



PLANNING COMMISSION  
DATE: 6/22/15  
AGENDA ITEM: 4A – PUBLIC HEARING  
CASE # 2015-19

ITEM: Diedrich Property Townhouses (Lennar) – Preliminary Plat and Conditional Use Permit

SUBMITTED BY: Kyle Klatt, Planning Director

REVIEWED BY: Nick Johnson, City Planner  
Jack Griffin, City Engineer

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### **SUMMARY AND ACTION REQUESTED:**

The Planning Commission is being asked to consider a Preliminary Plat request from Lennar Corporation for a 46-unit single-family attached (townhouse) development to be located on slightly over 15 acres of land immediately east of Lake Elmo Avenue and north of the Hunters Crossing development. The site is located within the I-94 Corridor Planning Area and is therefore on property that has been guided for public sewer and water services. The application as originally submitted included a request for a Conditional Use Permit to allow the use of a private street to serve the individual townhouse units. The applicant has since updated the proposed site plan and plat to incorporate a public street within the development, which will eliminate the need for a conditional use permit. Staff is recommending approval of the request with conditions as listed in the below report.

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### **GENERAL INFORMATION**

*Applicant:* Lennar Corporation (Paul Tabone); 16305 36<sup>th</sup> Avenue North, Suite 600, Plymouth MN 55446

*Property Owner:* Tammy Diedrich and Gerhard Rieder, 7401 Wyndham Way, Woodbury, MN 55125

*Location:* Part of Section 36 in Lake Elmo, north of I-94, east of Lake Elmo Avenue, and south of the Cimarron Golf Course property. Immediately north of 404 Lake Elmo Avenue North. PID: 36.029.21.32.0002

*Request:* Application for a preliminary plat related to a 46-unit townhouse subdivision. A request for a conditional use permit is no longer needed based on the submission of an updated site plan with a public street.

*Existing Land Use and Zoning:* Vacant with fairly heavy tree cover. Current Zoning: RT – Rural Transitional; Proposed Zoning: MDR – Medium Density Residential

*Surrounding Land Use:* North – Cimarron Manufactured Home Park and golf course; East – Trans-City industrial building; West – Rural Residential property and The Forest residential subdivision; South –

	Hunters Crossing single family residential development; also one existing home site adjacent to Lake Elmo Avenue.
<i>Surrounding Zoning:</i>	MDR – Medium Density Residential, RT – Rural Development Transitional; LDR – Low Density Residential
<i>Comprehensive Plan:</i>	Urban Medium Density Residential (4 – 7.5 units per acre)
<i>History:</i>	No history on file with the City. Site has been vacant or used for agricultural purposes for a long period of time. The sketch plan was reviewed by the City in February and March of 2015. Staff did not find any information in the City’s land use files for the site that would impact the proposed subdivision.
<i>Deadline for Action:</i>	Application Complete – 6/3/15 60 Day Deadline – 8/2/15 Extension Letter Mailed – No 120 Day Deadline – 10/1/15
<i>Applicable Regulations:</i>	Chapter 153 – Subdivision Regulations Article 10 – Urban Residential Districts (MDR) §150.270 Storm Water, Erosion, and Sediment Control

## REQUEST DETAILS

The City of Lake Elmo has received a request from Lennar Corporation for a preliminary plat for a 46 unit townhouse development tentatively called the Diedrich Property Preliminary Plat. Please note that the original application and all of the construction plans as submitted were for a 48-unit project utilizing a private street. Due to several issues concerning the original configuration of lots and in order to address City, County, and watershed district comments and concerns, the applicant has submitted a revised site plan that now includes a public street and a reduced number of lots. The applicant may still be seeking some variation from City standards in order to plat a public street, and Staff is suggesting that any variations from the City’s zoning and subdivision regulations be addressed at the final plat stage.

The City previously reviewed a sketch plan for the property earlier in the spring of this year, and the current application has been preceded by a Comprehensive Plan amendment that changed the future land use designation of this parcel from HDR – High Density Residential to MDR – Medium Density Residential.

The site under consideration is situated between the Cimarron Golf Course and the Hunters Crossing development north of the planned 5<sup>th</sup> Street corridor and west of Lake Elmo Avenue. The property is currently vacant, and there is no record of any buildings or structures being constructed on the site. When the City was initially planning the trunk sewer line project to serve the Village Area, the original alignment of the trunk sewer through this property followed the northern and eastern property boundaries. After subsequent discussions with the property owners, this alignment was changed to the southern boundary of the site, within what eventually become the planned right-of-way for 5<sup>th</sup> Street. The City has acquired easements for both 5<sup>th</sup> Street and the sewer and water main serving this area that cross the southern property boundary of the applicant’s property. These easements may eventually be vacated since the preliminary plat will formally dedicate the required right-of-way for the road, sewer, water, and other utilities as 5<sup>th</sup> Street. A similar dedication of the road and utility right-of-way was provided with Hunters Crossing to the South.

The proposed access into the development is now proposed to occur via a new public road immediately across from the entrance to Hunters Crossing (Lavern Avenue North). The City has previously approved the use of private roads to serve the townhouse units with Lennar's Savona subdivision, and the plan as originally drawn out called for a private road to be used to access the proposed townhouses. The road as originally planned would have been located within a 30-foot wide Outlot, however, the City Engineer expressed concern that this outlot was not wide enough to accommodate all necessary infrastructure (both private and public) to serve the development. In order to address these (and other) concerns, the applicant has propose a modified plan that accommodates a public street meeting all City standards. This updated plan has been submitted as a supplement to the original application materials that still include a 30-foot outlot with a private street. Any future plan submissions and reviews will need to address revised review comments from Staff, and specifically, the City Engineer, prior to approval of a final plat.

The overall site plan is generally consistent with sketch plan submitted earlier this year. The two notable exceptions are that the (now revised) preliminary plat reduced the overall number of units from 50 to 46. The developer is proposing to construct a sidewalk along the main entrance into the development in addition to a sidewalk connecting the western cul-de-sac with the planned 5<sup>th</sup> Street trail. There are no interior sidewalks depicted on the preliminary development plans, and the applicant has stated that they believe that interior sidewalks will not be necessary given the low traffic volumes expected on the interior streets. Staff is recommending that if the project does includes a public street and right-of-way meeting City standards that a sidewalk on one side of all street be included in the final development plans.

One of the reasons that the applicant originally requested the use of a private street is that it would allow them to slightly vary the setbacks of the townhouse units in order to help minimize the visual impact of a row of townhouses all at the same setback. The developer is still looking for ways to add some variation to the setbacks, and will be seeking some minor modifications as part of the final plat submission in order to address this issue.

Consistent with the City's specifications for the 5<sup>th</sup> Street roadway segment, the applicant has provided for a 100-foot wide right-of-way, which will provide sufficient room for the construction of a parkway with turning lanes, 10-foot bituminous trail, sidewalk, trees, lighting, and other design elements as planned by the City. In this case, the applicant is retaining the existing easement width of 110 feet at the intersection of 5<sup>th</sup> Street and Lake Elmo Avenue and narrowing the right-of-way down to match the 100 foot right-of-way platting within Hunters Crossing. Both Ryland Homes and Lennar are still working towards a joint project to build 5<sup>th</sup> Street at one time verses splitting the construction up into northern and southern segments.

The preliminary plat has been developed in response to the City's recently adopted Comprehensive Plan, which identifies all of the applicant's property for urban medium density residential development. The plat incorporates 46 single family attached lots, most of which are designed with widths around 40 feet each. Given the limited access to the site and relatively small nature of the property, the applicant has worked to incorporate some variety into the arrangement of lots as is possible given these restrictions.

Public sanitary sewer service is presently available on the site, which was constructed as part of the Village trunk line project completed late last year. Water was extended to the site as part of the 2014 Lake Elmo Avenue water main project. Like other developments along this line, the developer will be expected to pay the full water availability charges for each planned lot (\$3,000) at the time of the final plat, even if the project is broken up into different stages.

## PLANNING AND ZONING ISSUES

The Diedrich Townhouse site is guided for urban medium density development in the City's Comprehensive Plan, and the appropriate zoning for the site will be MDR – Medium Density Residential. The actual rezoning of the property is a necessary step prior to development of this site that will need to be completed prior to approval of the final plat. The overall subdivision plan has therefore been prepared in order to comply with the district standards for the MDR districts in terms of lot size, lot widths, building setbacks, and other design criteria. Within the MDR district, townhouses are allowed that do not meet minimum frontage requirements or that are located along a private street as a conditional use permit.

The planned road serving the townhouse lots extends due north from 5<sup>th</sup> Street and then splits east and west through the middle of the property to provide access to the townhouses. There are no planned connections to the east, west, or north of the property because these sites have previously been developed or will connect into 5<sup>th</sup> Street once on either side of the site under consideration. Given the site characteristics and the immediately adjacent land uses (which are all different than single family), the applicant has had to design the site as an isolated island that is impractical to connect to adjacent properties. The streets as originally planned and later updated will meet the City's minimum standards for construction.

The sidewalks within the subdivision are limited to those mentioned in the previous section of this report, and there are no sidewalks planned along the east/west private road. Please note that the plat as originally submitted did not dedicate the amount of right-of-way that has been requested by Washington County. The County has previously requested that the developer dedicate an additional 42 feet of right-of-way along Lake Elmo Avenue, and that this right-of-way width be incorporated into the final plat. The additional right-of-way does impact the location of the planned storm water pond over Outlot A, and this pond and associated grading work will need to be adjusted in order to account for the expanded right-of-way. Updated plans must be reviewed and approved by the City, County, and Watershed District prior to the City's approval of a final plat for this subdivision.

As noted in the preceding section, the developer has submitted an updated site plan that retains the same general layout, and configuration of lots, but changes the proposed private street outlot of 30 feet to a public right-of-way 60 feet in width. The additional right-of-way has been requested by the City Engineer to help ensure that there is adequate room for future maintenance and upkeep of public utilities (sewer, water, and other private utilities) within this subdivision. All final construction plans will need to be updated to reflect the public right-of-way and reconfiguration of lots.

The preliminary site plan included as part of the application materials includes a description of the lot size, dimensions, and all required setbacks for the development. All of the lots meet the City's minimum area requirement of 4,000 for single-family attached lots in a MDR district, with the smallest lot proposed at 5,527 square feet. The site plans further illustrate that throughout the subdivision the lots will average 8,782 square feet, which exceeds the minimum requirements by a fairly wide margin.

The following is a general summary of the subdivision design elements that have proposed as part of the Diedrich Townhouses preliminary plat and plans:

### Zoning and Site Information:

- Existing Zoning: RT – Rural Transitional



- Proposed Zoning: MDR – Medium Density Residential
- Total Site Area: 15.11 acres (includes Outlot D of Hunters Crossing)
- Total Residential Units: 48
- Proposed Density (Net): 4 units per acre
- REC Units from Comp Plan: 57 (based on a gross calculation)

Proposed Lot Dimensional Standards:

- Min. Lot Width: 40 ft.
- Lot Depth: 134 ft. (140 ft. typical)
- Lot Area: 4,000 sq. ft. (8,000 typical)
- Front Yard Setback: 25 ft.
- Side Yard Setback: 10 ft.
- Rear Yard Setback: 20 ft.

Proposed Street Standards:

- ROW Width – Local 60 ft. (potentially could be reduced to 50 ft. for a limited access road)
- ROW Width – Minor Collector 110-100 feet
- Street Widths – Local: 28 ft.(per City standard)
- Street Width – Minor Collector Varies – parkway design proposed

The standards listed above are all in compliance with the applicable requirements from the City's zoning and subdivision regulations, including the revised public street and associated right-of-way. Based on Staff's review of the preliminary plat, the applicant has demonstrated compliance with all applicable code requirements at the level of detail that is required for a preliminary plat. The applicant will need to address the review comments from the City and County, and the final plat and final construction plans will specifically need to be updated to reflect the wider public street right-of-way and expanded Lake Elmo Avenue (CSAH 17) right-of-way. Any variations from setbacks and other standards because of the amended road section will need to be addressed with the final plat.

As with any new subdivision the City Code requires that a portion of the plat be set aside for public park use. In this case, the applicant is not proposing to dedicate any land specifically for a public park, and is instead asking to pay a fee in lieu of land dedication. This is not a site or general location that would be suitable for a public park or any specific trail connections; therefore, Staff is supportive of the applicant's request to pay a fee instead of dedicating any public land with the subdivision. The required dedication for the 15.11 acre site would be 1.51 acres, or a cash payment of approximately \$90,000 based on previous appraisals of land in this area.

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## REVIEW AND ANALYSIS

City Staff has reviewed the proposed preliminary plat, and has forwarded the plans to appropriate reviewing agencies in advance of the Planning Commission meeting. In general, the proposed plat will meet all applicable City requirements for approval, and any deficiencies or additional work that is needed is noted as part of the review record and can be imported in the final plat and final construction plans. The City has received a detailed list of comments from the City Engineer concerning the proposed subdivision; these comments are attached to this report for consideration by the Planning Commission.

In addition to the general comments that have been provided in the preceding sections of this report, Staff would like the Planning Commission to consider the issues and comments related to the following discussion areas as well:

- ***Comprehensive Plan.*** The proposed subdivision is consistent with the Lake Elmo Comprehensive Plan for this area and with the densities that were approved as part of this plan (as recently amended). The net densities for the development fall within the low end of the range allowed for the urban medium density, and depending on the specific amount of land that will be dedicated for 5<sup>th</sup> Street and Lake Elmo Avenue, this density will be somewhere in the 3.8 to 4.0 units per acre range. Given the site constraints and need to accommodate additional right-of-way within the plat, Staff has found that the proposed density is in keeping the spirit and intent of the Comprehensive Plan for this area. Other aspects of the Comprehensive Plan relate to the Hunter's Crossing subdivision as follows:
  - ***Transportation.*** The City's transportation plan calls for the construction of a minor collector road that will connect the eastern and western portions of the I-94 Corridor. Staff views this road as a critical piece of the transportation infrastructure that is needed to serve the densities that have been planned for this area. The City's previous acquisition of easements through this area anticipated the future alignment of 5<sup>th</sup> Street through the southern portion of the applicant's property and the proposed subdivision will officially plat this right-of-way with the final plat. Both Lennar and Ryland are still working towards a joint project to build all of 5<sup>th</sup> Street between their properties later this summer, and regardless of whether or not a joint project occurs, Lennar will need to build at least its half of 5<sup>th</sup> Street in order to provide access to the proposed townhouses. Staff will continue to work with both parties to work towards a joint project that addresses the needs of the private developers and the City for access.
  - ***Parks.*** The City's park plan identifies proposed locations for neighborhood parks based on the anticipated population that should be served by each park. This subdivision is located at the periphery of a park search area for the area east of Lake Elmo Avenue. During its review of the sketch plan for this subdivision, the Park Commission did not recommend the dedication of land within the subdivision for a new park, and instead agreed with the developer's request to submit a cash payment in lieu of land dedication. Staff anticipates that a larger park that could be designed in conjunction with the School District near Oakland Junior High would better serve existing and future residents in this portion of the City.
  - ***Water.*** Public water service has been extended to this area via the public improvement project that installed a new water main along Lake Elmo Avenue last year. The final construction plans will need to abide by any recommendations of the City Engineer concerning the extension of water service through this site to service other adjacent sites (which will likely not be required given the exiting development on either side of the applicant's site).
  - ***Sanitary Sewer.*** The developer will be required to connect to the gravity sewer main that has been installed under the 5<sup>th</sup> Street right-of-way. The utility plans provided by the applicant document this connection.

- **Phasing.** The Lennar townhouse subdivision is located within the Stage 2 phasing area for the I-94 Corridor. The City's Comprehensive Plan allows the City to consider accelerating development stages when adequate public services are available. In this case, the sewer and water projects already completed help this project meet this threshold. The developer will also be required to pay all water availability charges for the project at the time of platting regardless of project staging.
- **Zoning.** The proposed zoning for the site is MDR – Low Density Residential and the subdivision has been designed to comply with all applicable requirements of this zoning district.
- **Subdivision Requirements.** The City's Subdivision Ordinance includes a fairly lengthy list of standards that must be met by all new subdivisions, and include requirements for blocks, lots, easements, erosion and sediment control, drainage systems, monuments, sanitary sewer and water facilities, streets, and other aspects of the plans. The majority of these requirements have been addressed as part of the City Engineer's comments (which are detailed in the Engineer's comment letter) or have been reviewed as part of Staff's ongoing communications with the applicant regarding the project. The elimination of the private street will help the project comply with several of the concerns previously expressed by the City Engineer and other Staff.
- **Infrastructure.** The developer will be required to construct all streets, sewer, water, storm water ponds, and other infrastructure necessary to serve the development.
- **Landscaping.** The applicant has provided a landscape plan for the development that is intended to comply with the City's requirements for number, size and spacing of trees along the public streets. This plan should be reviewed by the City's consulting landscape architect prior to the submission of a final plat. The applicant has also submitted a tree inventory that documents the type and size of all trees on the property and all those that will be impacted by construction to determine compliance with the City's tree preservation and protection plan as described below.
- **Tree Preservation and Protection.** The City recently adopted a tree preservation and protection ordinance, and the applicant has prepared a tree inventory and tree preservation plan for the site. Overall, there are 1,387 caliper inches of trees on the subject property, and all of these trees will be removed in order to build the subdivision as planned. This means the developer will need to mitigate for 485 caliper inches (the amount that exceeds the allowed 30% removal) in accordance with the ordinance replacement schedule. The species and mix of replacement plantings should be also be reviewed by the City's consulting landscape architect.
- **Green Belt/Buffer/Screening.** There are no planned green belts or buffers on or around the site under consideration. The proposed landscape plan incorporates plantings along all edges of the property and within the internal outlots.
- **Streets and Transportation.** The proposed street system, as revised, has been designed to comply with all applicable subdivision requirements and City engineering standards. The developer must also commit to the construction of at least the northern portion of 5<sup>th</sup> Street in

order for the project to move forward as a final plat. The timing of this road will be somewhat dependent on whether or not Ryland and Lennar are able to come to an agreement to build 5<sup>th</sup> Street as a joint project. The final construction plans should reflect how 5<sup>th</sup> Street will be built, and must include the northern portion if a joint project does not move forward. The City has received and reviewed a complete set of construction plans for 5<sup>th</sup> Street as part of the Hunters Crossing development.

- **County Comments.** Comments received from Washington County during the concept plan review, which focus on needed improvements to Lake Elmo Avenue (CSAH 17) to serve the development, are included in an attached letter from the County's Senior Planner dated March 3, 2015. Staff is recommending that compliance with the County's comments be added as a condition of approval for the plat.
- **Trails.** The Planning Commission comments during the sketch plan review encouraged the developer to incorporate a trail connection between 5<sup>th</sup> Street and the eastern cul-de-sac. The developer has indicated that given the tight constraints on the site (even with the elimination of four units) that there is not sufficient room to provide for this trail connection. Staff would also like to note that the overall distance from the cul-de-sac to 5<sup>th</sup> Street is not a large distance even without a direct trail connection.
- **Street Names.** Staff has forwarded its recommendation for street names to Lennar, and these names should be included on the final plat documents.
- **Adjacent Parcels.** The proposed landscape plan includes additional plantings between the proposed townhouses and the industrial facility to the east. The landscape plan will need to be updated to reflect the revised site plan, and in particular, the plan should continue to provide for screening between the eastern-most townhouses and the adjacent industrial land.
- **City Engineer Review.** The City Engineer has provided the Planning Department with a detailed comment letter as a summary of his preliminary plat review. Staff has incorporated the more significant issues identified by the Engineer as part of the recommended conditions of approval, and has also included a general condition that all issues identified by the City Engineer must be addressed by the applicant prior to approval of a final plat for any portion of the Diedrich townhouses. With the general site plan revisions that have been proposed by the applicant, the construction plans will need to be updated to reflect this revisions. Any additional comments or concerns from the City Engineer that arise from the plan updates will need to be addressed as part of a final plat submission.
- **Watershed District.** The project area lies within the Valley Branch Watershed District and the developer will need to secure permits from the watershed district in order to proceed with the development as planned. One of the recommended conditions of approval is that the applicant receive plan approval from the watershed district prior to submission of a final plat for the subdivision.
- **Storm Water Management.** In order to accommodate the County's requirement for additional right-of-way along Lake Elmo Avenue, the developer has had to readjust the size and configuration of the planned storm water basin over Outlot A. The County will not allow any portion of the storm water facility to be located within its right-of-way; therefore, the

plans will need to be updated to reconfigure and adjust the location and size of this pond. These updated plans will be subject to review by the City Engineer and Valley Branch Watershed District. The developer is also requesting to use the proposed pond as part of a water re-use system through lawn irrigation. The City Engineer is seeking additional details concerning this system prior to making any recommendations concerning the viability of the system as proposed.

- ***Washington County Review.*** County Staff has previously provided review comments to the City concerning the sketch plan for the Diedrich townhouses subdivision to the City in a letter dated March 5, 2015. The most significant of the County's concerns is that the applicant will need to make improvements to the County road system in order to provide the necessary access to the subdivision. As a condition of approval, Staff has noted that the applicant will be responsible for including all improvements to TH17 as required by the County as part of the construction plans for the development. In addition, the County has noted that the required right-of-way dedication for Lake Elmo Avenue should be 92 feet as opposed to the 90 feet shown. This request does impact the proposed storm water plan as noted above.

Based on the above Staff report and analysis, Staff is recommending approval of the preliminary plat with several conditions intended to address the outstanding issues noted above and to further clarify the City's expectations in order for the developer to move forward with a final plat. The recommended conditions are as follows:

***Recommended Conditions of Approval:***

- 1) The landscape plan and tree preservation plan shall be reviewed and approved by an independent forester or landscape architect in advance of the approval of a final plat and final construction plans.
- 2) The final landscape plan shall incorporate additional plantings where feasible adjacent to the shared property lines with parcel at 11490 Hudson Boulevard.
- 3) The applicant shall be responsible for updating the final construction plans to include the construction of all improvements within the Lake Elmo Avenue (CSAH 17) right-of-way as required by Washington County and further described in the review letter received from the County dated March 3, 2015. The required improvements shall include, but not be limited to the construction of a northbound right turn lane and southbound center turn lane.
- 4) The developer shall follow all of the rules and regulations spelled out in the Wetland Conservation Act, and shall acquire the needed permits from the Valley Branch Watershed District prior to the commencement of any grading or development activity on the site.
- 5) The applicant shall enter into a maintenance agreement with the City that clarifies the individuals or entities responsible for any landscaping installed in areas outside of land dedicated as public park and open space on the final plat.
- 6) The developer shall be required to pay a fee in lieu of park land dedication equivalent to the fair market value for the amount of land that is required to be dedicated for such purposes in

the City's Subdivision Ordinance. A cash payment in lieu of land dedication shall be paid by the applicant prior to the release of the final plat for recording.

- 7) The applicant must enter into a separate grading agreement with the City prior to the commencement of any grading activity in advance of final plat and plan approval. The City Engineer shall review any grading plan that is submitted in advance of a final plat, and said plan shall document extent of any proposed grading on the site.
- 8) All required modifications to the plans as requested by the City Engineer in a review letter dated June 17, 2015 shall be incorporated into the plans prior to consideration of a final plat.
- 9) The applicant shall update all of the landscaping and construction plans to reflect the updated site plan that includes a public right-of-way within the project area. These updated plan shall be subject to review and approval by the City Engineer.
- 10) Although the updated site plan does not incorporate a private street, any request for flexibility from City regulations and standards must be considered and addressed as part of the final plat submission.
- 11) The final construction plans for the Diedrich Townhouses subdivision shall include, at a minimum, the northern portion of 5<sup>th</sup> Street if a joint construction project between the applicant and Ryland Homes does not proceed in advance of a final plat submission for the applicant's site.
- 12) The architectural covenants for the homeowner's association shall include provisions that discourage blank garage doors. All garage doors shall incorporate windows or decorative trim to minimize the visual impact of the garage-forward home design.
- 13) Prior to recording the Final Plat for any portion of the area shown in the Preliminary Plat, the Developer shall enter into a Developers Agreement acceptable to the City Attorney that delineates who is responsible for the design, construction, and payment of public improvements.
- 14) The site plan and construction plans shall be revised to include a sidewalk along at least one side of all streets within the subdivision.

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## **DRAFT FINDINGS**

Staff is recommending that the Planning Commission consider the following findings with regards to the proposed Lennar/Diedrich Townhouses preliminary plat:

- That the preliminary plat is consistent with the Lake Elmo Comprehensive Plan and the Future Land Use Map for this area.
- That the preliminary plat complies with the City's Urban Medium Density Residential zoning district regulations.

- That the preliminary plat complies with all other applicable zoning requirements, including the City's landscaping, storm water, sediment and erosion control and other ordinances with the plan revisions as requested by City Staff and consultants
- That the preliminary plat complies with the City's subdivision ordinance.
- That the preliminary plat is consistent with the City's engineering standards provided the plans are updated to address the City Engineer's comments documented in a letter dated June 17, 2014.

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#### **RECCOMENDATION:**

Staff recommends that the Planning Commission recommend approval of the Lennar/Diedrich preliminary plat with the 14 conditions of approval as listed in the Staff report. Suggested motion:

***“Move to recommend approval of the Lennar/Diedrich preliminary plat with the 14 conditions of approval as drafted by Staff”***

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#### **ATTACHMENTS:**

1. Application Forms
2. Application Narrative and Information
3. Location Map
4. Tree Inventory
5. Review Comments:
  - a. City Engineer
  - b. Washington County
6. Preliminary Plat and Plans (20 sheets)
  - a. Revised Site Plan (Dated 6/19/15)
  - b. Cover Sheet
  - c. Legend Sheet
  - d. Existing Conditions
  - e. Preliminary Plat
  - f. Preliminary Site Plan
  - g. Preliminary Utility Plan
  - h. Preliminary Grading Plan
  - i. Erosion Control Plan
  - j. Preliminary Seeding Plan
  - k. Preliminary Street Profiles
  - l. Details
  - m. Landscape Plan
  - n. Tree Preservation Plan

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#### **ORDER OF BUSINESS:**

- Introduction.....Planning Staff

- Report by Staff .....Planning Staff
- Questions from the Commission ..... Chair & Commission Members
- Open the Public Hearing .....Chair
- Close the Public Hearing.....Chair
- Discussion by the Commission ..... Chair & Commission Members
- Action by the Commission ..... Chair & Commission Members



Date Received: 4/29/15  
Received By: [Signature]  
LU File #: 2015-19



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

## PRELIMINARY PLAT APPLICATION

Applicant: PAUL TABONE - LENNAR CORPORATION  
Address: 16305 36<sup>th</sup> AVE NORTH, PLYMOUTH MN 55446  
Phone #: 752-249-3086  
Email Address: PAUL.TABONE@LENNAR.COM

Fee Owner: \_\_\_\_\_  
Address: \_\_\_\_\_  
Phone #: \_\_\_\_\_  
Email Address: \_\_\_\_\_

Property Location (Address and Complete (long) Legal Description): LOCATED ALONG  
LAKE ELMO AVENUE - PIN # 36-029-21-32-002 -  
REFER TO PRELIMINARY PLAT.

General information of proposed subdivision: 48 TOWN HOMES WITH  
ASSOCIATED IMPROVEMENTS - REFER TO PRE-PLAT PLANS  
& COVER LETTER.

Conducted pre-application meeting with Staff?



Yes



No

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: Paul J. Tabone Date: 4/29/2015

Signature of Fee Owner: [Signature] Date: 4/29/2015

Tammy Dieckel

4/29/2015

Date Received: \_\_\_\_\_  
Received By: \_\_\_\_\_  
Permit #: \_\_\_\_\_



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

## 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

Applicant: SALE - PAUL TABONE - LENNAR CORPORATION  
Address: \_\_\_\_\_  
Phone #: \_\_\_\_\_  
Email Address: \_\_\_\_\_

Fee Owner: \_\_\_\_\_  
Address: \_\_\_\_\_  
Phone #: \_\_\_\_\_  
Email Address: \_\_\_\_\_

Property Location (Address and Complete (long) Legal Description: SALE  
\_\_\_\_\_  
\_\_\_\_\_

Detailed Reason for Request: REFER TO ATTACHED COVER MEMO -  
CUP FOR PRIVATE STREETS FOR TWIN HOMES COMMUNITY  
\_\_\_\_\_  
\_\_\_\_\_

\*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: Paul J. Tabone Date: 4/29/2015

Signature of fee owner: Tammy Diedrich Date: 4/29/2015



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 Gerhard Rieder - Tammy Diedrich  
(Please Print)

Street address/legal description of subject property \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Tammy Diedrich  
Signature

4/29/15  
Date  
4/29/15

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.



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 PAUL J. TABONE Date 4/29/2015

Name of applicant Paul J. Tabone Phone 952-249-3086  
(Please Print)

Name and address of Contact (if other than applicant) \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



Mr. Kyle Klatt  
Community Development Director  
City of Lake Elmo, MN

Dear Kyle:

Lennar Corporation is pleased to submit the preliminary plat application for a twin home community located on the Diedrich property (PIN 36.029.21.32.0002) along Lake Elmo Avenue. The proposed preliminary plat is in substantial conformance with the sketch plat for the property that was reviewed by the City during February. There are some modifications we wish to acknowledge with this submittal.

In finalizing the design and layout, it was determined that homes were too close when private walks were added; private sidewalks were overlapping each other, especially when homes were located around the curves of both cul-de-sacs that were shown in the sketch plat. The wider public rights of way were overdesigned, and also resulted in tight spacing around each cul-de-sac. Additionally, units 38-23 all had fronts located along the same setback line, resulting in a stretch of homes that had no variation in placement. To remedy these issues and open up the design a bit more, 2 units were eliminated to allow more space between the twin homes, resulting in a total of 48 units. The easterly cul-de-sac has also been modified into a loop road with an outlot in a center island. This allowed us to space out the layout of the homes while providing an open space area for residents. Side setbacks have also been modified to a minimum of 7.5 feet.

Because the entire interior street system is now set up as a private street, and side setbacks have been slightly modified to achieve a better fit between units, we are requesting that a CUP be processed as a master plan of development for this site primarily for the private roads, as was done in the townhome area for Savona. It should be noted that the width of the paved area is still 28' back to back; only the right of way has been reduced. The remainder of the site meets the minimum design requirements for the MDR District, with the exception of the modified setback, which can be governed by a CUP. The transition of the interior streets from public to private roads results in the opportunity for a HOA to maintain the streets, and the MDR District Density of 4 to 7 dwelling units per acre can still be achieved when right of way and pond areas are excluded.



Enclosed you will find the following project documents:

- 5 sets of full-size plans, 1 digital set, 10 reductions size 11x17
- Signed and dated application & escrow deposit check
- Current title commitment
- Mailing labels – 750' radius
- Vacation Exhibit for a portion of 5<sup>th</sup> Street

We are confident that this layout enhances the site design from what was initially presented in the sketch plat, and are excited about a new prospective community in the City of Lake Elmo.

Please contact me with any questions, and I look forward to working with you.

Sincerely,

A handwritten signature in blue ink, appearing to read "Paul J. Tabone", with a long horizontal flourish extending to the right.

Paul J. Tabone  
Land Entitlement Mgr  
Lennar Minnesota





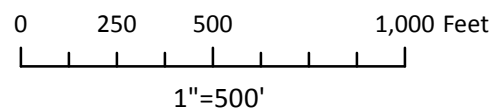
## Location Map: Diedrich Property (PIN: 36.029.21.32.0002)



Data Source: Washington County, MN  
10-22-2013



Diedrich Property



# Diedrich Property Tree Inventory

Lake Elmo, Minnesota

April 29, 2015

# LENNAR®

Tree Inventory by:

**Ken Arndt**

Forest Ecologist/Wetland Specialist

Midwest Natural Resources, Inc.

1032 West Seventh St. #150

St. Paul, MN 55102

(651)-788-0641

Tree Preservation Plans provided by:

**PI** **NEER***engineering*

2422 Enterprise Drive

Mendota Heights, MN 55120

651-681-1914



#	Tree Tag #	Size (DBH ")	Common Name	Scientific Name	Notes	Total Remove	Conifer Remove	Common Remove
1	1701	12/10	Siberian Elm	<i>Ulmus pumila</i>	offsite			
2	1702	15	Honey Locust	<i>Gleditsia triacanthos</i>	offsite			
3	1703	15	Siberian Elm	<i>Ulmus pumila</i>	offsite			
4	1704	16/10	Siberian Elm	<i>Ulmus pumila</i>	offsite			
5	1705	8	Jack Pine	<i>Pinus banksiana</i>		8	8	
6	1706	8	Jack Pine	<i>Pinus banksiana</i>		8	8	
7	1707	9	Red Pine	<i>Pinus resinosa</i>		9	9	
8	1708	8	Jack Pine	<i>Pinus banksiana</i>		8	8	
9	1709	8	Jack Pine	<i>Pinus banksiana</i>		8	8	
10	1710	8	Jack Pine	<i>Pinus banksiana</i>		8	8	
11	1711	8	Jack Pine	<i>Pinus banksiana</i>		8	8	
12	1712	8	Jack Pine	<i>Pinus banksiana</i>		8	8	
13	1713	10	Jack Pine	<i>Pinus banksiana</i>		10	10	
14	1714	8	Jack Pine	<i>Pinus banksiana</i>		8	8	
15	1715	9	Jack Pine	<i>Pinus banksiana</i>		9	9	
16	1716	8	Jack Pine	<i>Pinus banksiana</i>		8	8	
17	1717	8	Jack Pine	<i>Pinus banksiana</i>		8	8	
18	1718	8	Jack Pine	<i>Pinus banksiana</i>		8	8	
19	1719	8	Jack Pine	<i>Pinus banksiana</i>		8	8	
20	1720	8	Jack Pine	<i>Pinus banksiana</i>		8	8	
21	1721	10	Jack Pine	<i>Pinus banksiana</i>		10	10	
22	1722	8	Jack Pine	<i>Pinus banksiana</i>		8	8	
23	1723	8	Jack Pine	<i>Pinus banksiana</i>		8	8	
24	1724	8	Red Pine	<i>Pinus resinosa</i>		8	8	
25	1725	8	Red Pine	<i>Pinus resinosa</i>		8	8	
26	1726	12	Quaking Aspen	<i>Populus tremuloides</i>		12		12
27	1727	8	Jack Pine	<i>Pinus banksiana</i>		8	8	
28	1728	9	Jack Pine	<i>Pinus banksiana</i>		9	9	
29	1729	12	Scotch Pine	<i>Pinus sylvestris</i>	heavy sapsucker damage along trunk			
30	1730	8	Jack Pine	<i>Pinus banksiana</i>		8	8	
31	1731	11	Scotch Pine	<i>Pinus sylvestris</i>	heavy sapsucker damage along trunk			
32	1732	10	Jack Pine	<i>Pinus banksiana</i>		10	10	
33	1733	8	Jack Pine	<i>Pinus banksiana</i>		8	8	
34	1734	8	Jack Pine	<i>Pinus banksiana</i>		8	8	
35	1735	9	Jack Pine	<i>Pinus banksiana</i>		9	9	
36	1736	10	Jack Pine	<i>Pinus banksiana</i>		10	10	
37	1737	9	Red Pine	<i>Pinus resinosa</i>		9	9	
38	1738	9	Red Pine	<i>Pinus resinosa</i>		9	9	
39	1739	10	Jack Pine	<i>Pinus banksiana</i>		10	10	
40	1740	8	Jack Pine	<i>Pinus banksiana</i>		8	8	
41	1741	8	Jack Pine	<i>Pinus banksiana</i>		8	8	
42	1742	10	Scotch Pine	<i>Pinus sylvestris</i>		10	10	
43	1743	9	Jack Pine	<i>Pinus banksiana</i>		9	9	
44	1744	8	Jack Pine	<i>Pinus banksiana</i>		8	8	
45	1745	9	Scotch Pine	<i>Pinus sylvestris</i>	heavy sapsucker damage along trunk			
46	1746	8	Jack Pine	<i>Pinus banksiana</i>		8	8	
47	1747	8	Jack Pine	<i>Pinus banksiana</i>		8	8	
48	1748	8	Jack Pine	<i>Pinus banksiana</i>		8	8	
49	1749	8	Red Pine	<i>Pinus resinosa</i>		8	8	
50	1750	9	Jack Pine	<i>Pinus banksiana</i>		9	9	
51	1751	9	Jack Pine	<i>Pinus banksiana</i>		9	9	
52	1752	8	Red Pine	<i>Pinus resinosa</i>		8	8	
53	1753	8	Red Pine	<i>Pinus resinosa</i>		8	8	
54	1754	10	Red Pine	<i>Pinus resinosa</i>		10	10	
55	1755	10	Red Pine	<i>Pinus resinosa</i>		10	10	
56	1756	8	Red Pine	<i>Pinus resinosa</i>		8	8	

#	Tree Tag #	Size (DBH ")	Common Name	Scientific Name	Notes	Total Remove	Conifer Remove	Common Remove
57	1757	8	Red Pine	<i>Pinus resinosa</i>		8	8	
58	1758	13	Scotch Pine	<i>Pinus sylvestris</i>	heavy sapsucker damage along trunk			
59	1759	8/6	Red Pine	<i>Pinus resinosa</i>		14	14	
60	1760	10	Red Pine	<i>Pinus resinosa</i>		10	10	
61	1761	10	Jack Pine	<i>Pinus banksiana</i>		10	10	
62	1762	8	Jack Pine	<i>Pinus banksiana</i>		8	8	
63	1763	10	Red Pine	<i>Pinus resinosa</i>		10	10	
64	1764	8	Scotch Pine	<i>Pinus sylvestris</i>		8	8	
65	1765	8	Jack Pine	<i>Pinus banksiana</i>		8	8	
66	1766	8	Jack Pine	<i>Pinus banksiana</i>		8	8	
67	1767	9	Red Pine	<i>Pinus resinosa</i>		9	9	
68	1768	8	Jack Pine	<i>Pinus banksiana</i>		8	8	
69	1769	9	Jack Pine	<i>Pinus banksiana</i>		9	9	
70	1770	9	Jack Pine	<i>Pinus banksiana</i>		9	9	
71	1771	10	Scotch Pine	<i>Pinus sylvestris</i>		10	10	
72	1772	8	Red Pine	<i>Pinus resinosa</i>		8	8	
73	1773	9	Red Pine	<i>Pinus resinosa</i>		9	9	
74	1774	8	Red Pine	<i>Pinus resinosa</i>		8	8	
75	1775	8	Red Pine	<i>Pinus resinosa</i>		8	8	
76	1776	8/6/6	Red Pine	<i>Pinus resinosa</i>		20	20	
77	1777	8	Red Pine	<i>Pinus resinosa</i>		8	8	
78	1778	8	Red Pine	<i>Pinus resinosa</i>		8	8	
79	1779	8	Red Pine	<i>Pinus resinosa</i>		8	8	
80	1780	8	Red Pine	<i>Pinus resinosa</i>		8	8	
81	1781	9	Red Pine	<i>Pinus resinosa</i>		9	9	
82	1782	9	Red Pine	<i>Pinus resinosa</i>		9	9	
83	1783	8	Red Pine	<i>Pinus resinosa</i>		8	8	
84	1784	9	Red Pine	<i>Pinus resinosa</i>		9	9	
85	1785	8/7	Red Pine	<i>Pinus resinosa</i>		15	15	
86	1786	12	Scotch Pine	<i>Pinus sylvestris</i>	toppled but alive			
87	1787	9	Red Pine	<i>Pinus resinosa</i>		9	9	
88	1788	8	Red Pine	<i>Pinus resinosa</i>		8	8	
89	1789	8	Red Pine	<i>Pinus resinosa</i>		8	8	
90	1790	9	Red Pine	<i>Pinus resinosa</i>		9	9	
91	1791	8	Red Pine	<i>Pinus resinosa</i>		8	8	
92	1792	8	Red Pine	<i>Pinus resinosa</i>		8	8	
93	1793	8	Red Pine	<i>Pinus resinosa</i>		8	8	
94	1794	8	Red Pine	<i>Pinus resinosa</i>		8	8	
95	1795	9	Jack Pine	<i>Pinus banksiana</i>		9	9	
96	1796	9/8	Scotch Pine	<i>Pinus sylvestris</i>		17	17	
97	1797	8	Scotch Pine	<i>Pinus sylvestris</i>		8	8	
98	1798	12	Cottonwood	<i>Populus deltoides</i>		12		12
99	1799	8	Red Pine	<i>Pinus resinosa</i>		8	8	
100	1800	8	Red Pine	<i>Pinus resinosa</i>		8	8	
101	1801	9	Red Pine	<i>Pinus resinosa</i>		9	9	
102	1802	9	Red Pine	<i>Pinus resinosa</i>		9	9	
103	1803	8/7	Red Pine	<i>Pinus resinosa</i>		15	15	
104	1804	9	Red Pine	<i>Pinus resinosa</i>		9	9	
105	1805	9/7	Red Pine	<i>Pinus resinosa</i>		16	16	
106	1806	12	Siberian Elm	<i>Ulmus pumila</i>		12		12
107	1807	13	Box Elder	<i>Acer negundo</i>		13		13
108	1808	8	Red Pine	<i>Pinus resinosa</i>		8	8	
109	1809	9	Red Pine	<i>Pinus resinosa</i>		9	9	
110	1810	8	Red Pine	<i>Pinus resinosa</i>		8	8	
111	1811	9	Red Pine	<i>Pinus resinosa</i>		9	9	
112	1812	8	Red Pine	<i>Pinus resinosa</i>		8	8	

#	Tree Tag #	Size (DBH ")	Common Name	Scientific Name	Notes	Total Remove	Conifer Remove	Common Remove
113	1813	8	Red Pine	<i>Pinus resinosa</i>		8	8	
114	1814	8	Red Pine	<i>Pinus resinosa</i>		8	8	
115	1815	8	Red Pine	<i>Pinus resinosa</i>		8	8	
116	1816	8	Red Pine	<i>Pinus resinosa</i>		8	8	
117	1817	9	Red Pine	<i>Pinus resinosa</i>		9	9	
118	1818	15	Siberian Elm	<i>Ulmus pumila</i>		15		15
119	1819	20	Siberian Elm	<i>Ulmus pumila</i>		20		20
120	1820	12	Siberian Elm	<i>Ulmus pumila</i>		12		12
121	1821	14	Siberian Elm	<i>Ulmus pumila</i>		14		14
122	1822	12	Siberian Elm	<i>Ulmus pumila</i>	offsite			
123	1823	13	Siberian Elm	<i>Ulmus pumila</i>	offsite			
124	1824	8	Red Pine	<i>Pinus resinosa</i>		8	8	
125	1825	8	Red Pine	<i>Pinus resinosa</i>		8	8	
126	1826	8	Red Pine	<i>Pinus resinosa</i>		8	8	
127	1827	8/8	Red Pine	<i>Pinus resinosa</i>		16	16	
128	1828	8/6	Red Pine	<i>Pinus resinosa</i>		14	14	
129	1829	8	Red Pine	<i>Pinus resinosa</i>		8	8	
130	1830	9	Jack Pine	<i>Pinus banksiana</i>		9	9	
131	1831	8	Red Pine	<i>Pinus resinosa</i>		8	8	
132	1832	9	Red Pine	<i>Pinus resinosa</i>		9	9	
133	1833	10	Red Pine	<i>Pinus resinosa</i>		10	10	
134	1834	8	Scotch Pine	<i>Pinus sylvestris</i>		8	8	
135	1835	9	Red Pine	<i>Pinus resinosa</i>		9	9	
136	1836	8	Red Pine	<i>Pinus resinosa</i>		8	8	
137	1837	8	Scotch Pine	<i>Pinus sylvestris</i>		8	8	
138	1838	8/8/8	Scotch Pine	<i>Pinus sylvestris</i>		24	24	
139	1839	8/8	Red Pine	<i>Pinus resinosa</i>		16	16	
140	1840	9/9	Scotch Pine	<i>Pinus sylvestris</i>		18	18	
141	1841	8	Red Pine	<i>Pinus resinosa</i>		8	8	
142	1842	8	Red Pine	<i>Pinus resinosa</i>		8	8	
143	1843	9	Scotch Pine	<i>Pinus sylvestris</i>		9	9	
144	1844	8	Red Pine	<i>Pinus resinosa</i>		8	8	
145	1845	9/8	Red Pine	<i>Pinus resinosa</i>		17	17	
146	1846	9	Red Pine	<i>Pinus resinosa</i>		9	9	
147	1847	8	Red Pine	<i>Pinus resinosa</i>		8	8	
148	1848	8	Red Pine	<i>Pinus resinosa</i>		8	8	
149	1849	14	Siberian Elm	<i>Ulmus pumila</i>		14		14
150	1850	8/6	Red Pine	<i>Pinus resinosa</i>		14	14	
151	1851	8/6	Red Pine	<i>Pinus resinosa</i>		14	14	
152	1852	9	Jack Pine	<i>Pinus banksiana</i>		9	9	
153	1853	8	Red Pine	<i>Pinus resinosa</i>		8	8	
154	1854	8	Scotch Pine	<i>Pinus sylvestris</i>		8	8	
155	1855	8	White Spruce	<i>Picea alba</i>		8	8	
156	1856	8	White Spruce	<i>Picea alba</i>		8	8	
Totals:						1387	1263	124

Trees that are toppled or have heavy sapsucker damage are not included in totals

Total Inches:	1387
Allowable removal: 30%	416.1
Total Removal:	1387
Removal over threshold:	970.9
Mitigation for conifers: 50%	485.45
<b>486" required mitigation</b>	

# 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 17, 2015

To: Kyle Klatt, Planning Director  
From: Jack Griffin, P.E., City Engineer

Re: Diedrich Property – Preliminary Plan Review

An engineering review has been completed for the Preliminary Plat submittal for the Diedrich Property. The submittal consisted of the following documentation prepared by Pioneer Engineering:

- Diedrich Property Preliminary Plan Set, Sheets 1-14, L1 and T1, dated June 17, 2015.
- Stormwater Management Plan dated June 3, 2015.

### STATUS/FINDINGS: Engineering has prepared the following review comments:

#### PRELIMINARY PLAT

- Outlot A is proposed as City owned to accommodate the storm water pond with an HOA owned and operated water re-use irrigation system. See comments below under Stormwater Management.
- Outlot B is proposed as HOA owned to accommodate a "Private Street". See comments below under residential streets.
- The applicant must submit to the City written correspondence from the County indicating that adequate CSAH 17 R/W is being dedicated as part of this Plat. If additional R/W is required by the County the Plat must be revised and resubmitted.
- The plat must be revised to include the Xcel Energy Transmission Easement along the north property line.
- Permanent grading and drainage easements are required to implement the improvements as proposed. These easements must be obtained prior to grading activities and prior to the City accepting an application for final plat.

All public improvements constructed to support the development must be designed and constructed in accordance with the City Engineering Design Standards Manual available on the City website and dated February 2015.

#### GRADING PLAN, STORMWATER MANAGEMENT AND STORM SEWER SYSTEM

- The site plan is subject to a storm water management plan meeting State, VBWD and City rules and regulations. Storm water facilities proposed as part of the site plan to meet State and VBWD permitting requirements must be constructed in accordance with the City Engineering Design Standards Manual available on the City website. A finalized storm water management plan must be approved by the City and the VBWD permit must be obtained prior to grading activities.
- The Stormwater Management Plan incorporates storm water re-use through lawn irrigation. The re-use system is necessary for the applicant's plan to meet State and Watershed permit requirements for water quality treatment (volume control). Outlot A is proposed as City owned to accommodate the storm water

pond. The water re-use irrigation system is proposed to be HOA operated and maintained on City property. Details of this plan are limited in the application. The following considerations should be noted.

- Stormwater re-use, when implemented correctly can be an effective method to reduce reliance of potable water use while reducing storm water discharges. It would help to reduce peak demands on the potable water system that typically occurs during the summer irrigation and landscape watering season. These benefits make storm water re-use worth consideration.
- However, the City has no design standards or guidelines for implementation and currently has no experience with storm water reuse operations.
- The two most notable concerns for storm water reuse includes the pollutants in the storm water (addressing treatment needs) and designing a system that provides a properly balanced hydraulic system (sizing the storage, and balancing the drawdown to the projected use in a variable climate).
- Pollutants in the storm water reuse system may be a concern for three basic reasons: 1) the health risks associated with human contact; 2) the impact on the environment given the various uses (i.e. bacteria or chlorides from salts); 3) issues for the system equipment and operational impacts.
- Preliminary Plat should be conditioned upon the following:
  - The developer must sign an operation and maintenance agreement for the storm water reuse system in a form acceptable to the City Attorney. The agreement must indemnify and hold harmless the City from any and all activities related to the developer and HOA's operation of this system.
  - The storm water pond must be designed with a hydraulic capacity acceptable to the City Engineer that ensures adequate flood protection without accounting for any water reuse from the system.
  - The storm water pond must be designed and constructed in accordance with the City Engineering Design Standards.
  - A detailed design of the irrigation system together with a detailed operations and maintenance plan must be submitted prior to any grading or construction activity on the site.
- Per City requirements, all storm water facilities, including infiltration basins, must be placed in Outlots deeded to the City for maintenance purposes. The Stormwater Facility Outlots must fully incorporate the 100-year HWL, 10 foot maintenance bench and all maintenance access roads.
  - The pond grading must be revised to add a 10-foot maintenance bench around the entire pond, per the standard pond detail.
  - The maintenance access road must be revised to access the pond from 5<sup>th</sup> Street North, not CSAH 17.
- Overland emergency overflows or outlets will be required as part of the site plan and must be located within drainage easements, must be in Bold Type on the plans, and must provide 1 foot of vertical separation to the low opening of any building structure. Lot information details must include the lowest opening in addition to the lowest floor elevation.
- The ultimate discharge rate and location is an important consideration to avoid negative impacts to downstream properties. The storm water management plan indicates the pond outfall pipe to discharge to the northerly property. The plan as proposed cannot be implemented without permanent drainage and utility easements from the adjacent property. Permission should be provided to the City prior to accepting a final plat application or allowing grading activities.
- Significant grading is proposed along the northerly property to accommodate many of the proposed building pads. Without written permission to permanently alter grades on the adjacent property, the site would require a redesign. Property owner permission or easements should be provided to the City prior to accepting a final plat application or allowing grading activities.
- The storm sewer system shall be designed to maintain the City standard **minimum** pipe cover of 3.0 feet.
- Per City requirements all storm sewer pipe easements must be a minimum 30-feet in width.
- The maximum allowable curb run along streets without catch basins is 350 feet. Catch basins should be added along Street B, easterly cul-de-sac to maintain maximum curb run of 350 ft.
- Sump manholes are required prior to all discharge points, located at the last manhole or catch basin prior to leaving a paved area. All sump manholes must be 4-foot deep.

#### MUNICIPAL SANITARY SEWER

- Municipal sanitary sewer service is readily available within the 5<sup>th</sup> Street R/W located adjacent to the plat.
- The applicant is responsible to extend the municipal sanitary sewer to the development to serve the proposed properties.
- No trunk sewer oversizing is anticipated. The area can be served without a lift station.
- Sanitary sewer must be realigned to better maintain street centerline alignment.
- The sanitary sewer is proposed to be placed within Outlot B to be HOA owned and maintained as a private street. The Outlot width must be a minimum of 40 feet with a 5 foot drainage and utility easement along each side of the street for the corridor to be acceptable for the placement of publicly owned and maintained utilities.

#### MUNICIPAL WATER SUPPLY

- Municipal water service is readily available within the 5<sup>th</sup> Street R/W located adjacent to the plat.
- The applicant is responsible to extend municipal water into the development to serve the proposed properties.
- Two connection points to the existing City system should be required.
- No trunk watermain oversizing is anticipated for this development.
- Additional hydrants and system valves will be required as part of the final design.
- Watermain must be realigned to maintain 10-foot separation from the sanitary sewer once the sanitary sewer is realigned as previously noted.
- The watermain is proposed to be placed within Outlot B to be HOA owned and maintained as a private street. The Outlot width must be a minimum of 40 feet with a 5 foot drainage and utility easement along each side of the street for the corridor to be acceptable for the placement of publicly owned and maintained utilities.

#### TRANSPORTATION IMPROVEMENTS

- Access to the development must be from 5<sup>th</sup> Street as shown, directly across from the Hunters Crossing access roadway.
- The applicant will be responsible to construct the north half of 5<sup>th</sup> Street from CSAH 17 to the east plat edge of the Hunters Crossing development. This improvement must be completed at the developer's cost.
- The plat must dedicate the existing 5<sup>th</sup> Street roadway easement as City R/W. The plan indicates the minimum 100 foot R/W as required. A ten (10) foot utility easement must be provided along the north side of the 5<sup>th</sup> Street R/W.
- The proposed 2-lane collector parkway street (5th Street) design and geometrics must meet all Municipal State Aid design standards for urban streets (8820.9936) for ADT > 10,000; 40 mph design speed; and must be consistent with the detailed parkway cross section installed throughout the remaining corridor segments and as outlined in the 5th Street Collector Design Guidelines as prepared by City staff.
- Right and left turn lanes must be incorporated along 5th Street North per the City design standards to maintain mobility along the Parkway since there is only one travel lane in each direction.
- Additional streetscape amenities are required along 5th Street consistent with the remaining corridor segments. 5th Street Amenities include a north side off-road bituminous trail, minimum 10 foot width with 5 foot clear zone; a south side concrete sidewalk, minimum 6 foot width with 2 foot clear zone; landscaping elements including a center landscape median; and street lighting.
- The applicant will also be partially responsible for the improvements required by Washington County at the intersection of 5<sup>th</sup> Street and CSAH 17.

#### RESIDENTIAL STREETS

- Street A must include a 50 foot tangent per City standards at the intersection with 5th Street before initiating the proposed horizontal curve.
- Street B, east cul-de-sac geometrics must be revised to eliminate turns greater than 90-degrees.

- It is preferable that Public Streets be constructed to serve this development and designed to meet the City's Engineering Design Standards including R/W width, street width and cul-de-sac radii.
- If the streets remain HOA Privately owned, the following recommendations apply:
  - The street/boulevard section must be widened to allow for adequate ownership and maintenance by the City for the public utilities (watermain, sanitary sewer and storm sewer).
  - The street Outlot should be a minimum width of 40 feet (14 feet pavement + 6 foot boulevard) with 5-foot minimum utility easement on each side. This will enable any future construction activity to remain 100% within the Street Outlot plus the utility easement. No additional encroachment on the properties/sidewalks should be necessary during future construction.
  - The typical section should be updated to include storm sewer and should show the small utilities, demonstrating the 3-foot separation between gas and joint trench.
- Street A vertical alignment should be revised to provide a  $K = 37$  minimum at STA 0+71.00.





**Public Works Department**

Donald J. Theisen, P.E.  
Director

Wayne H. Sandberg, P.E.  
Deputy Director/County Engineer

March 3, 2015

Kyle Klatt  
Community Development Director  
City of Lake Elmo  
3600 Laverne Avenue North  
Lake Elmo, MN 55042

**RE: Washington County comments on the concept plan for the Diedrich property by Lennar Homes, City of Lake Elmo**

Dear Mr. Klatt:

Thank you for providing the county with the concept plan for the Lennar subdivision on the Diedrich property, in Section 36, Township 29N, Range 21W along County Road (CR) 17B/Lake Elmo Avenue in the City of Lake Elmo. The project consists of 50 attached single family residential dwelling units on 12 acres of land. Based on the plan provided, we have the following comments:

- There is currently 50 feet of right-of-way from the center line of County Road (CR) 17B therefore, an additional 42 feet should be dedicated on the plat which should include the existing home site south of 5<sup>th</sup> Street.
- According to the *Trip Generation Manual, 7<sup>th</sup> Addition ITE, 2003*, this development will generate 478 Average Vehicle Trips (AVT) per day.
- In the future, there will be a traffic signal at the intersection of CR 17B and 5<sup>th</sup> Street and since 5<sup>th</sup> Street will be a collector roadway, a center left turn lane should be provided on 5<sup>th</sup> Street for access to the development.
- Access control must be dedicated to Washington County along the CSAH 17/Lake Elmo Avenue frontage. This should be denoted on the final plat.
- Improvements to County Road (CR) 17B will be completed at the new 5<sup>th</sup> Street section. Washington County is working with the City of Lake Elmo on the planned improvements. The cost of these improvements will be the responsibility of the city.
- The developer or the city must submit the drainage report and calculations to our office for review of any downstream impacts to the county drainage system. Along with the drainage calculations, we will request written conclusions that the volume and rate of stormwater run-off into the county right-of way will not increase as part of the project.



March 3, 2015  
Diedrich Property  
Concept Plan

- All stormwater ponds should be located outside the county right-of-way.
- Washington County's policy is to assist local governments in promoting compatibility between land use and highways. Residential uses located adjacent to highways often result in complaints about traffic noise. Traffic noise from this highway could exceed noise standards established by the Minnesota Pollution Control Agency (MPCA), the U.S. Department of Housing and Urban Development, and the U.S. Department of Transportation. Minnesota Rule 7030.0030 states that municipalities are responsible for taking all reasonable measures to prevent land use activities listed in the MPCA's Noise Area Classification (NAC) where the establishment of the land use would result in violations of established noise standards. Minnesota Statute 116.07, Subpart 2a exempts County Roads and County State Aid Highways from noise thresholds. County policy regarding development adjacent to existing highways prohibits the expenditure of highway funds for noise mitigation measures in such areas. The developer should assess the noise situation and take any action outside of County right of way deemed necessary to minimize the impact of any highway noise.
- Any grading within County right of way will require a Washington County Right of Way Permit.
- All utility connections for the development require Washington County Right of Way permits. Typically, these are the responsibility of the utility companies.

Thank you for the opportunity to comment on this concept plan. If you have any questions, please contact me at 651-430-4362 or [ann.pung-terwedo@co.washington.mn.us](mailto:ann.pung-terwedo@co.washington.mn.us)

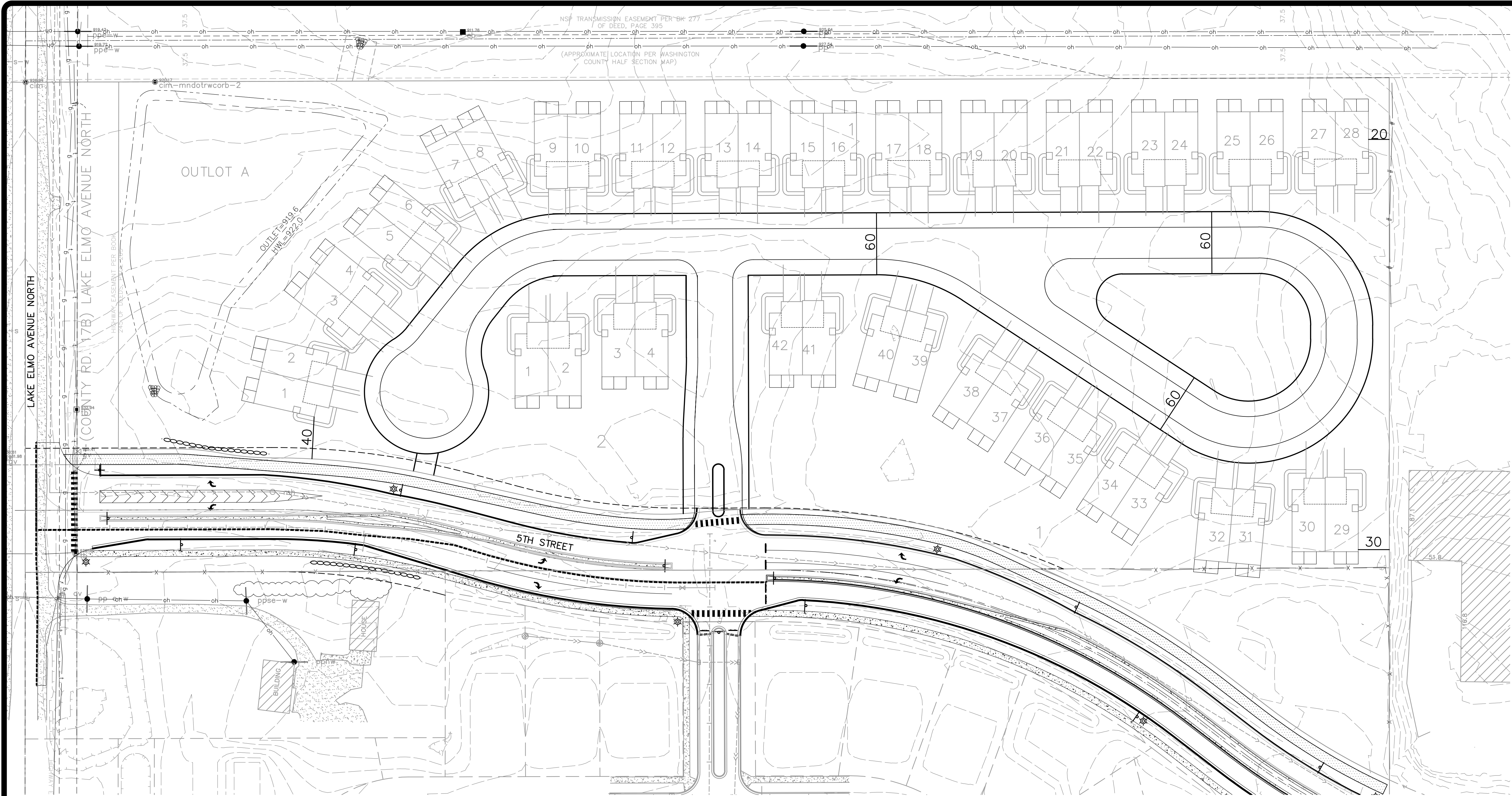
Regards,



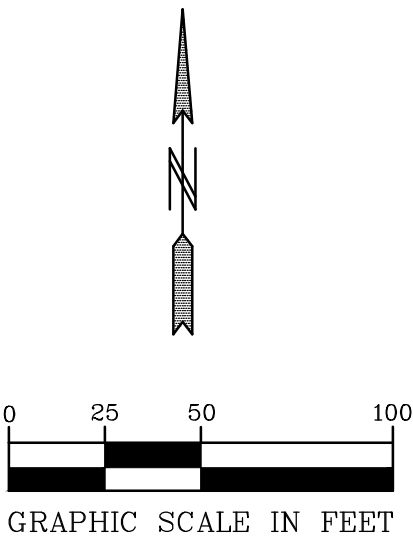
Ann Pung-Terwedo  
Senior Planner

Cc: Carol Hanson, Office Specialist

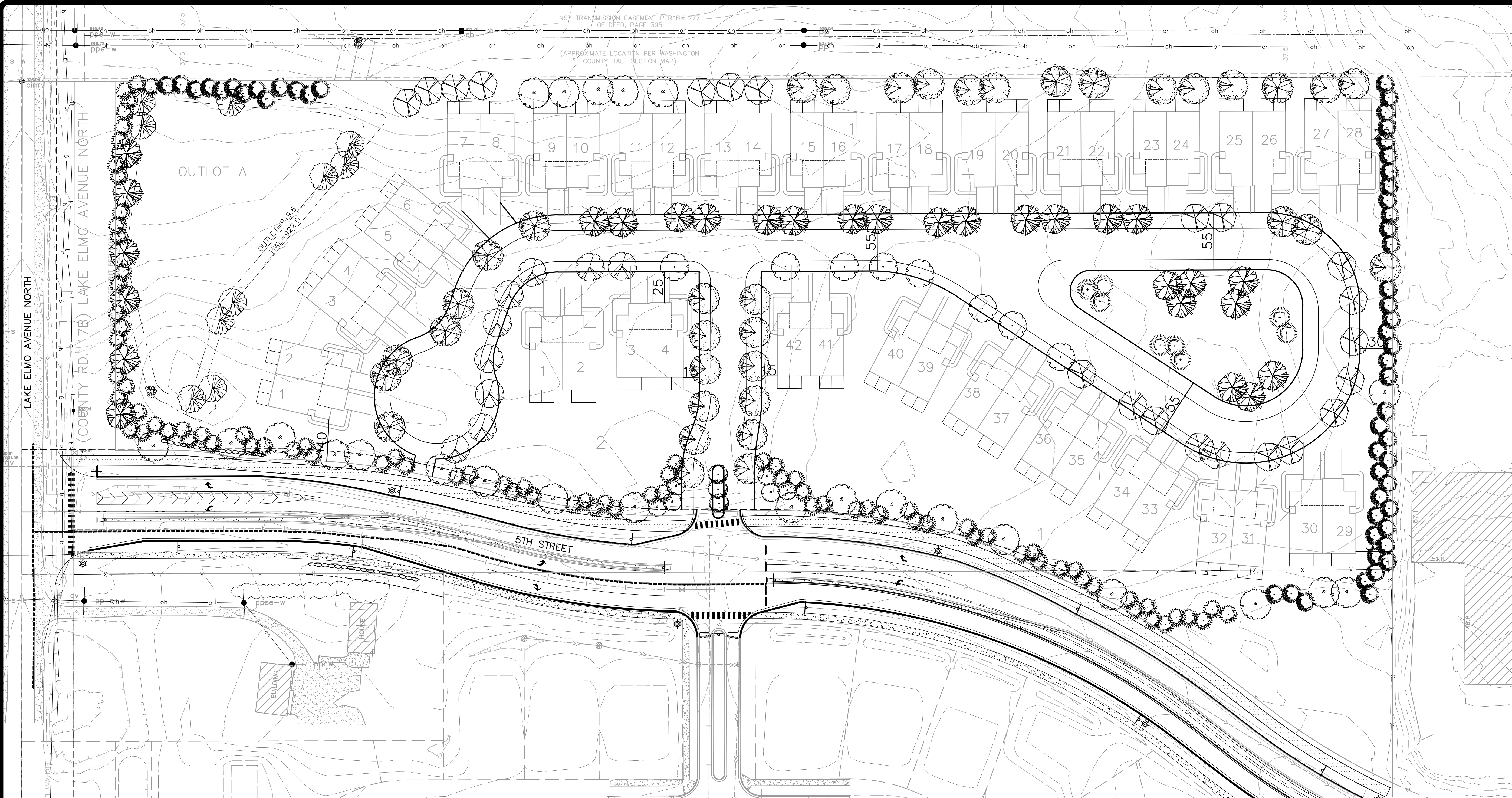
R/Plat Reviews/City of lake Elmo/Diedrich property



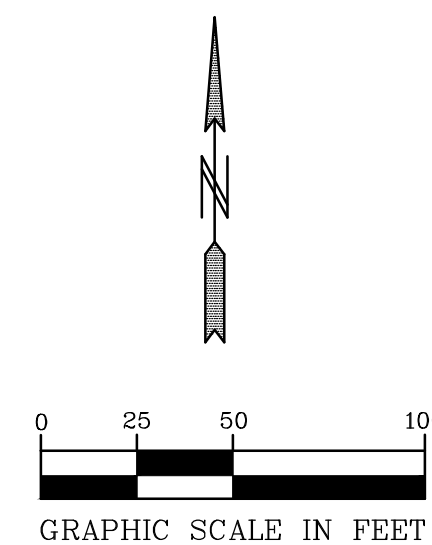
SITE DATA  
PROJECT AREA: ±12 ACRES (EXCLUDING 5TH STREET AND 17 ROW)  
GUIDE PLAN: URBAN MEDIUM DENSITY (4.7-7 UNITS/ACRE NET)  
BULK STANDARDS  
REAR SETBACK: 25'  
FRONT SETBACK: 25'  
SIDE SETBACK: 15' BETWEEN BUILDINGS, 15' SIDE CORNER  
SETBACK ALONG 5TH STREET: 50'  
PROPOSED UNITS: 46



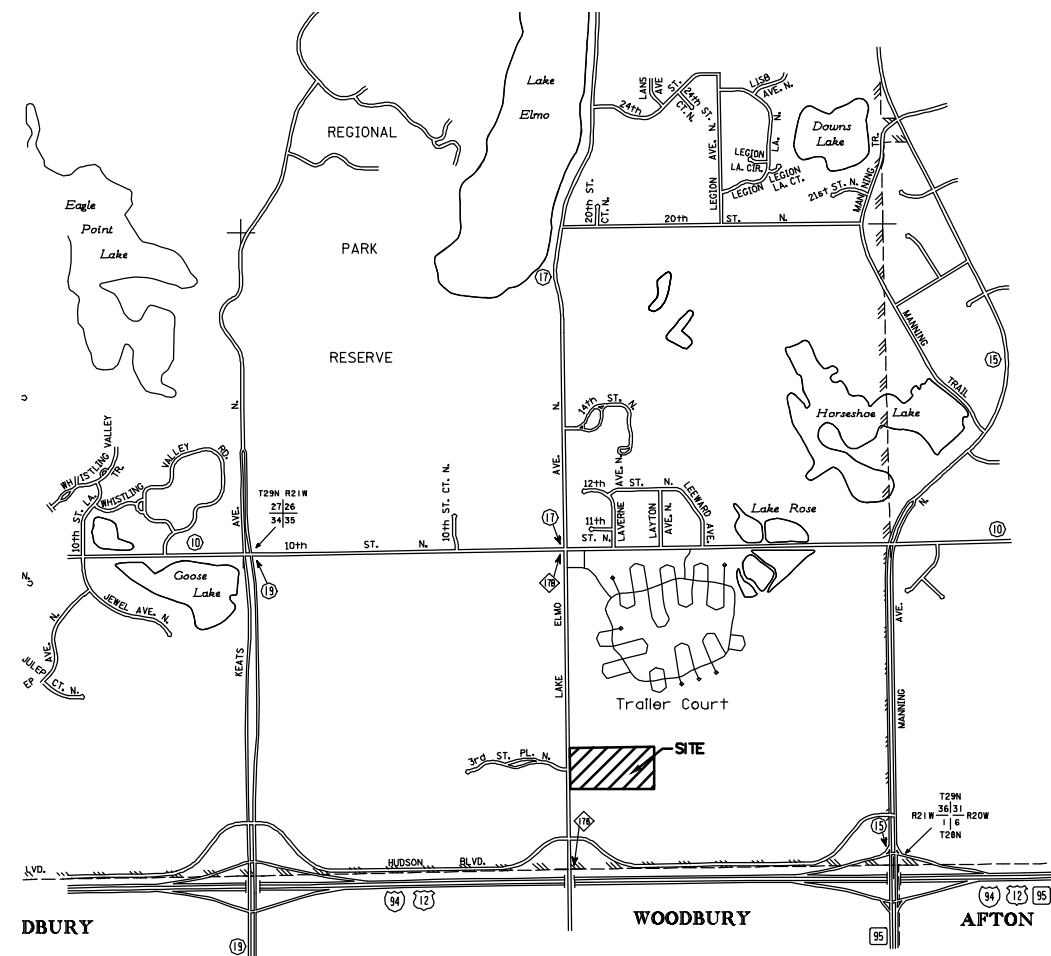




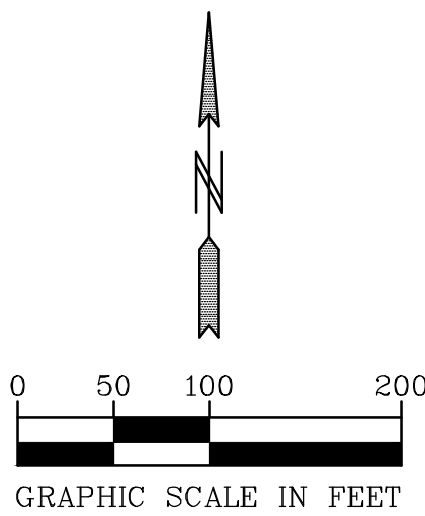
SITE DATA  
PROJECT AREA: ±12 ACRES (EXCLUDING 5TH STREET AND 17 ROW)  
GUIDE PLAN: URBAN MEDIUM DENSITY (4.7-7 UNITS/ACRE NET)  
BULK STANDARDS  
REAR SETBACK: 25'  
FRONT SETBACK: 25'  
SIDE SETBACK: 19' BETWEEN BUILDINGS, 15' SIDE CORNER  
SETBACK ALONG 5TH STREET: 40'  
PROPOSED UNITS: 46



# DIEDRICH PROPERTY PRELIMINARY PLAT LAKE ELMO, MINNESOTA



LOCATION MAP



- SHEET INDEX**
- 1. COVER SHEET
  - 2. LEGEND SHEET
  - 3. EXISTING CONDITIONS
  - 4. PRELIMINARY PLAT
  - 5. PRELIMINARY SITE PLAN
  - 6-7. PRELIMINARY UTILITY PLAN
  - 8. PRELIMINARY GRADING PLAN
  - 9. EROSION CONTROL PLAN
  - 10. PRELIMINARY SEEDING PLAN
  - 11. PRELIMINARY STREET PROFILES
  - 12-14. DETAILS

- L1. LANDSCAPE PLAN  
T1. TREE PRESERVATION PLAN



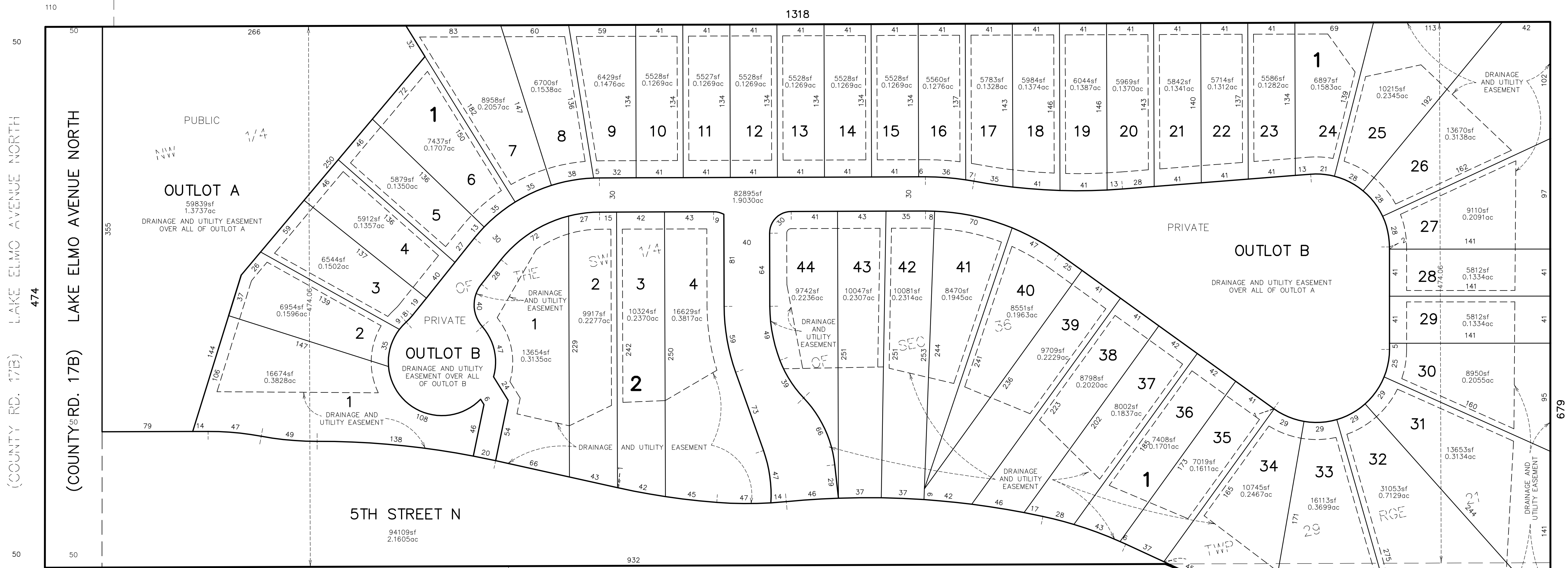
LEGEND			
EXISTING	PROPOSED	FUTURE	DESCRIPTION
			SANITARY MANHOLE
			SANITARY SEWER (SANITARY & WATERMAIN PLANS)
			SANITARY SEWER (STORM SEWER PLANS)
			FORCE MAIN
			HYDRANT
			GATE VALVE
			REDUCER
			CURB STOP
			WATERMAIN (SANITARY & WATERMAIN PLANS)
			WATERMAIN (STORM SEWER PLANS)
			CATCH BASIN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

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

ABBREVIATIONS	
A	ALGEBRAIC DIFFERENCE
B-B	BACK TO BACK
BV	BUTTERFLY VALVE
BOC	BACK OF CURB
BMP	BEST MANAGEMENT PRACTICE
CL	CENTER LINE
CB	CATCHBASIN
CBMH	CATCHBASIN MANHOLE
CMP	CORRUGATED METAL PIPE
CO	CLEAN OUT
CS	CURB STOP
DIP	DUCTILE IRON PIPE
DT	DRAINTILE
EL/ELEV	ELEVATION
EX	EXISTING
FES	FLARED END SECTION
F-F	FACE TO FACE
FM	FORCEMAIN
GB	GRADE BREAK
GND	GROUND
GV	GATE VALVE
HP	HIGH POINT
HYD	HYDRANT
HWL	HIGH WATER LEVEL
INV	INVERT
K	CURVE COEFFICIENT
L	LENGTH
LF	LOWEST FLOOR
LO	LOOKOUT
LO	LOWEST OPENING
LP	LIQUID PETROLEUM
LP	LOW POINT
MH	MANHOLE
PC	POINT OF CURVATURE
PCC	POINT OF COMPOUND CURVATURE
PI	POINT OF INTERSECTION
R	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
R/W	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)	
DRAINAGE & UTILITY EASEMENT	29.0
FINISHED GROUND ELEVATION	28.0
LOWEST FLOOR ELEVATION	31.5
NUMBER OF STEPS (IF REQUIRED)	1 STEP
GARAGE ELEVATION	37.0
RECOMMENDED GARAGE SIDE	35.5
FINISHED ELEVATION @ LOT CORNER	34.5
BLOCK NO.	7
LOT NO.	7
HOUSE TYPES	R — RAMBLER OR SPLIT ENTRY LO — RAMBLER LOOKOUT OR SPLIT ENTRY WALKOUT WO — RAMBLER WALKOUT SE — SPLIT ENTRY SEWO — SPLIT ENTRY WALK OUT SLO — SIDE LOOKOUT SWO — SIDE WALKOUT
STREET	CL STREET



THE FOREST



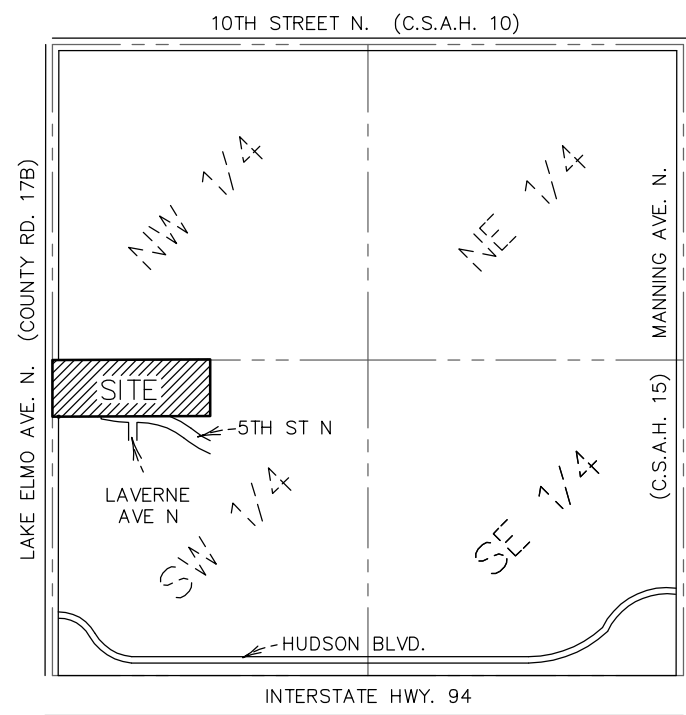
COMMON INTEREST  
COMMUNITY NUMBER 331  
A CONDOMINIUM  
COUNTRY AIR GOLF

HUNTERS CROSSING

1ST ADDITION

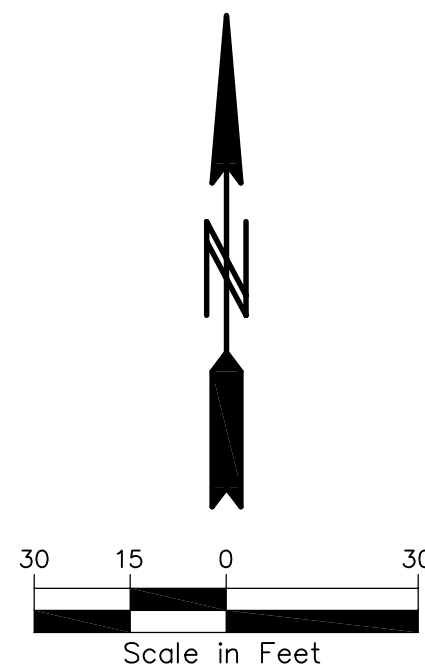
OUTLOT D

OUTLOT E



SECTION 36, TWP. 29, RGE. 21  
LOCATION MAP  
NOT TO SCALE

TOTAL GROSS AREA	15.11	ACRES
TOTAL LOT AREA	9.67	ACRES
NUMBER OF LOTS	48	
LARGEST LOT	31,053	SQ. FT.
SMALLEST LOT	5,527	SQ. FT.
AVERAGE LOT	8,782	SQ. FT.
NUMBER OF OUTLOTS	2	
TOTAL OUTLOT AREA	3.28	ACRES
TOTAL RIGHT OF WAY AREA	2.16	ACRES
GROSS DENSITY	3.18	LOTS/ACRE
NET DENSITY (EXCLUDES R/W)	3.71	LOTS/ACRE
EXISTING ZONING	RT	
PROPOSED ZONING	MDR	



LEGAL DESCRIPTION FOR PRELIMINARY PURPOSES ONLY

The north 474.06 feet of the Northwest Quarter of the Southwest Quarter of Section 36, Township 29 North, Range 21 West, Washington County, Minnesota.

AND

Outlot D, HUNTERS CROSSING 1ST ADDITION, according to the recorded plat thereof, Washington County, Minnesota.

**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 Surveyor under the laws of the State of Minnesota

Name

Peter J. Hawkinson

Reg. No.

42299

Date 04-30-2015

Revisions:  
1. 06-03-2015 CITY COMMENTS

Date

04-30-2015

Designed

PJC/BNM

Drawn

mdp

PRELIMINARY PLAT

**LENNAR**  
16305 36TH AVENUE N, SUITE 600  
PLYMOUTH, MINNESOTA 55446

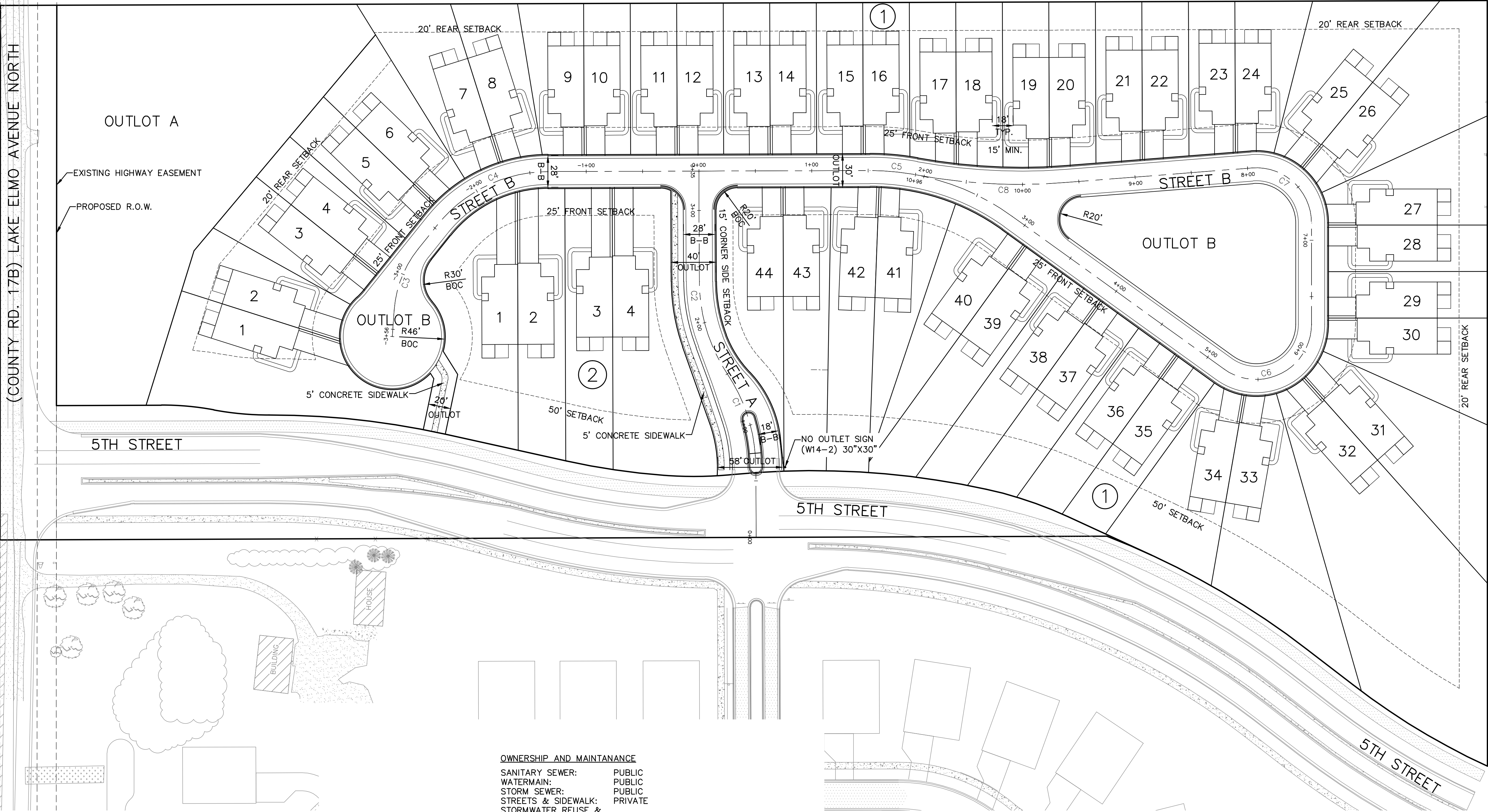
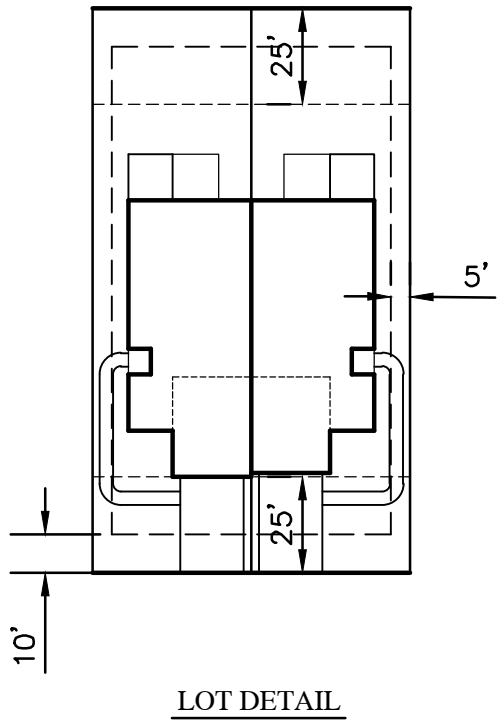
**DIEDRICH PROPERTY**  
LAKE ELMO, MINNESOTA

4 OF 14



CURVE TABLE						
CURVE	DELTA	LENGTH	RADIUS	TANGENT	PC	PT
C1	33°28'26"	87.63	150.00	45.11	0+62.15	1+49.78
C2	33°28'26"	87.05	149.00	44.81	1+49.78	2+36.83
C3	34°36'44"	58.88	97.46	30.37	-3+32.81	-2+73.94
C4	51°08'27"	112.46	126.00	60.29	-2+46.39	-1+33.93
C5	36°00'10"	134.47	214.00	69.54	1+51.65	2+86.12
C6	125°49'56"	107.61	49.00	95.82	5+17.88	6+25.49
C7	94°28'17"	80.79	49.00	52.98	7+15.29	7+96.08
C8	15°09'08"	132.23	500.00	66.50	9+63.32	10+95.55

SETBACK REQUIREMENTS		
RESIDENTIAL STANDARDS:		
FRONT SETBACK:	25'	25'
REAR YARD SETBACK:	20'	20'
HOUSE SIDE SETBACK:	7.5'	10'
GARAGE SIDE SETBACK:	NA	5'
CORNER SIDE SETBACK:	15'	15'
MINIMUM LOT WIDTH:	39'	30'
MINIMUM LOT AREA:	5527 SF	4000 SF
MAXIMUM BUILDING COVERAGE:	50%	50%



OWNERSHIP AND MAINTENANCE	
SANITARY SEWER:	PUBLIC
WATERMAIN:	PUBLIC
STORM SEWER:	PUBLIC
STREETS & SIDEWALK:	PRIVATE
STORMWATER REUSE & RETENTION POND:	PUBLIC
IRRIGATION SYSTEM:	PRIVATE



(COUNTY RD. 17B) LAKE ELMO AVENUE NORTH

OUTLOT A

5TH STREET

5TH STREET

5TH STREET

OUTLOT B

OUTLOT B

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Mendota Heights, MN 55120

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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 04-30-2015

Revisions:  
1. 06-03-2015 CITY COMMENTS

Date 04-30-2015  
Designed PJC/BNM  
Drawn JDM

SANITARY SEWER & WATERMAIN

LENNAR  
16305 36TH AVENUE N, SUITE 600  
PLYMOUTH, MINNESOTA 55446

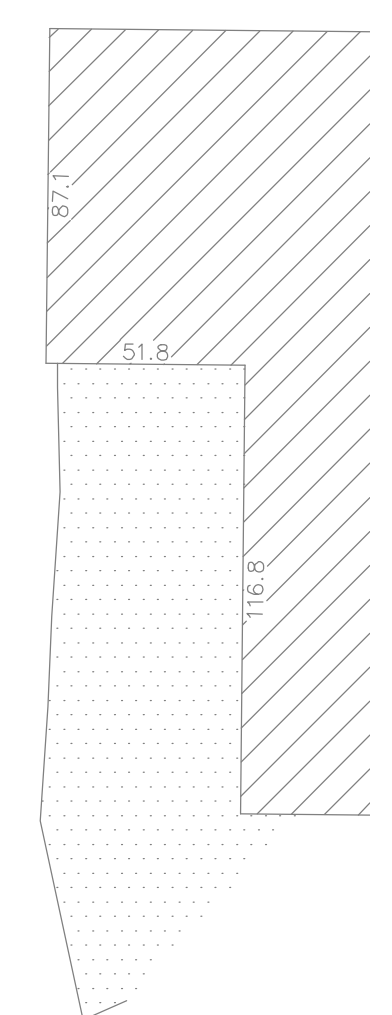
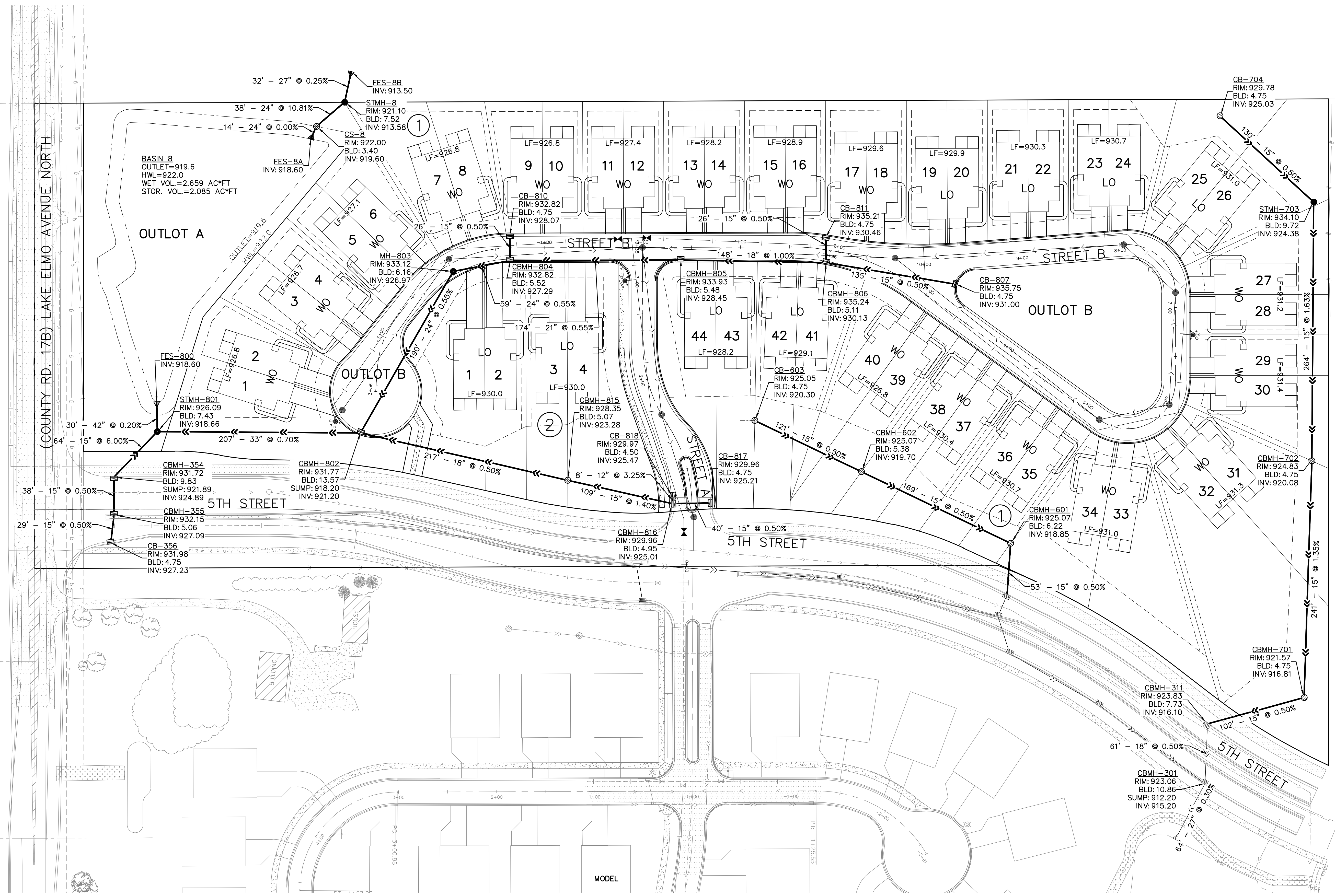
DIEDRICH PROPERTY  
LAKE ELMO, MINNESOTA

6 OF 14

0 25 50 100  
GRAPHIC SCALE IN FEET

BENCH MARK  
MN/DOT 8282 AG  
ELEV=943.87 (1983 datum)

00-ENG-115042-SHEET-SSWR



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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 04-30-2015

Revisions:  
1. 06-03-2015 CITY COMMENTS  
Date 04-30-2015  
Designed PKC/BNM  
Drawn JDM

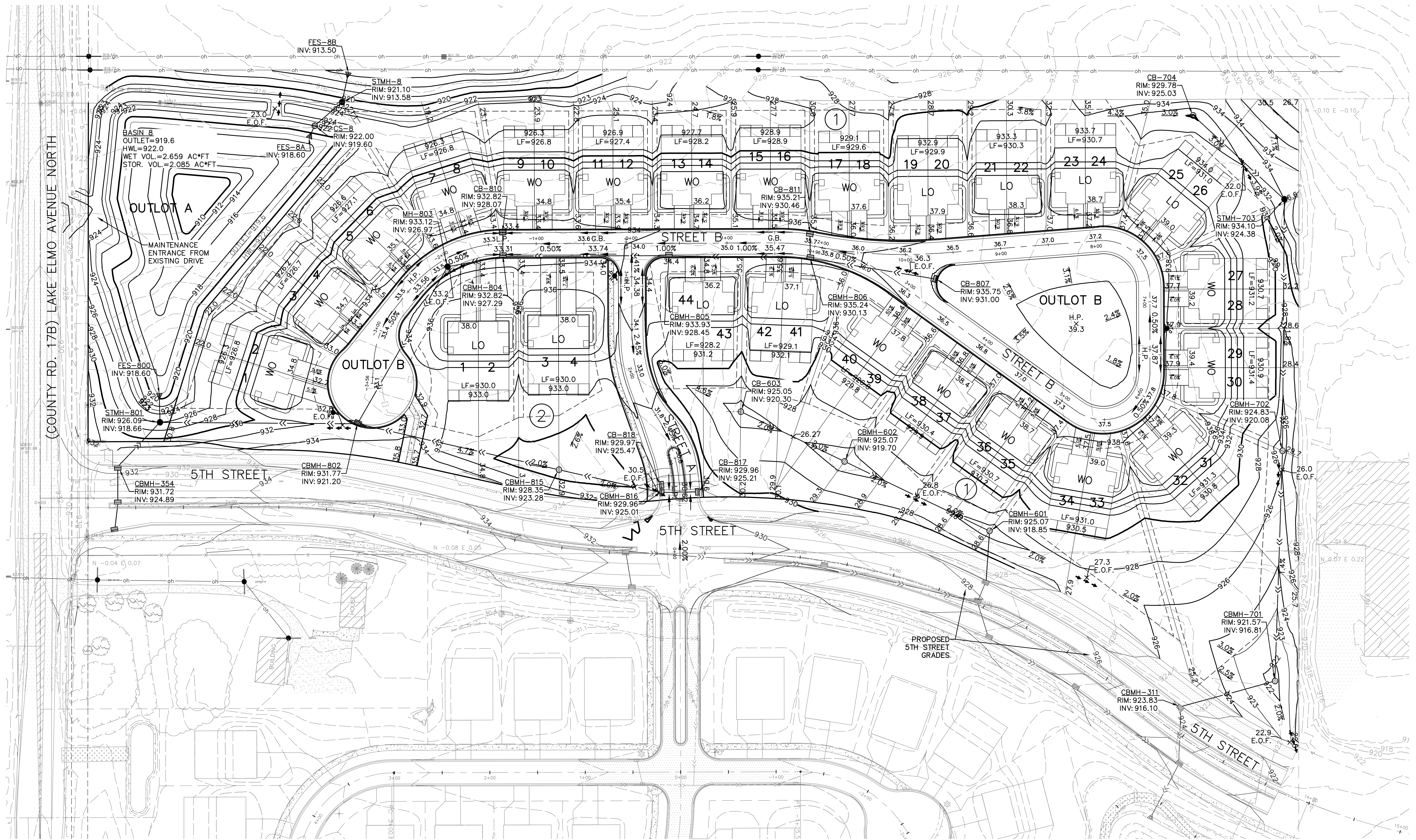
STORM SEWER

**LENNAR**  
16305 36TH AVENUE N, SUITE 600  
PLYMOUTH, MINNESOTA 55446

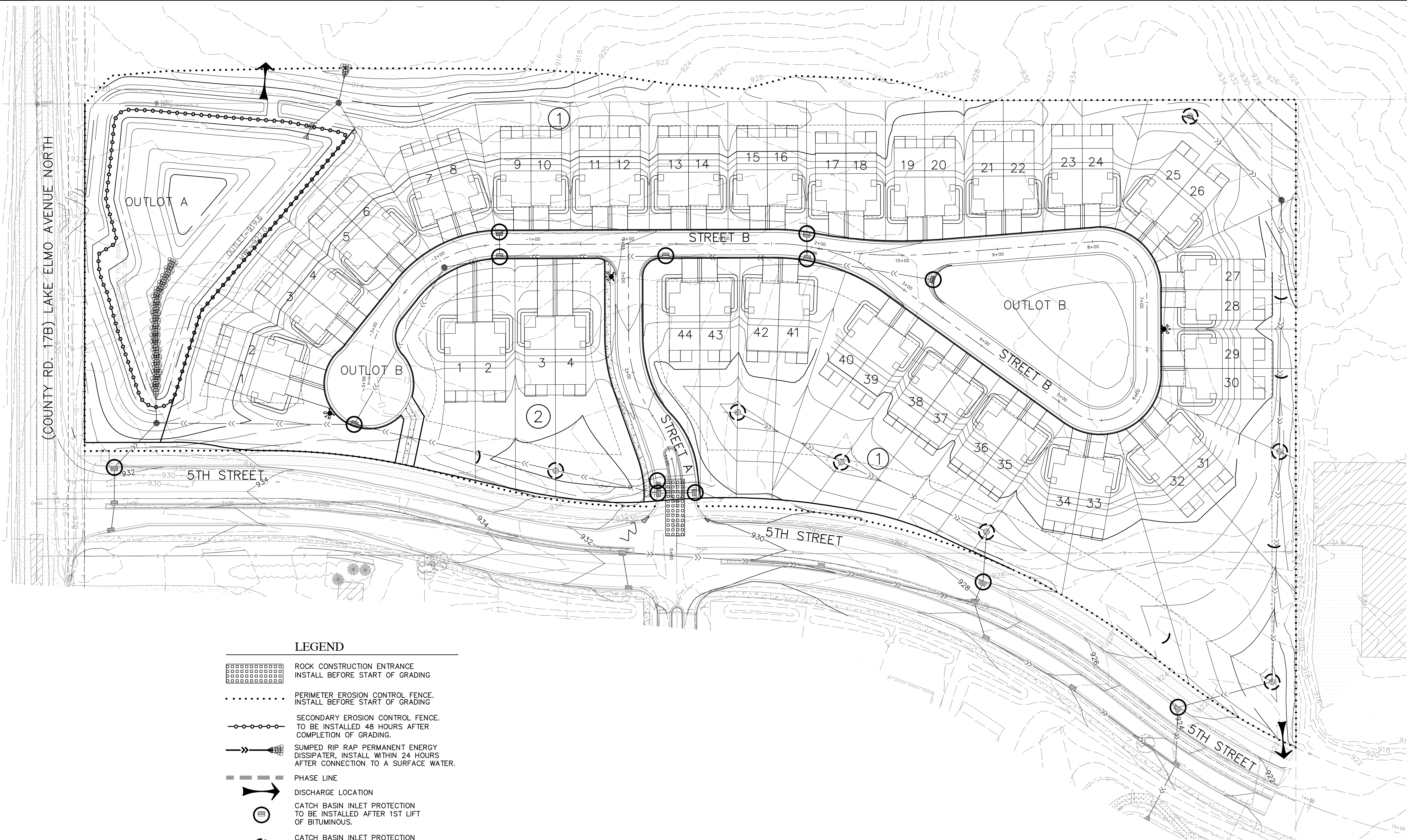
**DIEDRICH PROPERTY**  
LAKE ELMO, MINNESOTA

**BENCH MARK**  
MN/DOT 8282 AG  
ELEV=943.87 (1983 datum)  
00-ENG-115042-SHEET-STM









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.
- PHASE LINE
- DISCHARGE LOCATION
- 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 BERM. INSTALL WITHIN 7 DAYS OF  
GRADING COMPLETION OR BEFORE 1ST  
RAINFALL EVENT WHICHEVER IS FIRST

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

2422 Enterprise Drive  
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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

04-30-2015

Revisions:

1. 06-03-2015 CITY COMMENTS

Date

04-30-2015

Designed

PJC/BNM

Drawn

JDM

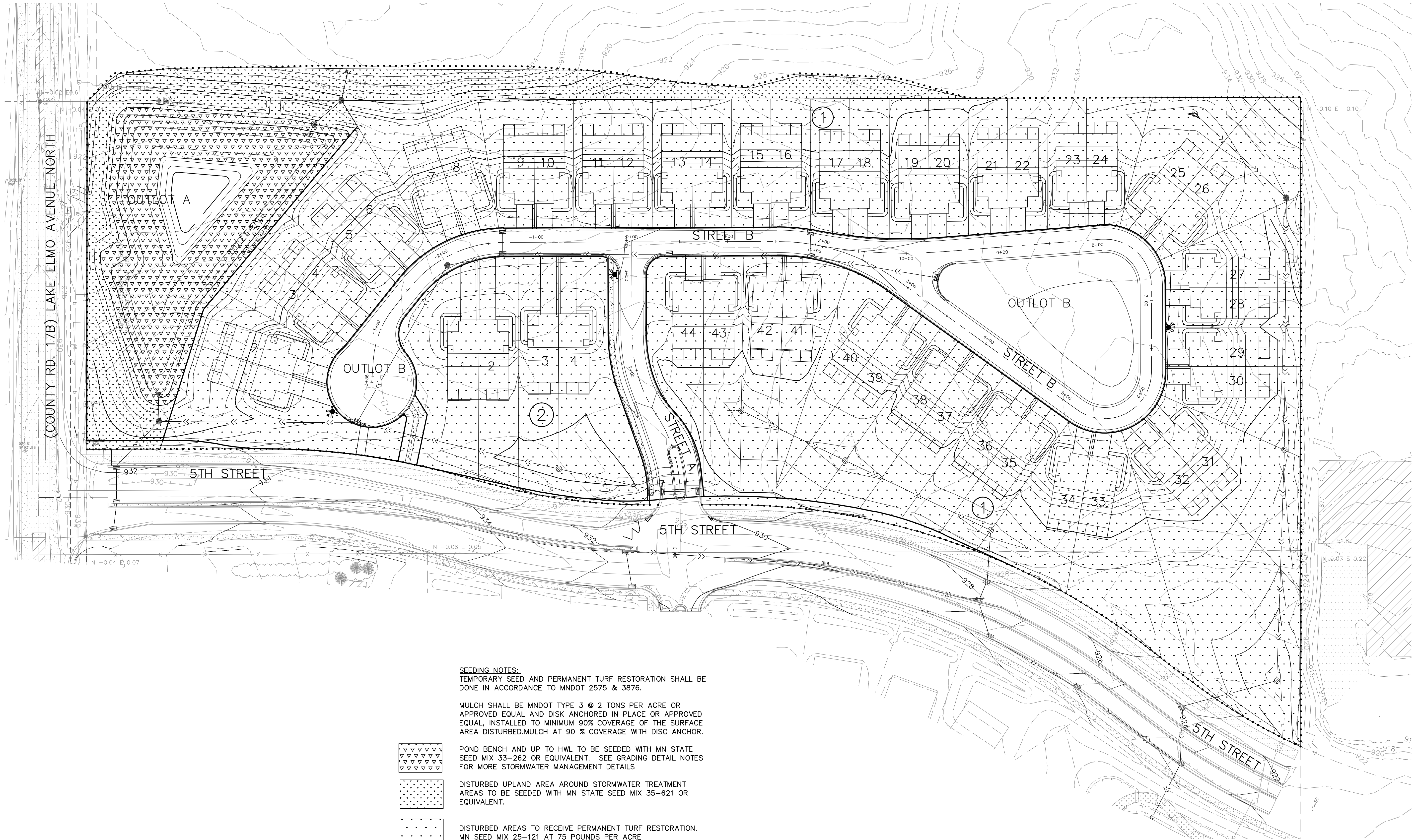
EROSION CONTROL PLAN

**LENNAR**  
16305 36TH AVENUE N, SUITE 600  
PLYMOUTH, MINNESOTA 55446

**DIEDRICH PROPERTY**  
LAKE ELMO, MINNESOTA

9 OF 14





SEEDING NOTES:  
TEMPORARY SEED AND PERMANENT TURF RESTORATION SHALL BE DONE IN ACCORDANCE TO MNDOT 2575 & 3876.

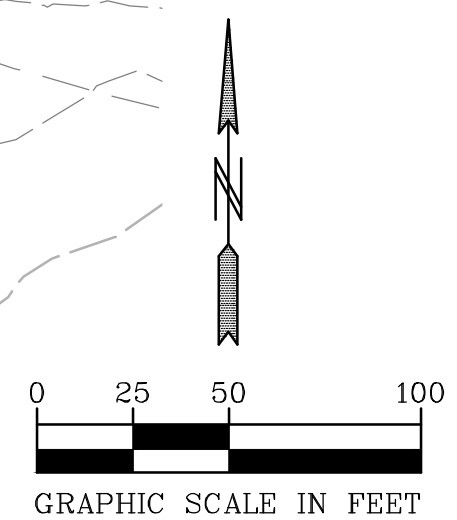
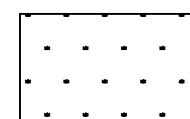
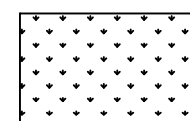
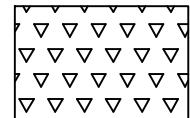
MULCH SHALL BE MNDOT TYPE 3 @ 2 TONS PER ACRE OR APPROVED EQUAL AND DISK ANCHORED IN PLACE OR APPROVED EQUAL, INSTALLED TO MINIMUM 90% COVERAGE OF THE SURFACE AREA DISTURBED. MULCH AT 90 % COVERAGE WITH DISC ANCHOR.

POND BENCH AND UP TO HWL TO BE SEEDED WITH MN STATE SEED MIX 33-262 OR EQUIVALENT. SEE GRADING DETAIL NOTES FOR MORE STORMWATER MANAGEMENT DETAILS

DISTURBED UPLAND AREA AROUND STORMWATER TREATMENT AREAS TO BE SEEDED WITH MN STATE SEED MIX 35-621 OR EQUIVALENT.

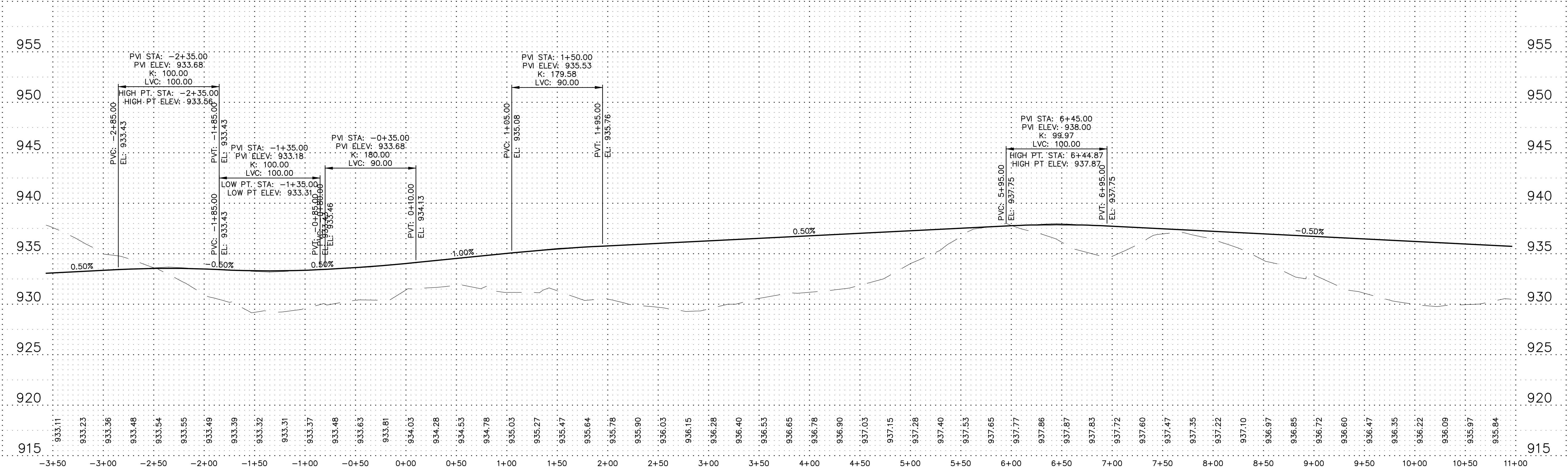
DISTURBED AREAS TO RECEIVE PERMANENT TURF RESTORATION. MN SEED MIX 25-121 AT 75 POUNDS PER ACRE

TEMPORARY SEED TO BE MN SEED MIX 22-111 OR APPROVED EQUAL @ 40 LBS. PER ACRE.

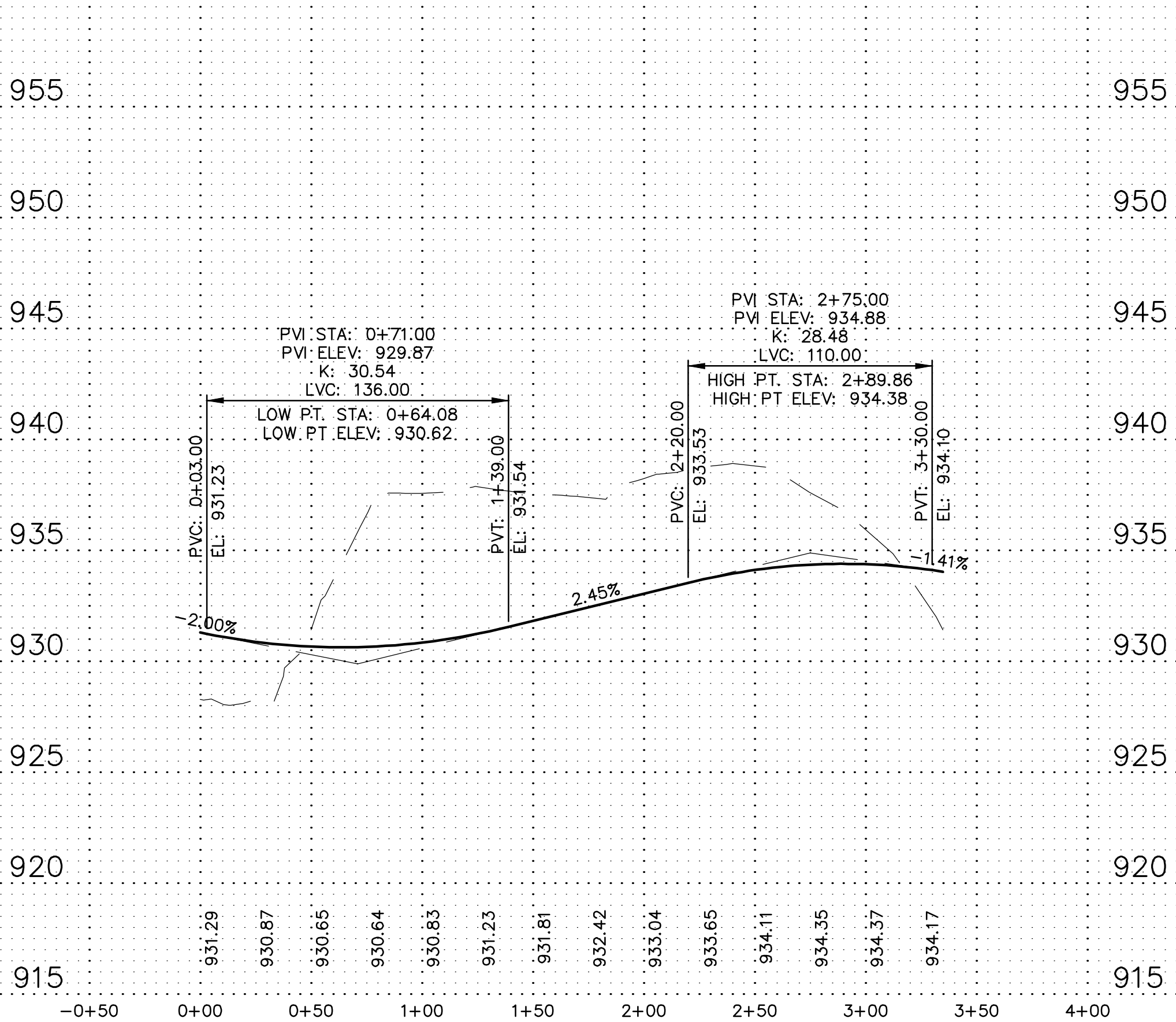


BENCH MARK  
MN/DOT 8282 AG  
ELEV=943.87 (1983 datum)

STREET B



STREET A



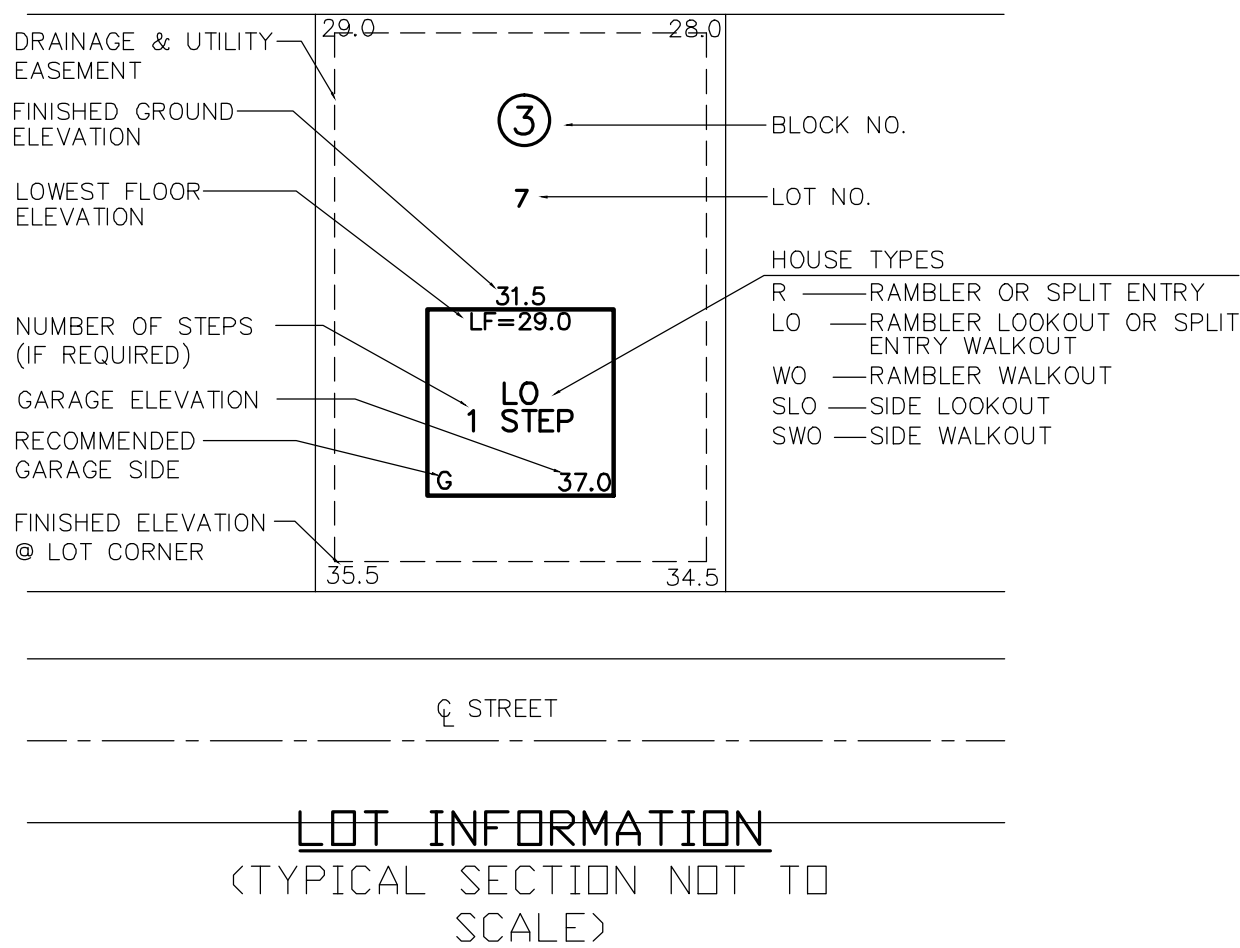
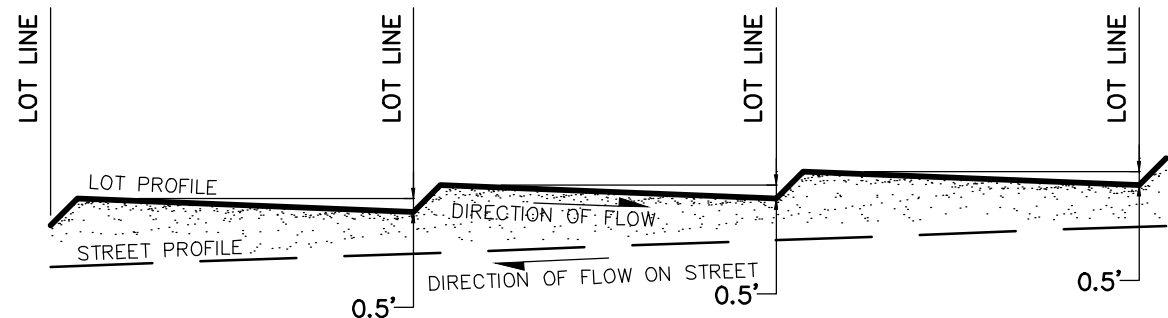


#### GRADING SEQUENCE

1. INSTALL ROCK CONSTRUCTION ENTRANCE
2. INSTALL PERIMETER SEDIMENT CONTROL DEVICES (SILT FENCE).
3. STRIP TOPSOIL, STOCKPILE AND STABILIZE IN BERM FOR FUTURE SPREADING.
4. DIG TEMPORARY SEDIMENT BASIN, BASIN TO BE 1800 CF/ACRE OF AREA STRIPPED. CLEAN TEMP BASIN ONCE 50% FULL.
5. ALL SOILS WILL BE COMPACTED PER SPECIFICATIONS.
6. MAINTAIN DRAINAGE DURING GRADING OPERATION TO TEMPORARY SEDIMENT BASIN.
7. COMPLETE SITE GRADING PER PLAN.
8. RESPREAD TOPSOIL MAINTAIN A MINIMUM OF 4" DEPTH.
9. MAINTAIN DRAINAGE TO TEMP SEDIMENT BASIN UNTIL NEXT PHASE BEGINS.
10. STABILIZE DENUDED AREAS AND STOCKPILES WITHIN TIME FRAME LISTED IN EROSION PREVENTION PRACTICES

#### 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 BMPs 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. EROSION CONTROL SUCH AS ROCK 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:
  - MN SEED MIX 22-111 @ 40 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
10. PERMANENT TURF RESTORATION SHALL BE DONE IN ACCORDANCE WITH MNDOT 2575 & 3876. CONSISTING OF:
  - MN SEED MIX 25-121 AT 75 POUNDS PER ACRE.
  - MULCH SHALL BE MNDOT TYPE 3 @ 2 TONS PER ACRE OR APPROVED EQUAL AND DISK ANCHORED IN PLACE OR APPROVED EQUAL, INSTALLED TO MINIMUM 90% COVERAGE OF THE SURFACE AREA DISTURBED. MULCH AT 90 % COVERAGE WITH DISC ANCHOR.
  - TYPE 3 FERTILIZER, 22-5-10 80%W.I.N @ 350 LBS PER ACRE.
11. SLOPES AT 3:1 OR STEEPER, AND/OR WHERE INDICATED ON THE PLANS SHALL BE SEEDDED AND HAVE AN EROSION CONTROL BLANKET TYPE 3 INSTALLED OR MAY BE HYDROSEEDDED WITH TACKIFIER MULCH.
12. THE CONTRACTOR SHALL REMOVE ALL SOILS AND SEDIMENT TRACKED ONTO EXISTING STREETS AND PAVED AREAS.
13. IF BLOWING DUST BECOMES A NUISANCE. THE CONTRACTOR SHALL APPLY WATER FROM A TANK TRUCK TO ALL CONSTRUCTION AREAS.
14. WITHIN 7 DAYS OF COMPLETION OF THE SITE GRADING OPERATIONS THE ENTIRE SITE (EXCEPT ROADWAYS) SHALL HAVE BEEN SEEDDED AND MULCHED AND SILT FENCE SHALL INSTALLED AROUND ALL PONDS.
15. 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.
16. 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.



#### 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 CALENDAR DAYS. STABILIZATION MUST BE COMPLETED NO LATER THAN 7 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 PROVIDED 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 SHOWN 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

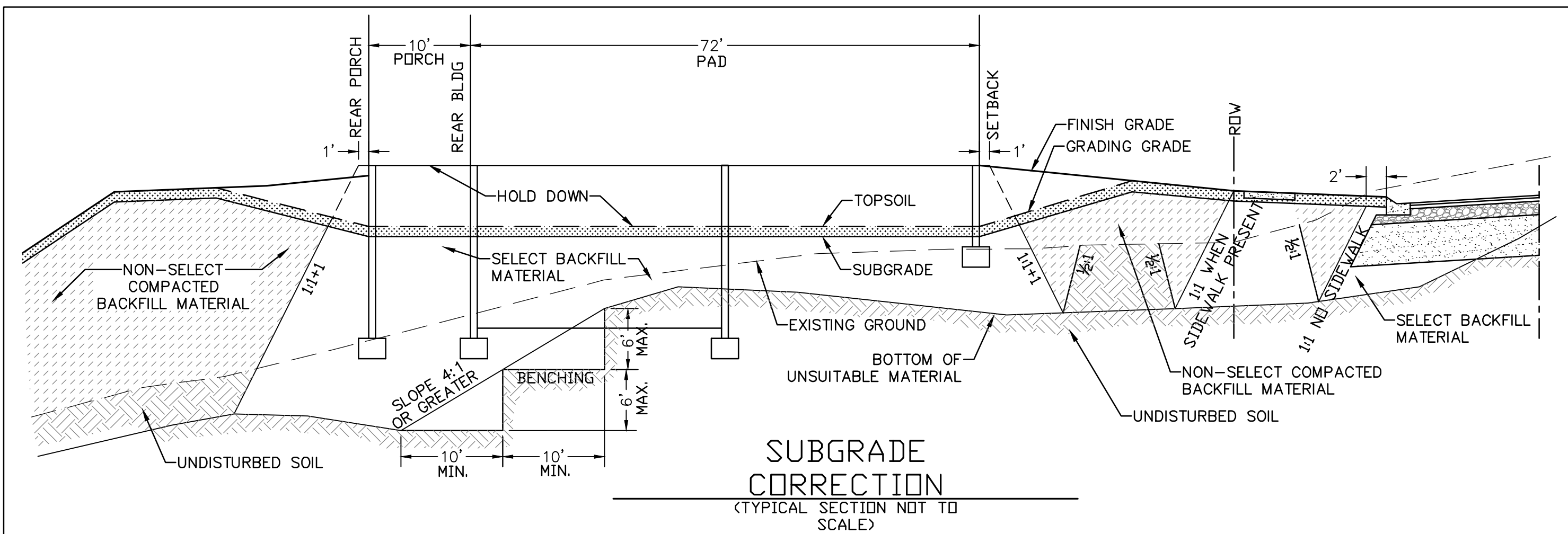
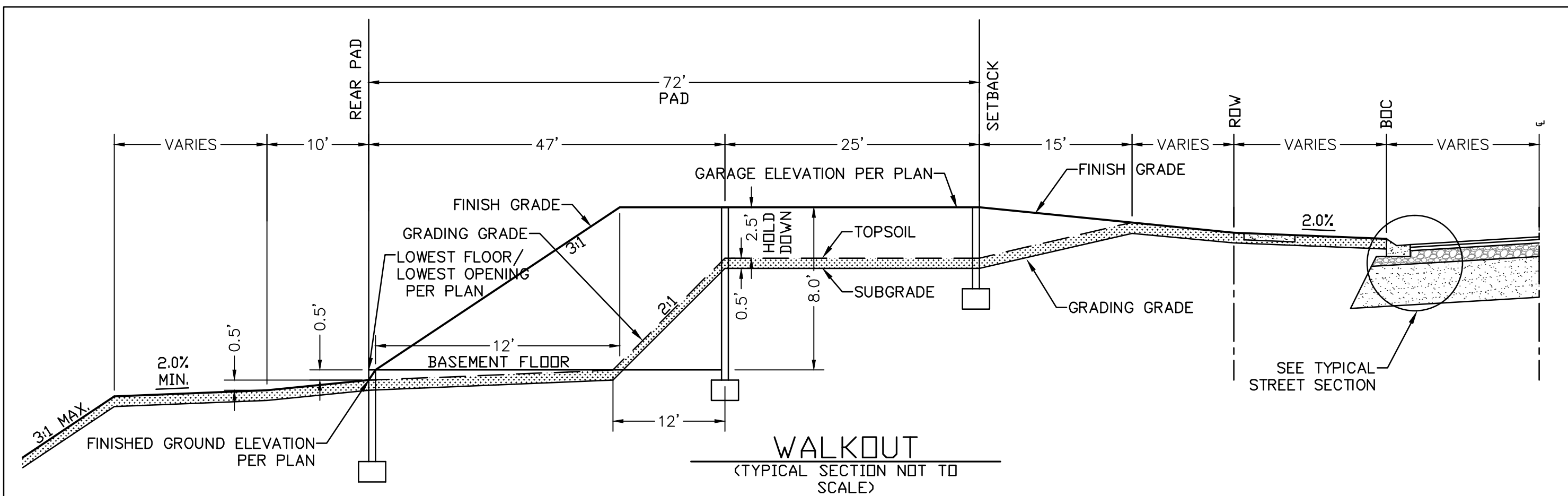
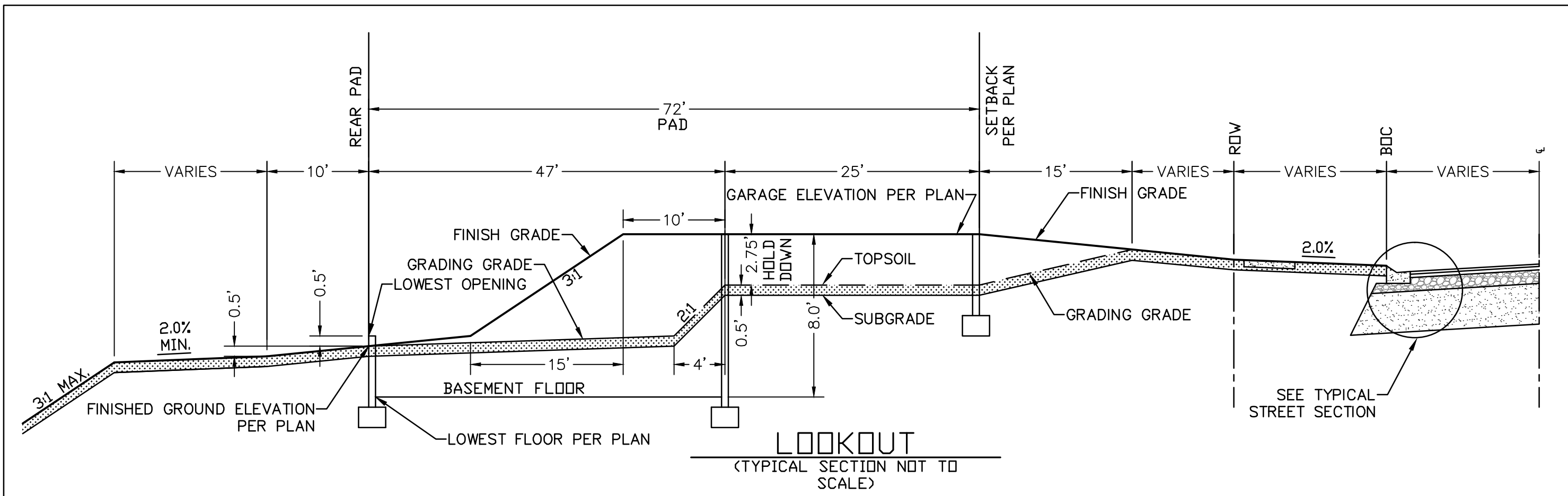
1. DEWATERING OR ANY TYPE OF SURFACE DRAINAGE THAT MAY HAVE TURBID OR SEDIMENT LADEN DISCHARGE WATER MUST BE DISCHARGED TO AN APPROVED SEDIMENT BASIN ON THE PROJECT SITE WHENEVER POSSIBLE. IF THE WATER CANNOT BE DISCHARGED TO A BASIN PRIOR TO ENTERING THE SURFACE WATER, IT MUST BE TREATED WITH THE APPROPRIATE 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.




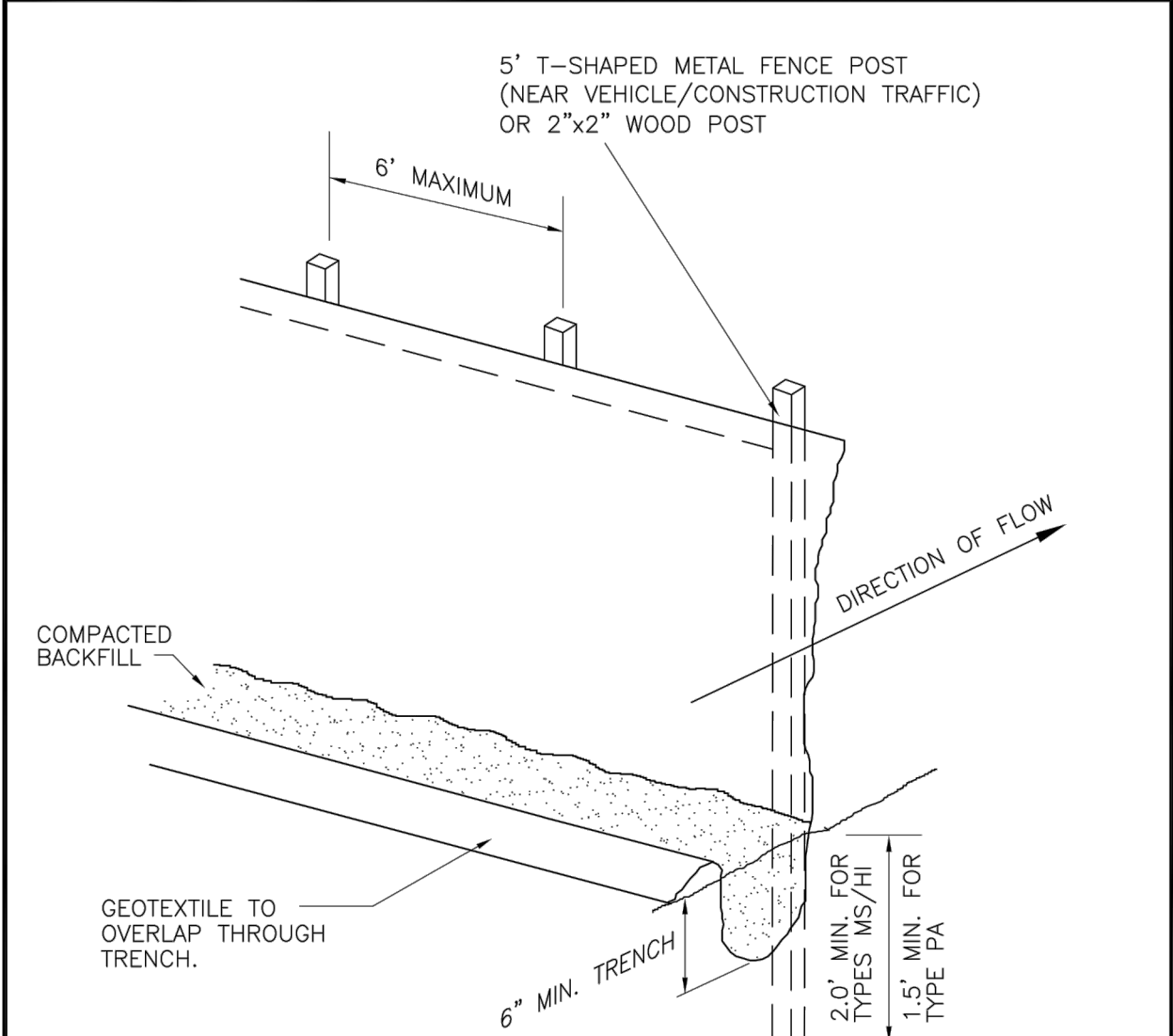



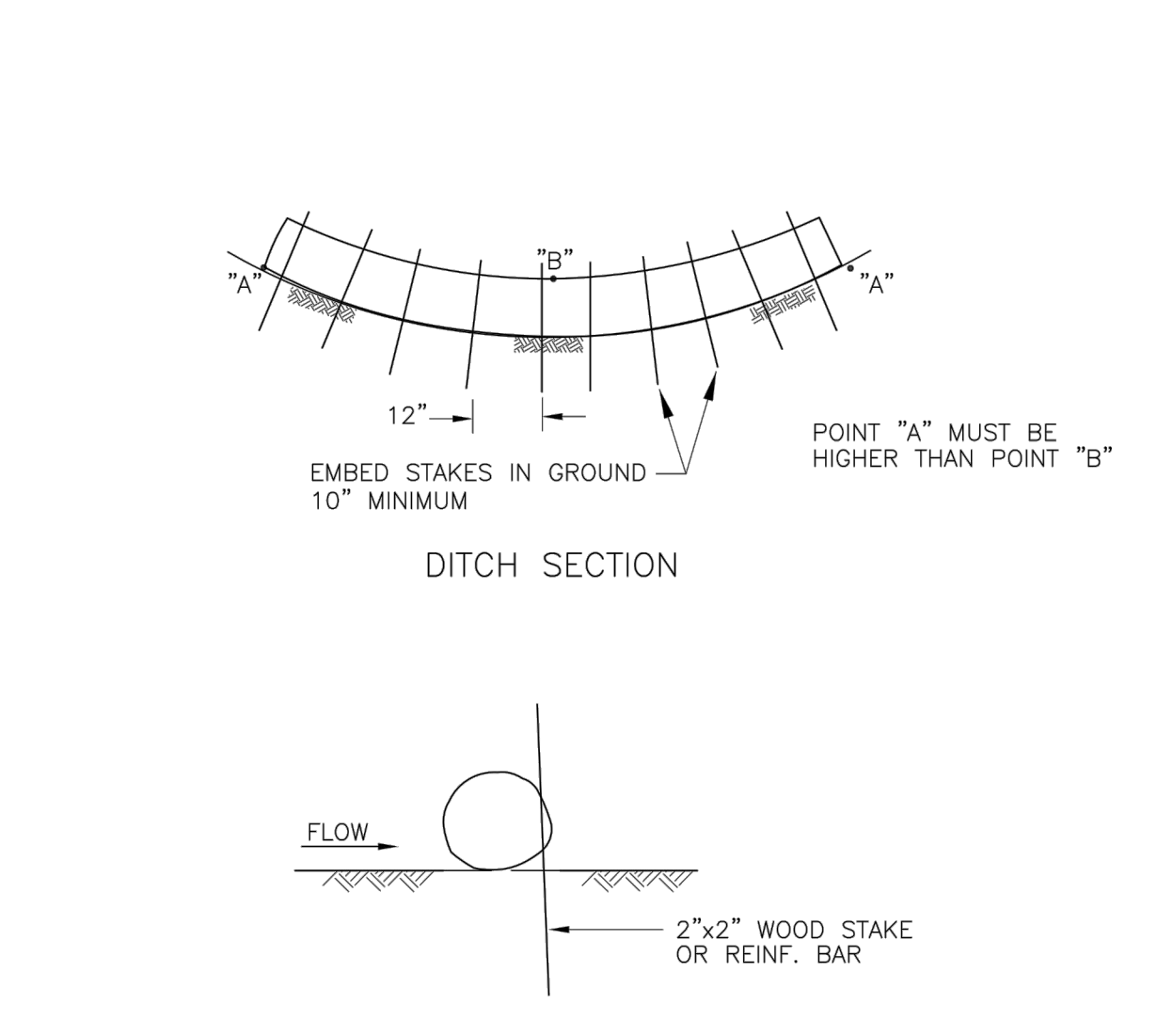

<p>1. THE CONTRACTOR SHALL CONDUCT OPERATIONS AND IMPLEMENT MINNESOTA POLLUTION CONTROL AGENCY (MPCA) BEST MANAGEMENT PRACTICES (BMP) TO CONTROL SITE SILTATION AND EROSION INTO DRAINAGE WAYS. THE CONTRACTOR SHALL COMPLY WITH ALL CONDITIONS AND COMPLETION DATES RELATIVE TO ALL PERMITS ISSUED FOR THE WORK TO BE COMPLETED. THE ENGINEER MAY ISSUE A STOP WORK ORDER FOR ALL DEVELOPMENT WORK AND BUILDING CONSTRUCTION FOR NONCOMPLIANCE WITH THESE MEASURES.</p> <p>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 VIALBE TURF OR GROUND COVER HAS BEEN ESTABLISHED AND APPROVED BY THE ENGINEER.</p> <p>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.</p> <p>4. STOCKPILES. ALL STOCKPILE AREAS SHALL HAVE SILT FENCE OR SEDIMENT TRAPPING SYSTEMS PLACED AROUND THE ENTIRE PERIMETER.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p>		
STANDARD PLAN NOTES GRADING AND EROSION CONTROL PLANS		
FEBRUARY 2015		
	CITY OF LAKE ELMO	STANDARD DRAWING NO. 600A LAKE ELMO

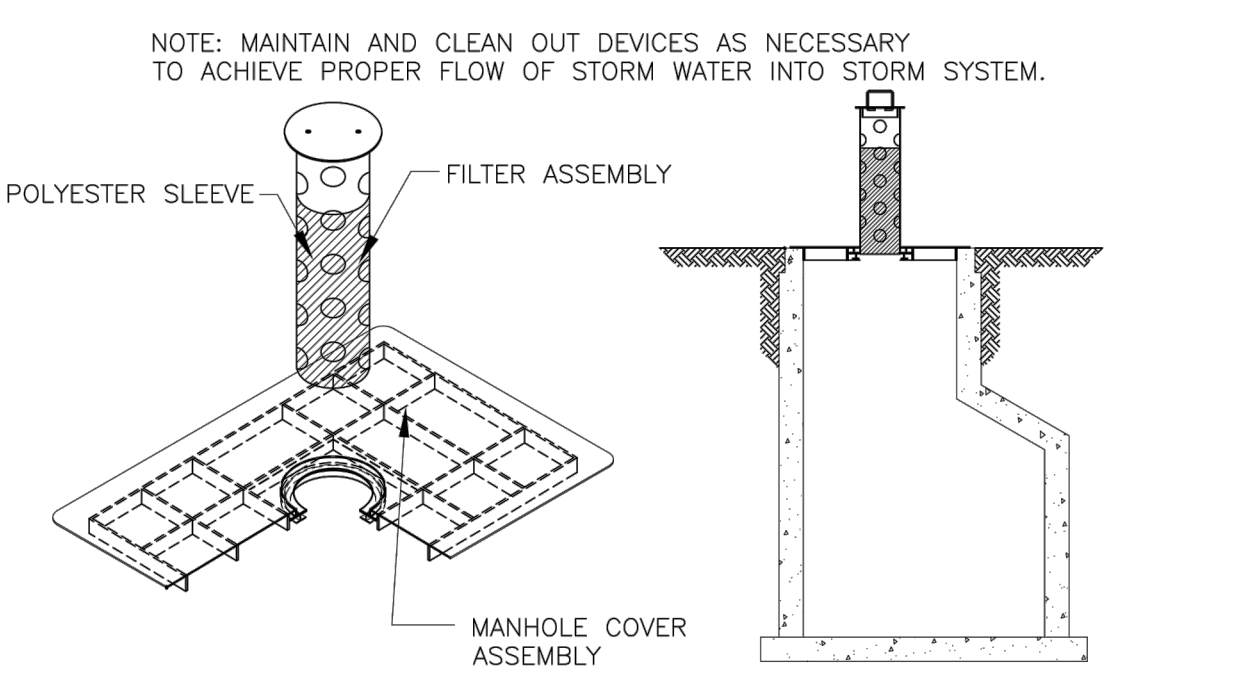

<p>9. DEWATERING. EACH EXCAVATION SHALL BE KEPT DRY DURING THE COURSE OF ALL WORK HEREIN, INCLUDING SUBGRADE CORRECTION, PIPE INSTALLATION, STRUCTURE CONSTRUCTION AND BACKFILLING, TO THE EXTENT THAT NO DAMAGE FROM HYDROSTATIC PRESSURE, FLOTATION OR OTHER DAMAGE RESULTS. ALL EXCAVATIONS SHALL BE DEWATERED 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 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.</p> <p>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.</p> <p>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.</p> <p>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.</p>		
STANDARD PLAN NOTES GRADING AND EROSION CONTOL PLANS		
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	CITY OF LAKE ELMO	STANDARD DRAWING NO. 600B LAKE ELMO

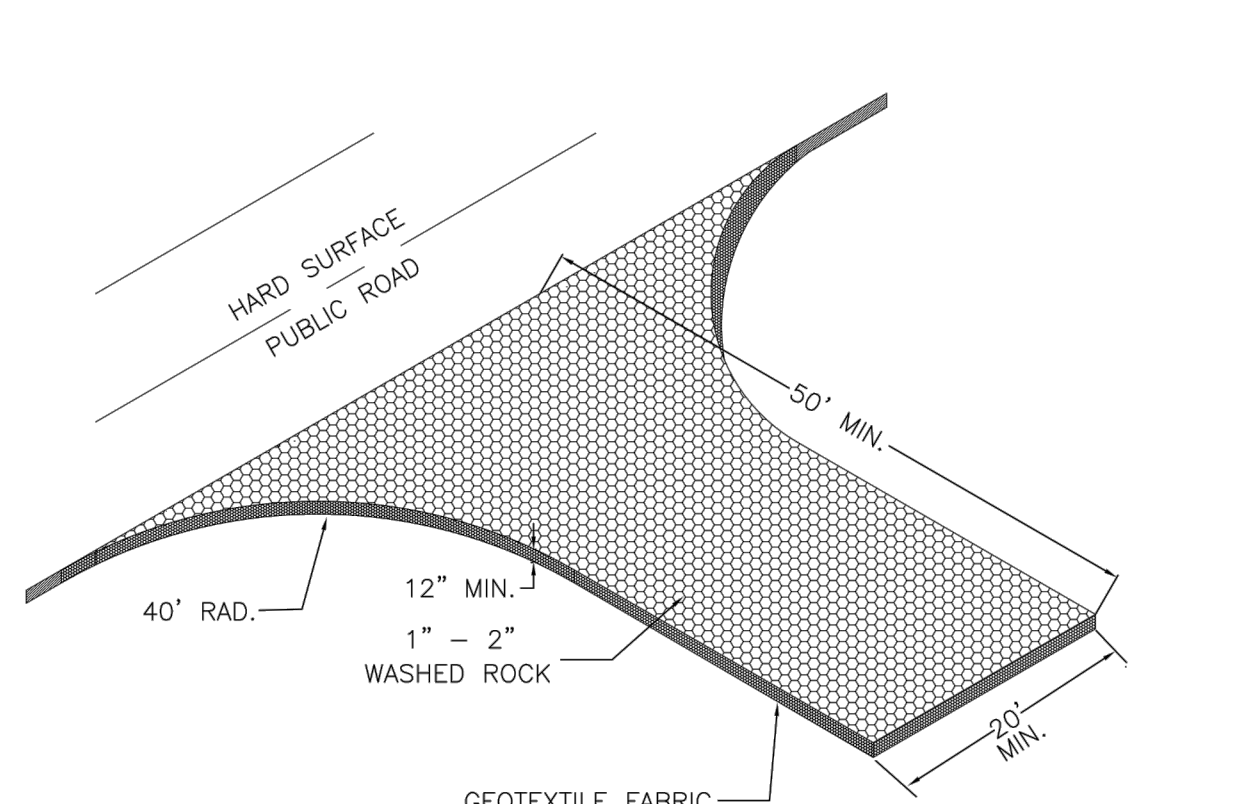

<p>13. MAINTENANCE AND INSPECTION. EROSION CONTROL MEASURES SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION AND UNTIL SATISFACTORY ESTABLISHMENT OF PERMANENT GROUND COVER IS OBTAINED. ALL EROSION AND SEDIMENTATION CONTROL MEASURES, AND STORMWATER OUTFALLS MUST BE INSPECTED WEEKLY, AND WITHIN 24 HOURS 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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p>		
STANDARD PLAN NOTES GRADING AND EROSION CONTOL PLANS		
FEBRUARY 2015		
	CITY OF LAKE ELMO	STANDARD DRAWING NO. 600C LAKE ELMO

<p>1. RESTORE ALL DISTURBED AREAS WITH 6 INCHES OF TOPSOIL CONFORMING TO MNDOT 3877.</p> <p>2. PROTECT ALL STORM SEWER INLETS AS SPECIFIED HEREIN AND MAINTAIN UNTIL STREET CONSTRUCTION IS COMPLETED.</p> <p>3. MAINTAIN ALL SILT FENCE AND REPAIR OR REPLACE AS NEEDED OR REQUIRED UNTIL TURF HAS BEEN ESTABLISHED.</p> <p>4. RESTORATION WORK SHALL BEGIN WITHIN 7 DAYS OF FINAL GRADING.</p> <p>5. A MINIMUM OF 2 ROWS OF SOD SHALL BE PLACED ADJACENT TO THE BACK OF CURBS ALONG ALL BOULEVARDS. SILT FENCE SHALL BE PLACED DIRECTLY BEHIND THE SOD IN ACCORDANCE WITH THE CITY STANDARD DETAILS.</p> <p>6. BOULEVARD AND DITCH RESTORATION INCLUDES FINE GRADING, WHICH INCLUDES THE REMOVAL OF ROCKS, DEBRIS AND SOIL CHUNKS, WHILE MAINTAINING POSITIVE DRAINAGE.</p>		
STANDARD PLAN NOTES SITE RESTORATION PLANS		
FEBRUARY 2015		
	CITY OF LAKE ELMO	STANDARD DRAWING NO. 600D LAKE ELMO

 <p>5' T-SHAPED METAL FENCE POST (NEAR VEHICLE/CONSTRUCTION TRAFFIC) OR 2"x2" WOOD POST</p> <p>6" MAXIMUM</p> <p>COMPACTED BACKFILL</p> <p>GEOTEXTILE TO OVERLAP THROUGH TRENCH.</p> <p>6" MIN. TRENCH</p> <p>2.0' MIN. FOR TYPES MS/HI</p> <p>1.5' MIN. FOR TYPE PA</p> <p>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.</p>		
SILT FENCE		
FEBRUARY 2015		
	CITY OF LAKE ELMO	STANDARD DRAWING NO. 601 LAKE ELMO

 <p>12" 10" MINIMUM</p> <p>POINT "A" MUST BE HIGHER THAN POINT "B"</p> <p>DITCH SECTION</p> <p>FLOW</p> <p>2"x2" WOOD STAKE OR REINF. BAR</p> <p>FIBER ROLL SECTION</p> <p>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.</p>		
DITCH CHECK (FIBER ROLL)		
FEBRUARY 2015		
	CITY OF LAKE ELMO	STANDARD DRAWING NO. 603 LAKE ELMO

<p>NOTE: MAINTAIN AND CLEAN OUT DEVICES AS NECESSARY TO ACHIEVE PROPER FLOW OF STORM WATER INTO STORM SYSTEM.</p>  <p>POLYESTER SLEEVE</p> <p>FILTER ASSEMBLY</p> <p>MANHOLE COVER ASSEMBLY</p> <p>WIMCO RD-23 OR APPROVED EQUAL</p> <p>DEFLECTOR PLATE</p> <p>OVERFLOW ① - CENTER OF FILTER ASSEMBLY</p> <p>OVERFLOW ② - TOP OF CURB BOX</p> <p>10" FILTER ASSEMBLY</p> <p>CURB</p> <p>CG-23 HIGH-FLOW</p> <p>HIGH-FLOW FABRIC</p> <p>WIMCO CG-23 HIGH-FLOW OR APPROVED EQUAL</p>		
SEDIMENT CONTROL AROUND STORM SEWER INLET		
FEBRUARY 2015		
	CITY OF LAKE ELMO	STANDARD DRAWING NO. 604 LAKE ELMO

 <p>HARD SURFACE PUBLIC ROAD</p> <p>50' MIN.</p> <p>40' RAD.</p> <p>12" MIN.</p> <p>1" - 2" WASHED ROCK</p> <p>20' MIN.</p> <p>GEOTEXTILE FABRIC UNDERNEATH ROCK</p>		
ROCK CONSTRUCTION ENTRANCE		
FEBRUARY 2015		
	CITY OF LAKE ELMO	STANDARD DRAWING NO. 605 LAKE ELMO



The diagram illustrates a symmetrical boulevard cross-section. On the left, a 'BUILDING SETBACK' is indicated. A 25-foot distance leads to a tree, followed by a 5-foot gap to a 'PRIVATE UTILITIES CORRIDOR' (4 feet wide). Another 5-foot gap leads to an 'OUTLET LINE' (1.0 foot wide). The road surface has a 4.0% slope. The centerline is marked with a 'C' and a vertical line. The right side is a mirror image, with a 25-foot distance to a tree, a 5-foot gap to a 'PRIVATE UTILITIES CORRIDOR' (4 feet wide), another 5-foot gap to an 'OUTLET LINE' (1.0 foot wide), and a 4.0% slope. The road surface has a 2.5% slope. The diagram also shows '6" TOPSOIL & SOD' and 'PRIVATE UTILITIES' (represented by circles). A 'MINIMUM PAVEMENT SECTION' is detailed with layers: 1.5" MnDOT 2360 Type SP Bit. Wearing Course, 2" MnDOT 2360 Type SP Bit. Non-Wearing Course, 6" Aggregate Base, CL 6, 100% Crushed Stone Aggregate (Spec 3138), and 12" Select Granular Borrow (Spec 3149.2B). The subgrade is noted as tested and approved in accordance with city standard specifications. Notes specify tree placement (5 feet back of curb) and street light/hydrant placement (5 feet back of curb).

**NOTES:**

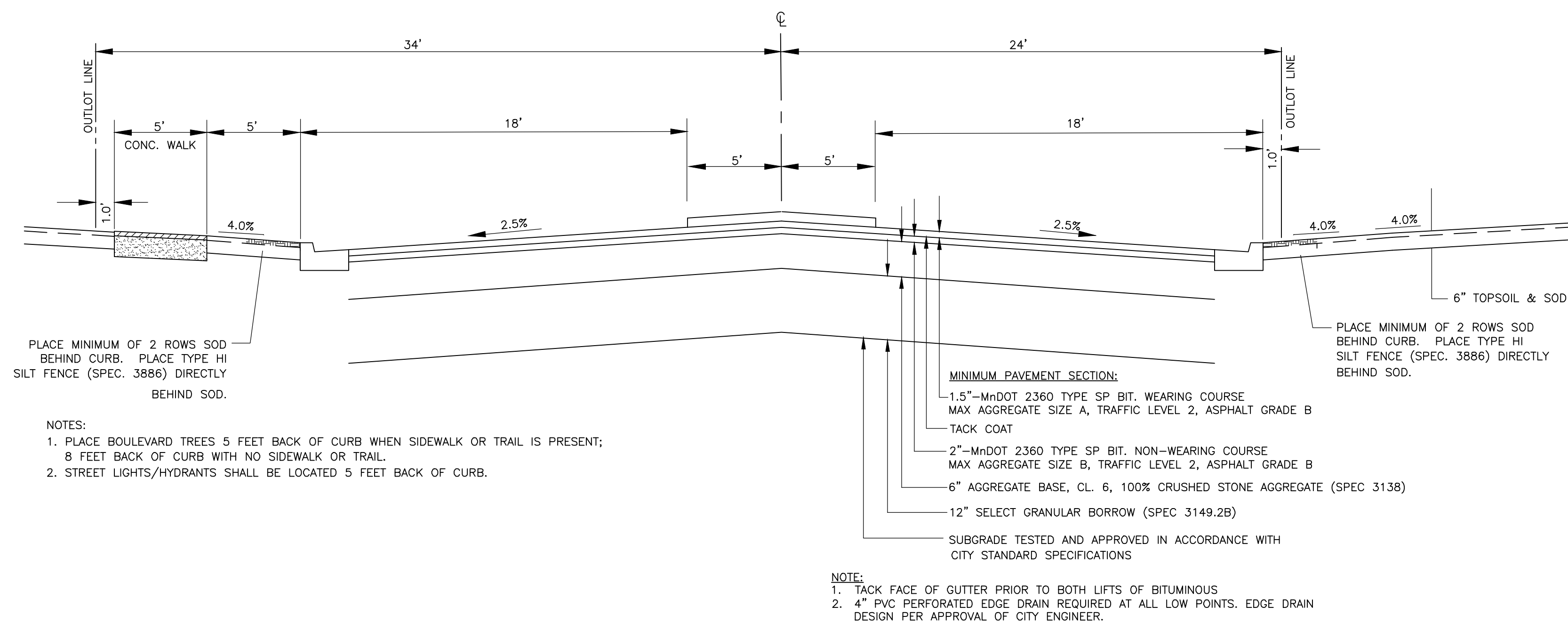
1. PLACE BOULEVARD TREES 5 FEET BACK OF CURB WHEN SIDEWALK OR TRAIL IS PRESENT;  
8 FEET BACK OF CURB WITH NO SIDEWALK OR TRAIL.
2. STREET LIGHTS/HYDRANTS SHALL BE LOCATED 5 FEET BACK OF CURB.

**MINIMUM PAVEMENT SECTION:**

- 1.5" - MnDOT 2360 TYPE SP BIT. WEARING COURSE  
MAX AGGREGATE SIZE A, TRAFFIC LEVEL 2, ASPHALT GRADE B  
TACK COAT
- 2" - MnDOT 2360 TYPE SP BIT. NON-WEARING COURSE  
MAX AGGREGATE SIZE B, TRAFFIC LEVEL 2, ASPHALT GRADE B
- 6" AGGREGATE BASE, CL. 6, 100% CRUSHED STONE AGGREGATE (SPEC 3138)
- 12" SELECT GRANULAR BORROW (SPEC 3149.2B)
- SUBGRADE TESTED AND APPROVED IN ACCORDANCE WITH CITY STANDARD SPECIFICATIONS

**NOTE:**

1. TACK FACE OF GUTTER PRIOR TO BOTH LIFTS OF BITUMINOUS
2. 4" PVC PERFORATED EDGE DRAIN REQUIRED AT ALL LOW POINTS. EDGE DRAIN DESIGN PER APPROVAL OF CITY ENGINEER.



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 04-30-2015

Revisions:  
1. 06-03-2015 CITY COMMENTS

Date	04-30-2015
Designed	PJC/BNM
Drawn	JDM

## GRADING DETAILS

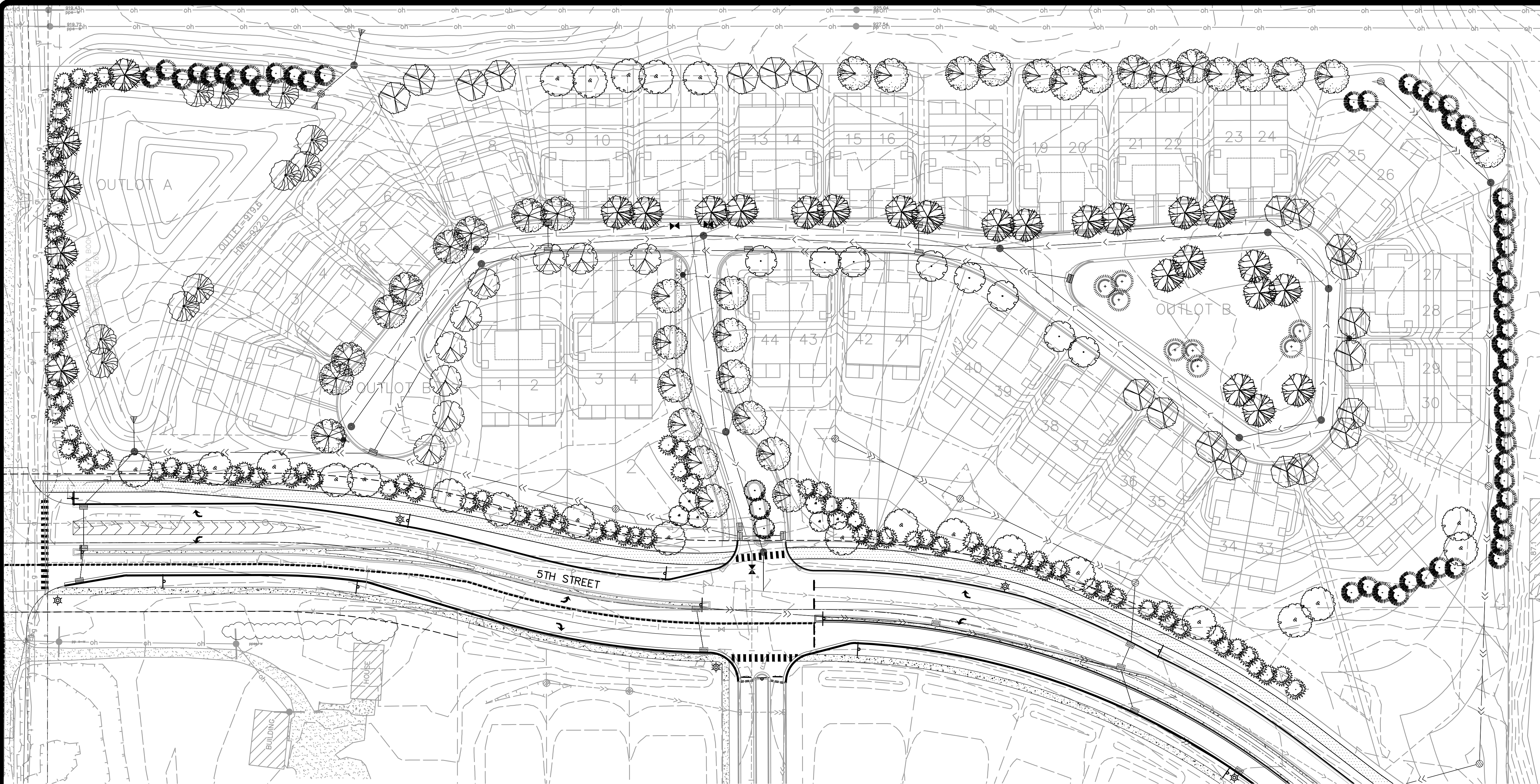
**LENNAR**  
16305 36TH AVENUE N, SUITE 600  
PLYMOUTH, MINNESOTA 55446

**DIEDRICH PROPERTY**  
LAKE ELMO, MINNESOTA

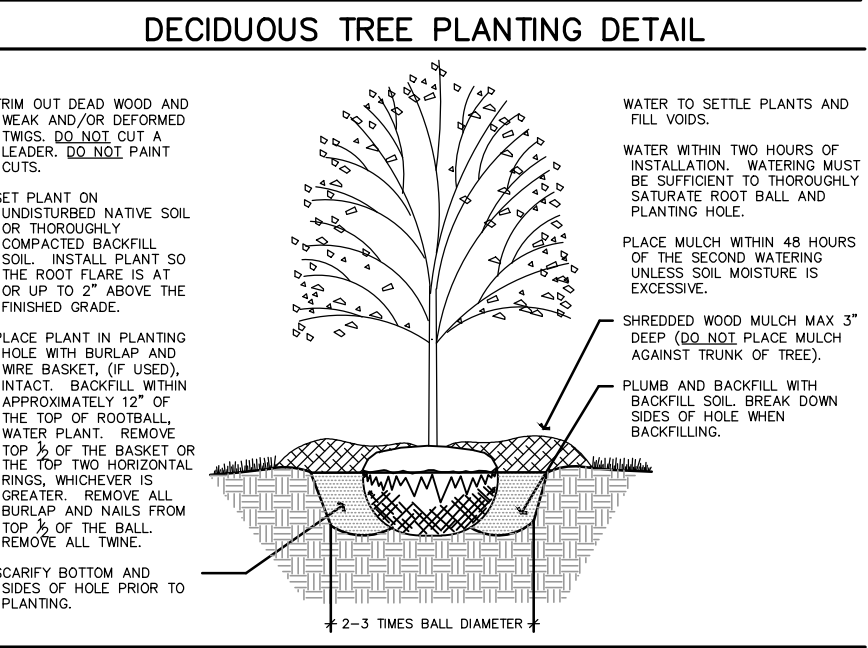
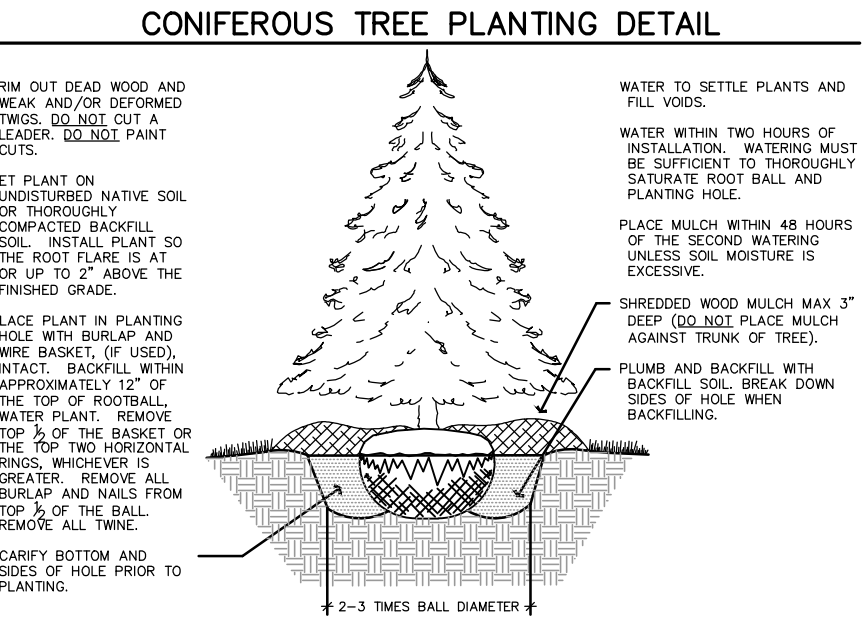
00-ENG-115042-SHEET-GR DTLS

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- LANDSCAPE NOTES**
- THE LANDSCAPE CONTRACTOR SHALL VISIT THE PROJECT SITE TO BECOME FAMILIAR WITH THE EXISTING CONDITIONS PRIOR TO SUBMITTING A BID.
  - THE LANDSCAPE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT OF PROPOSED PHYSICAL START DATE AT LEAST 2 DAYS IN ADVANCE.
  - THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR THE FIELD VERIFICATION OF ALL EXISTING UTILITY LOCATIONS ON THE PROJECT SITE WITH Gopher State One Call 1-800-252-1166 PRIOR TO COMMENCING WORK. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION AND REPAIR OF EXISTING UTILITIES DAMAGED DURING CONSTRUCTION AT NO COST TO THE OWNER. NOTIFY THE LANDSCAPE ARCHITECT OF ANY CONFLICTS TO FACILITATE PLANT RELOCATION.
  - GRADING TO BE PERFORMED BY OTHERS.
  - NO PLANT MATERIAL SHALL BE INSTALLED UNTIL GRADING AND CONSTRUCTION HAS BEEN COMPLETED IN THE IMMEDIATE AREA.
  - ALL PLANT MATERIAL SHALL MEET THE STANDARDS FOUND IN THE AMERICAN ASSOCIATION OF NURSERYMEN-AMERICAN STANDARD FOR NURSERY STOCK.
  - ALL CONTAINER MATERIAL TO BE GROWN IN THE CONTAINER A MINIMUM OF SIX (6) MONTHS PRIOR TO PLANTING ON SITE.
  - DECIDUOUS AND CONIFEROUS TREES SHALL NOT BE STAKED, BUT THE LANDSCAPE CONTRACTOR MUST GUARANTEE STABILITY TO A WIND SPEED OF 60 M.P.H.
  - THE LANDSCAPE CONTRACTOR SHALL PROVIDE A MINIMUM GUARANTEE OF TWO YEARS ON NEW PLANT MATERIALS.
  - THE LANDSCAPE ARCHITECT RESERVES THE RIGHT TO REJECT ANY PLANTS WHICH ARE DEEMED UNSATISFACTORY BEFORE, DURING OR AFTER INSTALLATION.
  - IF THERE IS A DISCREPANCY BETWEEN THE NUMBER OF PLANTS SHOWN ON THE PLAN AND THE NUMBER SHOWN ON THE PLANT LIST, THE NUMBER SHOWN ON THE PLAN WILL TAKE PRECEDENCE.
  - THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MULCHES AND PLANTING SOIL QUANTITIES TO COMPLETE WORK SHOWN ON THE PLAN. THE LANDSCAPE CONTRACTOR SHALL VERIFY ALL QUANTITIES SHOWN ON THE PLANT SCHEDULE.
  - COMMERCIAL GRAZE POLY LAWN EDGING SHALL BE INSTALLED WHERE NOTED.
  - THE LANDSCAPE CONTRACTOR SHALL REPAIR ALL DAMAGE TO THE SITE CAUSED BY THE PLANTING OPERATION AT NO COST TO THE OWNER.
  - THE LANDSCAPE CONTRACTOR SHALL KEEP PAVEMENTS CLEAN UNSTAINED. ALL PEDESTRIAN AND VEHICLE ACCESS TO BE MAINTAINED THROUGHOUT CONSTRUCTION PERIOD. ALL WASTES SHALL BE PROMPTLY REMOVED FROM THE SITE. ANY DAMAGE TO EXISTING FACILITIES SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
  - THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH ALL APPLICABLE CODES, REGULATIONS AND PERMITS GOVERNING THE WORK.
  - STORAGE OF MATERIALS OR SUPPLIES ON-SITE WILL NOT BE ALLOWED.



**LANDSCAPE NOTES:**

**LANDSCAPE REQUIREMENTS:**

- 1 TREE PER 50 LINEAR FEET PROPOSED STREET FRONTAGE: 2687 LINEAR FEET/50=54 TREES
- 5 TREES PER DEVELOPED ACRE: 13 DEVELOPED ACRES (EXCL 5TH STREET AND COUNTY ROAD 17)X5=65 TREES

**TREE PRESERVATION REQUIREMENTS:**

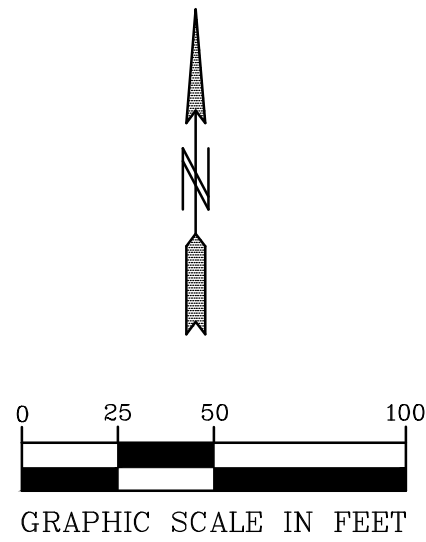
486" REQUIRED FOR MITIGATION (SEE TREE PRESERVATION PLAN FOR MORE DETAILS)

**ROPOSED LANDSCAPING:**

126 FRONTAGE AND DEVELOPED AREA TREES

489" MITIGATION TREES

ALL DISTURBED UPLAND AREAS TO BE SODDED AND IRRIGATED. IRRIGATION DESIGNED BY OTHERS.



PLANT SCHEDULE				
KEY	COMMON NAME/Scientific name	ROOT	QUANTITY	INSTRUCTIONS
OVERSTORY TREES				
	NORTHWOOD RED MAPLE/Acer rubrum 'Northwood'	2.5" B&B	24	
	AUTUMN BLAZE MAPLE/Acer x freemanii 'Jeffersred'	2.5" B&B	12	
	RIVER BIRCH/Betula nigra 'Heritage'	12' B&B	24	Multi-Stem
	COMMON HACKBERRY/Celtis occidentalis	2.5" B&B	8	
	HONEYLOCUST/Gleditsia triacanthos var. enermis	2.5" B&B	21	
	NORTHERN RED OAK/Quercus rubra	2.5" B&B	28	
	SENTRY LINDEN/Tilia americana 'Sentry'	2.5" B&B	9	
	NIOBE WEEPING WILLOW/Salix alba 'Tristis'	3" B&B	10	
EVERGREEN TREES				
	BLACK HILLS SPRUCE/Picea glauca densata	6' B&B	86	
	EASTERN WHITE PINE/Pinus strobus	6' B&B	53	
	AUSTRIAN PINE/Pinus nigra	6' B&B	8	
ORNAMENTAL TREES				
	SPRING SNOW CRAB/Malus 'Spring Snow'	2" B&B	9	

TREES BELOW HEAVY DASHED LINE COUNTED TOWARD THE MITIGATION REQUIREMENT. TREES ABOVE HEAVY DASHED LINE COUNTED TOWARD THE FRONTAGE AND DEVELOPED AREA REQUIREMENT

The site plan illustrates the layout of the building, setbacks, and utility trenches. Key features include:

- Building Setbacks:** 40' setbacks on both the left and right sides of the building.
- Spoils Area:** A triangular area on the left side, labeled "SPOILS", with a 4.0% slope and a 25' width.
- Private Utilities Corridor:** A 4' wide corridor located between the spoils area and the building.
- Trench Layouts:**
  - Typical Sanitary Trench:** 4' wide, 11' deep, with a 1.5' slope and a 1.0' width.
  - Typical Watermain Trench:** 4' wide, 8' deep, with a 1.0' slope and a 1.0' width.
  - 5' Trench Shield:** A 5' wide shield located between the sanitary and watermain trenches.
- Other Dimensions:** 14' setbacks from the centerline, 2' setbacks from the trench edges, and 25' setbacks from the building walls.

Diagram illustrating the cross-section of a two-lane highway with a 50-foot total width. The layout includes the following components and dimensions:

- Left Side (from Right of Way to Centerline):**
  - DITCH: 15'
  - EDGE OF GRAVEL: 2.0'
  - EDGE OF BIT.: 2.0'
  - SHOULDER: 8'
  - SOUTHBOUND THROUGH LANE: 12'
  - TURN/THRU LANE: 13'
  - SOUTHBOUND LEFT TURN: 12'
- Right Side (from Centerline to Right of Way):**
  - NORTHBOUND THROUGH LANE: 12'
  - SHOULDER: 8'
  - EDGE OF BIT.: 2.0'
  - EDGE OF GRAVEL: 2.0'
  - DITCH: 28'
- Grading and Slopes:**
  - Shoulders: 2.5% slope
  - Ditch: 4.0% slope
- Centerline:** Marked with a 'C' and a vertical dashed line.