprehensive Plan. The 2040 Comprehensive Plan recommends creation of strong and vibrant districts in the Village Planning Area so that it becomes a destination for all residents of the community.

Director Just gave presentation and answered questions on the proposed zoning text amendments.

Public hearing opened at 9:01 PM.

No comments from the public.

Public hearing closed at 9:01 PM.

M/S/P: Rehkamp/Graen move to recommend approval of the proposed text amendments to Article XIII Village Mixed Use District to incorporate the V-MDR and V-HDR zoning districts into the City Code. **Vote: 5-0, motion carried unanimously.** (Risner, Steil, Graen, Rehkamp, Vrieze were all in favor. Mueller was absent)

New/Unfinished Business:

a. PRELIMINARY PLAT & PLANNED UNIT DEVELOPMENT, ZONING MAP AMENDMENT, CONDITIONAL USE PERMIT - 9450 Hudson Boulevard.

Dominik Jenson, representing SRD 2.0, LLC, is requesting approval of a zoning map amendment (rezoning), preliminary planned unit development (PUD) and preliminary plat for the property located on the north side of Hudson Boulevard, west of Julia Avenue (9450 Hudson Boulevard). The plat depicts two parcels and the PUD depicts a 190-unit apartment building on one parcel and a daycare center, known as the Goddard School, on the other parcel.

Brad Coats of the Goldridge Companies is requesting approval of a conditional use permit for the daycare center on the rezoned property. Daycare centers are allowed by conditional use permit in the Mixed-Use Commercial District. The daycare center would be licensed by the Washington County for up to 188 children and would be limited to providing daycare and preschool between the hours of 6:30 am and 6:30 pm Monday through Friday.

Director Just gave presentation and answered questions.

FINDINGS OF FACT FOR REZONING:
That the proposed rezoning will be consistent with the land use designation of the site which is MU-C (mixed use commercial) as depicted in the 2040 Comprehensive Plan.

M/S/P: Rehkamp/Graen Move to recommend approval of the rezoning of the site of the proposed multifamily building and daycare center at 9450 Hudson Boulevard from RT (rural transitional) to MU-C (mixed use commercial) based on the findings listed in the staff report. **Vote: 5-0, motion carried unanimously.** (Risner, Steil, Graen, Rehkamp, Vrieze were all in favor. Mueller was absent)

FINDINGS FOR CONDITIONAL USE PERMIT:

1. The proposed use will not be detrimental to or endanger the public health, safety, comfort, convenience, or general welfare of the neighborhood or the city.

2. The use or development conforms to the city comprehensive plan.

3. The use or development is compatible with the existing neighborhood.

4. The proposed use meets all specific development standards.

5. If the proposed use is in a floodplain management or shore land area, the proposed use meets all the standards.

6. The proposed use will be designed, constructed, operated, and maintained so it will not change the essential character of that area.

7. The proposed use will not be hazardous or create a nuisance to existing or future neighboring structures.

8. The proposed use will be served adequately by essential public facilities and services, including streets, police and fire protection, drainage structures, refuse disposal, water and sewer systems and schools or will be served adequately by such facilities and services provided by the persons or agencies responsible for the establishment of the proposed use.

9. The proposed use will not create excessive additional requirements at public cost for public facilities and services and will not be detrimental to the economic welfare of the community.

10. The proposed use will not involve uses, activities, processes, materials, equipment, and conditions of operation that will be detrimental to any persons, property or the general welfare because of excessive production of traffic, noise, smoke, fumes, glare, or odors.

11. Vehicular approaches to the property will not create traffic congestion or interfere with traffic on surrounding public thoroughfares.

12. The proposed use will not result in the destruction, loss, or damage of a natural or scenic features of major importance.

RECOMMENDED CONDITIONS OF APPROVAL:

1. The daycare center shall remain licensed at all times and for no more than 188 children

2. The daycare center and preschool hours of operation shall occur between 6:30 am and 6:30 pm Monday through Friday.

3. Prior to opening the daycare center and preschool the applicant shall provide evidence of licensure.

4. No City permits for work related to the daycare center/preschool shall be issued until the public improvements for the approved plat and PUD have been found complete and are accepted by the City.

M/S/P: Steil/Vrieze move to recommend approval of the Conditional Use Permit for the proposed Goddard School daycare center for 188 children at 9450 Hudson Boulevard based on the findings and conditions listed in the staff report. This approval will be subject to the City approving the proposed zoning map amendment from RT (rural transitional) to MU-C (mixed use commercial). **Vote: 5-0, motion carried unanimously.** (Risner, Steil, Graen, Rehkamp, Vrieze were all in favor. Mueller was absent)

FINDINGS FOR PRELIMINARY PLAT/PRELIMINARY PUD:

1. That the preliminary PUD Plan would be consistent with the intent of the 2040 Lake Elmo Comprehensive Plan and the 2040 Land Use Map for this area.

2. That the preliminary PUD Plan complies with the general intent of the Mixed Use Commercial zoning district with PUD modifications.

3. That the preliminary PUD Plan generally complies with the City's Zoning Code except for parking setbacks from a residential zone, parking placement for the daycare center, and the maximum allowed density.

4. That the preliminary PUD Plan generally complies with the Lake Elmo Design Guidelines and Standards Manual.

5. That the preliminary plat generally complies with the City's Subdivision regulations.

6. That the preliminary plat generally complies with the City's design standards.

7. That the preliminary plat generally complies with the City's Zoning Code.

8. That the preliminary PUD Plan must be revised to be consistent with the City's engineering standards and as noted in the City Engineer's memorandum.

9. That the preliminary PUD Plan must be revised to be consistent with the City's landscape plan and tree replacement standards pursuant to the Landscape Architects memo.

10. That the preliminary PUD Plan must be revised to be consistent with the City's fire department memo.

11. That the preliminary PUD Plan meets the minimum requirements for a PUD including minimum lot area, open space and street layout.

12. That the preliminary PUD Plan meets one or more of the required PUD objectives identified in Article 18 including providing: Planned unit developments should not be allowed simply for the purpose of increasing overall density or allowing development that otherwise could not be approved.

    a. Innovation in land development techniques that may be more suitable for a given parcel than conventional approaches.

    b. Promotion of integrated land uses, allowing for a mixture of residential, commercial, and public facilities.

    c. Provision of more adequate, usable, and suitably located open space, recreational amenities, natural resource protection and other public facilities than would otherwise be provided under conventional land development techniques.

    d. Accommodation of housing of all types with convenient access to employment opportunities and/or commercial facilities; and especially to create additional opportunities for senior and affordable housing.

    e. Preservation and enhancement of important environmental features through careful and sensitive placement of buildings and facilities.

    f. Preservation of historic buildings, structures or landscape features.

    g. Coordination of architectural styles and building forms to achieve greater compatibility within the development and surrounding land uses.

    h. Creation of more efficient provision of public utilities and services, lessened demand on transportation, and the promotion of energy resource conservation.

    i. Allowing the development to operate in concert with a redevelopment plan in certain areas of the City and to ensure the redevelopment goals and objectives will be achieved.

    j. Higher standards of site and building design than would otherwise be provided under conventional land development technique.

13. That the preliminary PUD Plan includes amenities that may be worthy of amenity points to increase the overall housing density in the development from a max of 15 units per acre to 15.57 units per acre. The qualifying amenity is the provision of underground parking to reduce the amount of impervious surface. Per code requirements, the proposed underground parking reduces the amount of surface parking stalls located outside of the footprint of the principal structure by a minimum of 25 percent. For every additional five percent of surface parking stalls reduced above 25 percent the applicant may be awarded one additional amenity point, up to a max of 10 amenity points or a 10% increase in density. See Article 18, Table 16-2.

RECOMMENDED CONDITIONS OF APPROVAL:

1. That the City approves a Zoning Map Amendment to rezone the site from rural area development (RAD) to MU-C (mixed use commercial).

2. That the future final plat and final PUD plans would be for the parcel with the PID 34.029.21.34.0012.

3. That the application for final plat and final PUD Plans identify all requests for flexibility from the City Code.

4. That prior to the City finding any application for final plat and PUD plan complete, before approval of the subject Conditional Use permit, and before approval of the subject rezoning, the developers of the subject property and the subject buildings and prospective owners of each parcel shall submit in writing an agreement outlining responsibility for construction of on and off-site improvements and a formal recognition of the implications of delays or default by either party.

5. That the final plat and PUD plan depict a shared parking and access easement across the plat and that prior to release of the final plat the applicant shall provide to the City a recorded shared parking, access and maintenance agreement for all parcels on the plat.

6. That prior to the City finding any application for final plat and PUD plan complete the applicant shall address all comments in the City Engineer's memo dated June 8, 2022 to the satisfaction of the City Engineer.

7. That prior to the City finding any application for final plat and PUD plan complete the applicant shall resubmit the storm water management plan and it shall be found complete to the satisfaction of the City Engineer.

8. That prior to the City finding any application for final plat and PUD plan complete the applicant shall revise the landscape plan to meet Article VIII Environmental Performance Standards in accordance with the City Landscape Architect's memo dated June 9, 2022 to the satisfaction of the City Landscape Architect.

9. That prior to the City finding any application for final plat and PUD plan complete the applicant shall resolve the following to the satisfaction of the Fire Chief.

    A. From their April 28, 2022 memo - All roads and drive lanes shall meet the Lake Elmo Fire Department requirements for widths and turning radiuses. The turning radius plan overlay has been provided. Following review of the submitted turning radius overlay, several areas exist where the turning radius overlay extends past the curb line and shall be addressed.

        i. Comments to my concerns about the turning radius overlay extending past the curb line have not been addressed or discussed. Additional information shall be provided to the fire department regarding curb type and drivability in these areas.

    B. Final approval of fire hydrant locations shall be made in coordination with engineering and public works.

C. Currently the water supply is proposed as a combined fire/domestic water main. Additional information and discussion shall be provided regarding the combined services prior to any system approvals. The fire department prefers the domestic water supply and the fire suppression water supply be two separate mains. I recommend that the fire department meet with the developer and the fire suppression engineer to review.

10. That prior to the City finding any application for final plat and PUD plan complete the applicant shall demonstrate that the plans reflect compliance with South Washington Watershed District (SWWD) preliminary review comments and that the applicant provide the City evidence that all conditions attached to a SWWD permit will be met before the starting any grading activity on the site.

11. That the applicant shall obtain all necessary permits including but not limited to all applicable City permits (building, grading, sign, etc.), NPDES/SWPPP permits and South Washington Watershed District approval before starting any grading or construction activities.

12. The applicant/developer is responsible, at their own expense, for installing all required improvements in and adjacent to Julia Avenue and Hudson Boulevard.

13. The Final Plat/Final PUD shall include all necessary and additional public right-of-way and easements for Hudson Boulevard and Julia Avenue.

14. All storm water facilities internal to the site shall be privately owned and maintained. A storm water maintenance and easement agreement in a form acceptable to the City shall be executed and recorded with the final plat.

15. The Preliminary Plat/Preliminary PUD approval is conditioned upon the applicant meeting all City standards and design requirements unless specifically addressed otherwise in these conditions.

16. That the PUD overlay zoning allow for the following:

A. A 20 foot parking setback from a residential zone (on the northern property line);

B. Parking located between the daycare building and the street (Julia Avenue);

C. Residential density at 15.57 units per acre.

D. The maximum building height shall be 50 feet.

17. If necessary, the applicant shall provide the City with a copy of written permission for any off-site grading work and storm sewer discharges to adjacent properties before starting any site work, grading and as part of any final plat or final PUD application.

18. Prior to finding an application for final plat and PUD plan complete that the applicant or developer shall submit a photometric plan for the development for staff review and approval. All lighting must meet the requirements of the City Code.

19. Before the installation or construction of any subdivision identification signs or neighborhood markers within the development, the developer shall submit sign plans to the City for review and obtain a sign permit from the City.

20. Before the execution and recording of a final plat for the development, the developer or applicant shall enter into a Developer's Agreement or a Site Work Agreement with the City. Such an Agreement must be approved by the City Attorney and by the City Council. The Agreement shall delineate who is responsible

for the design, construction and payment for the required improvements with financial guarantees therefore. The Agreement shall outline any approved phasing plan.

21. The applicant or developer shall enter into a separate grading agreement with the City before starting any grading activity in advance of final plat of PUD approval. The City Engineer shall review any grading plan that is submitted in advance of a final plat or final PUD, and said plan shall document extent of any proposed grading on the site.

22. That the City does not allow any parking or construction staging, including the loading and unloading of materials and equipment at any time on Hudson Boulevard or Julia Avenue during the construction of the site improvements and building.

23. That the applicant shall submit revised preliminary plat and project plans meeting all conditions of approval for City review and approval. The revised applicant/developer project plans and other materials shall meet all of the above conditions before the City will find complete any final plat or final PUD application for the development and before the start of any clearing or grading activity on the site.

24. That the City's preliminary plat/preliminary PUD approval is good for one year from the date of City Council action, unless the applicant requests and the City Council approves a time extension.

M/S/P: Vrieze/Steil Move to recommend approval of the preliminary PUD plan and preliminary plat as requested by Dominek Jensen (of SRD2.0 LLC) for PID:34.029.21.34.0012 for a plat with two parcels and to include two buildings at 9450 Hudson Boulevard based on the findings of fact and 24 recommend conditions of approval listed in the staff report. **Vote: 5-0, motion carried unanimously.** (Risner, Steil, Graen, Rehkamp, Vrieze were all in favor. Mueller was absent)

Communications/Updates

June 7, 2022 City Council Approved:

a. CONDITIONAL USE PERMIT FOR A POOL AND FITNESS CENTER - 11441 20th St. N

b. COMPREHENSIVE PLAN AMENDMENTS – Addition to the MUSA and change in land use designation for Approximately 110 acres of City property at the northeast corner of 34th Street and Ideal Avenue. *(both the MUSA expansion and land use changes)*

c. ZONING AMENDMENTS - Zoning Code, §400 Fencing Regulations *(with amendments for clarity)*. Building Regulations Code, §160 Swimming Pools *(as-is).* General Provisions, §040 Required Screening *(as-is).*

d. Kyle and Morgan Traynor, 4622 Lilac Lane N – Variance.

Upcoming Meetings

a. June 23rd, 2022
b. July 11th, 2022

Meeting adjourned at 9:30 PM.

Respectfully submitted,

Diane Wendt
Permit Technician

City of Lake Elmo Planning Commission
Regular Meeting
3800 Laverne Avenue North
Council Chambers

Minutes of June 27, 2022

CALL TO ORDER: Commission Chair Risner called to order the meeting of the Lake Elmo Planning Commission at 7:00 p.m.

COMMISSIONERS PRESENT: Risner, Steil, Graen, Rehkamp

COMMISSIONERS ABSENT: Mueller, Vrieze

STAFF PRESENT: Planning Director Just

Pledge of Allegiance at 7:00 PM

Approve Agenda:
M/S/P: Graen / Risner made a motion to approve the agenda. **Vote: 4-0, motion carried unanimously.**

Approve Minutes: N/A

Public Hearings: N/A

New/Unfinished Business: N/A

Training:

a. Role of The Planning Commission
   Director Just presented a review of the Planning Commission Member Handbook and identified opportunities for the Commission to communicate to the City Council and identified opportunities to improve the minutes as a tool for communication to the Council. The Commission spent time discussing situations in which it would be appropriate to use the Advisory Communication as a tool to communicate to the Council. Time was spent discussing instances when the City Council took action that was not consistent with Planning Commission recommendations. It was identified that the last Joint Work Session between the Commission and the Council was in 2019 and that it could be a good time to have another. Time was spent discussing the appearance of impropriety around discussing land use applications outside of advertised meetings and public hearings and the laws against conducting a meeting outside of an advertised meeting.
b. Procedures
   i. Variances. Director Just covered the statutorily required criteria that must be met to approve a variance.

ii. Conditional Use Permits. Director Just covered the statutory provisions relating to CUPs, stressing that if the criteria are met then the use must be approved.

Communications/Updates

a. June 21, 2022 City Council Actions

i. 8012 Hill Trail North Variance Request – *Approved* - Resolution 2022-064
ii. Zoning Text Amendment – Increased Building Setbacks in Certain Areas in the South Planning Area *Tabled for further consideration*
iii. Zoning Text Amendment – Requirement for Mix of Uses in Mixed-Use Commercial and Mixed-Use Business Park Districts – *Tabled for further consideration*
iv. Zoning Text Amendment – Amend Article XIII Village Mixed Use District to Incorporate Two New Zoning Districts (V-MDR and V-HDR) in Compliance with the 2040 Comprehensive Plan – *Approved* – Ordinance 2022-10; Resolution 2022-067

b. Staff Update

c. Upcoming PC Meetings:

1. July 11, 2022
2. July 25, 2022

Meeting adjourned at 9:08 PM.

Respectfully submitted,

Diane Wendt
Permit Technician

STAFF REPORT
DATE: 7/11/22
REGULAR
ITEM# 4A: – PUBLIC HEARING
MOTION

TO: Planning Commission
FROM: Molly Just, Planning Director
ITEM: Carmelite Hermitage of the Blessed Virgin Mary Conditional Use Permit for Chapel

BACKGROUND

Carmelite Hermitage of the Blessed Virgin Mary (Applicant) has applied for a Conditional Use Permit (CUP) for construction of a chapel on the property located at 8249 Demontreville Trail N (PID# 09.029.21.12.0002). The proposed 5,778 square foot chapel and detached 978 square foot bathroom and mechanical room would be for use by members and outside visitors. The use is allowed by CUP in the Public Facilities (PF) zoning district.

PROPOSAL DETAILS/ANALYSIS

Applicant:	Carmelite Hermitage of the Blessed Virgin Mary
Property Owners:	Discalced Carmelite Nuns of St. Paul
Location:	8249 Demontreville Trail N.
Request:	Application for a Conditional Use Permit (CUP) to allow a chapel
Site Area:	89.6 acres
Existing Land Use:	Religious Institution
Existing Zoning:	Public Facilities (PF) and Shoreland Overlay District
Surrounding:	North – single family homes zoned RR and A West – Lake Demontreville South – single family homes zoned RS East – single family homes zoned RR
Comprehensive Plan:	Institutional
History:	The property has been owned by the Discalced Carmelite Nuns of St. Paul since 1955. In 1983 the priests and brothers of the Carmelite Hermitage of the Blessed Virgin Mary joined the property. The property has been used as a religious institution by the members and guests. In 1991 the City of Lake Elmo approved the master plan of the Carmelite Hermitage of the Blessed Virgin Mary. The master plan included a phasing plan of four parts. 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 was constructed in 2001/02. Phase 3 consists of a

chapel which is what is currently being proposed. Phase 4 will consist of a visitor building, library, and rooms for community workshops, this is planned for 2028. In August of 2019 the City Council approved a conditional use permit for their chapel. The Carmelites subsequently relinquished the conditional use permit as a part of an agreement with the Jesuit Retreat House to settle issues with access. In 2021 a variance was granted to allow a new road to provide direct access between Demontreville Trail and the Carmelites.

Deadline for Action: Application Complete – 6/23/2022
60 Day Deadline – 8/23/2022

Regulations: Article XVI – Public and Semi-Public Districts
Article XIX – Shoreland Overlay District
105.12.290 – Conditional Use Permits

PROJECT ANALYSIS

Because the property does not have a conditional use permit as is required by the Zoning Code, the existing use is considered legal non-conforming. The City's ordinance states that the lawful use of a building or structure may continue, but that the continuation of the non-conforming use does not include expansion. Since the applicant is requesting expansion of the non-conforming use, by adding a chapel, the City must approve a conditional use permit in order for the applicant to add the chapel and to bring the property in to compliance.

The proposed chapel would be to the west of the existing buildings and south of the existing driveway into the site. As shown on the plans, the chapel would be about 5,778 square feet with a 978 square foot detached bathroom and mechanical room. The Chapel height would be about 40 feet with an additional 5 foot cross on the roof. The applicant noted in their project description that the chapel would be used for liturgical services and for personal prayer and would have seating for 48 guests in addition to the seating for 12 members of their community.

They also state that since their community members live in an Hermitage and since their way of life is relatively secluded, they do not generate a significant amount of vehicle traffic. They are anticipating an average of 10-15 visitors a day to the site, currently they typically average 1-2 visitors per day plus occasional deliveries. They have one part-time employee to help maintain the grounds and buildings. The Hermitage is open to the public between 7:30 AM and 4:30 PM. They are not planning to advertise or offer programs that would draw large crowds other than special celebrations a few times a year in which guests are invited.

Setback and Impervious Surface Requirements. The following table outlines how the proposed use adheres to the setback and impervious surface requirements of the Public and Quasi-Public Open Space District.

Public and Quasi Public Open Space Zoning Standards		
Standard	**Required**	**Proposed**
Maximum Parcel Area	20 acres	90 acres

Lot Width – Minimum (at ROW)	100 feet	Approximately 1793 feet
Lot Depth – Minimum	150 feet	Approximately 2015 feet
Maximum Height	50 feet	Approximately 41 feet
Maximum Impervious Coverage	15%	1.2%
Front Yard Setback – Building	100 feet	Approximately 1000 feet
Interior Side Yard Setback – Building	100 feet	Approximately 900 feet
Rear Yard Setback - Building	100 feet	Approximately 1000 feet
Parking Lot Setback	100 foot	Approximately 200 feet

Standards for Places of Worship within the Public and Quasi-Public Zoning District. The following outlines standards for places of worship as outlined in the Public and Quasi-Public zoning district.

a. Direct access is provided to a public street classified by the Comprehensive Plan as major collector or arterial;
    - *Staff Comment.* The City approved a variance in 2021 for a direct access road to the Carmelites from Demontreville Trail. The City has classified Demontreville Trail as a major collector street.
b. No use may exceed 235 gallons wastewater generation per day per net acre of land;
    - *Staff Comment.* It is unknown how much wastewater is generated, but it is assumed there is no more than 235 gallons being generated per net acre on a 90 acre site.
c. No on-site sewer system shall be designed to handle more than 5,000 gallons per day;
    - *Staff Comment.* The proposed drainfield is 15,000 square feet in area and according to the SSTS design report dated May 8, 2019 is designed to handle 350 gallons of waste a day.
d. Exterior athletic fields shall not include spectator seating, public address facilities or lighting;
    - *Staff Comment.* There are no exterior athletic fields.
e. No freestanding broadcast or telecast antennas are permitted. No broadcast dish or antenna shall extend more than 6 feet above or beyond the principal structure.
    - *Staff Comment.* There are no broadcast or telecast antennas, existing or proposed.

Parking Lot Landscaping and Screening Standards

Landscape Plans. The applicant has submitted surveys and project plans showing the existing landscaping and wooded areas on the property. Since the site has extensive areas of trees and the since the proposed chapel would not be removing any existing trees, staff does not recommend that the City review or require additional landscaping on the property.

Septic Drainfield. The existing drainfield is to the south of the existing building and the proposed chapel will not affect the existing drainfield. The project plans show a new drainfield to the south of the proposed chapel. This new drainfield will require a permit from the Washington County Public Health and Environment Department before installation.

REVIEW COMMENTS

Engineering Review. Engineering reviewed this request and provided the attached memo dated June 20th, 2022. The comments must be addressed.

Fire Department Review. The Fire Department reviewed this request and provided the attached memo dated June 22nd, 2022. The comments must be addressed.

RECOMMENDED FINDINGS

Conditional use means a land use or development as defined by ordinance that would not be appropriate generally but may be allowed with appropriate restrictions as provided by official controls only upon a finding that all of the following provisions are met. Staff recommends the following findings:

1. The proposed use will not be detrimental to or endanger the public health, safety, comfort, convenience or general welfare of the neighborhood or the city. ***The proposed use should not be detrimental or in any way endanger the public health, safety, comfort.***
2. The use or development conforms to the City of Lake Elmo Comprehensive Plan. ***The proposed use conforms to the Comprehensive Plan.***
3. The use or development is compatible with the existing neighborhood. ***The proposed use is permitted in Public Facilities zoning district subject to a CUP.***
4. The proposed use meets all specific development standards for such use listed in the Zoning Code. ***The proposed use must meet the provisions of Article XVI – Public and Semi-Public Districts.***
5. If the proposed use is in a flood plain management or shoreland area, the proposed use meets all the specific standards for such use listed in Article XIX (Shoreland Management) and Title 100 (Flood Plain Management). ***The proposed use must meet the Shoreland Regulations.***
6. The proposed use will be designed, constructed, operated and maintained so as to be compatible in appearance with the existing or intended character of the general vicinity and will not change the essential character of that area. ***The proposed use will be compatible in appearance with the existing character of the general vicinity and will not change the essential character of the area.***
7. The proposed use will not be hazardous or create a nuisance as defined under this Chapter to existing or future neighboring structures. ***The proposed chapel is to be set back from the public right of way and from adjacent land owners and so should not create a nuisance to existing or future neighboring structures.***
8. The proposed use will be served adequately by essential public facilities and services, including streets, police and fire protection, drainage structures, refuse disposal, water and sewer systems and schools or will be served adequately by such facilities and services provided by the persons or agencies responsible for the establishment of the proposed use. ***The proposed chapel will be adequately served by public services or facilities.***

9. The proposed use will not create excessive additional requirements at public cost for public facilities and services and will not be detrimental to the economic welfare of the community. ***The proposed use will not create excessive additional requirements at public cost.***
10. The proposed use will not involve uses, activities, processes, materials, equipment and conditions of operation that will be detrimental to any persons, property or the general welfare because of excessive production of traffic, noise, smoke, fumes, glare or odors. ***The proposed use should not be detrimental to persons, property, or the general public welfare.***
11. Vehicular approaches to the property, where present, will not create traffic congestion or interfere with traffic on surrounding public thoroughfares. ***With the new direct access (Res. 2021-092) the proposed use should not create traffic congestion. The chapel will mainly be used by members and intermittent guests.***
12. The proposed use will not result in the destruction, loss or damage of a natural or scenic feature of major importance. ***The proposed use should not impact natural or scenic features.***

FISCAL IMPACT

None.

RECOMMENDED CONDITIONS OF APPROVAL

1) The applicant must obtain all other necessary City, State, and other governing body permits and approvals before the commencement of any construction activity on the site. These include, but not limited to, a Valley Branch Watershed District permit, approval of revised plans by the City Engineer, a building permit, and an on-site wastewater (septic) permit.
2) No construction may begin until all items and changes outlined by the City Engineer in the memorandum addressing the Carmelite Chapel Conditional Use Permit and Site Improvements dated June 20th, 2022 are addressed to the satisfaction of the City Engineer.
3) No construction may begin until all items outlined by the Fire Chief in his memo dated June 22nd 2022 are addressed to the satisfaction of the Fire Chief.
4) No construction may begin until the applicant has provided written documentation demonstrating adequate wastewater management facilities exist or are proposed to serve the proposed chapel. This should include either a Washington County inspection compliance report for the existing on-site wastewater system or a wastewater management plan and permit approved by Washington County to serve the proposed chapel.
5) If the applicant or owner has not taken action toward starting the chapel or if substantial construction of the chapel has not taken place within 12 months of the City's approval of conditional use permit, the CUP approval shall become void. The applicant or owner may request City Council approval of a time extension to start or implement the conditional use permit.

OPTIONS:

The Planning Commission may:

- Recommend approval of the Conditional Use Permit with recommended findings and conditions of approval.

- Recommend approval of the Conditional Use Permit with amended findings and conditions of approval.
- Recommend denial of the Conditional Use Permit, citing findings for denial.

RECOMMENDATION:

Staff recommends the Planning Commission recommend approval of the CUP to allow the chapel on the subject property with the listed conditions.

Suggested motion:

"Move to recommend approval of a Conditional Use Permit (CUP) for the construction of a chapel with the listed conditions based on the findings listed in the staff report."

ATTACHMENTS:

1. Carmelite Site Location Map
2. Engineering Memo (dated 6-20-2022)
3. Fire Department Memo (dated 6-22-2022)
4. Land Use Application

Carmelite Property Site Map

★ - Proposed Chapel Location

Context Map

N

Map Created by: Planning Dept
Map Date: June 2022

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: June 20, 2022

To: Ben Hetzel, City Planner
Cc: Molly Just, Planning Director
Chad Isakson, Assistant City Engineer
From: Jack Griffin, P.E., City Engineer

Re: Carmelite Heritage Chapel Site Improvements
Engineering Site Plan Review

A Site Plan engineering review has been completed for the Carmelite Hermitage Chapel Conditional Use Construction Plan set. The site is located at 8249 DeMontreville Trail North in Lake Elmo. The submittal consisted of the following documentation received on June 14, 2022:

- Site Plans prepared by Pioneer Engineering, dated April 26, 2019.
- Stormwater Management Report prepared by Pioneer Engineering, dated April 26, 2019.
- Certificate of Survey prepared by Landmark Surveying, dated June 27, 2018.
- Dated April 5, 2019.
- Septic System Plan prepared by Steinbrecher Companies, Inc., dated May 8, 2019.

REVIEW FINDINGS AND RECOMMENDATIONS

- Site Access. Access to the site will be provided by a private driveway extended from DeMontreville Trail. The private driveway construction is in progress being implemented through a separate project permitted by the city.
- A Grading Permit is required per Section 105 of the City Code as the project will result in moving more than 50 cubic yards of material. Site plans have been submitted with the application and must be approved by the city prior to the start of any construction.
- A Valley Branch Watershed District (VBWD) permit will be required. The site plan is subject to a storm water management plan (SWMP) meeting State, VBWD and City rules and regulations. A permit was received by the applicant in 2019 but has since expired.
- Storm water facilities proposed for meeting State, VBWD and City permitting requirements must be designed and constructed in accordance with the City Engineering Design Standards Manual available on the City website, dated January 2022, including maintenance access roads.
- Ownership and Maintenance. The storm water facilities constructed for this development should remain privately owned and maintained. The applicant will be required to execute and record a Stormwater Maintenance and Easement Agreement in the City's standard form of agreement.
- Easements. The storm water facility 100-year HWL must be fully contained within the subject property and easements must be provided to protect the 100-year HWL flood area, all emergency overflow pathways, and maintenance access roads.
- Private Water Supply. Municipal water is not planned to serve this parcel in the 2040 Comprehensive Plan. The proposed Chapel will receive its domestic water supply from an existing private well located onsite through the extension of a private water service. Water facilities must be provided in accordance MDH requirements (water supply well) and the Minnesota building code (water service plumbing). Municipal water supply will not be available to the facility for fire suppression.

- Private Sewer. The proposed Chapel resides outside the city's 2040 Comprehensive Plan MUSA area. The facility will be served by a private on-site wastewater treatment system to be regulated by Washington County. The applicant must obtain permit approval through Washington County and provide written documentation of all approvals to the city. The approved wastewater management plan facilities must be accurately shown to scale on the Site Plans.
- No construction may begin until the applicant has received City Engineer approval for the Final Construction Plans; the applicant has obtained and submitted to the City all applicable permits, easements and permissions needed for the project; and a preconstruction meeting has been held by the City's engineering department.

SITE IMPROVEMENT PLANS AND STORMWATER MANAGEMENT PLAN

- Any revisions to the Storm Water Management Plan (SWMP) to meet VBWD permit requirements must be resubmitted to the city for further review and consideration.
- Sheet 4.10. A plan note should be added to indicate the private sanitary sewer and water service lines to be installed per state plumbing code requirements.
- Sheet 5.10. Revise grading plan to revise storm water BMP site to meet City of Lake Elmo and MN Storm Water Manual standards and as follows:
  - Provide 10:1 aquatic bench and 10:1 maintenance bench around retention BMP. Add typical pond detail cross section to identify required benches.
  - Provide defined rip rap overflow location between retention basin and infiltration basin and define overflow spot elevation.
- Sheet 5.10 Provide drainage and utility easement over storm water BMP including the 100-year HWL, emergency EOF pathway, and pond maintenance access road and access bench. Easement area must be clearly shown on the plans.
- Once an approved Washington County SSTS design is obtained, the site plans must be updated to show the proposed on-site SSTS design system location and redundant drain field location.
- The plans must call out detailed site protection from construction activities for the proposed on-site wastewater treatment system (both primary and secondary drainfield) and for the proposed storm water infiltration basin.
- All plan details and plan notes relating to grading, site restoration, and erosion control must be revised to be consistent with the City Engineering Design Standards details and plan notes, dated January 2022.

Lake Elmo Fire Department

Memorandum

To: Ben Hetzel, City Planner
From: Dustin Kalis, Fire Chief
Date: 6/22/22
Re: Conditional Use Permit for 8249 Demontreville Trail N, Carmelite Chapel

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The Lake Elmo Fire Department has completed a Conditional Use Permit review for 8249 Demontreville Trail N, Carmelite Chapel based on submittals dated 6/2/22 with the following comments:

1) Building shall have a separate address. 8253 Mount Carmel Road is to be used for the address of the chapel.

2) Building address numbers shall be plainly visible from the street fronting the property and shall contrasting color from the background. Addresses is required to be posted adjacent to or on monument sign at Demontreville Trail and Mount Carmel Road.

3) All roads and drive lanes shall meet the Lake Elmo Fire Department requirements for widths and turning radiuses. Provide layout showing Lake Elmo Fire Apparatus turning radius overlay on all drive lanes and parking lot.

4) Further review of the parking lot as fire department access road is needed. Fire apparatus access roads shall extend within 150 feet of all portions of the facility and all portions of the exterior walls of the first story of the building as measured by an approved route around the exterior of the building.

5) An approved signage and marking plan shall be determined for all No Parking and Fire Lane access roads.

6) A Fire Department lock box is required for emergency access to the building at an approved location and provide keys for emergency access into and throughout the occupancy as required.

7) The fire sprinkler system shall be installed compliant with provisions of Minnesota State Building Code Chapter 1306.0020 Municipal Option Subpart 3 (new buildings) and 2016 NFPA Standard 13, Installation of Sprinkler Systems. City permit required prior to initiation of work.

8) Install emergency egress illumination in the means of egress including exit discharge compliant with 2020 MSFC.

9) Install compliant exit signage as required by the 2020 MSFC.

10) Provide and install dry chemical fire extinguishers certified for service and tagged as required. Service classification rating shall be a minimum 2A classification rating and maximum travel distance of 75 feet to extinguishers. The minimum classification rating may be upgraded for special or extra hazard areas within the occupancy.

11) Rooms containing controls for air-conditioning systems, roof access, elevator equipment, sprinkler risers and valves, or other fire detection, suppression or control elements shall be identified for the use of the fire department. Approved signs required to identify fire protection equipment and equipment location, shall be constructed of durable materials, permanently installed and readily visible.

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
- 2020 Minnesota State Building Code, Ch. 1306
- Lake Elmo Fire Department Fire Code Policy
- NFPA 72, 2016 edition
- NFPA 13, 2016 edition

Date Received: _____
Received By: _____
Permit#: _____

THE CITY OF LAKE ELMO

651-747-3900
3880 LaverneAvenue North
Lake Elmo, MN55042

LAND USE APPLICATION

☐ Comprehensive Plan ☐ Zoning District Amend ☐ Zoning Text Amend ☐ Variance*(see below) ☐ Zoning Appeal

☒ Conditional Use Permit (C.U.P.) ☐ Flood Plain C.U.P. ☐ Interim Use Permit (I.U.P.) ☐ Excavating/Grading

☐ Lot Line Adjustment ☐ Minor Subdivision ☐ Residential Subdivision Sketch/Concept Plan

☐ PUD Concept Plan ☐ PUD Preliminary Plan ☐ PUD Final Plan ☐ Wireless Communications

RECEIVED
JUN 07 2022
CITY OF LAKE ELMO

Applicant: Carmelite Hermitage of the Blessed Virgin Mary
Address: 8249 Demontreville Trail North
Phone # 651-779-7351
Email Address: carmelbvm@gmail.com

Property Owner: Discalced Carmelite Nuns of St. Paul
Address: 8251 Demontreville Trail North
Phone # 651-777-3882
Email Address: _____

Property Address: 8249 Demontreville Trail North
PID#: 0902921120002

Detailed Reason for Request: See attached paper.

*Variance Requests: As outlined in Section 301.060 C. of the Lake Elmo Municipal Code, the applicant must demonstrate practical difficulties before a variance can be granted. The practical difficulties related to this application are as follows:

In signing this application, I hereby acknowledge that I have read and fully understand the applicable provisions of the Zoning ordinance and current administrative procedures. I further acknowledge the fee explanation as outlined in the application procedures and hereby agree to pay all statements received from the City pertaining to additional application expense.

Signature of applicant: Rev. John Burns Date: 2 June 2022

Signature of property owner: Sister Angela Bassett Date: 2 June 2022

Land Use Application

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 December of 1991, the City of Lake Elmo approved the master plan of the Carmelite Hermitage of the Blessed Virgin Mary (aka Carmel of the Blessed Virgin Mary). The master plan included a phasing plan of four parts. 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 building for visitors and guests as well as a some rooms for community workshops and a library. We hope to commence Phase 4 around 2028. We request City approval of a conditional use permit to construct our chapel because it is an essential building of every monastery and will provide needed worship space for the members of the Hermitage and their guests. In August 2019, the City Council approved a conditional use permit for our chapel after thorough review by City staff and a positive recommendation by the Planning Commission. The Carmelites subsequently relinquished this CUP as part of an agreement with the Jesuit Retreat House to settle questions of access to the new chapel.

Variance Requests
No variances requested.

2a. Contact Information

Owner of Record
Discalced Carmelite Nuns of Saint Paul
8251 Demontreville Trail
Lake Elmo, MN 55042
651-777-3882

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

Architect
Duncan Stroik
218 West Washington Avenue
Suite 1200
South Bend, IN 46601
574-232-1783
stroik@stroik.com

Civil Engineer
Paul Cherne, P.E.

Pioneer Engineering
2422 Enterprise Drive
Mendota Heights, MN 55120
651-251-0630
pcherne@pioneereng.com

Surveyor
Milo Horak
Landmark Surveying, Inc.
21070 Olinda Trail North
Box 65
Scandia, MN 55073
651-433-3421
inthefield@frontiernet.net

Septic System
Jesse Kloeppner
Steinbrecher Companies, Inc.
Zimmerman, MN 55398
763-843-4114
septic@IssiMN.com

2b. Property Information

Addresses
Discalced Carmelite Nuns of St. Paul
8251 Demontreville Trail
Lake Elmo, MN 55042

Carmelite Hermitage of the Blessed Virgin Mary
8249 DeMontreville Trail
Lake Elmo, MN 55042

Current Zoning
Public Facility (PF)

Parcel Size
90.109 acres
3,924,760 square feet

PID
0902921120002

Current Legal Description
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.

2c. History of the Property

The property under consideration was homesteaded in the 1800s and remained farm land until 1954. At one time William Jennings was owner of all of Lot 4, Section 9, Township 29, Range 21, and all of Lots 3 and 4 and the West one-half of the Southeast Quarter of Section 4, Township 29, Range 21, West in Washington County, Minnesota.

On 25 August 1904, William Jennings and his wife conveyed to Christian Figge by warranty deed dated that day, Government Lot 4, Section 9, Township 29, Range 21, and also the South 30.6 acres of Lot 4 in Section 4 and of the Southwest Quarter of the Southeast Quarter of Section 4, Township 29, Range 21, along with an easement to said property. This property passed through the hands of several landowners in the following half century and was inherited by Phillip C. Mackey from his father in 1948. Mr. Mackey put the property up for sale in 1949.

In 1954, the Discalced Carmelite Nuns of Saint Paul were looking for property upon which to build a permanent monastery. They were advised of the property owned by Mr. Mackey, and they entered into negotiations for its purchase.

On 2 February 1954, Phillip C. Mackey and his wife Bernadine R. Mackey conveyed the 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. The Carmelite Nuns built their monastery upon their newly acquired property in 1954/55. They moved into the new monastery in 1955 and have resided there since that time.

In 1983, Rev. John Burns, a Carmelite priest, became chaplain for the Carmelite Nuns in Lake Elmo. After several years, the Carmelite Nuns and Fr. Burns mutually agreed that it would be beneficial to the Carmelite nuns if the Carmelite Fathers and Brothers established their own monastery on the property. This would assure the nuns of future chaplains and allowed the Carmelite Fathers to have a presence in the Twin Cities. 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. Other priests and brothers joined the community over the years.

The Order of Carmelites was founded on Mount Carmel (present State of Israel) sometime before 1200 AD. From there it has spread to six continents. Currently there are about 900 monasteries of nuns with a total membership of 10,000, and 1,000 houses of Carmelite priests and brothers with about a total membership of 6,000. We are part of the Roman Catholic Church.

Our way of life consists of prayer, study, and labor to support ourselves. We also welcome visitors who wish to find a quiet place to refresh their minds and hearts, to reflect and pray, either by themselves or with us. They may also desire guidance for their lives by talking with one of the members of our community. The chapel is the heart of our monastery buildings. Our day is punctuated by liturgical services and times of personal prayer. We live a simple way of life and support ourselves through arts and crafts, organic gardening, maple syrup production, woodworking and self maintenance of our property and buildings.

2d, i.

The 90 acre tract upon which the new chapel will be built is approximately 60% woodland and 40% meadow and is situated on the east bank of Lake Demontreville. Wildlife is abundant in all areas of the property. We have a personal commitment to live in harmony with our natural surroundings and to employ horticultural practices which do not pollute but rather benefit the environment. We have spent many hours removing buckthorn and diseased trees from our property and planting species of trees and shrubs which are beneficial to wildlife.

The new chapel will be situated just west of the existing buildings of the Hermitage. The land there is almost flat, and construction of the chapel will not require any significant changes to the topography. The hermitage is situated in an open field surrounded by woodlands. The area in the immediate vicinity of the hermitage is planted with lawn, trees, shrubs, and flower beds. Access to the Hermitage is now provided by a new private road from Demontreville Trail. This new road was approved by the City of Lake Elmo in 2021. The distance between the Hermitage and Demontreville Trail is approximately 1 mile.

Since we live at the Hermitage, and since our way of life is relatively secluded, we leave the Hermitage infrequently, and therefore we do not generate a significant amount of traffic. Visitors to our Hermitage now average 1-2 per day. Additionally, we have regular mail delivery and occasional deliveries by UPS or FedEx. Our new chapel will be open to the public during the day and may generate an increased number of visitors. Because of the remoteness of our property, we do not anticipate an increase of visitors beyond an average of 10-15 per day. Because we do not advertise or offer programs for the public, we do not anticipate large crowds coming to our hermitage. Visitors will be intermittent and will usually arrive in single cars. We may have a special celebration a few times per year to which guests are invited. We do not anticipate any adverse effects upon the natural areas of our property during or after the construction of the chapel. Seating capacity in the chapel was originally planned for 42 persons plus two handicap spaces. We have lengthened the proposed new chapel by eight feet in order to provide more ample space for movement in the public portion of the chapel. We have increased seating capacity to 46 persons plus two handicap spaces.

2d, ii.

We currently have nine members in our community, and we may eventually grow to a maximum of twelve members. We have one part-time employee who helps to maintain our grounds and buildings. The Hermitage opens to the public at 7:30 AM and closes at 4:30 PM. We will have a gate on our new roadway which prevents access to the Hermitage after-hours.

Our community building provides living and work spaces for the members of the community, including a kitchen, dining room, laundry, shower room, library, infirmary, and mechanical room. To the west of the community building and attached to it lies the cloister. This consists of a quadrangle surrounded by covered walkways which allow passage from one building to another under a roof. The open interior of the cloister is landscaped with flowerbeds and a pool. Off the north and south sides of the cloister are found the bedrooms of the members of the community. The new chapel will be situated just west of the cloister. The chapel will be used for worship services and for personal prayer. It has a planned seating capacity of 48 guests, in addition to the members of our community (12 maximum).

2e, i.

Since the parcel of land upon which the chapel will be built is very large and since the chapel will be located in the middle of the parcel, we do not foresee that the chapel will cause any inconvenience or disturbance to the neighborhood or to the City. Our community greatly values silence as an appropriate atmosphere for prayer and personal reflection. None of the activities carried on in the new chapel will create noise. The chapel will be built of durable and noble materials which will enhance the beauty of the neighborhood. The safety of our grounds and buildings is important to us. No toxins or harmful waste products are produced as a result of activities at our monastery; we are committed to recycling and energy conservation.

2e, ii.

Our parcel of land has always been and continues to be zoned as Public Facility. No change in land use is envisioned in our plans. Since our parcel of land is heavily wooded and borders Lake Demontreville on its west side, we in no way interfere with the development plans of the City of Lake Elmo. The comprehensive plan is for public/park. The rural character of the area will not be changed by the addition of the new chapel building.

2e, iii.

Our property is bordered on the south and east by low density private housing, on the north by the Jesuit Retreat House, and on the west by Lake Demontreville. Woodland separates our buildings from the single-family neighborhoods which border our property to the east and to the south. Woodlands also separate us from the Jesuit Retreat House. There is no direct view of our buildings from any neighboring property. There is no incompatibility between our hermitage and the existing neighborhood. We have excellent relations with our neighbors. Many have told us that they are very grateful to live next to our Hermitage both because of the prayerful and religious nature of our life and also because of our extensive woodlands.

The Jesuit Retreat House shares the same prayerful and religious activities as we do. Far from being incompatible, our institutions belong to the same church and share a common purpose. A comprehensive agreement, signed on 1 November 2020, between the Jesuit Retreat House and the Carmelite Monastery resolved all tensions between the institutions and removed the opposition of the Jesuit priests to our new chapel.

2e, iv.

Our project conforms to Article 7 of the Zoning Code, including general requirements for parking as regards dimensions and number of parking spaces.

2e, v.

The project is not in a flood plain. The project is in a shoreland district. The project meets the setback and lot area requirements of the ordinance. Demontreville Lake is a recreational development lake. The project is a permitted use in the shoreland district

	Ordinance	Proposed
Setback County Road	50	2750'
Setback Public Street	20	1025'
Setback OHW	200	980'
Setback top of bluff	30	220'
Setback OHW- Septic	75	810'
Maximum impervious coverage	15%	1.2%

2e, vi.

The new chapel will be constructed of the same materials as the existing buildings of the hermitage (brick and stone). The monastery of the Carmelite nuns is also a brick structure. The main building complex of the Jesuit Retreat House is a limestone structure. No change in the character of the area will result from the construction of our chapel. The nearest land uses are also religious.

2e, vii.

The chapel will be isolated from neighbors and will not create a hazard or nuisance to existing or future neighboring structures.

2e, viii.

The project will be served adequately by existing public services and will not create any additional demand for public services. The site utilizes an onsite well and onsite septic system. In 1991 officials from the Lake Elmo Fire Department visited our Hermitage to determine whether our site presented any difficulties of access for the fire department. Fire Chief Dick Sachs stated in writing that our site did not pose any problems to his department. (see attached letter.) The current Fire Chief, Dustin Kalis, has visited our site and reviewed our new driveway plans in preparation for approval by the City of Lake Elmo.

2e, xi.

The project will not create a need for additional public services or facilities. No detriment to the economic welfare of the community will result from the construction of our chapel.

2e, x.

The chapel will be used for religious purposes by the residents of the Hermitage. Guests and visitors will have access to the chapel at suitable hours of the day. The chapel has a planned seating of 48 persons, but we do not anticipate having nearly this many people at our services on a daily basis. At the present time, we have no more than 0 to 10 visitors a day. Most days the number is 1 to 2. The new chapel will not produce noise, smoke, fumes, glare, or odors, and the increase of traffic on account of the chapel will be minimal.

2e, xi.

The site is accessed via a collector street (Demontreville Trail) and a private drive. The additional traffic generated by the chapel is estimated to be 9 average daily trips on most days of the year and 30 average daily trips on a few occasions in a calendar year. Most trips will occur during non-peak hours.

2e, xii.

The new chapel will be built in an open field and will result in very minimal tree removal (8-10 evergreens which we ourselves had planted). No wetlands will be impacted. The chapel will be located 980' feet from Lake Demontreville.

Landscaping Plan

Because the area around the chapel will be further developed with a guest building, workshops and a small library, we do not plan extensive landscaping around the chapel. Lawn grasses, some foundation shrubs, and a few flower beds will be planted and mulched with wood chips. Mr. Ken Roberts, former Planning Director of the City of Lake Elmo, thought that, under these circumstances, it would not be necessary to submit a separate landscaping plan.

THE CITY OF LAKE ELMO

RECEIVED
JUN 7 2022
CITY OF LAKE ELMO

Lake Elmo City Hall
651-747-3900
3800 Laverne Avenue North
Lake Elmo, MN 55042

AFFIRMATION OF SUFFICIENT INTEREST

I hereby affirm that **I am the fee title owner** of the below described property or that I have written authorization from the owner to pursue the described action.

Name of applicant Carmelite Hermitage of the Blessed Virgin Mary
(Please Print)

Street address/legal description of subject property 8249 Demontreville Trail North

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.

Rev. John M. Burns — 2 June 2022
Signature — Date

If you are not the fee owner, attach another copy of this form which has been completed by the fee owner or a copy of your authorization to pursue this action.

If a corporation is fee title holder, attach a copy of the resolution of the Board of Directors authorizing this action.

If a joint venture or partnership is the fee owner, attach a copy of agreement authorizing this action on behalf of the joint venture or partnership.

Discalced Carmelite Nuns of Saint Paul
8251 DeMontreville Trail North
Lake Elmo, MN 55042
651-777-3882

CORPORATE RESOLUTION AND MINUTES OF ACTION TAKEN BY THE DIRECTORS OF THE DISCALCED CARMELITE NUNS OF ST. PAUL

The undersigned, being directors of the Discalced Carmelite Nuns of St. Paul, a Minnesota non-profit corporation, do hereby adopt the resolutions set forth below, by this action in writing duly signed by them on 2 June 2022, such action being taken by such persons in their respective capacities as members of the Board of Directors of the said corporation.

RESOLVED, that the Board of Directors of the said corporation has approved the construction of a chapel by the Carmelite Hermitage of the Blessed Virgin Mary on land owned by the said corporation.

RESOLVED, that Reverend John M. Burns is hereby authorized to transact all legal and financial business on behalf of the said corporation in the matter of applying for and obtaining a conditional use permit from the City of Lake Elmo for the construction of the chapel.

RESOLVED, that this authorization shall commence immediately and shall remain in force until revoked by the directors of the said corporation.

Sister Angela Barrett, OCD
Sister Angela Barrett, OCD
President

Sister Maravillas Schwab, OCD
Sister Maravillas Schwab, OCD
Vice-President

Sister Marie Siegmund, OCD
Sister Marie Siegmund, OCD
Secretary

THE CITY OF LAKE ELMO

City of Lake Elmo
Escrow Agreement for Municipal Review Services
Deposit Agreement

THIS AGREEMENT is made this 6 day of June 2022, by the Applicant and Owner (hereinafter individually and collectively referred to as "Applicant") in favor of the City of Lake Elmo, a municipal corporation of Minnesota (hereinafter referred to as "City").

A. "Applicant" whose name and address is:

Carmelite Hermitage of the Blessed Virgin Mary
8249 Demontreville Trail North
Lake Elmo, MN 55042

B. "Owner" whose name and address is:

Disclaced Carmelite Nuns of St. Paul
8251 Demontreville Trail North
Lake Elmo, MN 55042

RECITALS

WHEREAS, the Applicant has applied to the City for approval for one or more of the following: (Select All That Apply)

- ☐ Plat (Sketch, Preliminary, Final)
- ☐ PUD/OP-PUD (Pre-Applicaion, Preliminary, Final)
- ☐ Vacation
- ☒ Conditional Use Permit
- ☐ Interim Use Permit
- ☐ Comprehensive Plan Amendment
- ☐ Variance
- ☐ Minor Subdivision
- ☐ EAW Review
- ☐ Zoning Text or Map Amendment
- ☐ Wind Generator
- ☐ Wireless Communication Permit (co-location)

WHEREAS, the Applicant acknowledges the receipt of benefit to the property, from the City's technical and compliance review of the application; and

WHEREAS, under authority granted to it, including Minnesota Statutes Chapters 412 and 462, the City will process the application on the condition that the Applicant enter into this Deposit Agreement, which agreement defines certain duties and responsibilities of the Applicant, as well as the City; and the Applicant shall provide cash to the City in the amount satisfactory to the City; and provide security to the City for the payment of all review costs incurred by the City.

IN WITNESS WHEREOF, we have hereunto set our hands and seals.

APPLICANT

Rev. John M. Burns
Carmelite Hermitage of the B.V.M.
By: Rev. John M. Burns
Its: President

By: _____
Its: _____

OWNER:

Sr. Angela Barrett
Discalced Carmelite Nuns of St. Paul
By: Sr. Angela Barrett
Its: President

By: _____
Its: _____

STATE OF MINNESOTA)
) SS.
COUNTY OF WASHINGTON)

On this 6 day of June, 2022, before me a Notary Public within and for said County, personally appeared John Burns and Angela Barrett to me personally known, to be the person described in and who executed the foregoing instrument and acknowledged that he / she/ they executed that same as his / her / their free act and deed.

_____
Notary Public

ANDREW NATH
NOTARY PUBLIC
MINNESOTA
MY COMMISSION EXPIRES JAN. 31, 202[illegible]

STATE OF MINNESOTA)
) SS.
COUNTY OF WASHINGTON)

On this _____ day of _____, 20___, before me a Notary Public within and for said County, personally appeared _____ and _____ to me personally known, to be the person described in and who executed the foregoing instrument and acknowledged that he / she/ they executed that same as his / her / their free act and deed.

_____
Notary Public

RECEIVED
JUN 16 2022
CITY OF LAKE ELMO

CITY OF LAKE ELMO

_____

By: Kristina Handt
Its: City Administrator

_____

STATE OF MINNESOTA)
) SS.
COUNTY OF WASHINGTON)

On this _____ day of _____, 20___ , before me a Notary Public within and for said County, personally appeared _____ and _____ to me personally known, to be the person described in and who executed the foregoing instrument and acknowledged that he / she/ they executed that same as his / her / their free act and deed.

_____

Notary Public

THE CITY OF
LAKE ELMO

Lake Elmo City Hall
651-747-3900
3800 Laverne Avenue North
Lake Elmo, MN 55042

ACKNOWLEDGEMENT OF RESPONSIBILITY

This is to certify that I am making application for the described action by the City and that I am responsible for complying with all City requirements with regard to this request. This application should be processed in my name and I am the party whom the City should contact regarding any matter pertaining to this application.

I have read and understand the instructions supplied for processing this application. The documents and/or information I have submitted are true and correct to the best of my knowledge. I will keep myself informed of the deadlines for submission of material and of the progress of this application.

I understand that this application may be reviewed by City staff and consultants. I further understand that additional information, including, but not limited to, traffic analysis and expert testimony may be required for review of this application. I agree to pay to the City upon demand, expenses, determined by the City, that the City incurs in reviewing this application and shall provide an escrow deposit to the City in an amount to be determined by the City. Said expenses shall include, but are not limited to, staff time, engineering, legal expenses and other consultant expenses.

I agree to allow access by City personnel to the property for purposes of review of my application.

Signature of applicant Rev. John M. Burns Date 2 June 2022

Rev. John M. Burns
Name of applicant Carmelite Hermitage Phone 2 June 2022
(Please Print)

Name and address of Contact (if other than applicant) Rev. John M. Burns

8249 Demontreville Trail

LAke Elmo, MN 55042 651-779-7351

Carmelite Hermitage of the Blessed Virgin Mary
8249 DeMontreville Trail North
Lake Elmo, MN 55042-9545
651-779-7351
carmelbvm@gmail.com

2 June 2022

City of Lake Elmo
3800 Laverne Avenue North
Lake Elmo, MN 55042

To Whom it may Concern:

According to a notice which I received from the City of Lake Elmo, a balance $1,039.95 remains in the escrow account of the Carmelite Chapel. Please apply this amount to the new escrow account for the application which the Carmelite Hermitage has submitted for a new Conditional Use Permit.

Sincerely yours,

Rev. John M. Burns

Rev. John M. Burns

THE CITY OF LAKE ELMO

Date: 03/11/2022

Project: Carmelites Chapel
Escrow Balance: **1,039.95**

Carmelites Chapel
8249 Demontreville Trail N
Lake Elmo, MN 55042

ESCROW BALANCE NOTICE

Return Top Portion with Payment if balance is negative to replenish your escrow balance!!!

This is to notify you that the current escrow balance for project **Carmelites Chapel** is **1,039.95**.

If your balance is negative please send payment to bring your account to date. If your balance is positive no action is required. The positive escrow balance will be refunded once the project is completed and has met all of the required milestones as outlined in the development agreement.

Please make checks payable to the City of Lake Elmo and mail check with the top portion of this form to City of Lake Elmo 3880 Laverne Ave N, Lake Elmo, MN 55042.

Should you need more information on the escrow balance, please contact Mike Kuehn at (651) 747-3916.

For questions relating to the development please contact Molly Just, the Planning Director at (651) 747-3912.

RECEIVED
JUN 0 7 2022
CITY OF LAKE ELMO

SPRINGBORN GAYLEN W
or Current Resident
8989 55TH ST N
LAKE ELMO MN 55042-9549

MUELLER MICHAEL J & SALLY E
or Current Resident
5200 ISLE AVE N
LAKE ELMO MN 55042

BLOYER JUSTIN W & DANA N
or Current Resident
8881 JANE RD N
LAKE ELMO MN 55042

CITY OF LAKE ELMO
or Current Resident
3880 LAVERNE AVE N STE 100
LAKE ELMO MN 55042

WEIL RICHARD A & CATHERINE
or Current Resident
8880 JANE RD
LAKE ELMO MN 55042

SKALBECK THOMAS C
or Current Resident
8879 JANE RD N
LAKE ELMO MN 55042

DISCALCED CARMELITE NUNS OF ST PAUL
or Current Resident
8251 DEMONTREVILLE TRL N
LAKE ELMO MN 55042

DINER MARY P & SAMUEL R
or Current Resident
5014 ISLE AVE N
LAKE ELMO MN 55042

FALZONE CRAIG T & MAUREEN D
or Current Resident
5124 ISLE AVE N
LAKE ELMO MN 55042

GELBMANN PAUL & ANNE
or Current Resident
5034 ISLE AVE N
LAKE ELMO MN 55042

CHERNY JOHN & EUGENIA
or Current Resident
5043 ISLE AVE N
LAKE ELMO MN 55042

MEIER JOHN H & DIANA L
or Current Resident
4731 BIRCHBARK TRL N
LAKE ELMO MN 55042

GUSTAFSON RICHARD C III & JEANNE TREPANIER
or Current Resident
5025 ISLE AVE
LAKE ELMO MN 55042

RIECHERT MANFRED E & ANKE
or Current Resident
8884 JANE RD N
LAKE ELMO MN 55042

JESUIT RETREAT HOUSE
or Current Resident
8243 DEMONTREVILLE TRL
LAKE ELMO MN 55042

MAGILL KAREN M
or Current Resident
5072 ISLE AVE N
LAKE ELMO MN 55042

CHARLES TAYLOR TRS
or Current Resident
4677 BIRCHBARK TRL
LAKE ELMO MN 55042

MCDONOUGH TIMOTHY P & ELIZABETH MCDONOUGH
or Current Resident
4711 BIRCH BARK TRL
LAKE ELMO MN 55042

CHAMBERS JULIE A & MARTIN J
or Current Resident
4689 BIRCHBARK TRL N
LAKE ELMO MN 55042

LIPMAN ERIC L
or Current Resident
8249 DEER POND CT N
LAKE ELMO MN 55042

CARLSON DAVID M & BRENDA JO
or Current Resident
8554 HIDDEN BAY TRL N
LAKE ELMO MN 55042

DREXLER ANGELA K
or Current Resident
8609 HIDDEN BAY TRL N
LAKE ELMO MN 55042

SUEK THOMAS A & NICOLE A
or Current Resident
8573 HIDDEN BAY TRL N
LAKE ELMO MN 55042

ABRAHAM ERIC
or Current Resident
8548 HIDDEN BAY TRL
LAKE ELMO MN 55042

DIMMICK LORI M
or Current Resident
8465 DEMONTREVILLE TRL N
LAKE ELMO MN 55042

MARTENS TRISHA V & PATRICK E
or Current Resident
8260 DEMONTREVILLE TRL N
LAKE ELMO MN 55042

BLOCK FLOYD J & KAREN R RAUCH
or Current Resident
8400 DEMONTREVILLE TRL N
LAKE ELMO MN 55042

PAULETTE MARIE MCGRATH FAMILY REV LIV TRS
or Current Resident
8190 DEMONTREVILLE TRL N
LAKE ELMO MN 55042

EVENSON RICHARD W & ELOISE
or Current Resident
8449 DEMONTREVILLE TRL
LAKE ELMO MN 55042

GORES EDWARD J & DEBRA K
or Current Resident
5737 HIGHLANDS CT N
LAKE ELMO MN 55042

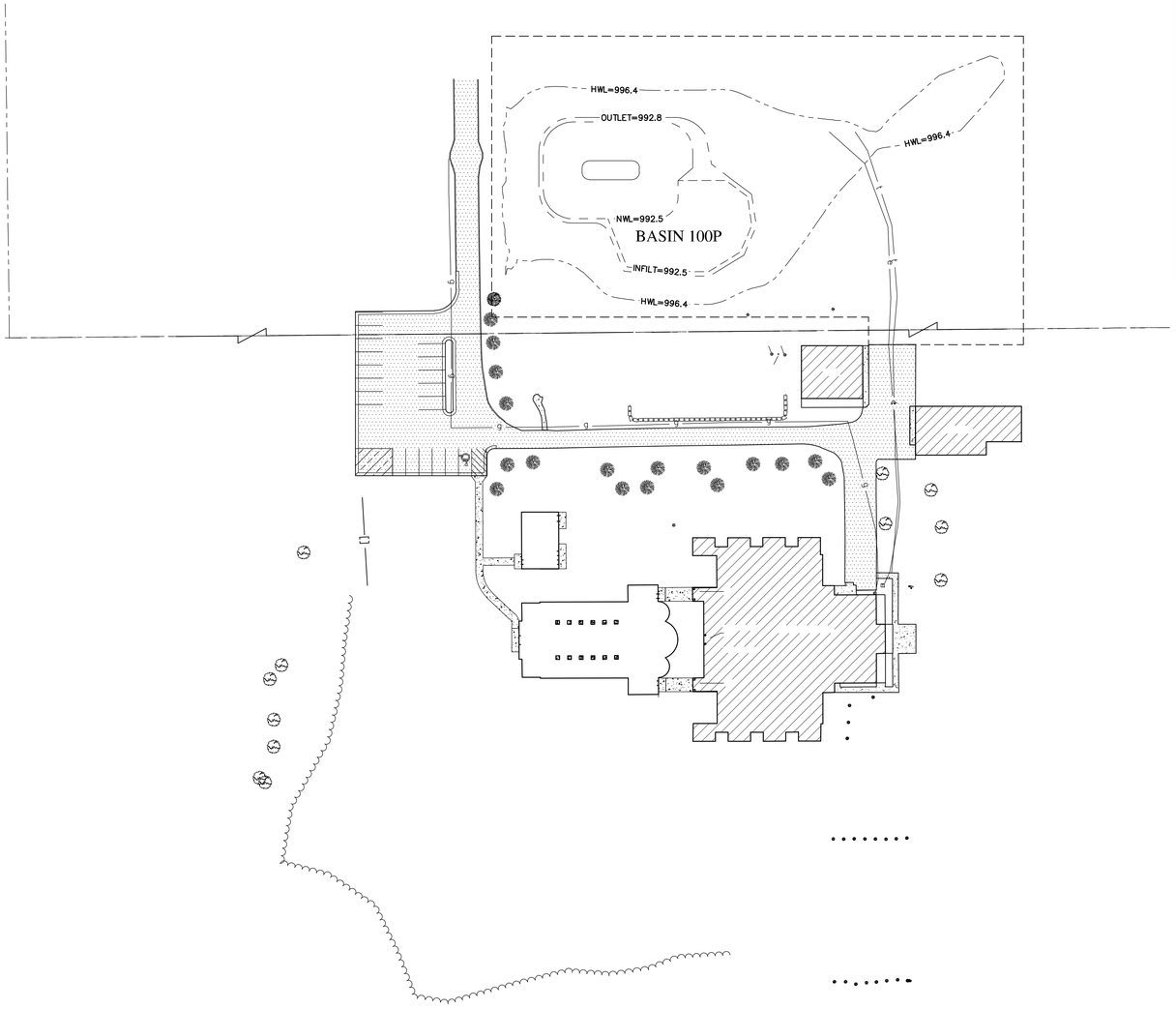
BIEDERMAN JEREMYAH & JACQUELINE
or Current Resident
8120 DEMONTREVILLE TRL N
LAKE ELMO MN 55042

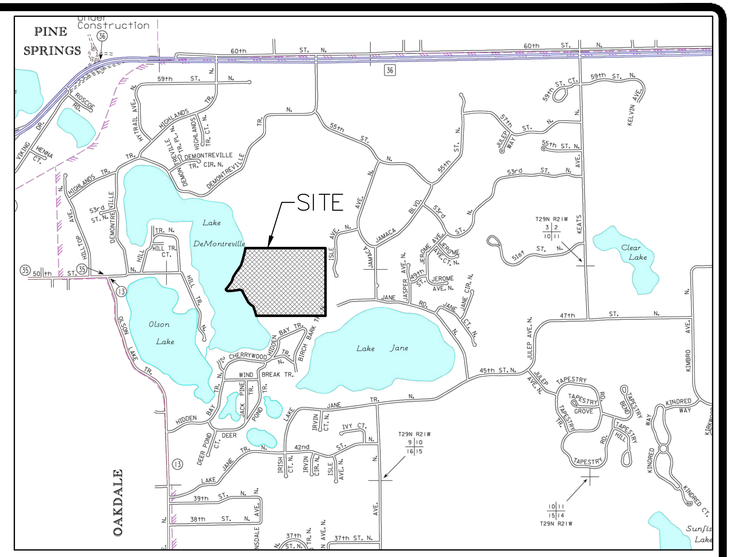
CAMPBELL FRANK W & KARI M
or Current Resident
8420 DEMONTREVILLE TRL
LAKE ELMO MN 55042

DAMBOWY PAUL R & NICOLE
or Current Resident
8060 DEMONTREVILLE TRAIL CIR N
LAKE ELMO MN 55042

KAREN A HENNING REV TRS
or Current Resident
8070 DEMONTREVILLE TRAIL CIR N
LAKE ELMO MN 55042

CARMELITE HERMITAGE CHAPEL
CONDITIONAL USE CONSTRUCTION PLAN SET
LAKE ELMO, MINNESOTA





LOCATION MAP

SHEET INDEX

0 25 50 100

GRAPHIC SCALE IN FEET

00-ENG-119045-SHEET-1.10-CVR

PIONEER*engineering*
CIVIL ENGINEERS LAND PLANNERS LAND SURVEYORS LANDSCAPE ARCHITECTS
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. Cherne

Reg. No. 19860 Date 04-26-2019

Revisions
1. 7-15-2019 City Comments
2. 8-5-2019 City Comments
3. 6-22-2022 C.U.P. Resubmittal

Date	04-26-2019
Designed	PJC
Drawn	NCR

COVER

CARMELITE HERMITAGE
8249 DEMONTREVILLE TRAIL NORTH
LAKE ELMO, MN 55042

CARMELITE HERMITAGE CHAPEL
LAKE ELMO, MINNESOTA

1.10 OF 13

LEGEND

UTILITY LINES

EXISTING	PROPOSED	FUTURE	DESCRIPTION
			SANITARY MANHOLE
FM	FM	FM	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
PERF	PERF	PERF	PERFORATED DRAINTILE
DT	DT	DT	SOLID DRAINTILE SERVICE
			CASING
e	e	e	UNDERGROUND ELECTRIC LINE
fo	fo	fo	UNDERGROUND FIBER OPTIC LINE
g	g	g	UNDERGROUND GAS PIPELINE
petro	petro	petro	UNDERGROUND PETROLEUM PIPELINE
t	t	t	UNDERGROUND TELEPHONE LINES
tv	tv	tv	UNDERGROUND TELEVISION LINE
oh	oh	oh	OVERHEAD UTILITY LINES

SITE LINES

EXISTING	PROPOSED	FUTURE	DESCRIPTION
			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
902	902	902	2' CONTOUR LINE
900	900	900	10' CONTOUR LINE
	OUTLET=987.0	OUTLET=987.0	BASIN OUTLET LINE
	HWL=900.2	HWL=900.2	BASIN HIGH WATER LINE
	84.3 X		PROPOSED SPOT ELEVATION
			EMERGENCY OVERFLOW
			DRAINAGE FLOW ARROW
			DELINEATED / PROPOSED WETLAND LINE
			WETLAND BUFFER
			TREE LINE
FEMA	FEMA	FEMA	FEMA FLOODPLAIN BOUNDARY
			RETAINING WALL
X	X	X	FENCE (BARBED WIRE)
#	#	#	FENCE (CHAIN LINK)
[]	[]	[]	FENCE (WOOD)
	C		CONSERVATION AREA SIGN
	W		WETLAND BUFFER SIGN
			TYPE III BARRICADE
			LIGHT POLE
			STREET SIGNS
			PEDESTRIAN RAMP

SURVEY LINES

EXISTING	PROPOSED	FUTURE	DESCRIPTION
			BOUNDARY
			RIGHT OF WAY
			LOT LINE
			EASEMENT
			SET BACK LINE
			SECTION LINE
			RESTRICTED ACCESS

HATCH PATTERNS

- GRAVEL SURFACE
- BITUMINOUS SURFACE
- CONCRETE SURFACE
- RIP RAP
- SELECT BACKFILL MATERIAL
- EROSION CONTROL BLANKET MNDOT CATEGORY PER PLAN
- WETLAND
- WETLAND UPLAND BUFFER
- WETLAND MITIGATION
- PERMANENT TURF RESTORATION
- PERMANENT WET BASIN SEEDING
- 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

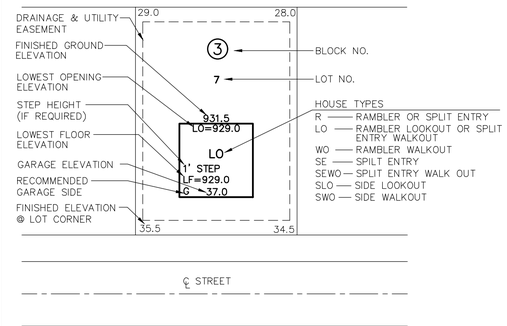
- ROCK CONSTRUCTION ENTRANCE INSTALL BEFORE START OF GRADING
- PERIMETER EROSION CONTROL FENCE. INSTALL BEFORE START OF GRADING
- SECONDARY EROSION CONTROL FENCE. TO BE INSTALLED 48 HOURS AFTER COMPLETION OF GRADING.
- EROSION CONTROL AT BACK OF CURB. TO BE INSTALLED AFTER COMPLETION OF CURB CONSTRUCTION.
- SUMPED RIP RAP PERMANENT ENERGY DISSIPATER, INSTALL WITHIN 24 HOURS AFTER CONNECTION TO A SURFACE WATER.
- STABILIZED EMERGENCY OVERFLOW (FLEXAMAT-SEE SHEET 23)
- MNDOT CAT 3 EROSION CONTROL BLANKET. INSTALL WITHIN 7 DAYS OF GRADING COMPLETION
- CATCH BASIN INLET PROTECTION TO BE INSTALLED BEFORE GRADING BEGINS.
- CATCH BASIN INLET PROTECTION TO BE INSTALLED AFTER 1ST LIFT OF BITUMINOUS.
- CATCH BASIN INLET PROTECTION TO BE INSTALLED WITH CATCH BASIN GRATE.
- STRAW BIO ROLLS. INSTALL WITHIN 7 DAYS OF GRADING COMPLETION OR BEFORE 1ST RAINFALL EVENT WHICHEVER IS FIRST
- ROCK DITCH CHECK. INSTALL WITHIN 7 DAYS OF GRADING COMPLETION OR BEFORE 1ST RAINFALL EVENT WHICHEVER IS FIRST
- TREE FENCE

ABBREVIATIONS

A	ALGEBRAIC DIFFERENCE
B-B	BACK TO BACK
BV	BUTTERFLY VALVE
BOC	BACK OF CURB
BFE	BASE FLOOD ELEVATION
BMP	BEST MANAGEMENT PRACTICE
℄	CENTER LINE
CB	CATCHBASIN
CBMH	CATCHBASIN MANHOLE
CMP	CORRUGATED METAL PIPE
CO	CLEAN OUT
CS	CURB STOP
DIP	DUCTILE IRON PIPE
DT	DRAINTILE
EL/ELEV	ELEVATION
EOF	EMERGENCY OVERFLOW
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
℗	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)



CURB LEGEND

- 08.15 / 4+46.57 = TOP OF CURB ELEVATION FOR SURMOUNTABLE CURB
- 08.15 T.O. / 4+46.57 = TOP OF CURB ELEVATION FOR SURMOUNTABLE CURB (TIP OUT GUTTER)
- 08.32 / 4+46.57 = TOP OF CURB ELEVATION FOR B618 CURB
- 08.32 T.O. / 4+46.57 = TOP OF CURB ELEVATION FOR B618 CURB (TIP OUT GUTTER)
- 07.82 / 4+46.57 = BITUMINOUS ELEVATION

PIONEER engineering
CIVIL ENGINEERS LAND PLANNERS LAND SURVEYORS LANDSCAPE ARCHITECTS
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. Cherne
Reg. No. 19860 Date 04-26-2019

Revisions
1. 7-15-2019 City Comments
2. 8-5-2019 City Comments
3. 6-22-2022 C.U.P. Resubmittal

Date	04-26-2019
Designed	PJC
Drawn	NCR

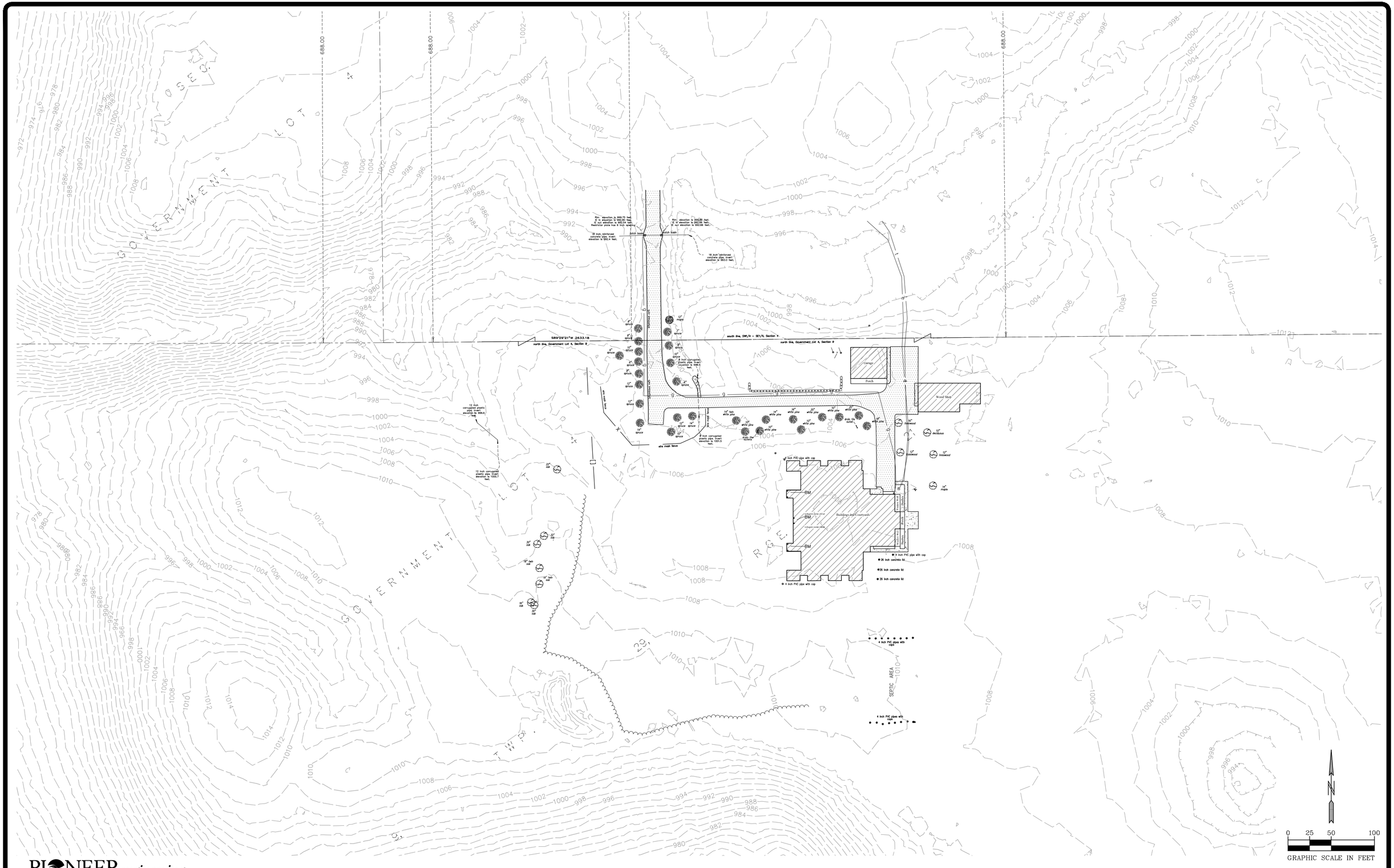
LEGEND

CARMELITE HERMITAGE
8249 DEMONTREVILLE TRAIL NORTH
LAKE ELMO, MN 55042

CARMELITE HERMITAGE CHAPEL
LAKE ELMO, MINNESOTA

1.20 OF 13

00-ENG-119045-SHEET-1.20-LGND



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Name Paul J. Cherne

Reg. No. 19860 Date 04-26-2019

Revisions
1. 7-15-2019 City Comments
2. 8-5-2019 City Comments
3. 6-22-2022 C.U.P. Resubmittal

Date	04-26-2019
Designed	PJC
Drawn	NCR

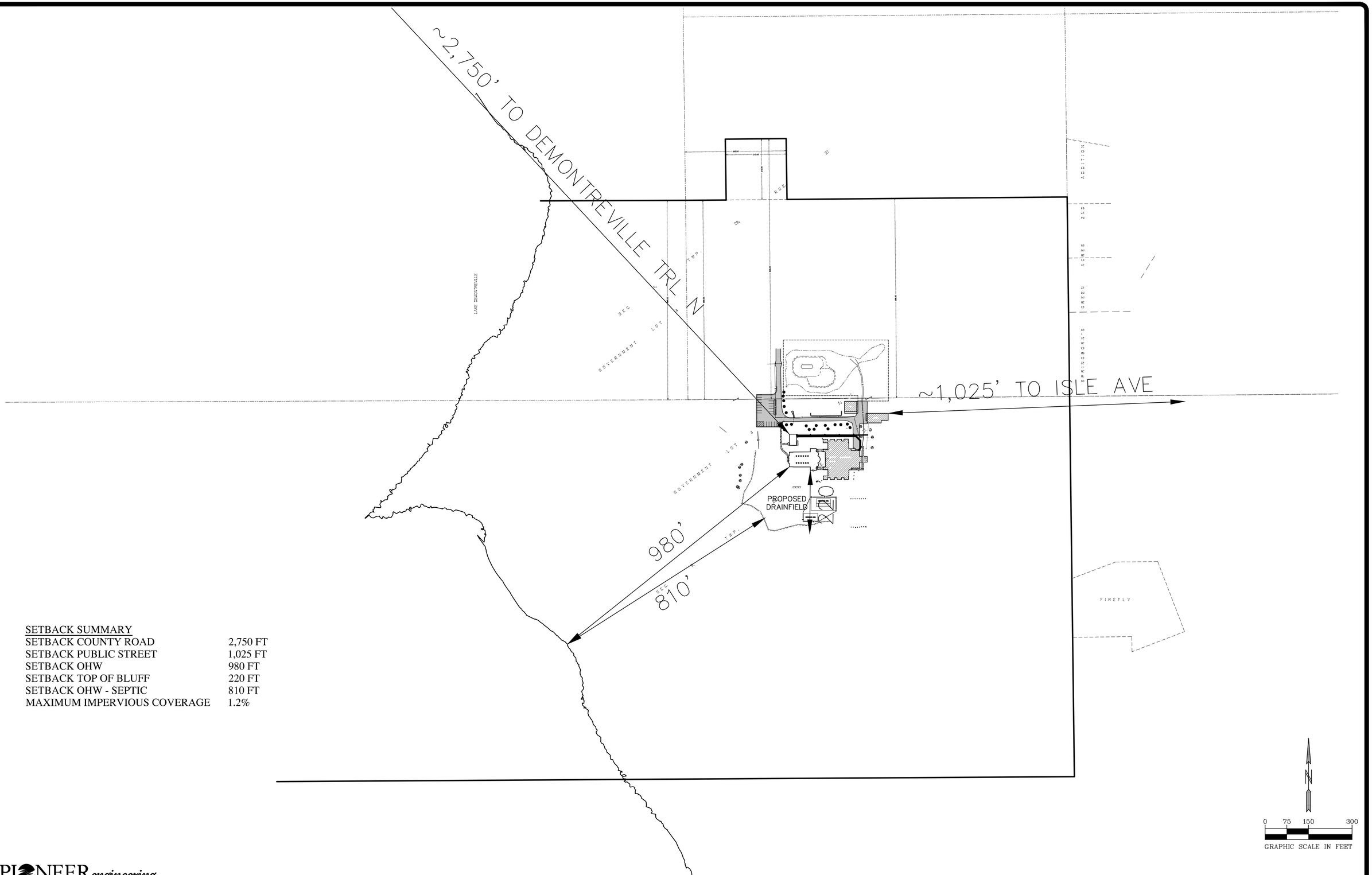
EXISTING CONDITIONS

CARMELITE HERMITAGE
8249 DEMONTREVILLE TRAIL NORTH
LAKE ELMO, MN 55042

CARMELITE HERMITAGE CHAPEL
LAKE ELMO, MINNESOTA

2.10 OF 13

00-ENG-119045-SHEET-2.10-EX CON



SETBACK SUMMARY

SETBACK COUNTY ROAD	2,750 FT
SETBACK PUBLIC STREET	1,025 FT
SETBACK OHW	980 FT
SETBACK TOP OF BLUFF	220 FT
SETBACK OHW - SEPTIC	810 FT
MAXIMUM IMPERVIOUS COVERAGE	1.2%

0 75 150 300
GRAPHIC SCALE IN FEET

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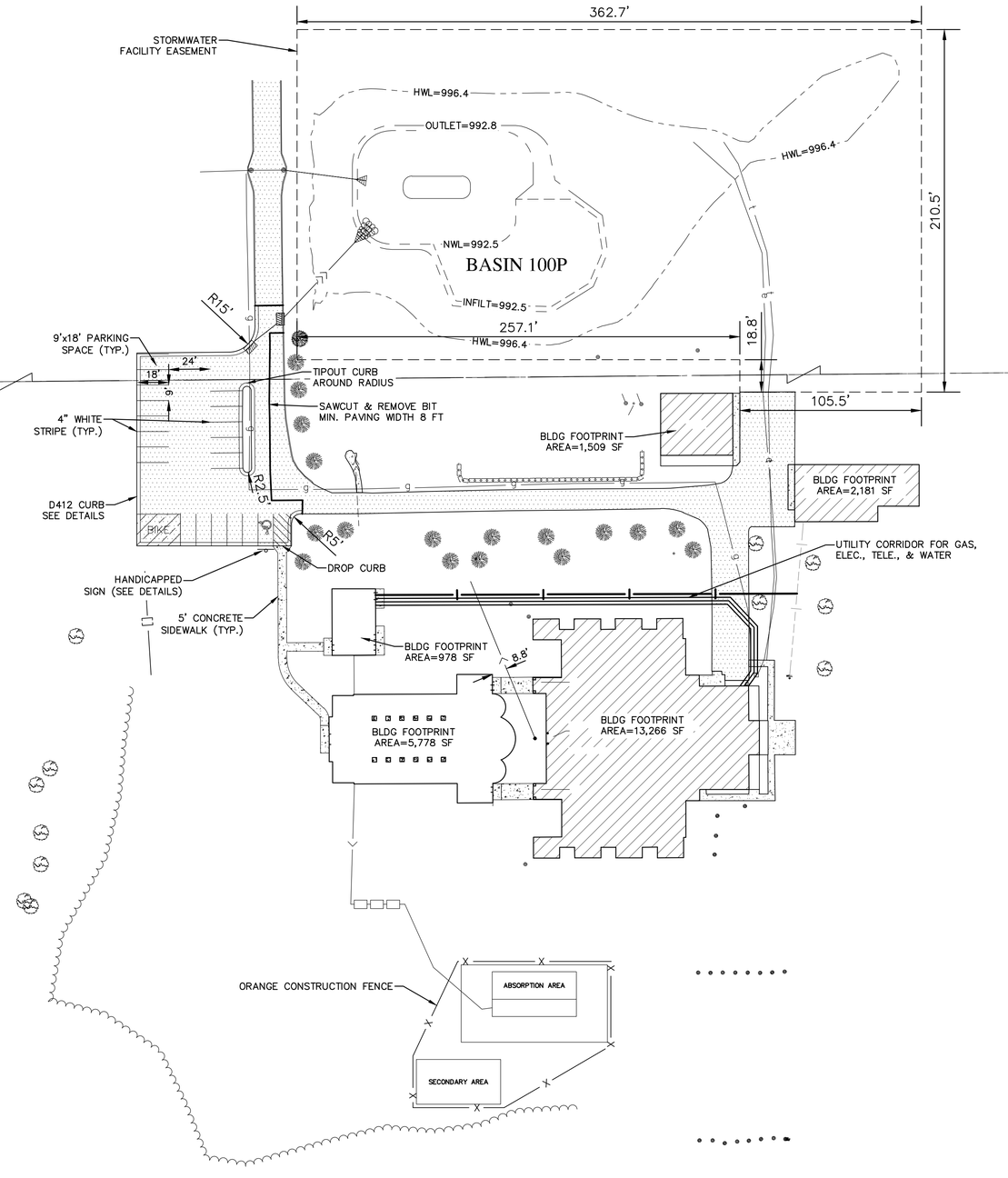
OVERALL SETBACK PLAN

CARMELITE HERMITAGE
8249 DEMONTREVILLE TRAIL NORTH
LAKE ELMO, MN 55042

CARMELITE HERMITAGE CHAPEL
LAKE ELMO, MINNESOTA

3.10 OF 13

00-ENG-119045-SHEET-3.10-SITE



PARKING SUMMARY

STALLS	17
HANDICAPPED STALLS	1

0 20 40 80

GRAPHIC SCALE IN FEET

00-ENG-119045-SHEET-3.10-SITE

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SITE PLAN

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8249 DEMONTREVILLE TRAIL NORTH
LAKE ELMO, MN 55042

CARMELITE HERMITAGE CHAPEL
LAKE ELMO, MINNESOTA

3.20 OF 13

EX. CBMH
RIM: 999.86
INV IN: 992.66
INV OUT: 992.66

EX. CBMH
RIM: 999.75
INV IN: 992.80
INV OUT: 992.54
RESTRICTOR PLATE HAS 6" OPENING

HWL=996.4

OUTLET=992.8

REMOVE EXISTING 18" RCP

FES-100A
INV: 991.50

EX. 18" RCP
INV: 992.4

48' - 15" RCP CL5 @ -2.40%

67' - 15" RCP CL5 @ 1.00%

NWL=992.5

FES-101
INV: 992.80

BASIN 100P
OUTLET=992.8
INFILTRATION EL=992.5
HWL=996.4
WET VOL.=0.316 AC*FT
STOR. VOL.=1.670 AC*FT

25' - 15" RCP CL5 @ 1.00%

CBMH-103
RIM: 1000.24
BLD: 4.00
INV OUT: 996.24 15" RCP CL5

INFILT=992.5

996.4

CBMH-102
RIM: 1000.86
BLD: 7.39
INV IN: 995.99 15" RCP CL5
INV OUT: 993.47 15" RCP CL5

RELOCATE GAS MAIN
(BY OTHERS)

EX. 8" CORRUGATED
PLASTIC PIPE
INV: 998.5

EX. 8" CORRUGATED
PLASTIC PIPE
INV: 1001.5

EX. 12" CORRUGATED
PLASTIC PIPE
INV: 999.6

EX. 12" CORRUGATED
PLASTIC PIPE
INV: 1000.7

8" METAL APRON
OUTLET=1005.04

1½" COPPER
WATER LINE

UTILITY CORRIDOR FOR GAS,
ELEC., TELE., & WATER

99' - 8" PVC SDR 35 @ 1.18%

EXISTING 2" COPPER
WATER LINE

EXISTING WELL

PROPOSED 4" PVC
SANITARY SEWER
(BY OTHERS)

NYOPLAST 8" INLINE DRAIN
(OR APPROVED EQUAL)
RIM=1007.70
INV=1006.20

PROPOSED SEPTIC TANKS
(BY OTHERS)

PROPOSED 4" PVC
SANITARY SEWER
(BY OTHERS)

ORANGE CONSTRUCTION FENCE

ABSORPTION AREA

SECONDARY AREA

4" PVC PIPES WITH CAPS

SEPTIC AREA

N

0 15 30 60
GRAPHIC SCALE IN FEET

00-ENG-119045-SHEET-4.10-UTIL

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UTILITY PLAN

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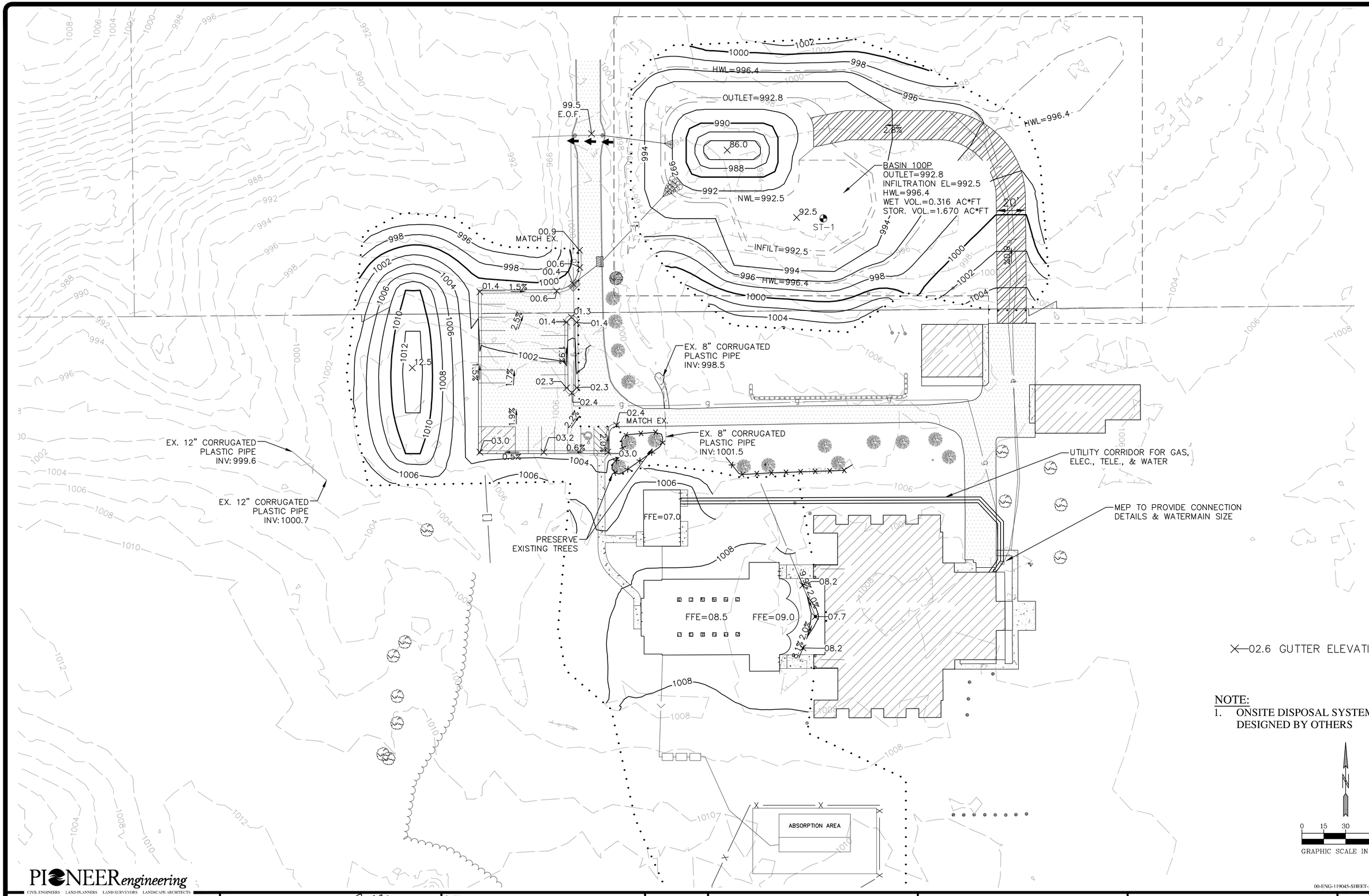
LAKE ELMO, MN 55042

CARMELITE HERMITAGE CHAPEL
LAKE ELMO, MINNESOTA

4.10 OF 13



X—02.6 GUTTER ELEVATION

NOTE:
1. ONSITE DISPOSAL SYSTEM DESIGNED BY OTHERS

N

0 15 30 60
GRAPHIC SCALE IN FEET

00-ENG-119045-SHEET-5.10-GRAD

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GRADING PLAN

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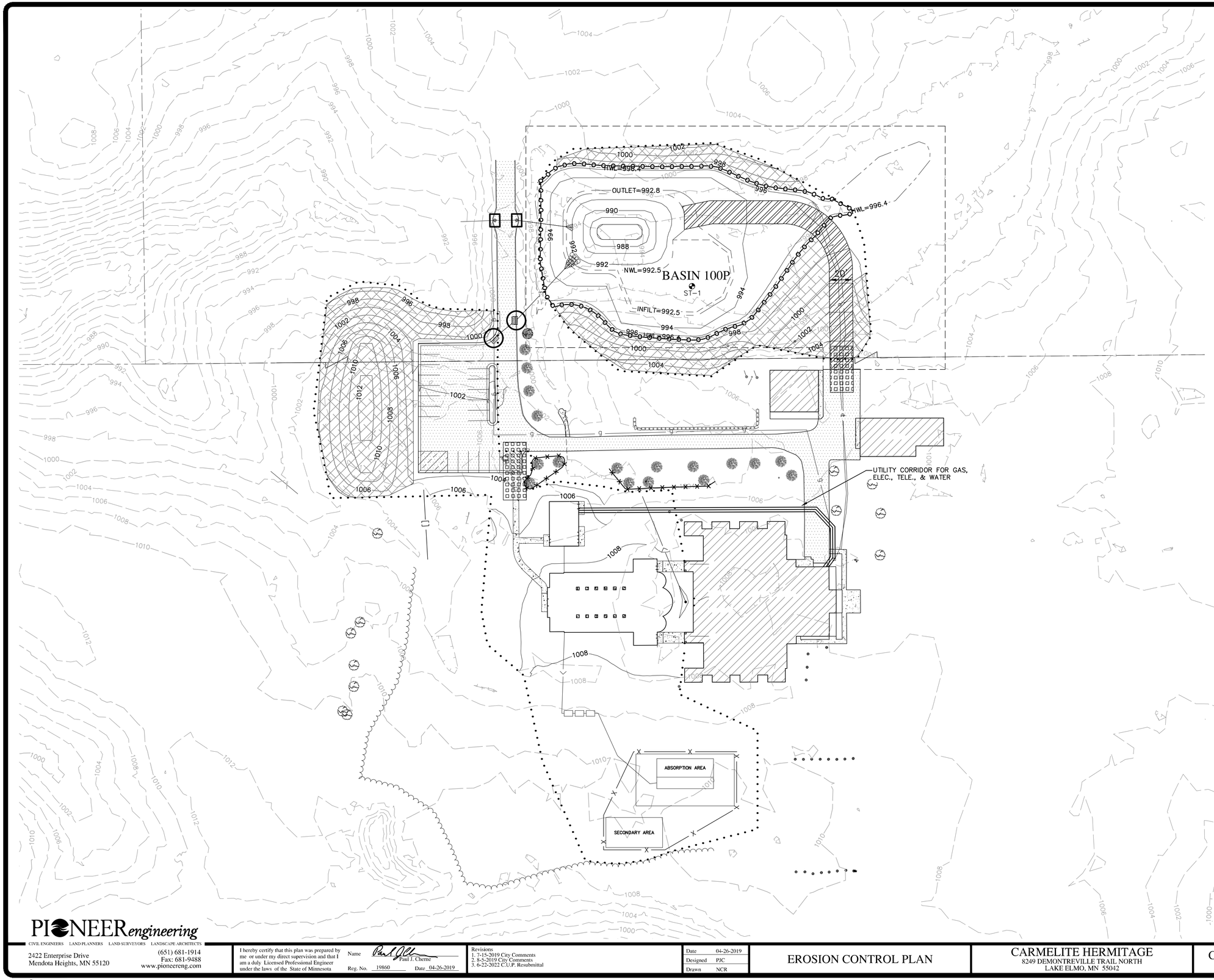
LAKE ELMO, MN 55042

CARMELITE HERMITAGE CHAPEL
LAKE ELMO, MINNESOTA

5.10 OF 13



LEGEND

- ROCK CONSTRUCTION ENTRANCE INSTALL BEFORE START OF GRADING
- PERIMETER EROSION CONTROL FENCE. INSTALL BEFORE START OF GRADING
- SECONDARY EROSION CONTROL FENCE. TO BE INSTALLED 48 HOURS AFTER COMPLETION OF GRADING.
- SUMPED RIP RAP PERMANENT ENERGY DISSIPATER, INSTALL WITHIN 24 HOURS AFTER CONNECTION TO A SURFACE WATER.
- STABILIZED EMERGENCY OVERFLOW
- MNDOT CAT 3 EROSION CONTROL BLANKET. INSTALL WITHIN 7 DAYS OF GRADING COMPLETION
- BASIN ACCESS 8% SLOPE MAX.
- CATCH BASIN INLET PROTECTION TO BE INSTALLED BEFORE GRADING BEGINS.
- CATCH BASIN INLET PROTECTION TO BE INSTALLED AFTER 1ST LIFT OF BITUMINOUS.
- CATCH BASIN INLET PROTECTION TO BE INSTALLED WITH CATCH BASIN GRATE.
- STRAW BIO ROLLS. INSTALL WITHIN 7 DAYS OF GRADING COMPLETION OR BEFORE 1ST RAINFALL EVENT WHICHEVER IS FIRST
- ROCK DITCH CHECK. INSTALL WITHIN 7 DAYS OF GRADING COMPLETION OR BEFORE 1ST RAINFALL EVENT WHICHEVER IS FIRST
- TREE FENCE
- ORANGE CONSTRUCTION FENCE

N

0 20 40 80

GRAPHIC SCALE IN FEET

00-ENG-119045-SHEET-5.20-EROS

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EROSION CONTROL PLAN

CARMELITE HERMITAGE
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LAKE ELMO, MN 55042

CARMELITE HERMITAGE CHAPEL
LAKE ELMO, MINNESOTA

5.20 OF 13

TEMPORARY SEED SHALL BE DONE IN ACCORDANCE TO MNDOT 2575 & 3876; CONSISTING OF:

- MAY 1 – AUGUST 1: MINNESOTA STATE SEED MIXTURE 21–111 (OATS COVER CROP) @ 100.0 LBS. PER ACRE OR APPROVED EQUAL.
- AUGUST 1 – OCTOBER 1: MINNESOTA STATE SEED MIXTURE 21–112 (WINTER WHEAT COVER CROP) @ 100.0 LBS. PER ACRE OR APPROVED EQUAL.
- MULCH SHALL BE MNDOT 3882, TYPE 1 @ 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.
- MNDOT 3881, TYPE 1 COMMERCIAL FERTILIZER, 10–10–20 @ 200 LBS. PER ACRE

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

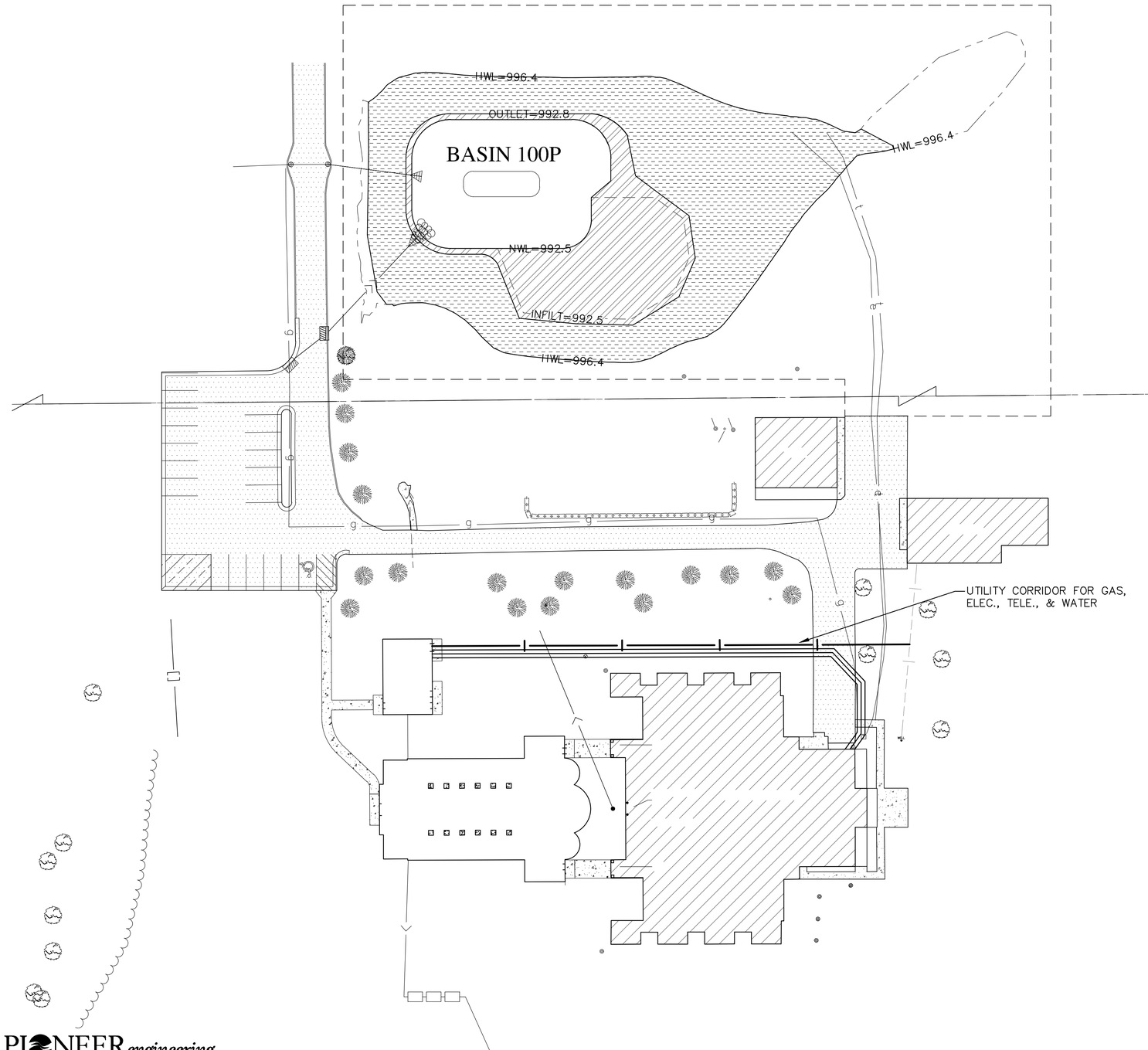
- MINNESOTA STATE SEED MIXTURE 25–141 (MESIC GENERAL ROADSIDE) AT 59 POUNDS PER ACRE.
- MULCH SHALL BE MNDOT 3882, TYPE 1 @ 2 TONS PER ACRE OR APPROVED EQUAL AND DISK ANCHORED IN PLACE OR APPROVED EQUAL, INSTALLED TO MINIMUM 90% COVERAGE OF THE SURFACE AREA DISTURBED.
- MNDOT 3881, TYPE 3 SLOW–RELEASE FERTILIZER, 22–5–10, MINIMUM 70% WATER–INSOLUBLE NITROGEN @ 350 LBS PER ACRE.

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

- WET BASIN BENCH/(IN)FILTRATION BASIN: MINNESOTA STATE SEED MIXTURE 33–261 (STORMWATER SOUTH & WEST) AT 35 POUNDS PER ACRE.
- SEED WILL BE ANCHORED WITH CAT 3 EROSION CONTROL BLANKET
- MNDOT 3881, TYPE 4 NATURAL–BASED FERTILIZER, 18–1–8 @ 120 LBS PER ACRE OR 17–10–7 @ 150 LBS PER ACRE

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

- ABOVE BASIN BENCH TO HIGH WATER LEVEL: MINNESOTA STATE SEED MIXTURE 34–271 (**WET MEADOW SOUTH & WEST**) AT 12 POUNDS PER ACRE.
- SEED WILL BE ANCHORED WITH CAT 3 EROSION CONTROL BLANKET
- MNDOT 3881, TYPE 4 NATURAL–BASED FERTILIZER, 18–1–8 @ 120 LBS PER ACRE OR 17–10–7 @ 150 LBS PER ACRE



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0 15 30 60

GRAPHIC SCALE IN FEET

00-ENG-119045-SHEET-5.30-SEED

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SEEDING PLAN

CARMELITE HERMITAGE
8249 DEMONTREVILLE TRAIL NORTH
LAKE ELMO, MN 55042

CARMELITE HERMITAGE CHAPEL
LAKE ELMO, MINNESOTA

5.30 OF 13

GENERAL NOTES

1. THE STORM WATER POLLUTION PREVENTION MANAGER SHALL BE A PERSON TRAINED, KNOWLEDGEABLE AND EXPERIENCED IN THE APPLICATION OF EROSION PREVENTION AND SEDIMENT CONTROL BMP'S WHO WILL OVER SEE THE IMPLEMENTATION OF THE SWPPP AND THE INSTALLATION, INSPECTION AND MAINTENANCE OF THE EROSION PREVENTION AND SEDIMENT CONTROL BMPS BEFORE AND DURING CONSTRUCTION.

2. CONTRACTOR TO ADHERE TO ALL REQUIREMENTS OF THE MINNESOTA POLLUTION CONTROL AGENCY N.P.D.E.S. PERMIT, INCLUDING THE REQUIREMENT TO MINIMIZE THE AREA DISTURBED BY GRADING AT ANY GIVEN TIME AND TO COMPLETE TURF RESTORATION WITHIN THE TIME REQUIRED BY THE PERMIT AFTER TEMPORARY CEASING GRADING OR COMPLETION OF GRADING.

3. A COPY OF THESE PLANS MUST BE ON THE JOB SITE WHENEVER CONSTRUCTION IS IN PROGRESS.

4. BMP'S REFER TO EROSION AND SEDIMENT CONTROL PRACTICES DEFINED IN THE MPCA PROTECTING WATER QUALITY IN URBAN AREAS AND THE MINNESOTA CONSTRUCTION SITE EROSION AND SEDIMENT CONTROL PLANNING HANDBOOK.

5. ALL EROSION AND SEDIMENT CONTROL FACILITIES (BMP'S) SHALL BE INSTALLED AND IN OPERATION PRIOR TO LAND DISTURBANCE ACTIVITIES. SOME EROSION CONTROLS SUCH AS CHECK DAMS AND TEMPORARY SILT PONDS MAY BE INSTALLED AS GRADING OCCURS IN THE SPECIFIC AREA. THEY SHALL BE MAINTAINED UNTIL CONSTRUCTION IS COMPLETED AND THE POTENTIAL FOR EROSION HAS PASSED.

6. THE BMP'S SHOWN ON THE PLANS ARE THE MINIMUM REQUIREMENTS FOR THE ANTICIPATED SITE CONDITIONS. AS CONSTRUCTION PROGRESSES AND UNEXPECTED OR SEASONAL CONDITIONS DICTATE, THE PERMITTEE SHALL ANTICIPATE THAT MORE BMP'S WILL BE NECESSARY TO ENSURE EROSION AND SEDIMENT CONTROL ON THE SITE. DURING THE COURSE OF CONSTRUCTION, IT IS THE RESPONSIBILITY OF THE PERMITTEE TO ADDRESS ANY NEW CONDITIONS THAT MAY BE CREATED BY CONSTRUCTION ACTIVITIES AND/OR CLIMATIC EVENTS AND TO PROVIDE ADDITIONAL BMP'S OVER AND ABOVE THE MINIMUM REQUIREMENTS SHOWN ON THE PLANS THAT MAY BE NEEDED TO PROVIDE EFFECTIVE PROTECTION OF WATER AND SOIL RESOURCES.

7. ALL TREES NOT LISTED FOR REMOVAL SHALL BE PROTECTED. DO NOT OPERATE EQUIPMENT WITHIN THE DRIP LINE, ROOT ZONES OR WITHIN TREE PROTECTION FENCE AREAS.

8. WHEREVER POSSIBLE, PRESERVE THE EXISTING TREES, GRASS AND OTHER VEGETATIVE COVER TO HELP FILTER RUNOFF.

9. OPERATE TRACK EQUIPMENT (DOZER) UP AND DOWN EXPOSED SOIL SLOPES ON FINAL PASS, LEAVING TRACK GROOVES PERPENDICULAR TO THE SLOPE. DO NOT BACK– BLADE. LEAVE A SURFACE ROUGH TO MINIMIZE EROSION.

10. TEMPORARY SEED SHALL BE DONE IN ACCORDANCE TO MNDOT 2575 & 3876. CONSISTING OF:
    - MAY 1 – AUGUST 1: MN SEED MIX 21–111 @ 100 LBS. PER ACRE OR APPROVED EQUAL.
    - AUGUST 1 – OCTOBER 1: MN SEED MIX 21–112 @ 100 LBS. PER ACRE OR APPROVED EQUAL.
    - 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 1 FERTILIZER, 10–10–20 @ 200 LBS. PER ACRE

11. PERMANENT TURF RESTORATION SHALL BE DONE IN ACCORDANCE WITH MNDOT 2575 & 3876. CONSISTING OF:
    - MN SEED MIX 25–141 AT 59 POUNDS PER ACRE.
    - MULCH SHALL BE MNDOT TYPE 1 @ 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. MULCH AT 90 % COVERAGE WITH DISK ANCHOR.
    - TYPE 3 FERTILIZER, 22–5–10, MINIMUM 70% WATER–INSOLUBLE NITROGEN @ 350 LBS. PER ACRE.

12. SLOPES AT 3:1 OR STEEPER, AND/OR WHERE INDICATED ON THE PLANS SHALL BE SEEDED AND HAVE AN EROSION CONTROL BLANKET TYPE 3 INSTALLED OR MAY BE HYDROSEEDED WITH TACKIFIER MULCH.

13. THE CONTRACTOR SHALL REMOVE ALL SOILS AND SEDIMENT TRACKED ONTO EXISTING STREETS AND PAVED AREAS.

14. IF BLOWING DUST BECOMES A NUISANCE, THE CONTRACTOR SHALL APPLY WATER FROM A TANK TRUCK TO ALL CONSTRUCTION AREAS.

15. WITHIN 7 DAYS OF COMPLETION OF THE SITE GRADING OPERATIONS, THE ENTIRE SITE (EXCEPT ROADWAYS) SHALL HAVE BEEN SEEDED AND MULCHED AND SILT FENCE SHALL BE INSTALLED AROUND ALL PONDS.

16. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE PROPERLY DISPOSED OF WITHIN THIRTY (30) DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED.

17. THE MINIMIZATION OF SOIL COMPACTION MUST BE USED ON AREAS OUTSIDE OF SPECIFIC COMPACTION REQUIRED AREAS. THESE PRACTICES INCLUDE: PREVENTING HEAVY EQUIPMENT TRAFFIC AND CONSTRUCTION TRAFFIC FROM AREAS, USING PRACTICES TO PREVENT CONCENTRATED FLOW OCCURRING OVER THE SOIL, PROVIDE LIGHT TRACKED EQUIPMENT TO CONSTRUCT AREA TO FINAL GRADE. THE AREAS REQUIRING LOOSE SOIL INCLUDE ALL TOPSOIL PLACEMENT AND INFILTRATION/FILTRATION BASINS.

18. THE PROPOSED SITE DOES NOT CONTAIN ANY WETLAND IMPACTS.

CONSTRUCTION ACTIVITY REQUIREMENTS

A. EROSION PREVENTION PRACTICES

1. THE CONTRACTOR SHALL IMPLEMENT CONSTRUCTION PHASING, VEGETATIVE BUFFER STRIPS, HORIZONTAL SLOPE GRADING, AND OTHER CONSTRUCTION PRACTICES THAT MINIMIZE EROSION. THE LOCATION OF AREAS NOT TO BE DISTURBED MUST BE DELINEATED (E.G. WITH FLAGS, STAKES, SIGNS, SILT FENCE, ETC.) ON THE DEVELOPMENT SITE BEFORE WORK BEGINS.

2. TEMPORARY STABILIZATION MUST BE INITIATED IMMEDIATELY WHENEVER ANY CONSTRUCTION ACTIVITY HAS PERMANENTLY OR TEMPORARILY CEASED ON ANY PORTION IF THE SITE AND WILL NOT RESUME FOR A PERIOD EXCEEDING 7 OR 14 CALENDAR DAYS. STABILIZATION MUST BE COMPLETED NO LATER THAN 7 OR 14 CALENDAR DAYS AFTER THE CONSTRUCTION ACTIVITY HAS TEMPORARILY OR PERMANENTLY CEASED.

3. ALL EXPOSED SOIL AREAS WITHIN 200 FEET OF A SURFACE WATER OR ANY STORMWATER CONVEYANCE SYSTEM WHICH IS CONNECTED TO A SURFACE WATER MUST BE STABILIZED WITHIN 7 DAYS. THESE AREAS INCLUDE POND SIDE SLOPES, EXPOSED SOIL AREAS WITH A POSITIVE SLOPE TO A CURB AND GUTTER SYSTEM, STORM SEWER INLET, DRAINAGE DITCH, OR OTHER SYSTEM THAT DISCHARGES TO A SURFACE WATER.

4. THE NORMAL WETTED PERIMETER OF ANY DRAINAGE DITCH MUST BE STABILIZED WITHIN 200 LINEAL FEET FROM THE PROPERTY EDGE, OR FROM THE POINT OF DISCHARGE TO ANY SURFACE WATER (WITHIN 24 HOURS OF CONNECTING TO A SURFACE WATER).

5. PIPE OUTLETS MUST BE PROVDED WITH TEMPORARY OR PERMANENT ENERGY DISSIPATION WITHIN 24 HOURS OF CONNECTION TO A SURFACE WATER.

B. SEDIMENT CONTROL PRACTICES

1. SEDIMENT CONTROL PRACTICES MUST MINIMIZE SEDIMENT ENTERING SURFACE WATERS. DITCHES AND SEDIMENT BASINS REQUIRE SEDIMENT CONTROL PRACTICES ONLY AS APPROPRIATE FOR SITE CONDITIONS. IF DOWN GRADE SYSTEM IS OVERLOADED, ADDITIONAL UPGRADE PRACTICES MUST BE INSTALLED, AND THE SWPPP MUST BE AMENDED. THERE SHALL BE NO UNBROKEN SLOPE LENGTH OF GREATER THAN 75 FEET FOR SLOPES WITH A GRADE OF 3:1 OR STEEPER. SLOPES MAY BE BROKEN WITH SILT FENCE, ROCK CHECK DAMS, COMPOST SNAKES, OR OTHER APPROVED METHODS AND/OR AS SHOWN ON THE EROSION CONTROL PLAN.

2. SEDIMENT CONTROL PRACTICES MUST BE ESTABLISHED ON DOWNGRADE PERIMETERS BEFORE UPGRADE LAND DISTURBING ACTIVITIES BEGIN.

3. THE TIMING OF SEDIMENT CONTROL PRACTICES MAY BE ADJUSTED TO ACCOMMODATE SHORT TERM ACTIVITIES. HOWEVER, THESE PRACTICES MUST BE INSTALLED BEFORE THE NEXT PRECIPITATION EVENT EVEN IF THE ACTIVITY IS NOT COMPLETE.

4. CONTRACTOR MUST PROTECT ALL STORM DRAIN INLETS BY APPROPRIATE BMP'S DURING CONSTRUCTION UNTIL ALL SOURCES WITH POTENTIAL FOR DISCHARGING TO THE INLET HAVE BEEN STABILIZED.

5. TEMPORARY STOCKPILES MUST HAVE SILT FENCE AROUND THE PERIMETER OF THE BASE OF THE STOCKPILE AND CANNOT BE PLACED IN SURFACE WATERS, INCLUDING STORM WATER CONVEYANCES SUCH AS CURB AND GUTTER SYSTEMS, OR CONDUITS OR DITCHES.

6. CONTRACTOR MUST INSTALL TEMPORARY (OR PERMANENT) SEDIMENTATION BASINS WHERE TEN OR MORE ACRES OF DISTURBED SOIL DRAIN TO A COMMON LOCATION AND/OR AS SHOWN ON THE EROSION CONTROL PLAN.

C. DEWATERING AND SURFACE DRAINAGE

1. DEWATERING OR ANY TYPE OF SURFACE DRAINAGE THAT MAY HAVE TURBID OR SEDIMENT LADEN DISCHARGE WATER MUST BE DISCHARGED TO AN APPROVED SEDIMENT BASIN ON THE PROJECT SITE WHENEVER POSSIBLE. IF THE WATER CANNOT BE DISCHARGED TO A BASIN PRIOR TO ENTERING THE SURFACE WATER, IT MUST BE TREATED WITH THE APPROPRIATE BMP'S SUCH THAT THE DISCHARGE DOES NOT ADVERSELY AFFECT THE RECEIVING WATER OR DOWNSTREAM LANDOWNERS. THE CONTRACTOR MUST ENSURE THAT DISCHARGE POINTS ARE ADEQUATELY PROTECTED FROM EROSION AND SCOUR. THE DISCHARGE MUST BE DISPERSED OVER NATURAL ROCK RIP RAP, SAND BAGS, PLASTIC SHEETING, OR OTHER ACCEPTED ENERGY DISSIPATION MEASURES.

2. ALL WATER FROM DEWATERING MUST BE DISCHARGED IN A MANNER THAT DOES NOT CAUSE NUISANCE CONDITIONS, EROSION, OR INUNDATION OF WETLANDS CAUSING SIGNIFICANT ADVERSE IMPACT TO THE WETLAND.

D. INSPECTIONS AND MAINTENANCE

1. THE CONTRACTOR MUST APPOINT SOMEONE TO INSPECT THE CONSTRUCTION SITE ONCE EVERY SEVEN DAYS DURING ACTIVE CONSTRUCTION AND WITHIN 24 HOURS AFTER A RAINFALL EVENT OF GREATER THAN 0.5 INCHES IN 24 HOURS. ALL INSPECTIONS MUST BE RECORDED IN WRITING AND RETAINED PER M.P.C.A. N.P.D.E.S. REQUIREMENTS. (NOTE: LOCAL JURISDICTION MAY REQUIRE A MORE FREQUENT INTERVAL OF INSPECTION.)

2. ALL NONFUNCTIONAL BMPS MUST BE REPAIRED, REPLACED OR SUPPLEMENTS WITH FUNCTIONAL BMPS BY THE END OF THE NEXT BUSINESS DAY AFTER DISCOVERY, OR AS SOON AS FIELD CONDITIONS ALLOW ACCESS UNLESS ANOTHER TIME FRAME IS SPECIFIED. (SEE MPCA NPDES PERMIT IV.E.5).

E. POLLUTION PREVENTION MANAGEMENT MEASURES

1. SOLID WASTE MUST BE DISPOSED OF PER M.P.C.A. REQUIREMENTS.

2. HAZARDOUS MATERIALS MUST BE STORED AND DISPOSED OF PER M.P.C.A. REGULATIONS.

3. EXTERNAL WASHING OF CONSTRUCTION VEHICLES MUST BE LIMITED TO A DEFINED AREA OF THE SITE. RUNOFF MUST BE CONTAINED AND WASTE PROPERLY DISPOSED OF. NO ENGINE DECREASING IS ALLOWED ON SITE.

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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. Cherne

Reg. No. 19860 Date 04-26-2019

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3. 6-22-2022 C.U.P. Resubmittal

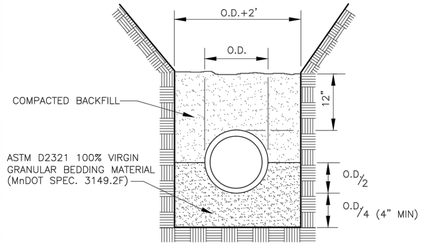
Date	04-26-2019
Designed	PJC
Drawn	NCR

GRADING DETAILS

CARMELITE HERMITAGE
8249 DEMONTREVILLE TRAIL NORTH
LAKE ELMO, MN 55042

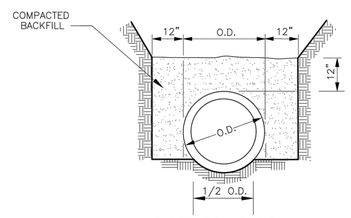
CARMELITE HERMITAGE CHAPEL
LAKE ELMO, MINNESOTA

00-ENG-119045-SHEET-6.10-DTLS



GRANULAR MATERIAL BEDDING

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



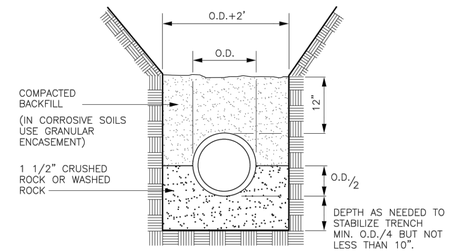
EARTH FOUNDATION

(EXCEPT SANITARY SEWER)

PIPE FOUNDATION DETAILS

MARCH 2017

CITY OF LAKE ELMO | STANDARD DRAWING NO. 101 | LAKE ELMO

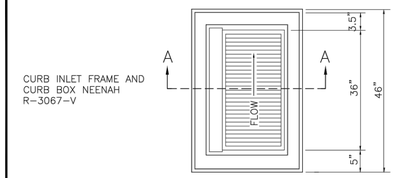


SPECIAL FOUNDATION FOR STABILIZING OF TRENCH

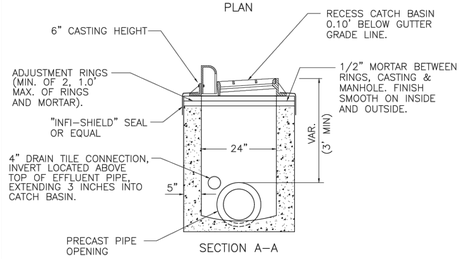
(AS DIRECTED BY ENGINEER)

MARCH 2017

CITY OF LAKE ELMO | STANDARD DRAWING NO. 105 | LAKE ELMO



PLAN



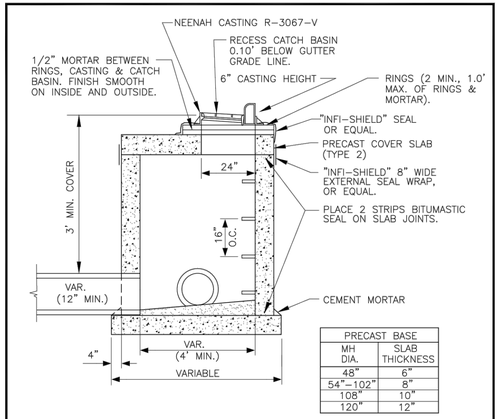
SECTION A-A

PRECAST REINFORCED CONCRETE CATCH BASIN & BASE SLAB PER ASTM C478

CATCH BASIN, TYPE 404

MARCH 2017

CITY OF LAKE ELMO | STANDARD DRAWING NO. 404 | LAKE ELMO



PRECAST BASE	
MH DIA.	SLAB THICKNESS
48"	6"
54"-102"	8"
108"	10"
120"	12"

NO WOOD SHALL BE USED FOR ADJUSTING CASTING; CEMENT MORTAR ONLY.

CAST IRON FRAME & GRATE CASTINGS PER SPECIFICATIONS.

MANHOLE STEPS SHALL BE CAST IRON, ALUMINUM OR STEEL REINFORCED PLASTIC PER ASTM C478. LOCATION SHALL BE AS NOTED IN THE SPECIFICATIONS.

PRECAST REINFORCED CONCRETE BASE SLAB & COVER SLAB PER ASTM C478,

PRECAST REINFORCED CONCRETE MANHOLE SECTIONS PER ASTM C478, OR 8" CONCRETE MANHOLE BLOCK WITH 1/2" MORTARED EXTERIOR.

FURNISH PRECAST CONCRETE MANHOLE SECTIONS WITH O-RING GASKETS & LUBRICANT EXCEPT AS OTHERWISE SPECIFIED.

FILL OPENING BETWEEN PIPE AND MANHOLE WALL WITH CEMENT MORTAR. INSIDE SURFACE SHALL BE FINISHED SMOOTH.

CATCH BASIN/MANHOLE, TYPE 406

MARCH 2017

CITY OF LAKE ELMO | STANDARD DRAWING NO. 406 | LAKE ELMO

TABLE OF QUANTITIES

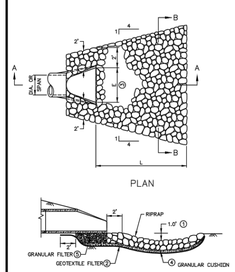
RIPRAP AT RCP OUTLETS

DIA. OF ROUND PIPE (IN.)	L (FT.)	CLASS II d_{50} = 6" GEO-TEXTILE FILTER (SQ.YD.)	CLASS II d_{50} = 6" GRANULAR FILTER UNDER APRON (CU.YD.)	CLASS II d_{50} = 6" 12" DEPTH RIPRAP (CU.YD.)	CLASS III d_{50} = 9" GEO-TEXTILE FILTER (SQ.YD.)	CLASS III d_{50} = 9" GRANULAR FILTER UNDER APRON (CU.YD.)	CLASS III d_{50} = 9" 18" DEPTH RIPRAP (CU.YD.)	CLASS IV d_{50} = 12" GEO-TEXTILE FILTER (SQ.YD.)	CLASS IV d_{50} = 12" GRANULAR FILTER UNDER APRON (CU.YD.)	CLASS IV d_{50} = 12" 24" DEPTH RIPRAP (CU.YD.)
12	8	16.9	0.2	3.0	19.6	0.3	4.4	22.6	0.3	5.9
15	8	18.0	0.2	3.2	20.8	0.3	4.8	23.9	0.4	6.4
18	10	22.4	0.3	4.3	25.6	0.4	6.4	29.0	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	29.7	0.5	6.2	33.4	0.8	9.2	37.3	1.0	12.3
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	18.7	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

TABLE OF QUANTITIES

RIPRAP AT RCP-A OUTLETS

SPAN OF PIPE ARCH (IN.)	L (FT.)	CLASS II d_{50} = 6" GEO-TEXTILE FILTER (SQ.YD.)	CLASS II d_{50} = 6" GRANUL FILTER UNDER APRON (CU.YD.)	CLASS II d_{50} = 6" 12" DEPTH RIPRAP (CU.YD.)	CLASS III d_{50} = 9" GEO-TEXTILE FILTER (SQ.YD.)	CLASS III d_{50} = 9" GRANUL FILTER UNDER APRON (CU.YD.)	CLASS III d_{50} = 9" 18" DEPTH RIPRAP (CU.YD.)	CLASS IV d_{50} = 12" GEO-TEXTILE FILTER (SQ.YD.)	CLASS IV d_{50} = 12" GRANUL FILTER UNDER APRON (CU.YD.)	CLASS IV d_{50} = 12" 24" DEPTH RIPRAP (CU.YD.)
22	10	22.4	0.3	4.1	25.6	0.4	6.1	29.0	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	37.3	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	52.5	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



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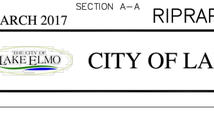
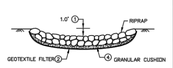


SECTION A-A



SECTION B-B

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.

① FOR PIPES GREATER THAN OR EQUAL TO 30", USE 1.5'.

② GEOTEXTILE FILTER, SPEC. 3733, SHALL COVER THE BOTTOM AND SIDES OF THE AREA EXCAVATED FOR THE RIPRAP, GRANULAR FILTER MATERIALS.

③ DIMENSION E IS GIVEN ON STANDARD PLATES 3020 AND 3110.

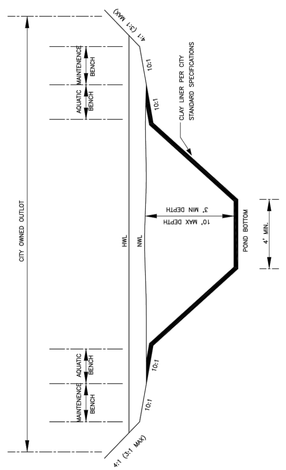
④ GRANULAR FILTER, SPEC. 3601, MAY BE USED AS A CUSHION FOR GEOTEXTILE FILTER PER SPEC. 2511. THE CUSHION LAYER IS INCIDENTAL.

⑤ GRANULAR FILTER OR RIPRAP, SPEC. 3601, TO EXTEND UNDER ENTIRE OPEN PORTION OF PIPE APRON. DEPTH OF MATERIAL UNDER APRON SHALL MATCH RIPRAP DEPTH. WHEN USING RIPRAP INCREASE RIPRAP QUANTITY ACCORDINGLY AND PLACE A 3" LAYER OF 1/2" CRUSHED ROCK UNDER THE APRON TO AID IN GRADING FOR APRON PLACEMENT. CRUSHED ROCK IS INCIDENTAL.

MARCH 2017

RIPRAP AT RCP OUTLETS

CITY OF LAKE ELMO | STANDARD DRAWING NO. 411 | LAKE ELMO



TYPICAL POND SECTION

MARCH 2017

CITY OF LAKE ELMO | STANDARD DRAWING NO. 416 | LAKE ELMO

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Reg. No. 19860 Date 04-26-2019

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Date	04-26-2019
Designed	PJC
Drawn	NCR

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LAKE ELMO, MN 55042

CARMELITE HERMITAGE CHAPEL
LAKE ELMO, MINNESOTA

00-ENG-119045-SHEET-6.10-DTLS

6.11 OF 13

1. BITUMINOUS TRAILS AND SIDEWALKS MUST BE CONSTRUCTED TO MAINTAIN POSITIVE DRAINAGE AWAY FROM THE PATHWAYS THROUGHOUT THE ENTIRE LENGTH.

2. TOPSOIL AND BACKFILLING OPERATIONS MUST BE COMPLETED TO AVOID DAMAGE TO THE BITUMINOUS TRAILS AND SIDEWALKS. FINAL GRADE OF BACKFILL AND TOPSOIL MUST BE FLUSH WITH THE PATH EDGE TO AVOID TRAPPING WATER.

3. DIVIDE SIDEWALK INTO SECTIONS WITH CONTRACTION JOINTS. SPACING SHALL NOT BE LESS THAN 3 FT NOR GREATER THAN 12 FT IN ANY DIMENSION. PLACE ½ INCH EXPANSION JOINT FILLER AT 50 FT (MAXIMUM) INTERVALS.

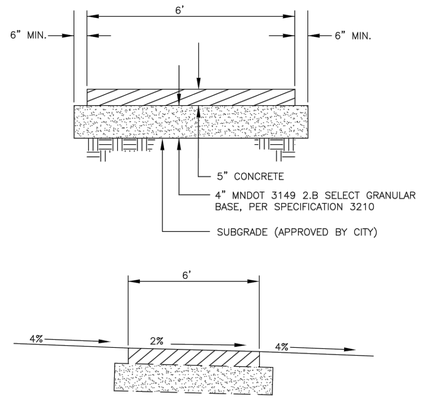
4. CONCRETE PEDESTRIAN RAMPS MUST BE CONSTRUCTED AT ALL INTERSECTIONS.

STANDARD PLAN NOTES
SIDEWALKS AND TRAILS

MARCH 2017

CITY OF LAKE ELMO

STANDARD DRAWING NO.
500A
LAKE ELMO



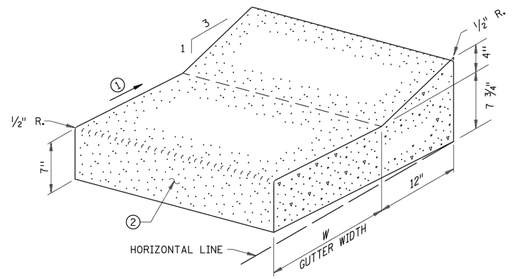
NOTE
1. SIDEWALKS SHALL HAVE CONCRETE PED RAMPS AT ALL STREET INTESECTIONS.
2. PROVIDE 2% CROSS-SLOPE TO MAINTAIN POSITIVE DRAINAGE AWAY FROM SIDEWALK THROUGHOUT LENGTH OF WALK.

CONCRETE SIDEWALK

MARCH 2017

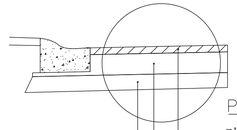
CITY OF LAKE ELMO

STANDARD DRAWING NO.
510
LAKE ELMO

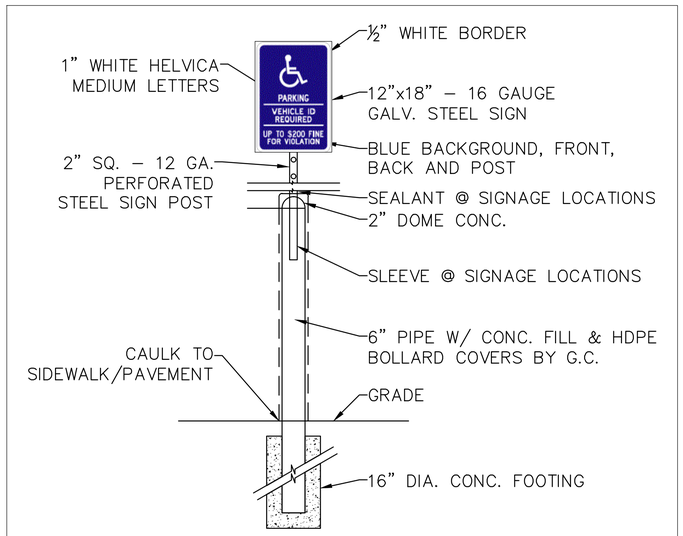


DESIGN D

D	GUTTER WIDTH W	CONCRETE	
DESIGN NO.		CU. YDS. PER LIN. FT.	LIN. FT. PER CU. YD.
D412	12''	0.0505	19.8
D418	18''	0.0613	16.3
D424	24''	0.0721	13.9
D436	36''	0.0937	10.7



PAVEMENT SECTION
3" BITUMINOUS WEAR COURSE (MnDOT SPWEA330C)
8" CL.5 AGGREGATE BASE
APPROVED SUBGRADE COMPACTED TO 100% STANDARD PROCTOR



ACCESSIBLE PARKING SIGN AND POST

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LAKE ELMO, MINNESOTA

00-ENG-119045-SHEET-6.10-DTLS

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

MARCH 2017

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, FLOATATION 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

MARCH 2017

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

MARCH 2017

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.

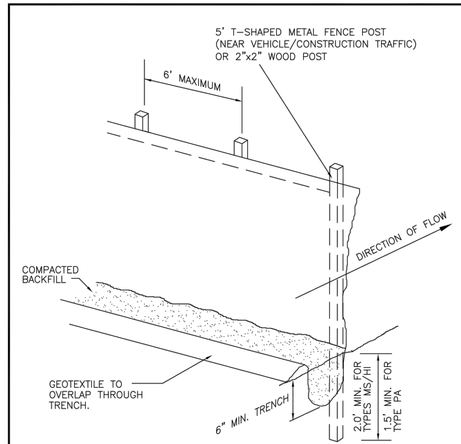
5. BOULEVARD AND DITCH RESTORATION INCLUDES FINE GRADING, WHICH INCLUDES THE REMOVAL OF ROCKS, DEBRIS AND SOIL CHUNKS, WHILE MAINTAINING POSITIVE DRAINAGE.

STANDARD PLAN NOTES

SITE RESTORATION PLANS

MARCH 2017

CITY OF LAKE ELMO | STANDARD DRAWING NO. 600D | LAKE ELMO

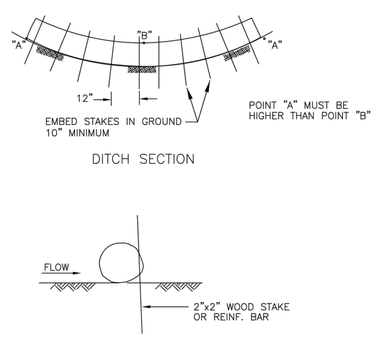


NOTE : –SILT FENCE INSTALLATION SHALL CONFORM TO MNDOT2573.3, TYPE MS/HI NEAR VEHICLE/CONSTRUCTION TRAFFIC, TYPE PA AT ALL OTHER LOCATIONS.
–MATERIALS SHALL CONFORM TO MNDOT 3886.

SILT FENCE

MARCH 2017

CITY OF LAKE ELMO | STANDARD DRAWING NO. 601 | LAKE ELMO

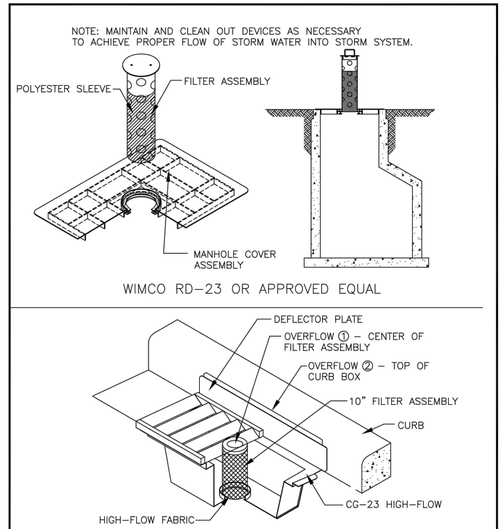


NOTE:
STAKE TO BE INSTALLED AT AN ANGLE OF APPROXIMATELY 45° ON THE DOWNSTREAM SIDE OF THE FIBER ROLL. ENSURE THAT STAKE DOES NOT PUSH DOWN THE FIBER ROLL FROM ITS FULL HEIGHT.

DITCH CHECK (FIBER ROLL)

MARCH 2017

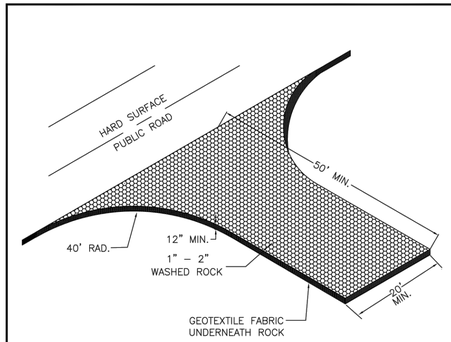
CITY OF LAKE ELMO | STANDARD DRAWING NO. 603 | LAKE ELMO



SEDIMENT CONTROL AROUND STORM SEWER INLET

MARCH 2017

CITY OF LAKE ELMO | STANDARD DRAWING NO. 604 | 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

MARCH 2017

CITY OF LAKE ELMO | STANDARD DRAWING NO. 605 | LAKE ELMO

PIONEERengineering
CIVIL ENGINEERS LAND PLANNERS LAND SURVEYORS LANDSCAPE ARCHITECTS
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. Cherne Reg. No. 19860 Date 04-26-2019

Revisions
1. 7-15-2019 City Comments
2. 8-5-2019 City Comments
3. 6-22-2022 C.U.P. Resubmittal

Date 04-26-2019
Designed PJC
Drawn NCR

CITY DETAILS

CARMELITE HERMITAGE
8249 DEMONTREVILLE TRAIL NORTH
LAKE ELMO, MN 55042

CARMELITE HERMITAGE CHAPEL
LAKE ELMO, MINNESOTA

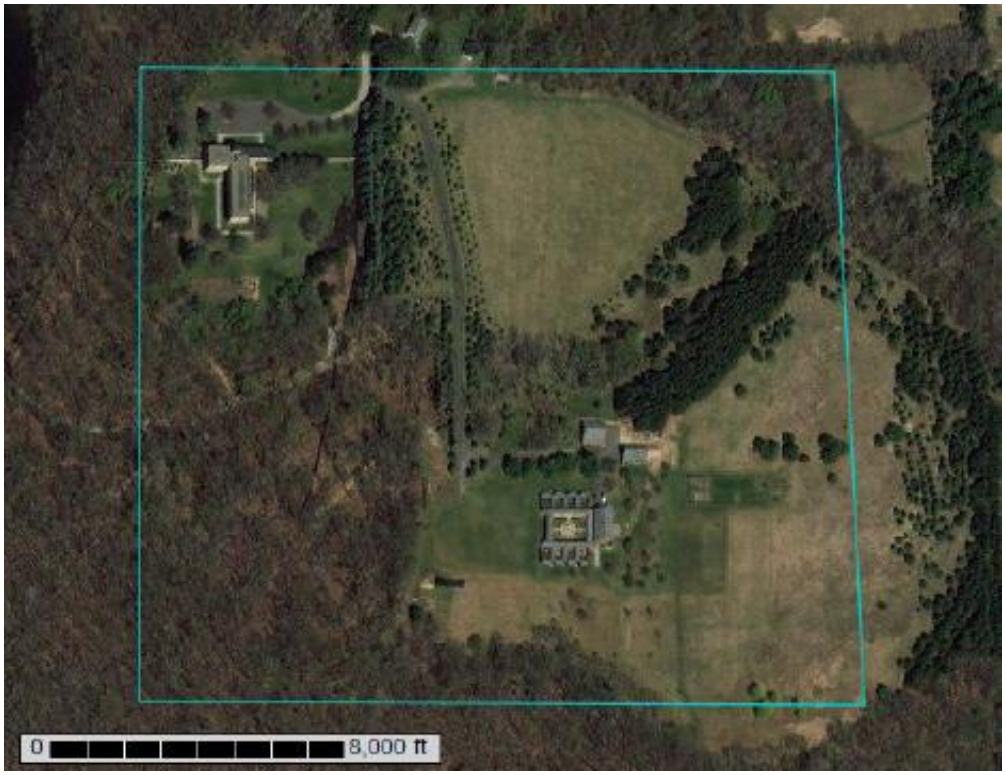
00-ENG-119045-SHEET-6.10-DTLS

6.13 OF 13

Carmelite Hermitage Chapel

Lake Elmo, Minnesota

Storm Water Management Plan



April 26, 2019
Revised July 12, 2019
Revised August 22, 2019
Revised June 22, 2022

Property Owner:

Carmelite Hermitage
8249 DeMontreville Trail N
Lake Elmo, Minnesota 55042

Consultant to Project Owner:

PIONEER*engineering* P.A.

Pioneer Engineering, P.A.
2422 Enterprise Drive
Mendota Heights Minnesota

Table of Contents

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

Paul Cherne
Minn. Reg. No. 19860

Date: April 26, 2019

I. Introduction

The following is a hydrology summary for the construction of a 5,000 sf chapel, utility building and related parking and sidewalks. The site is located east of Lake DeMontreville, approximately ½ mile south of DeMontreville Trail N in Lake Elmo, Minnesota.

II. Existing Site Conditions

A. Current Land Use

The development site is a 90 acre parcel consisting of woods and pasture. The property borders Lake DeMontreville on the west. The current use of the site is a residential religious community.

B. Topography - Existing Hydrology

The topography of the site is generally rolling and majority of the site drains west to Lake DeMontreville.

The Surface Waters that receive stormwater within one mile are shown in the Drainage Maps in APPENDIX A.

C. Special or Impaired Waters

A special and impaired waters search was completed using the MPCA search engine (http://pca-gis02.pca.state.mn.us/CSW/index.html) on April 8, 2019. Based on that review, this project has no discharge point within one mile of, and flows to, a special water listed in Appendix A, Part B of the NPDES Construction Site General Permit. The project does not have a discharge point within one mile of, and flows to, a water listed as impaired under Section 303(D) of the Federal Clean Water Act.

D. Soils

A geotechnical report was performed on the site. The soils encountered are the site consists of topsoil at the surface followed by mostly glacially deposited soil to the termination depths of the borings. Some fills were also encountered. The topsoil layer varied from about 1/4 to 1/2 foot thick. The material was mostly silty sand with varying amounts of organic material, as well as layers of silt and clay interwoven within the silty sand.

One soil boring was executed within the proposed infiltration area that showed silty soils. These findings led to an infiltration rate of 0.2 in/hr for the proposed basin. This rate determined the area required to drawdown the volume flowing into the basin within 48 hours (see Infiltration Volume Summary Table under Proposed Hydrology Section). The full report can be found in Appendix C.

The hydrologic soil groups obtained from the USDA Natural Resources Conservation Services Soils Survey Map were used in the existing and proposed models of the site. Shape file data was downloaded from the USDA Web Soil Survey to determine their locations.

A review of the USDA Natural Resources Conservation Services Soils Survey Map (See Appendix C) indicated the following soils on site:

Soil Symbol	Soil Name	Hydrologic Soil Group	Erosion Potential	% of Site
49	Antigo silt loam, 0 to 2 percent slopes	B	Slight	6.1%
49B	Antigo silt loam, 2 to 6 percent slopes	B	Slight	19.1%
49C	Antigo silt loam, 6 to 15 percent slopes	B	Slight	62.8%

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high-water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

III. Proposed Site Conditions & Design Considerations

A. Proposed Development

The proposed project consists of a 5,000 sf chapel, utility building and related parking and sidewalks.

B. Proposed Topography

The proposed drainage patterns will be reflective of the existing drainage patterns when possible. The drainage maps are shown in Appendix A.

C. Design Requirements

The Valley Branch Watershed District Revised Rules and Regulations and the City of Lake Elmo Stormwater Rules require all new development to meet flow rate, water quality and volume requirements. These requirements are summarized as follows:

1. Rate Control

The proposed flow rate from the proposed development shall not exceed the flow rate of the existing drainage areas for the 2-, 10- and 100-year storm events and the 100 year 10-day snowmelt event.

2. Water Quality

The City of Lake Elmo requires proposed stormwater management plans to meet all requirements of the NPDES Construction Stormwater permit and watersheds having jurisdiction over the site. To meet the NPDES Construction Stormwater Permit the permanent sedimentation basins must:

- The basin must have a permanent volume of 1,800 cubic feet of storage below the outlet pipe for each acre that drains to the basin.
- The basin must be designed to provide live storage for a water quality volume (calculated as an instantaneous volume) of one (1) inch of runoff from the new impervious surfaces created by the project.
- Basin outlets shall be designed such that the water quality volume is discharged at no more than 5.66 cubic feet per second (cfs) per acre of surface area of the pond. The basin's water quality volume is calculated as ½ inch of runoff from the new impervious surfaces created by the project.

3. Volume Control

The City of Lake Elmo requires the volume of stormwater runoff discharging from a proposed site shall not be greater than the volume of stormwater runoff discharging prior to proposed site alteration for the 2-, 10-, and 100-year storm events. The analysis for the volume of stormwater runoff shall be calculated using the Soil Conservation Service Type II time distribution for the 2-, 10-, and 100-year 24-hour storm events. The volume of stormwater runoff prior to the proposed development shall be calculated at the pre-settlement condition as defined in the State of Minnesota Stormwater Manual for a "meadow" condition based on the applicable hydrologic soil group(s) for the development.

Hydrologic Soil Group	Runoff Curve Number
A	30
B	58
C	71
D	78

On sites without restrictions, stormwater runoff volumes will be controlled and the post-construction runoff volume shall be retained on site for 1.1 inches of runoff from impervious surfaces.

If a site has restrictions where infiltration is not feasible or advised, such as karst topography, very fast or very slow infiltrating soils, shallow bedrock, a shallow confining layer/rough terrain, shallow groundwater, Drinking Water Management Supply Areas, and/or potential stormwater hotspots, as determined by the applicant and agreed upon by the VBWD or as determined by the VBWD, the applicant must follow these flexible treatment options:

i. Project must first attempt to design the site to achieve retention of at least 0.55 inches of runoff from the proposed impervious surfaces and remove 75% of the annual total phosphorus load leaving all points on the site. Options considered and presented shall examine the merits of relocating project elements to address varying soil conditions and other constraints across the site.

ii. If the project cannot achieve the standards listed in Standard 6Di above, the project shall achieve volume reduction to the maximum extent practicable and remove 75% of the annual total phosphorus load leaving all points on the site. Options considered and presented shall examine the merits of relocating project elements to address varying soil conditions and other constraints across the site.

iii. If the project cannot achieve the standards listed in Standard 6Dii above, the project shall achieve volume reduction to the maximum extent practicable and remove 60% of the annual total phosphorus load leaving all points on the site. Options considered and presented shall examine the merits of relocating project elements to address varying soil conditions and other constraints across the site.

iv. Off-site mitigation (including banking or cash or treatment on another project) will be considered by the VBWD on a case-by-case basis. In all cases, the receiving water shall be protected.

To meet the NPDES Construction Stormwater Permit the infiltration systems must:

- Be design so that the water quality volume of one (1) inch of runoff from the new impervious surfaces created by thee project is retained on site (i.e. infiltration or other volume reduction practices) and not discharged to a Surface Water.
- Discharge the water quality volume routed to the system through the soil surface or filter media within 48 hours or less.
- Verify soil type and to ensure a minimum of three (3) feet of separation from the seasonally saturated soils (or from bedrock) and the bottom of the proposed infiltration/filtration system.

4. Storm Sewer Design

Storm sewer in the City of Lake Elmo must be designed to handle a 10 Year Storm Event.

D. Proposed Hydrology

One stormwater retention basin with adjacent infiltration area (Basin 100P). The parking lot, the existing buildings and the north portion of the chapel will drain to the north to Basin 100P. The south half of the chapel will drainage to a grass swale the will then discharge to Lake DeMontreville. Rate control and volume control for all new impervious will be provided in Basin 100P by treating the existing impervious surface.

Soil borings and double ring infiltration tests reveal soils that are suitable for volume control practices. The test results can be found in Appendix C.

1. Rate Control

The City of Lake Elmo requires that proposed flow rate from the proposed development shall not exceed the flow rate of the existing drainage areas for the two, ten and 100-year storm events as well as the 10-day snowmelt event.

The following table is a summary of the results of the flow rate derived by the HydroCAD models.

Drainage Designation	Drainage Description	2-Year Flow Rate (cfs)		10-Year Flow Rate (cfs)		100-Year Flow Rate (cfs)		10-Day Flow Rate (cfs)	
		Existing	Proposed	Existing	Proposed	Existing	Proposed	Existing	Proposed
W	Offsite West	1.73	1.20	9.06	7.83	32.44	30.71	4.64	4.15

Rate control is met for all events per City of Lake Elmo requirements.

2. Water Quality

The City of Lake Elmo requires proposals to meet NPDES permit requirements, which states that basins must have a permanent volume of 1,800 cubic feet of storage below the outlet pipe for each acre that drains to the basin.

NPDES Basin Treatment Volume				
Basin Model Name (HydroCAD)	Drainage Area (acre)	Requirement (cfs/acre)	Treatment Volume Req. (ac*ft)	Volume Proposed (ac*ft)
100P	10.38	1,800	0.43	0.32

Based on the NPDES Treatment Volume Requirement, this proposed basin does not have enough storage. However, further evaluation using a MIDS model was utilized to evaluate 75% TP reduction. Local climate data for an average year (1958-59) was used to compile the results. Per the MIDS results (found in Appendix B), the TP Reduction Requirement is achieved per City of Lake Elmo requirements.

Basin outlets shall be designed such that the water quality volume is discharged at no more than 5.66 cubic feet per second (cfs) per acre of surface area of the pond. The basin's water quality volume is calculated as 1 inch of runoff from the new impervious surfaces created by the project.

Basin Water Quality Volume Discharge Requirement			
Basin Model Name (HydroCAD)	Surface area (acre)	WQ Discharge (cfs)	Discharge per acre (cfs/acre)
100P	0.14	0.01	0.07

Water quality volume discharge is met for the proposed basin per City of Lake Elmo requirements.

3. Volume Control

To meet the NPDES Permit the project must be designed so that the water quality volume of one and one tenth (1.1) inch of runoff from the new impervious surfaces created by the project is retained on site (i.e. infiltration or other volume reduction practices) and not discharged to a Surface Water.

Runoff Quantity Reduction Required			
Basin Name	Total New Impervious Area (ac)	Treatment Depth (in/ac impervious)	Water Quality Volume Required (ac*ft)
100P	0.285	1.1	0.026
Offsite	0.081	1.1	0.008
Total	0.366	1.1	0.034

Total Existing Impervious Area (ac)	Total New Impervious Area (ac)
0.726	0.366

Basins 100P will provide volume control with infiltration of 1.1" runoff over the new impervious area.

Drainage Designation	Drainage Description	2-Year Volume (ac*ft)		10-Year Volume (ac*ft)		100-Year Volume (ac*ft)		10-Day Volume (ac*ft)	
		Existing	Proposed	Existing	Proposed	Existing	Proposed	Existing	Proposed
W	Offsite West	0.37	0.28	1.20	1.10	3.90	3.76	8.50	7.82

The volume control requirement is met for all events per City of Lake Elmo requirements.

Infiltration Volume Summary Table						
Basin Model Name	Captured Volume Below Outlet (ac*ft)	Impervious Area (ac)	Treatment/Impounded Required Volume 1.1" x Impervious Area (ac*ft)	Infiltration Surface Area (sf)	Infiltration Rate (in/hr)	Maximum Volume Infiltrated In 48 Hours (ac*ft)
100P	0.074	0.366*	0.034	4,000	0.2	0.074

*Note 1: This impervious is the total new impervious proposed. New impervious in subcatchment 1A (see Hydrology Map Proposed Conditions) drains offsite and will be treated by a grassy swale. Existing impervious in subcatchments 100A – 100C equal to the new impervious in 1A will be treated by Basin 100P.

The maximum volume infiltrated in the required 48 hours exceeds the water quality volume required for the total new impervious area proposed. This meets the City of Lake Elmo volume control requirement.