



CITY OF NORTH OAKS

**Regular Planning Commission Meeting
6 PM, Wednesday, April 15, 2020
VIA TELEPHONE OR OTHER ELECTRONIC MEANS ONLY
PURSUANT TO MINN. STAT. § 13D.021**

**** Meeting has been changed to a Webinar. New Dial-in access below**
TO ATTEND BY TELEPHONE: DIAL 1-312-626-6799, Webinar ID: 572 626 739
Or iPhone one-tap : US: +13126266799,,572626739#
TO ATTEND ON-LINE: [https://zoom.us/j/572626739?](https://zoom.us/j/572626739?pwd=MndrYlJqaWQwU3kyelREK1BseXJOZz09)
[pwd=MndrYlJqaWQwU3kyelREK1BseXJOZz09](https://zoom.us/j/572626739?pwd=MndrYlJqaWQwU3kyelREK1BseXJOZz09)
Password: 901875**

MEETING AGENDA

- 1 **Call To Order**
- 2 **Roll Call**
- 3 **Approval of Agenda**
- 4 **Business Action Items**
 - 4a Public Hearing: Preliminary Plan/Preliminary Plat (Subdivision) Application: Anderson Woods Parcel
[Anderson Woods - Preliminary Plan Review Checklist.pdf](#)
[Anderson Woods - Preliminary Subdivision - Final.pdf](#)
[Anderson Woods Prelim Subd Exhibits.pdf](#)
[NOHOA - Anderson Woods Preliminary Plan Comments 4-7-20.pdf](#)
 - 4b Discussion/Action: Preliminary Plan/Preliminary Plat (Subdivision) Application: Anderson Woods Parcel
- 5 **Adjourn**

Preliminary Plan * Requirement	Source	
	Ordinance 93/ Chapter 152 (Subdivision Ordinance)	Ordinance 94/ Chapter 151 (Zoning Ordinance)
Address all of the standards and requirements of the Zoning Ordinance (94)(Chapter 151)		X
Address all of the standards and requirements of the Subdivision Ordinance (93) (Chapter 152)	X	
Address all of the standards and requirements of the PDA	X	
Proof that the preliminary plan is consistent with the approved Master Development Plan **		X
Proof that the preliminary plan is consistent with the PDA		X
Factors for Consideration When Reviewing Preliminary Plan		
Consistency with approved Master Development Plan		X
Consistency with Agreed Upon PDA		X
Impacts on existing and anticipated traffic		X
Parking (n/a)		X
Pedestrian and vehicular movements		X
Ingress and egress		X
Building location, height, and size (n/a)		X
Architectural and engineering features (n/a)		X
Landscaping		X
Lighting (n/a)		X
Provisions for utilities		X
Site grading and drainage		X
Green space		X
Loading and unloading areas (n/a)		X
Signage		X
Monuments		X
Screening		X
Lot coverage		X
Other related matters		X
Uses in conformity with underlying zoning district		X

<p>Compliance with additional PUD zoning standards:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Overall density is consistent with Comprehensive Plan <input type="checkbox"/> Overall density is consistent with the approved PDA, subject to any approved density transfer provisions <input type="checkbox"/> Compliance with any PDA-imposed performance standards (including performance standards found in amended Appendix 1 related to setbacks, etc.) <input type="checkbox"/> Complies with Gross Density requirements for RSM zoning District 		
<p>Preliminary plan is in conformance with the City’s Comprehensive Plan</p>	<p>x</p>	
<p>PDA Requirements:</p> <ul style="list-style-type: none"> <input type="checkbox"/> The Development Site will be developed in accord with the PUD controls*** <input type="checkbox"/> The Final Plan shall conform in material respects to the PDA, East Oaks Project master Development Plan, and Preliminary Plan. (5.3) 		

*=Preliminary Plan is defined in the Subdivision Ordinance as follows:

Preliminary Plan: A map or drawing at a scale of 100 feet to an inch delineating showing correctly the boundaries of the subdivision; boundaries, layout and size to the nearest tenth of an acre of the lots therein; streets, parks, playgrounds, and other such land locations; north point and scale; existing topographical features, including contours and other physical aspects such as drainageways, wetlands, and tree areas, and the proposed changes to such features. Also included shall be a separate map of the City showing the location of the proposed subdivision within the City. (Ord. 93, Sec. 5.21/152.005)

**=The Master Development Plan is defined in City Code Section 151.005 as follows: “Plans as required in § 151.056(B)(1)(a).” the “East Oaks Project Master Development Plan” is defined in the PDA as “all those plans, drawings, and surveys identified on the attached Exhibit B, and hereby incorporated by reference and made a part of and including this Planned Development Agreement.”

***= “PUD Controls” are defined as the PDA, the PUD Ordinance, East Oaks Project Master Development Plan, Final Plan, Subdivision Ordinance, and Zoning Ordinance.

Note: Per Section 5.1 of the PDA, “the procedure and substance, including financial assurance, of approval for each Development Site shall be subject to compliance with this Planned Development Agreement, the Subdivision Ordinance, the Zoning Ordinance, and the Development Contract for the Development Site.”



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PLANNING REPORT

TO: North Oaks Planning Commission

FROM: Bob Kirmis, City Planner
Larina DeWalt, City Engineer
Bridget Nason, City Attorney

DATE: April 15, 2020

RE: North Oaks - East Oaks Planned Unit Development
Anderson Woods Preliminary Plan (Subdivision)

FILE NO: 321.02 - 20.02

Date Application Determined Complete:	February 24, 2020
Planning Commission Meeting Date:	April 15, 2020
City Council Meeting Date:	TBD
120-day Review Date:	June 23, 2020

BACKGROUND

In December of 2019, the North Oaks Company (hereinafter “North Oaks Company,” “NOC,” or “Applicant”) submitted a concept plan for the subdivision of real property located within the East Oaks Development Area and commonly referred to as Site F or the Anderson Woods Parcel. The concept plan depicted the subdivision of the Anderson Woods Parcel into nine new residential lots. At the January 30, 2020 meeting of the North Oaks Planning Commission (the “Planning Commission”), the Planning Commission provided informal feedback to the North Oaks Company regarding the concept plan submittal for the Anderson Woods Parcel located south of the recently approved Wilkinson Villas (1A) subdivision along Centerville Road.

In February of 2020, the North Oaks Company submitted a formal application for preliminary plan/preliminary plat/subdivision approval for the Anderson Woods Parcel. At this time, the North Oaks Company is seeking approval for its application for preliminary plan/preliminary plat (subdivision) approval of the Anderson Woods Parcel.

The subject property occupies the southern one-half of “Site F” in the East Oaks Planned Development Agreement (PDA). Including a centrally located wetland area, Site F measures approximately 36 acres in size. Like the submitted concept plan, the submitted preliminary plan/preliminary plat (subdivision) application calls for the creation of 9 new single family residential lots upon the subject site. Including the four previously approved lots (developed as Wilkinson Villas 1A) which are located within Site F and receive access through the Wilkinson Villas site, a total of 13 lots are proposed upon the subject property.

According to the PDA, the City’s RMH - PUD, Residential Multiple Family High Density zoning district provisions apply to the subject property. Also, to be noted is that the northwest corner of the site lies within the Shoreland Management District of Wilkinson Lake, a designated “natural development” lake.

All lots are proposed to be served by municipal sewer and water.

Attached for reference:

- Exhibit A: Site Location
- Exhibit B: Applicant Narrative
- Exhibit C: Project Summary
- Exhibit D: Concept Plan Feedback Summary (CC memo dated 2/13/20)
- Exhibit E: Existing Conditions
- Exhibit F: Preliminary Plan (Subdivision)
- Exhibit G: Preliminary Plat / Easement Plan
- Exhibit H: Preliminary Grading Plan
- Exhibit I: Preliminary Utility Plan
- Exhibit J: Preliminary Landscape / Sign Plan
- Exhibit K: VLAWMO Comments
- Exhibit L: City Forester Comments

ISSUES AND ANALYSIS

In review of the preliminary plan (subdivision), the following planning and engineering comments are offered:

PLANNING COMMENTS (Bob Kirmis)

Concept Plan Review. At the January 30, 2020 meeting of the Planning Commission, the Planning Commission provided informal feedback to the North Oaks Company regarding a concept plan submittal for the “Anderson Woods” parcel. The intent of the concept plan review process was to provide informal feedback on various aspects of the plan which may be considered by the applicant as part of the plan refinement process. To be noted is that feedback which was provided on the concept plan is considered advisory and non-binding.

A summary of concept plan feedback provided by the Planning Commission is provided in the attached City Council memorandum dated February 13, 2020 (Exhibit D).

Scope of Preliminary Plan (Subdivision) Review. The intent of the of the preliminary plan/preliminary plat (subdivision) review is two-fold. In this regard, the following determinations should be made by City Officials.

Consistency with the East Oaks PDA

The preliminary plan/preliminary plat must be consistent with the approved master development plan and the East Oaks PDA, and likewise comply with all other applicable zoning ordinance and subdivision regulations. Section 2.1 of the East Oaks PDA lists the following as some of the purposes of the PDA:

- A. Modify the existing Zoning Ordinance and other City standards in order to provide for greater creativity and flexibility in environmental design that is provided for under the strict application of the existing Zoning Ordinance and standards while at the same time preserving the health, safety, order, convenience, prosperity, and general welfare of the City and its inhabitants.*
- B. Encourage the preservation and enhancement of desirable site characteristics and significant wildlife habitat, both terrestrial and aquatic.*
- C. Encourage a more creative and efficient use of the land.*
- D. Encourage a development pattern in harmony with the City's objectives for land use, overall residential density, environmental protection, habitat conservation, active and passive recreation, and diversity of residential and commercial opportunities to meet the changing needs associated with new demographic trends and a gradually aging population.*

As noted above, the preliminary plan/preliminary plat is required to be consistent with the approved master development plan and the East Oaks PDA, and Section 2.2 of the PDA further provides that preliminary plans “consistent with [the] PDA shall be approved by the Council.”

Compliance with regulations used to implement the East Oaks PDA

The preliminary plan/preliminary plat must also comply with the various development regulations imposed by the City’s Zoning Ordinance, Subdivision Ordinance and where applicable other City Code provisions.

If the Planning Commission is inclined to direct subdivision design changes which are not specifically required by the PDA or applicable ordinances, it is important to establish a justifiable basis to for such changes and to seek the agreement of the applicant to make such changes. In this regard, tangible findings should be established. State statutes provide that “a municipality must approve a preliminary plat that meets the applicable standards and criteria contained in the municipality's zoning and subdivision regulations unless the municipality adopts written findings based on a record from the public proceedings why the application shall not be approved.” Minn. Stat. § 462.358, subd. 3b.

Effect of Preliminary Plan (Subdivision) Approval. In consideration of the preliminary plan (subdivision) application, the Planning Commission should keep in mind that approval of the preliminary plat/preliminary plat, with or without conditions, essentially represents approval the final subdivision design. State statutes provide that “following preliminary approval the applicant may request final approval by the municipality, and upon such request the municipality shall certify final approval within 60 days if the applicant has complied with all conditions and requirements of applicable regulations and all conditions and requirements upon which the preliminary approval is expressly conditioned either through performance or the execution of appropriate agreements assuring performance.” Minn. Stat. § 462.358, subd. 3b. While City Council consideration of a final plan/final plat will follow, it should be recognized as an implementation step following approval of a preliminary plan/preliminary plat.

Planned Development Agreement (PDA). The use and intensity of development upon the subject site is governed the East Oaks PDA. The PDA is basically considered a “zoning contract” which supersedes the strict requirements of the City’s Zoning and Subdivision Ordinances.

According to the PDA, a total of 10 single family residential lots are allowed upon the subject site (Site F) with a potential 30 percent density bonus. In this regard, a maximum of 13 lots are allowed. To be noted is that the recently approved Wilkinson Villas (1A) subdivision, which occupies the northern one-half of the subject site, included four lots. Thus, nine units remain available for development on the southern one-half of the site.

The preliminary plan/preliminary plat illustrates a total of 9 new lots which will result in 13 total lots upon Site F. Thus, the proposed preliminary plan (subdivision is consistent with PDA requirements (specifically Exhibit B1 which directs future land use types and intensity).

The East Oaks PDA calls for a total of 645 dwelling units within the East Oaks Development area. It has been determined by approval of Resolution Number 1378 by majority vote of the City Council that a total of 174 dwelling units remain (additional units are however, allowed via the conversion of 5.73 remaining commercial acres to residential units). If the Anderson Woods subdivision is approved, 165 dwelling units

would remain within the East Oaks Development Area (not counting potential commercial acreage conversions).

Comprehensive Plan. Land within the “Anderson Woods” Parcel” is guided for “Mixed Residential” use by the City’s existing 2030 and draft 2040 Comprehensive Plans (Land Use Plans). Such land use category allows for a variety of housing types including detached single-family housing such as that which is proposed.

The Comprehensive Plan notes that uses within the “Mixed Residential” land use category are encouraged to place an emphasis on the preservation and protection of the natural environment.

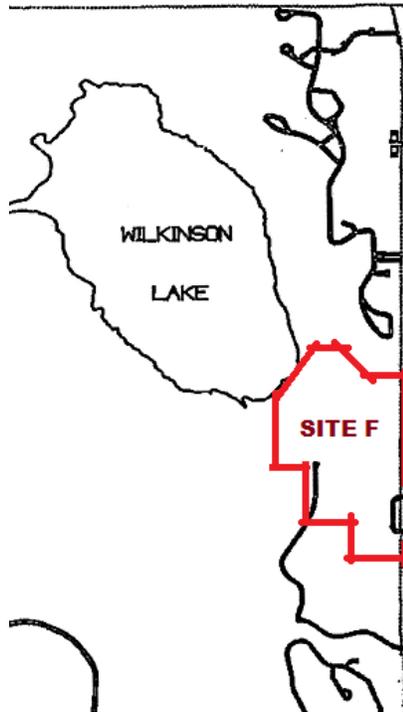
The Plan further notes that “Mixed Residential” sites must provide access to the primary trail system.

Zoning. The “Anderson Woods” site is zoned RMH - PUD, Residential Multiple Family High Density PUD, which makes an allowance for single family residential uses.

The northwest corner of the site lies within the Shoreland Management District of Wilkinson Lake, a designated “natural development” lake. Specifically, proposed Lots 5 through 9 lie within the District.

Site Access. The subject site is proposed to be accessed from the east via a single point along Centerville Road which aligns with Anderson Lane. The proposed access location is the same as that depicted upon the previously reviewed concept plan.

As noted as part of concept plan review, the “Conceptual Street and Access Plan”, Exhibit B-2 of the East Oaks PDA, illustrates three access points to the site along Centerville Road. As shown in the diagram below, the Conceptual Street and Access Plan illustrates two access points directly east of the site and one further to the south.



From a traffic management standpoint, Staff believes that a single point of access is preferable, and that multiple access points are not warranted for the number of lots which are proposed.

While Staff believes the Centerville Road access location illustrated on the preliminary plan (subdivision) is consistent with the purpose and intent of the PDA, a final determination of acceptability should be made by the City Council.

According to the developer, Ramsey County representatives have indicated that no turn lanes or other improvements will be required to Centerville Road to accommodate traffic generated by the subdivision.

Lots

Configuration. The arrangement of lots illustrated on the preliminary plan (subdivision) is identical to that illustrated upon the previously reviewed concept plan. All nine lots are to be accessed from a cul-de-sac which extends eastward from the intersection of Centerville Road and Anderson Lane.

Lot Area. As indicated in the provided Project Summary (Exhibit C), lots within the subdivision range in size from 0.54 acres (23,321 square feet) to 6.89 acres. Subtracting land devoted to roadway and wetlands, adjusted lot areas range from 0.46 acres (20,164 square) feet to 5.1 acres.

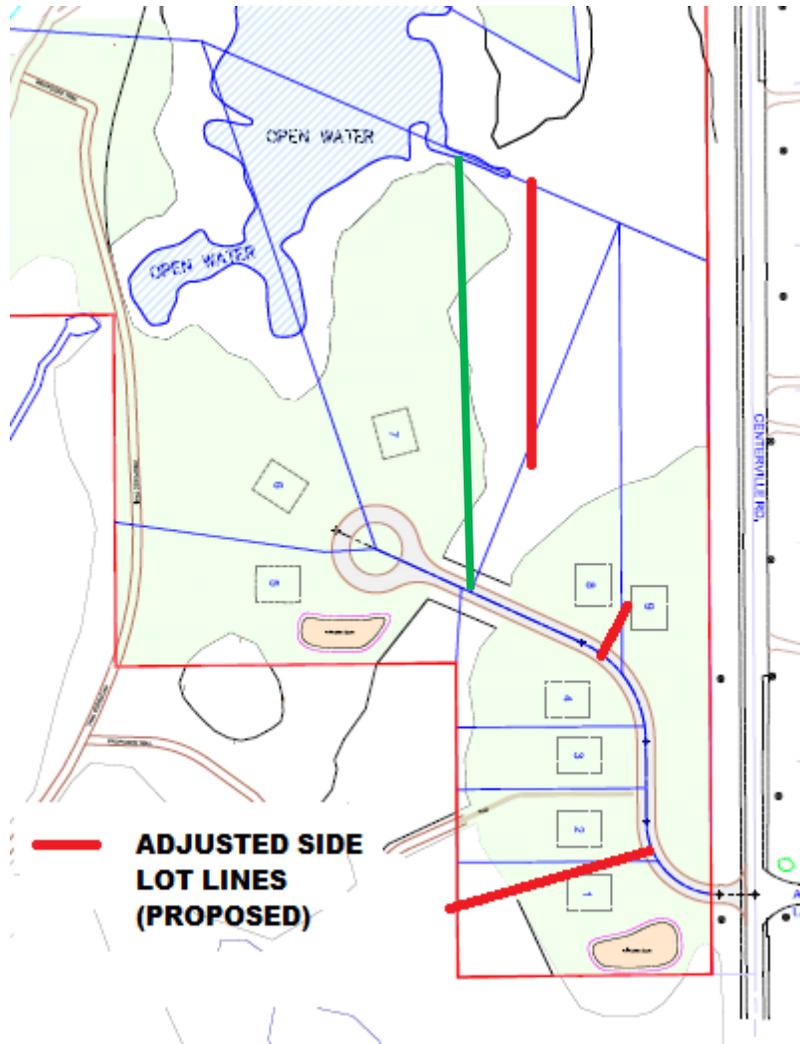
While the RMH - PUD zoning district does not impose a minimum lot area requirement, lots located within the Shoreland Management District of Wilkinson Lake must exhibit lot areas not less than 43,560 square feet (one acre) in size. Appropriately, Lots 5 through 9 exceed the minimum one-acre lot area requirement imposed in the Shoreland District.

Also, to be noted is that Section 151.056.E of the Zoning Ordinance stipulates that within RMH - PUD Districts, a minimum of 0.25 gross acres (10,890 square feet) of land is required per dwelling unit. This requirement has been satisfied.

Lot Width. The RMH District does not impose a minimum lot width requirement.

The Shoreland Management District provisions do, however, impose a minimum lot width requirement of 150 feet (measured at the midpoint of the building line). Lots 5 through 9, which lie within the Shoreland Management District, all exceed 150 feet in width.

Side Lot Lines. As part of previous concept plan review, Staff suggested that consideration be given to adjusting side lot lines such that they are substantially perpendicular to streets and radial to curved streets (as a means of avoiding future property line disputes and maximizing usable yard space). Specifically, it was suggested that side lot lines be adjusted in a manner similar to that illustrated below:



No changes have been made to side lot lines on the submitted preliminary plan (subdivision). In this regard, proposed lot configurations are identical to those depicted on the previously considered concept plan.

Recognizing that no Subdivision Ordinance design standards exist related to the configuration of side lot lines, a legal basis to require changes (as suggested as part of concept plan review) does not appear to exist.

Setbacks. The following minimum setbacks apply to principal structures upon the subject site:

PDA Requirements:

Principal Building to Roadway Easements:

Front: 15 feet
Side: 20 feet
Rear: 20 feet

Principal Building to Adjacent Principal Buildings:

Front to front: 40 feet
Side to side: 15 feet
Rear to rear: 50 feet

Wetlands: 30 feet

Shoreland Management Requirements:

Structures to Ordinary High-Water Level (of Wilkinson Lake): 150 feet

The submitted easement plan demonstrates an ability for principal structures to meet the aforementioned setback requirements.

Floor Area Ratio. The PDA imposes a maximum floor area ratio of 20 percent upon Site F (ratio of floor area of buildings to gross lot area). It is recommended that this floor area ratio requirement be imposed as a condition of preliminary plan (subdivision) approval.

Park Dedication. The proposed preliminary plan (subdivision) does not include any parkland dedication. Park dedication requirements for the development sites located within the East Oaks Development area were previously satisfied by the developer via the following:

1. Open space easements
2. Conservation easements to the Minnesota Land Trust
3. Rough grading of park and trail areas and the construction of trails as depicted on the trail plan
4. Primary trail easements to NOHOA
5. Conveyance of open space as depicted on the Park and Open Space Plan to NOHOA

Trails. Appropriately, the preliminary plan (subdivision) illustrates a link to the existing trail system to the west. Specifically, a trail connection is proposed between Lots 2 and 3.

As noted as part of the previous concept plan review, Staff recommends that proposed trail locations reflect received North Oaks Home Owners Association (NOHOA) input and be mutually agreed upon by the developer and NOHOA. The final trail plans should be

developed in concert with NOHOA Staff (as they will be responsible for acceptance and maintenance of the trails).

Tree Preservation. While both the City's Comprehensive Plan and the East Oaks PDA clearly highlight the preservation of natural resources as a primary community objective, City ordinances do not impose specific tree preservation requirements on new residential subdivisions.

As part of concept plan review for the Anderson Woods site, the Planning Commission expressed a desire to ensure the preservation of significant trees. Specifically, it was suggested that the City Forester review the received development plans, conduct an in-person inspection of the site and provide a report to the Planning Commission.

In response, the applicant expressed an intent to work with the City Forester regarding potential impacts in areas of the subject site where initial grading activities are anticipated (primarily the proposed roadway corridor). The City Forester's comments are attached hereto as Exhibit L.

Signage. Included with the preliminary plan (subdivision) application materials is a preliminary entrance monument sign plan (attached as Exhibit J). According to the PDA, monuments to identify development sites are permitted if they conform to the following standards:

- 1. Not exceed 8 feet in height as measured from the finished grade.*
- 2. Not extend into adjacent road easement.*
- 3. Not obstruct the view of oncoming traffic.*
- 4. Include landscaping around the base consisting of shrubs, flowers, and ornamental trees, notwithstanding the provisions of Section 151.034 of the Ordinance.*
- 5. No exposed neon lighting on sign.*
- 6. Designed to be compatible with adjacent building architecture.*
- 7. The sign face shall not exceed 80 square feet for each side of the sign.*

The PDA also indicates that, notwithstanding the foregoing standards, deviations from the standards regarding the final location of a monument may be approved by the City.

While the proposed monument sign appears to meet the preceding PDA requirements, additional detail (sign and setback dimensions) is necessary to make a final determination. As a condition of final subdivision approval, it is recommended that the proposed monument sign meet the preceding PDA requirements.

ENGINEERING COMMENTS (Larina DeWalt)

Engineering comments below are based on a cursory review of preliminary plans. A comprehensive plan review will be completed with final construction plans.

Street System

1. The proposed street design will adhere to City standards provided comments herein are addressed with the final construction plans.
2. The preliminary plan identifies a 32-foot wide bituminous paved street with curb and gutter. A cul-de-sac with a curbed landscape island is proposed at the end of the street. The following comments are offered related to the proposed street system:
 - a. Verification from Ramsey County confirming location of proposed street access should be provided with final construction plans.
 - b. The Lake Johanna fire department has previously indicated that streets which are 32-feet-wide or less need to be posted "No Parking Fire Lane" on one side of the road. Staff recommends that the applicant contact the Fire Marshall to review and discuss the proposed site design to determine which side of the street should be identified as the fire lane.
 - c. The applicant's engineer shall submit a pavement design with the final construction plans, in accordance with Geotechnical recommendations. The design shall be completed in accordance with the MnDOT Flexible Pavement Design as outlined in the Road Design Manual. The street section shall be designed for a minimum 7-ton design and a 20-year design life.
 - d. Proposed bituminous shall be placed in two lifts. The final lift shall be placed one construction season after the utilities have been installed within the street limits.
 - e. A Traffic Impact Memorandum, prepared by Westwood, has been submitted and identifies potential impacts associated with the nine proposed residential lots shown in the Anderson Woods Concept plan. According to industry standard Trip Generation calculations and preliminary discussions with Ramsey County Engineering, it appears that the county volume guideline for warranting turn lanes along Centerville Road, or signalization at the intersection will not be exceeded. It is assumed that only a side street stop condition will be required. Verification from Ramsey County should be provided with future development submittals.
 - f. Details of tie in at Centerville road shall be included with final construction plans.
 - g. Any landscaping to be proposed within the cul-de-sac island shall be detailed on final construction plans.

- h. Snow storage should be considered in final construction design.

Sanitary Sewer

1. The proposed residential units are to be served by municipal sanitary sewer.
2. Final construction plans shall identify the sewer service locations and wye stationing from the downstream manhole(s), as well as invert elevations at services.
3. Final sanitary sewer construction plans shall be reviewed and approved by the City Engineer and White Bear Township's Public Works Department.

Water Supply

1. The proposed residential units are to be served by municipal water. Proposed watermain extension to be connected to existing 16" watermain located in Centerville Road.
2. It is recommended that at least one additional hydrant be provided at a location to serve lots south of roadway high point.
3. Final watermain construction plans shall be reviewed and approved by the City Engineer and White Bear Township's Public Works Department.

Surface Water Management and Site Grading Design

1. The proposed storm water management and drainage system and site grading design shall conform to the requirements of the City of North Oaks Surface Water Management Plan, dated February 2018. This includes volume control, rate control and water quality requirements to mitigate new impervious areas. A storm water management report, outlining the design analysis for the site, including exhibits and calculations shall be submitted for review and approval with the final construction plans.
2. Details of stormwater infiltration basin designs, including typical cross sections and details for outlet structures shall be included in the final construction plans.
3. Staff recommends that the 100-year high water elevation for all site surface water features, including wetlands, be determined and shown on the final grading plan. These high-water elevations should be reviewed as a part of the building permit review process for the adjoining lots.
4. Identify the emergency overflow locations and elevations (EOF) on the final grading plan for wetlands, based on actual field topographic survey information.

These EOF elevations should be reviewed as a part of the building permit review process for each adjoining lot.

5. Riprap will not be required at the inlet end of proposed culverts, unless the velocity of the flow at the inlet requires this type of erosion protection.
6. Proposed turf or vegetation in drainage swales and adjacent to roadway shall be reviewed and approved by NOHOA.
7. A copy of Report of Geotechnical Exploration for Anderson Woods Development Road and Utilities, dated February 21, 2020, prepared by American Engineering Testing, Inc. has been provided. Report indicates soil boring locations, including ground water conditions at locations which align with proposed road and utilities. The applicant's Geotechnical Engineer shall provide a recommended separation from the basement floor to the estimated groundwater surface elevation for each proposed lot as well as be updated with final construction plans to include infiltration rates and design recommendations for the proposed infiltration basins based on applicable borings.
8. A drain tile system shall be provided on the street subgrade surface at the street low points, per Geotechnical report, if poorly draining subgrade soil type exists. The drain tile shall extend to the ditch section to drain. If installed, rodent screens shall be provided at the outlet.
9. If applicable, a 10-foot maintenance bench shall encompass the stormwater ponds and shall be shown on the final grading construction plan.
10. All applicable recommendations of the City Forester shall be satisfied.
11. A grading plan for each "custom" lot shall be submitted with each building permit application. Proposed grades around the perimeter of the proposed homes shall meet the requirements of the state building code. We recommend a minimum driveway slope of 3 percent, and a maximum of 10 percent. Details of proposed driveway sections over drainage ditch with proposed culverts shall be included in plans for building permit review to ensure grading and drainage plan is maintained.
12. A typical roadway cross section and cul-de-sac cross section shall be included as part of final construction plans.
13. Final grading plan should include high point elevations, grade breaks, typical slopes and drainage arrows.
14. Final construction plans shall include locations and details for all proposed site sedimentation and erosion control BMPs, including plans for temporary stormwater management BMPs and protection of permanent BMPs during construction.

15. North infiltration basin appears to be located within wetland buffer. Basin should be modified to comply with wetland buffer requirements per VLAWMO as LGU.
16. The proposed storm sewer and site grading final design and construction plans shall be reviewed and approved by the City Engineer, and VLAWMO.

Small Utilities

1. All small utilities including, but not limited to gas, telephone, electric shall be placed underground in accordance with the provisions of all applicable City ordinances.
2. All utilities to be located in the flood plain shall be flood proofed in accordance with the building code or elevated above the flood protection elevation.

Wetlands

1. Wetland impacts, mitigation, and conformance to WCA requirements shall be reviewed by VLAWMO as the LGU.
2. VLAWMO shall also determine the required width of buffer strips along the perimeter of wetlands, and the proposed ponds. The final construction plans shall identify the buffer limits and any LGU requirements for buffer protection.
3. City has requested Applicant to submit a transaction history of wetland impacts, restoration and banked credits for all East Oaks developments to date. Transaction history should also include proposed impacts with associated method of mitigation for remaining East Oaks PUD sites.
4. Indicate existing drainage patterns in Wet Basin #1 and address measures to be taken to preserve and/or enhance vegetation, wildlife and drainage patterns.
5. Any additional wetland delineation requirements shall be confirmed with VLAWMO as the LGU.

Signage

1. Local street signage, including necessary stop condition signage, meeting City of North Oaks standards shall be posted at proposed intersection.
2. The final construction plans shall identify proposed street signage, including buffer strip signage if required by VLAWMO.
3. Fire lane signage shall be provided in accordance with the requirements of the Lake Johanna Fire Department.

Easements

1. Easements for roadways, drainage swales, utilities, ponds, wetlands, etc. shall be dedicated with the final RLS and shall be determined to be sufficient for all necessary site drainage, utility and roadway access and maintenance.
2. The proposed easements for utilities shall be a minimum of 20 feet and be centered on the utility.
3. A minimum 20-foot drainage easement shall be provided along the center of the drainage swales, where applicable. Drainage easements should be revised to include sufficient area to access and maintain infiltration basins.
4. Conservation easements shall be provided to cover the buffer strip areas, if required by VLAWMO. The easement documents shall conform to the requirements of VLAWMO.
5. Ramsey County should be contacted to confirm roadway easement is sufficient or if the County would like Centerville Road Right-of-Way dedicated as part of the subdivision.

Permits

Copies of all required and approved permits (MPCA, VLAWMO, Ramsey County etc.) shall be provided to the City Engineer upon receipt from each agency.

Other Engineering Comments

1. All final construction plans shall include applicable plan legends to facilitate comprehensive plan review.
2. Diligence in plan review prior to submittal of final construction plans to resolve Preliminary plan typos and inconsistencies.
3. Please remove all gender specific pronoun references on the preliminary engineering plans.
4. Ensure all primary plan features are adequately dimensioned and proposed dimensions are consistent with application narrative.
5. Existing conditions plan shall include field verification dates for topographic survey and wetland delineation.
6. Application narrative indicates proposed trail connection between Lots 5 & 6. Preliminary plans do not appear to illustrate this connection.

7. Application narrative indicates site plan shows boxes on each lot representing each proposed single-family home with approximate foundation size. Preliminary plans do not appear to illustrate approximate foundation sizes.
8. Lot sizes listed on FAR worksheet do not appear to match lot sizes indicated on Sheet 3, Preliminary Plat/Easement Plan.

CONCLUSION

The Planning Commission is being asked to examine and provide recommendation to the City Council on the preliminary plan (subdivision) plan for the Anderson Woods site which overlays Site F in the East Oaks PDA.

If the Planning Commission finds that the submitted plans are consistent with the approved East Oaks PUD master plan and demonstrate an ability to meet applicable requirements of the City's Zoning, Subdivision and Shoreland Ordinances, the Commission should recommend approval of the plans and list conditions to be considered by the City Council.

If the Planning Commission finds that the submitted plans are not consistent with the approved East Oaks PUD master plan and do not meet applicable requirements of the City's Zoning, Subdivision and Shoreland Ordinances, the Commission may recommend denial of the request by stating findings of fact as to the specific reasons for such recommendation.

PLANNING COMMISSION OPTIONS

In consideration of the preliminary subdivision application, the Planning Commission has the following options:

- A) Recommend approval**, with conditions, based on the applicant's submission, the contents of this report, public testimony and other evidence available to the Planning Commission.
 - This option should be utilized if the Planning Commission finds the proposal adheres to all City Code requirements and previously approved East Oaks PDA and Master Development Plan provisions.
 - Approval at this time means that, upon City Council approval, the applicant can proceed to final plans with assurances that final subdivision approval will be granted provided all conditions are met.

B) Recommend denial based on the applicant's submission, the contents of City Staff reports, received public testimony and other evidence available to the Planning Commission.

- This option should only be utilized if the Planning Commission can specifically identify one or more provisions of the City Code or East Oaks PDA that are not being met by the preliminary plan (subdivision) proposal.

C) Continue the matter to request for further information from staff or the applicant or to continue the public hearing. Additional requested information should be specifically identified by the Planning Commission.

STAFF RECOMMENDATION

Based on the preceding review, it is the opinion of Staff that the submitted preliminary plan/preliminary plat (subdivision) application is consistent with the East Oaks PDA and the Master Development Plan and will, with conditions, comply with regulations used to implement the PDA.

Therefore, Staff recommends of approval of the proposed Anderson Woods preliminary plan/preliminary plat (subdivision) application subject to the fulfillment of the following conditions:

1. The City Council determine that the proposed Centerville Road access location is acceptable.
2. The following minimum setbacks shall be satisfied:

PDA Requirements:

Principal Building to Roadway Easements:

Front:	15 feet
Side:	20 feet
Rear:	20 feet

Principal Building to Adjacent Principal Buildings:

Front to front:	40 feet
Side to side:	15 feet
Rear to rear:	50 feet

Wetlands: 30 feet

Shoreland Management Requirements:

Structures to Ordinary High-Water Level (of Wilkinson Lake): 150 feet

3. Floor area ratios within the subdivision shall not exceed 20 percent (ratio of floor area of buildings to gross lot area).
4. Final trail plans be developed in concert with NOHOA Staff (as they will be responsible for acceptance and maintenance of the trails).
5. The proposed monument sign shall satisfy the following conditions:
 - A. Not exceed 8 feet in height as measured from the finished grade.
 - B. Not extend into adjacent road easement.
 - C. Not obstruct the view of oncoming traffic.
 - D. Include landscaping around the base consisting of shrubs, flowers, and ornamental trees, notwithstanding the provisions of Section 151.034 of the Ordinance.
 - E. No exposed neon lighting on sign.
 - F. Designed to be compatible with adjacent building architecture.
 - G. The sign face shall not exceed 80 square feet for each side of the sign.
6. The East Oaks PDA be formally amended to accomplish the following:
 - A. Document the approval of the Anderson Woods final plan (subdivision).
 - B. Update the remaining East Oaks PUD dwelling unit count.
7. Verification from Ramsey County confirming location of proposed street access shall be provided with final construction plans. Confirmation shall address location compliance with County recommendations for sight distance and adherence to minimum distances from intersections or vertical curves on Centerville Road.
8. Applicant shall contact the Fire Marshall to review and discuss the proposed site design to determine which side of the street should be identified as the fire lane.
9. Fire lane signage shall be provided in accordance with the requirements of the Lake Johanna Fire Department.
10. Local street signage, including necessary stop condition signage, meeting City of North Oaks standards shall be posted at proposed intersection.
11. "No parking" signs shall be placed on both sides of the street from the entrance at Centerville Road to proposed station 2+00; and also in the cul-de-sac area.

12. The final construction plans shall identify proposed street signage, including buffer strip signage, if required by VLAWMO.
13. The applicant's engineer shall submit a graphic using a software such as "AutoTurn" with the final plans identifying the movement of a fire truck, and school bus (if allowed by the bus company) in the proposed cul-de-sac turn around area to verify there is adequate area for the turning movement, given the proposed diameter of the interior curbed island.
14. The applicant's engineer shall submit a pavement design with the final construction plans, in accordance with Geotechnical recommendations. The design shall be completed in accordance with the MnDOT Flexible Pavement Design as outlined in the Road Design Manual. The street section shall be designed for a minimum 7-ton design and a 20-year design life.
15. Details of cross-section and tie-in at Centerville road shall be included with final construction plans.
16. Final construction plans shall identify the sewer service locations and wye stationing from the downstream manhole, as well as invert elevation at the end of the service.
17. Final sanitary sewer construction plans shall be reviewed and approved by the City Engineer and White Bear Township's Public Works Department.
18. Final watermain construction plans shall be reviewed and approved by the City Engineer and White Bear Township's Public Works Department.
19. Individual Building Permit Application review shall include the following: 100-year high water elevations and Stormwater emergency overflow (EOF) locations and elevations; and detailed grading plans meeting state building code.
20. The proposed storm water management and drainage system and site grading design shall conform to the requirements of the City of North Oaks Surface Water Management Plan, dated February 2018. This includes volume control, rate control and water quality requirements to mitigate new impervious areas. A storm water management report, outlining the design analysis for the site, including exhibits and calculations shall be submitted for review and approval with the final construction plans.
21. Details of stormwater basin design, including typical cross sections and details for outlet structures shall be included in the final construction plans.

22. 100-year high water elevations for all site surface water features, including wetlands, shall be determined and shown on the final grading plan.
23. Emergency overflow locations and elevations (EOF), for all site surface water features, including wetlands shall be shown on the final grading plan based on actual field topographic survey information and stormwater management plan design.
24. Riprap shall not be required at the inlet end of proposed culverts, unless the velocity of the flow at the inlet requires this type of erosion protection.
25. The Report of Geotechnical Exploration shall be updated with final construction plans to include infiltration rates and design recommendations for the proposed infiltration basin. Applicant's Geotechnical Engineer shall provide a recommended separation from the basement floor to the estimated groundwater surface elevation for each proposed lot.
26. A drain tile system shall be provided on the street subgrade surface at the street low points, per Geotechnical report, if poorly draining subgrade soil type exists. The drain tile shall extend to the ditch section to drain. If installed, rodent screens shall be provided at the outlet.
27. In areas where the proposed ditch section will be maintained by the homeowner, a drain tile system shall be installed where proposed slopes are less than 2 percent, if the existing soil condition is not free draining, or per Geotechnical recommendations.
28. A 10-foot maintenance bench shall encompass all stormwater basins and shall be shown on the final grading construction plan.
29. Comply with applicable recommendations of the City Forester.
30. A typical roadway cross-section and cul-de-sac cross-section shall be included as part of final construction plans.
31. Final grading plan shall include high point elevations, grade breaks, typical slopes and drainage arrows.
32. Final construction plans shall include locations and details for all proposed site sedimentation and erosion control BMPs, including plans for temporary stormwater management BMPs and protection of permanent BMPs during construction.
33. The proposed storm sewer and site grading final design and construction plans shall be reviewed and approved by the City Engineer, and VLAWMO.

34. All small utilities including, but not limited to gas, telephone, electric shall be placed underground in accordance with the provisions of all applicable City ordinances.
35. All utilities to be located in the floodplain shall be flood proofed in accordance with the building code or elevated above the flood protection elevation.
36. Wetland impacts, mitigation, and conformance to WCA requirements shall be reviewed by VLAWMO as the LGU.
37. The developer shall enter into a subdivision development agreement with the City (the form of which shall be acceptable to the City) and post all necessary securities required by it and pay all required fees and costs including all City planning, engineering, and legal fees.
38. VLAWMO shall determine the required width of buffer strips along the perimeter of wetlands, and the proposed ponds. The final construction plans shall identify the buffer limits and any LGU requirements for buffer protection.
39. The applicant shall submit a transaction history of wetland impacts, restoration and banked credits for all East Oaks developments to date for City review and determination of consistency with control documents. Transaction history shall include proposed impacts, as detailed on final construction plans for current application, with associated method of mitigation. Transaction history shall also include assumed impacts for all remaining East Oaks PUD sites.
40. Final construction plans shall indicate existing drainage patterns in Wet Basin #1 and detail proposed measures to be taken to preserve and/or enhance vegetation, wildlife and drainage patterns.
41. Final construction plans shall include statement of trail design narrative which will detail no planned grading impacts for proposed trail locations. If boardwalk segments are proposed, these locations shall be detailed with specifications on final construction documents.
42. Any additional wetland delineation requirements shall be confirmed with VLAWMO as the LGU and provided as part of final construction plans.
43. Easements sufficient for all necessary site drainage, utility and roadway access and maintenance for roadways, drainage swales, utilities, ponds, wetlands, etc. shall be included as part of final construction documents and be dedicated with the final RLS.
44. The proposed easements for utilities shall be a minimum of 20 feet and be centered on the utility.

45. Conservation easements shall be provided to cover the buffer strip areas, if required by VLAWMO. The easement documents shall conform to the requirements of VLAWMO.
46. Ramsey County shall be contacted to confirm proposed roadway easement is sufficient or if the County would like Centerville Road Right-of-Way dedicated as part of the subdivision. Written correspondence shall be provided to the City.
47. Copies of all required and approved permits, including but not limited to MPCA, VLAWMO, Ramsey County, shall be provided to the City Engineer upon receipt from each agency.
48. Consideration of any comments received from the Department of Natural Resources.
49. Consideration of any comments received from the Lake Johanna Fire Department.
50. Comments of other City Staff.

cc: North Oaks Mayor and City Council
Kevin Kress, City Administrator
Mikeya Griffin, NOHOA Executive Director North Oaks Company
Jenifer Sorensen, Department of Natural Resources
Stephanie McNamara, Vadnais Lake Area Water Management Organization
Mark Houge and Gary Eagles, North Oaks Company



MAP 12: East Oaks Planned Unit Development

The East Oaks Planned Unit Development (PUD), approved in 1999, authorized a master plan for development on the City's remaining acreage in compliance with the 1999 Comprehensive Plan as amended. The lands within the PUD will continue to develop per the approved PUD over the next twenty years.

Current and future neighborhoods that are part of the East Oaks PUD include:

- 1) Peterson Place (Wildflower)
- 2) East Preserve
- 3) Nord
- 4) Rapp Farm
- 5) East Wilkinson
- 6) Anderson Woods
- 7) Gate Hill
- 8) Island Field
- 9) Red Forest
- 10) The Pines
- 11) Sid Hill
- 12) South East Pines

 Developed and Undeveloped Land or Protected Open Space

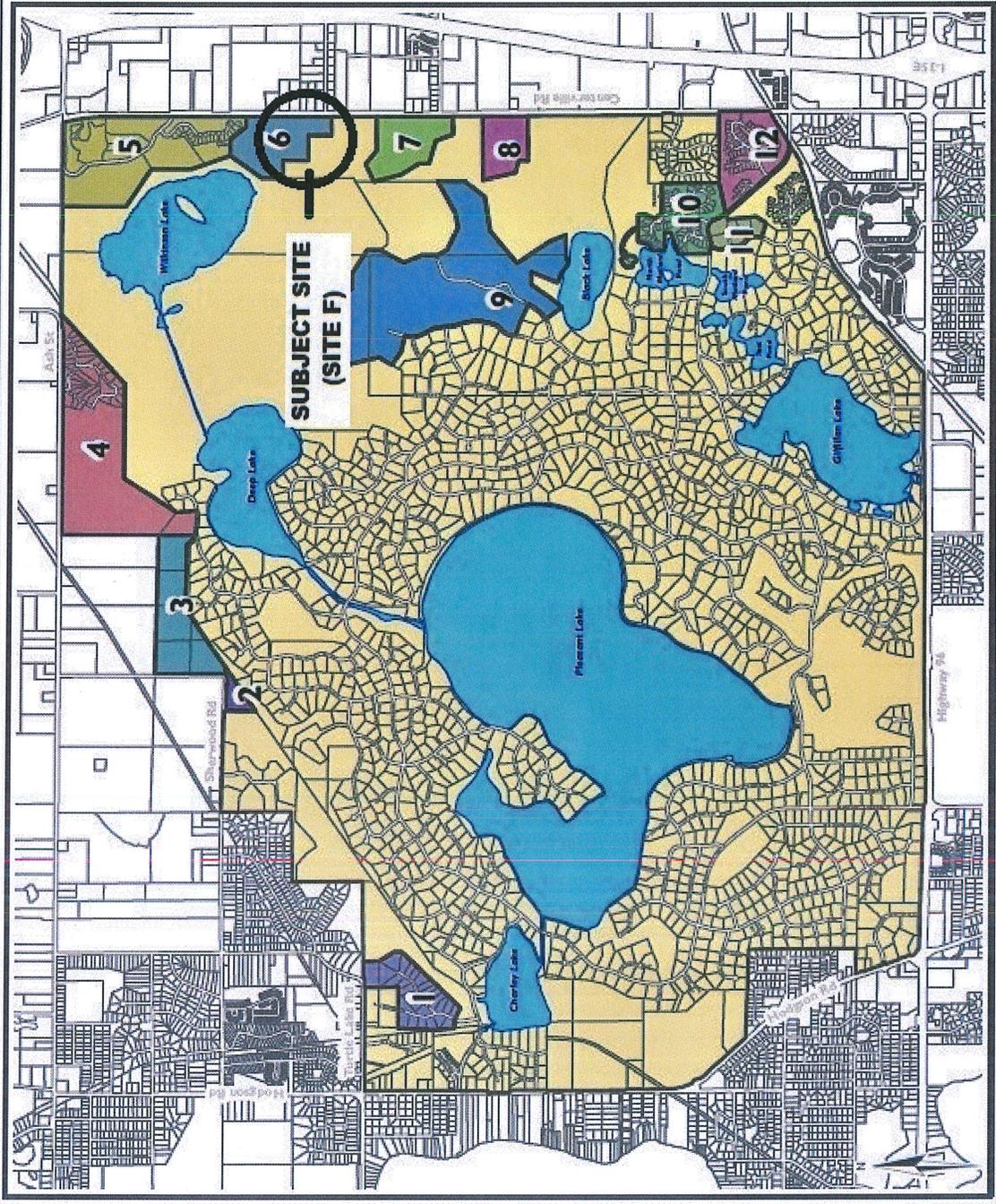


Exhibit A: Site Location



February 5, 2020

Mr. Kevin Kress
 City Administrator
 City of North Oaks
 100 Village Center Drive, Suite 150
 North Oaks, Minnesota 55127

Re: Site F – Anderson Woods Development
 Preliminary Plan –Subdivision Application

Dear Kevin,

Attached you will find the application for Preliminary Plan approval to subdivide Site F – Anderson Woods, including all items outlined in the submittal requirements of the East Oaks Planned Unit Development Agreement, dated February 11, 1999 (PDA).

North Oaks Company LLC (Company) submitted its current Concept Plans for the remaining development sites of the Subject Property in the PDA, including Anderson Woods, Anderson Woods, Gate Hill, Island Field and Black Forest Way on December 3, 2019 and again on January 30, 2020.

Please consider this a request for the City Staff to review the application for Preliminary Plan approval for the subdivision of Site F - Anderson Woods (SITE), confirm it is complete, proceed to review and comment, publish for a public hearing regarding same at the February 27, 2020 Planning Commission Meeting, at which time the Company requests the Planning Commission recommend City Council approve the subdivision of SITE at its next meeting.

The SITE is zoned RMH-PUD and the Company proposes subdividing the SITE into 9 single-family lots. Each lot will be served with municipal water, sanitary sewer, natural gas, electric, and communication systems.

Enclosed you will find the following documents:

- Sheet 1 – Existing Conditions, dated January 23, 2020
- Sheet 2 – Preliminary Plan, dated January 23, 2020
- Sheet 3 – Preliminary Easement Plan, dated January 23, 2020
- Sheet 4 – Preliminary Grading Plan, dated January 23, 2020
- Sheet 5 – Preliminary Utility Plan, dated January 23, 2020
- Sheet 6 – Preliminary Landscape Plan, dated January 23, 2020
- Floor to Area Worksheet, dated January 22, 2020

The primary access to the SITE will be from Centerville Road. A 32' wide street with curb and gutter will be constructed to serve the lots. The Company met with representatives of Ramsey County Engineering, consulted with Westwood Engineering, and the preliminary review indicates no turn lanes or other improvements to Centerville Road will be required, see attached memo from Westwood.

The site plan shows boxes on each lot that represent a one or two story single-family home with an approximate foundation size of 3000 square feet (SF). The actual location, height, and size of each future house will be determined by the homeowner

and approved by the City's Building Official, and the Architectural Supervisory Committee (ASC) of North Oaks Home Owners' Association (NOHOA). The approximate size of each lot is noted in the FAR worksheet.

The preliminary grading plan is attached, which illustrates minimal grading to build a street. Initial grading of the SITE will be limited to that required to install storm water, gas, electrical, communication systems, and construct the street. The elevation of the street generally follows the existing topography. Based on our preliminary review with Vadnais Lake Area Water Management Organization (VLAWMO), it agrees this is the most appropriate solution is to extend the road from the east portion of the site to the westerly lots, vs a much longer road from the south.

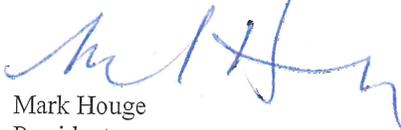
All lots will be created at one time, and the Company anticipates obtaining approval to enable the street to be complete summer of 2020.

Open space has been provided in other locations of the Subject Area, including the southwest corner of the SITE. However, the Company has considered the benefit to the community of connecting the proposed Anderson Woods development area to the existing NOHOA trail system. You will note that between proposed lots 2 and 3, and lots 5 and 6, a trail connection is identified to connect to the trail to the south.

This development is envisioned to be a part of NOHOA and will not be served by a separate sub-association.

We look forward to presenting this plan to you and responding to your questions and comments.

Sincerely
North Oaks Company LLC,



Mark Houge
President

Enclosures

cc: City Planner (w/encl.)
City Engineer (w/encl.)
City Attorney (w/encl.)
Mikeya Griffin, NOHOA
Gary Eagles, North Oaks Company LLC

NORTH OAKS COMPANY
KURTH SURVEYING INC.

ANDERSON WOODS AREA
 FILENAME: Anderson Woods Prelim area 2-20.xls

DRAWING NAME = AW Easement Plan Overall
 February 20, 2020

PROJECT RECAP	
TOTAL NUMBER OF BUILDABLE LOTS	9 Lots
TOTAL PROJECT ACREAGE	21.4 Acres
TOTAL AREA ACREAGE IN BUILDABLE LOTS	21.4 Acres
AVERAGE TOTAL LOT SIZE	2.38 Acres

NOTES:
 TOTAL LOT AREA INCLUDES ROAD RIGHT OF WAY
 GROSS LOT AREA EXCLUDES ROAD RIGHT OF WAY
 ADJUSTED LOT AREA IS TOTAL LOT, LESS ROAD RIGHT OF WAY, AND LESS 2/3 OF WETLANDS
 MAXIMUM HOUSE SIZE (FAR) IS 20% OF ADJUSTED LOT AREA
 USEABLE AREA EXCLUDES ALL REQUIRED SETBACKS, BASEMENTS & WETLANDS

TRACT LETTER	PRELIM LOT NO.	TOTAL LOT AREA		ROAD R/W	GROSS LOT AREA	WETLAND AREA	ADJUSTED LOT AREA	TOTAL F.A.R.	USEABLE AREA	TRACT LETTER
		SQ. FT.	ACRES							
A	1	58,540	1.34	9,264	49,276	17,320	37,845	7,569	10,830	A
B	2	24,881	0.57	2,434	22,447	2,764	20,623	4,125	10,459	B
C	3	23,321	0.54	2,254	21,067	1,368	20,164	4,033	12,670	C
D	4	32,952	0.76	7,789	25,162	4,330	22,305	4,461	11,202	D
E	5	76,046	1.75	8,385	67,662	10,010	61,055	12,211	27,815	E
F	6	300,195	6.89	3,287	296,909	113,330	222,111	44,422	51,387	F
G	7	207,500	4.76	7,783	199,717	113,813	124,600	24,920	52,891	G
H	8	62,279	1.43	5,737	56,542	37,368	31,879	6,376	9,295	H
I	9	147,645	3.39	60,209	87,436	36,995	63,019	12,604	22,074	I
TOTALS		933,359	21.43	107,143	826,217	337,297		N/A	N/A	

NOTE: USEABLE AREA OF LOT 6 IS ONLY THE AREA CONTIGUOUS TO THE ROAD



NORTHWEST ASSOCIATED CONSULTANTS, INC.

4150 Olson Memorial Highway, Ste. 320, Golden Valley, MN 55422
Telephone: 763.957.1100 Website: www.nacplanning.com

MEMORANDUM

TO: North Oaks Mayor and City Council

FROM: Bob Kirmis, City Planner

DATE: February 13, 2020

RE: North Oaks - East Oaks Planned Development
Anderson Woods Concept Plan (Site F)

FILE NO: 321.02 - 19.09

INTRODUCTION

At the January 30, 2020 meeting of the Planning Commission, the Commission provided informal feedback to the North Oaks Company LLC regarding a concept plan submittal for the "Anderson Woods" parcel located south of the recently approved Wilkinson Villas (1A) subdivision along Centerville Road.

The subject property occupies the southern one-half of "Site F" in the East Oaks Planned Development Agreement (PDA). Including a centrally located wetland area, Site F measures approximately 36 acres in size. The submitted concept plan calls for the creation of 9 single family residential lots upon the subject site. Including the four previously approved unit lots (developed as Wilkinson Villas 1A) which are located within Site F (which receive access through the Wilkinson Villas site), a total of 13 lots are proposed upon the site.

According to the PDA, the City's RMH - PUD, Residential Multiple Family High Density zoning district provisions apply to the subject property. Also, to be noted is that the extreme northwest corner of the concept plan site lies within the Shoreland Management District of Wilkinson Lake, a designated "natural development" lake.

The East Oaks PDA also stipulates that a total of 10 single family residential lots are allowed upon the subject site (Site F) with a potential 30 percent density bonus. In this regard, a maximum of 13 lots are allowed. The proposed concept plan is consistent with the dwelling unit requirements of the PDA.

All lots are proposed to be served by municipal sewer and water.

The purpose of this memorandum is to summarize feedback provided by the Planning Commission in their review of the concept plan as well as to convey received citizen comments.

Please refer to the Staff memorandum dated January 30, 2020 for additional background information related to the concept plan submission.

DISCUSSION

Citizen Comments. Prior to the Planning Commission's discussion of the concept plan, an opportunity for citizen feedback was provided. In this regard, the following citizen comments were offered related to the Anderson Woods concept plan:

- Recognizing that an intent of the East Oaks PUD is to be sensitive to the environment, it was recommended that a tree inventory be provided by the developer as a means of preserving significant (hardwood) trees.
- A citizen noted that the submitted concept plan is not consistent with the East Oaks PDA in that only one access point to Centerville Road is proposed (rather than two as illustrated directly east of the subject site in the Conceptual Street and Access Plan). In this regard, it was suggested that the two Centerville Road access points be maintained.
- Concern was raised that the three Centerville Road access points illustrated on the Street and Access Plan (two directly east of the site and one further to the south) may be more likely to invite trespassing activities than the single access to Centerville Road which is proposed by the developer.

To be noted is that the preceding comments do not include written citizen comments which were received prior to the Planning Commission meeting.

Planning Commission Feedback. As a PUD concept plan, only informal, advisory feedback was provided by the Planning Commission and no formal action was taken. In consideration of the concept plan, the Planning Commission raised questions and provided feedback regarding the following:

- Questions were raised regarding the inclusion of the "bridge crossing" feature in the subdivision (to provide access to Lots 5, 6 and 7) and how adjacent wetlands and wildlife habitat may be impacted.
- Question was raised related to the total amount of wetland impacts in the entire East Oaks PUD and how the individual concept plans relate to anticipated impacts which are highlighted in the EAW. In this regard, a request was made for the developer to provide a historic transaction record for East Oaks wetland impacts, mitigation and credits and that the developer assist in making a determination of consistency.

- A Commissioner questioned why a “c-shaped” subdivision layout, as anticipated in the “Street and Access Plan, was not pursued by the developer.

ACTION REQUESTED

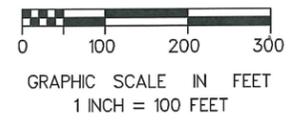
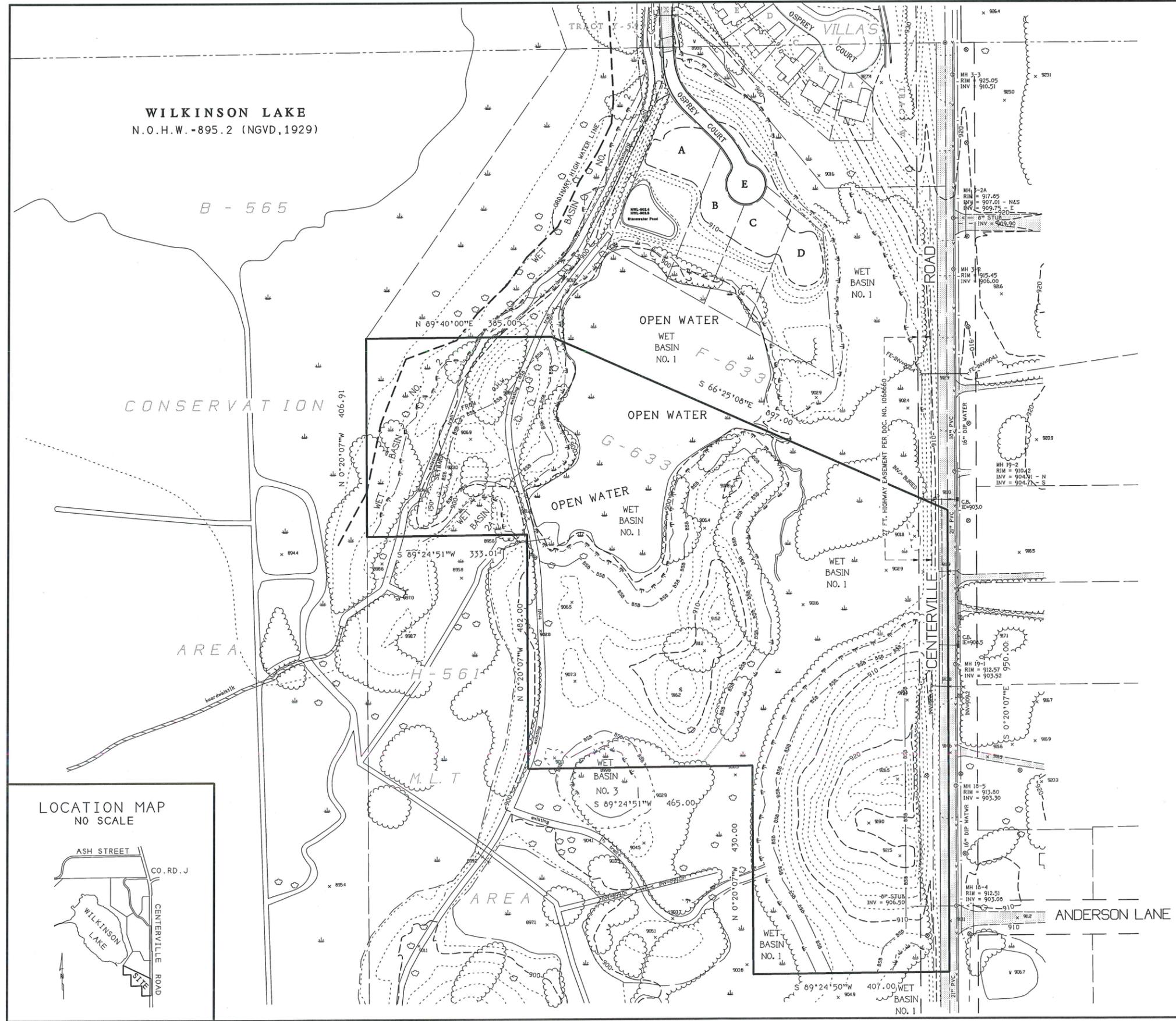
No formal action can be taken on submitted concept plan. Rather, the developer is seeking informal feedback from the City Council on the plan prior to further financial investment and the submission of the formal preliminary subdivision application.

Attachment

- Planning Report (including exhibits) dated January 30, 2020

cc: Kevin Kress, City Administrator
Larina DeWalt, City Engineer
Bridget Nason, City Attorney
Mikeya Griffin, NOHOA Executive Director
Stephanie McNamara, Vadnais Lake Area Water Management Organization
Jenifer Sorensen, Department of Natural Resources
Mark Houge and Gary Eagles, North Oaks Company

DEVELOPMENT AREA "F"



- LEGEND**
- SPOT ELEVATION FROM MARK HURD AERIAL TOPO MAPPING
 - EXISTING CULVERT
 - UTILITY POLE
 - SWAMP SYMBOL
 - TREE FROM AERIAL MAPPING
 - EDGE OF WOODS
 - 10 FOOT CONTOUR
 - 2 FOOT CONTOUR
 - EDGE WET LAND AS DELINEATED BY KJOLHAUG ENVIRONMENTAL SERVICES
 - EXISTING WATER MAIN
 - EXISTING SANITARY SEWER AND DIRECTION OF FLOW
 - EXISTING STORM SEWER AND DIRECTION OF FLOW
 - EXISTING FORCE MAIN
 - 30' SETBACK - 150' FROM D.H.W.
 - EXISTING BITUMINOUS

LEGAL DESCRIPTION

TRACT G, REGISTERED LAND SURVEY NO. 633
RAMSEY COUNTY, MINNESOTA

AREA BREAKDOWNS

TOTAL AREA = 933.358 SQ.FT. \ 21.43 ACRES
TOTAL ROAD EASEMENT = 57.805 SQ.FT. \ 1.33 ACRES
(CENTERVILLE ROAD)
TOTAL WETLAND = 342.000± SQ.FT. \ 7.85 ACRES

WETLAND AREAS

Wetland 1	=	501,880±	Sq.Ft.
Wetland 2	=	190,970±	Sq.Ft.
Wetland 2A	=	8,100±	Sq.Ft.
Wetland 3	=	3,300±	Sq.Ft.
Total Wetland - 704,250± Sq.Ft.			
(Excludes 60' R.W.)			

DATE: January 23, 2020

SHEET 1 OF 6 SHEETS

PRELIMINARY PLAT EXISTING CONDITIONS

PROJECT: **ANDERSON WOODS**

NORTH OAKS

C O M P A N Y

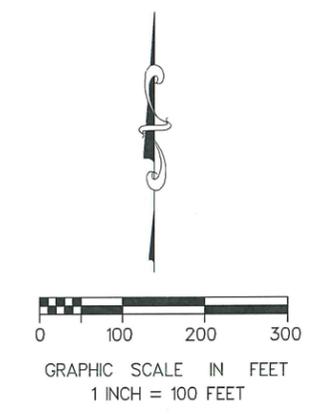
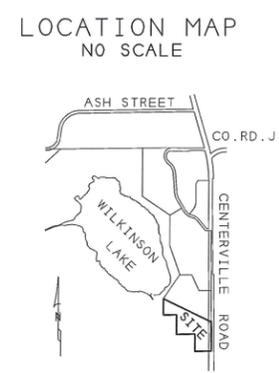
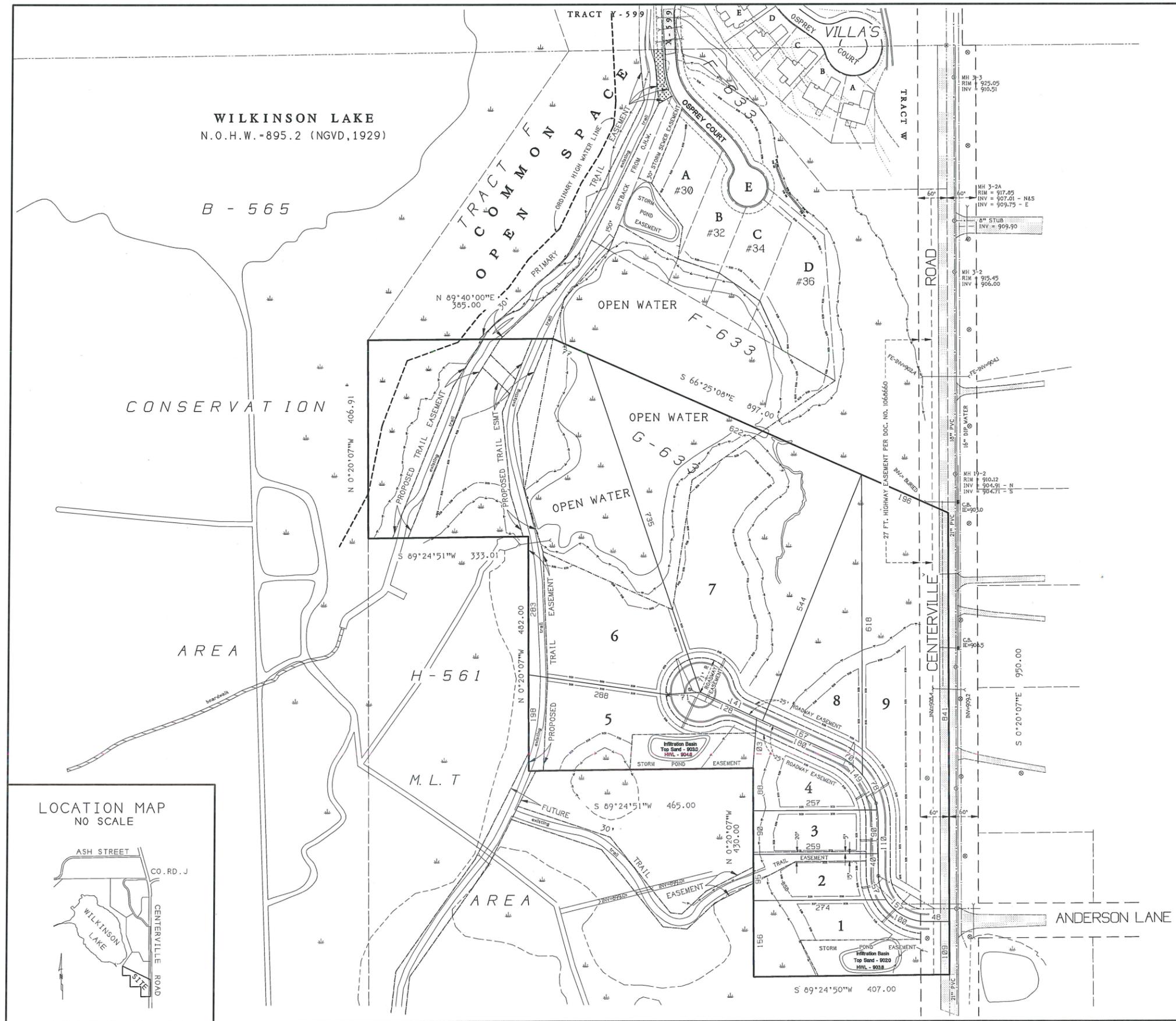
I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Land Surveyor under the laws of the State of Minnesota.

Randy L. Kurth
Randy L. Kurth, R.L.S. No. 202713
Retired, J. North, R.L.S. No. 15113

KURTH SURVEYING, INC.
4002 JEFFERSON ST. N.E.
COLUMBIA HEIGHTS, MN 55421
PHONE: (763) 768-9769 FAX: (763) 768-7602
E-MAIL: kst@kurthsurveyinginc.com

Exhibit E: Existing Conditions

DEVELOPMENT AREA "F"



- LEGEND**
- x 905 SPOT ELEVATION FROM MARK HURD AERIAL TOPD MAPPING
 - EXISTING CULVERT
 - ⊙ UTILITY POLE
 - ⊕ SWAMP SYMBOL
 - ☁ TREE FROM AERIAL MAPPING
 - EDGE OF WOODS
 - 10 FOOT CONTOUR
 - 2 FOOT CONTOUR
 - EDGE WET LAND AS DELINEATED BY KJOLHAUG ENVIRONMENTAL SERVICES
 - EXISTING WATER MAIN
 - EXISTING SANITARY SEWER AND DIRECTION OF FLOW
 - EXISTING STORM SEWER AND DIRECTION OF FLOW
 - EXISTING FORCE MAIN
 - BUILDING SETBACK LINE
 - EXISTING BITUMINUS

BUILDING SETBACKS PER RMH-PUD ZONING

BUILDING TO BUILDING SETBACKS:
 FRONT TO FRONT: 40 FT. - PRINCIPAL BLDG
 SIDE TO SIDE: 15 FT. - PRINCIPAL BLDG
 REAR TO REAR: 50 FT. - PRINCIPAL BLDG

ROAD RIGHT OF WAY SETBACKS:
 FRONT: 15 FT. - PRINCIPAL BLDG
 SIDE: 20 FT. - PRINCIPAL BLDG
 REAR: 20 FT. - PRINCIPAL BLDG

WETLAND SETBACKS:
 ALL BUILDINGS: 30 FT.

MAX. BUILDING HEIGHT:
 25 FT. AT FRONT SETBACK LINE
 45 FT. FOR WALKOUT LEVEL

DRIVEWAY REQUIREMENTS:
 ONE CURB CUT PER DWELLING
 MIN. SPACING: 10 FT. UNLESS SHARED
 MAX. WIDTH AT CURB: 18 FT.

BUILDING SETBACKS PER PRE PLAN

FRONT YARD: 20 FT.
SIDE YARD: 7.5 FT.
WETLAND: 30 FT.
CENTERVILLE RD.: 30 FT.

PROPERTY DESCRIPTION

TRACT G, REGISTERED LAND SURVEY NO. 633
 RAMSEY COUNTY, MINNESOTA

PROJECT: ANDERSON WOODS

SHEET DESCRIPTION: PRELIMINARY SITE PLAN

DATE: January 23, 2020

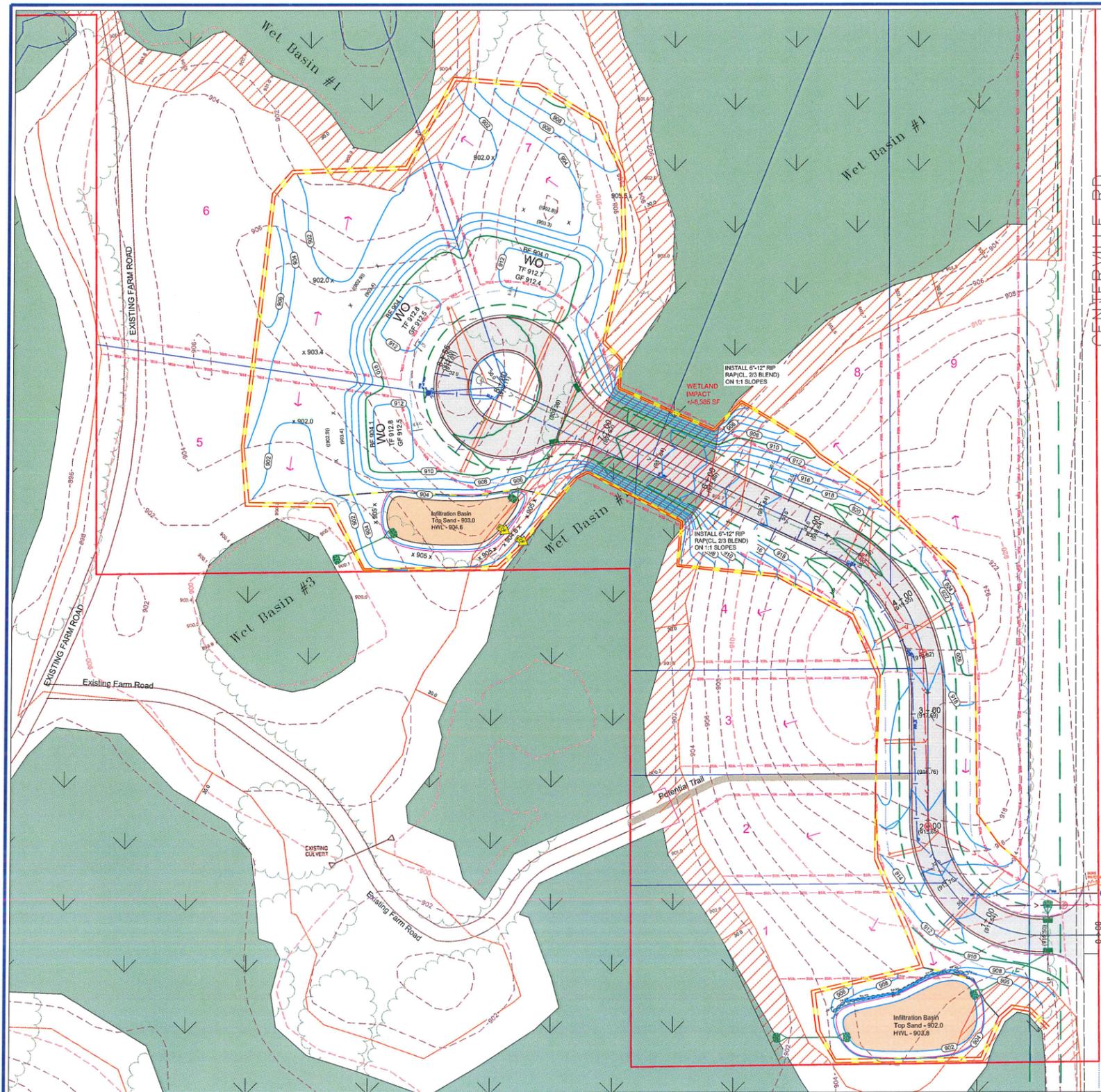
SHEET 2 OF 6 SHEETS

NORTH OAKS
 C O M P A N Y

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.

KURTH SURVEYING, INC.
 4002 JEFFERSON ST. N.E.
 COLUMBIA HEIGHTS, MN 55421
 PHONE: (763) 788-9769 FAX: (763) 788-7602
 E-MAIL: ks@kurthsurveyinginc.com

Exhibit F: Preliminary Plan (Subdivision)



- CONSTRUCTION NOTES**
1. INSTALL SILT FENCE AS SHOWN ON PLAN, AS REQUIRED BY THE CITY OF NORTH OAKS OR DIRECTED BY THE ENGINEER.
 2. THE WATER QUALITY POND MUST BE EXCAVATED AT THE BEGINNING OF GRADING OPERATIONS TO PROVIDE TEMPORARY STORM WATER DETENTION DURING CONSTRUCTION. SAND AND SILT MUST BE REMOVED FROM THE POND AS NECESSARY DURING CONSTRUCTION AND AT THE COMPLETION OF THE PROJECT.
 3. BEGIN GRADING, INSTALL PERFORATED RISER PIPE IN PONDS WHEN POND GRADING IS COMPLETE. TEMPORARY DRAINAGE PIPE SHALL BE USED FOR INTERIM DRAINAGE DURING THE CONSTRUCTION PERIOD AS NECESSARY AND DIRECTED BY THE ENGINEER. INSTALL SILT FENCE AROUND EXCAVATED PONDS.
 4. INSPECT POND, SILT FENCE, AND ROCK ENTRANCE BERM AFTER ALL RAINFALL EVENTS AS REQUIRED BY THE NPDES PERMIT.
 5. LINE ALL PONDS WITH A MINIMUM 6" ORGANIC SOILS & SEED SLOPES BETWEEN NWL AND 100 YR HWL WITH A WATER TOLERANT MIX. (OR AS NOTED)
 6. REMOVE PERFORATED RISER PIPE WHEN STORM SEWER AND OUTLET STRUCTURE FOR PONDS ARE INSTALLED.
 7. POND - 10:1 BENCH (1 FOOT) THEN 3:1 MAX
 8. POND & FILTER BASIN TO BE CLAY LINED, (2" MINIMUM CLAY LINER)
 9. WO PADS 3:1 MAX. ALL OTHER SLOPES 4:1 MAX (UNLESS NOTED)
 10. RESTORATION - 4.8 ACRES
 - A. RESTORE ALL DISTURBED AREAS WITH 4" TO 6" OF TOPSOIL, OR EXISTING ON-SITE ORGANIC MTR.
 - B. SEED POND SLOPES AND DETENTION AREAS WITH MINDOT 310 OR BWSR P8 SEED MIX AT A RATE OF 100 LBS/ACRE AND FERTILIZE WITH 20-0-10 AT 100 LBS/ACRE. SEED WETLAND BUFFER AREAS WITH MINDOT 354-MESIC PRAIRIE (36.5 PLS LBS/AC) OR BWSR 35-241 SEED MIX AND FERTILIZE WITH 20-0-10 AT 100 LBS/ACRE. (REFER TO WETLAND CREATION/BANKING PLAN FOR WETLAND SEED MIX REQUIREMENTS)
 - C. SEED ALL OTHER DISTURBED AREAS WITH MINDOT 250 AT A RATE OF 100 LBS/ACRE AND FERTILIZE WITH 20-0-10 AT 100 LBS/ACRE (UNLESS OTHERWISE NOTED)
 - D. ONLY PHOSPHOROUS FREE FERTILIZER IS TO BE USED ON SITE
 - E. MULCH WITH TYPE 1 AT A RATE OF 2 TONS/ACRE AND DISC ANCHOR IMMEDIATELY AFTER PLACEMENT. USE WOODFIBER BLANKET ON ALL SLOPES 3:1 (FT) OR GREATER.
 - F. PLACE APPROVED STORM SEWER INLET PROTECTION IN OR AROUND ALL STORM SEWER INLETS AND MAINTAIN UNTIL HOME CONSTRUCTION IS COMPLETED. REFER TO DETAILS FOR APPROVED DEVICES.
 - G. MAINTAIN ALL SILT FENCE UNTIL TURF HAS BEEN ESTABLISHED.
 - H. RESTORATION WORK WILL BE COMPLETED WITHIN 72 HOURS OF GRADING COMPLETION.
 11. SILT FENCE - BEFORE GRADING - 5,110 LF AFTER GRADING - 280 LF
 12. EROSION BLANKET - 8,500 SF

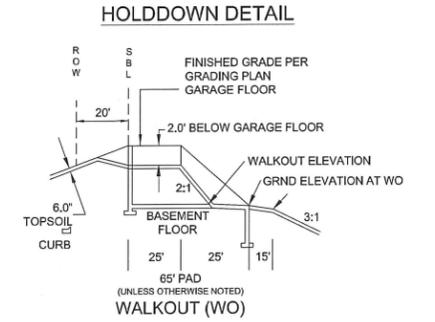
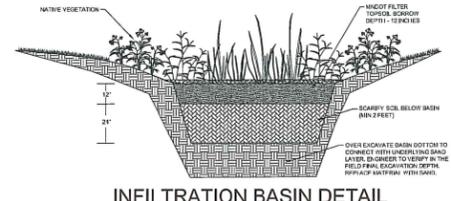
- GENERAL NOTES:**
1. THE DEVELOPER IS RESPONSIBLE FOR ALL STORM WATER INSPECTIONS ACCORDING TO THE MPCA STORM WATER PERMIT. THIS INCLUDES BOTH WEEKLY INSPECTIONS AND INSPECTIONS DONE AFTER A "RAIN EVENT". A COPY OF THE INSPECTION REPORT MUST BE EMAILED TO THE ENGINEER, CITY ENGINEER, AND DEVELOPER ON A WEEKLY BASIS.
 2. THE CONTRACTOR SHALL PLACE INLET PROTECTION DEVICES AS DIRECTED BY THE ENGINEER FOR ALL STORM SEWER INLETS AND MAINTAIN THEM AS AN EFFECTIVE SILT CONTROL DEVICE. INLET PROTECTION SHALL BE REMOVED WHEN ALL HOME CONSTRUCTION RESTORATION HAS BEEN COMPLETED.
 3. A 1'-2" CRUSHED ROCK ENTRANCE BERM SHALL BE PLACED AT THE SITE ENTRANCE, TO REPLACE SILT FENCE, AND MINIMIZE EROSION ON TO THE STREETS. THE ROCK BERMS SHALL BE THE WIDTH OF THE ENTRANCE AND 2 FEET HIGH WITH 4:1 SLOPES. (SEE DETAIL)
 4. THE CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE AWAY FROM THE BUILDING PAD AND STREET AREAS THROUGHOUT CONSTRUCTION.
 5. THE CONTRACTOR SHALL ATTEMPT TO PREVENT SOIL MATERIALS FROM LEAVING THE SITE BY EROSION AND VEHICLE WHEEL TRACKING. HE SHALL BE RESPONSIBLE FOR CLEANING OF STREET, BOULEVARD AND UTILITY FACILITIES THAT RECEIVE ANY ERODED OR TRACKED SOIL MATERIAL OR OTHER CONSTRUCTION DEBRIS OR MATERIAL.
 6. EXISTING UTILITIES SHOWN ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ANY AND ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES ARISING OUT OF HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL EXISTING UTILITIES.
 7. BUILDING PADS ARE 6" DEEP, UNLESS OTHERWISE NOTED. THE FRONT AND REAR BUILDING PAD LINES ARE SHOWN ON THE PLAN. THE ENGINEER SHOULD BE CONTACTED IF THE CONTRACTOR HAS ANY QUESTIONS REGARDING BUILDING PADS.
 8. A TEST ROLL SHALL BE COMPLETED. SOIL CORRECTION SHALL BE COMPLETED BY THE CONTRACTOR IF REQUIRED BY THE SOIL ENGINEER.
 9. ALL SMALL UTILITIES INCLUDING, BUT NOT LIMITED TO GAS, TELEPHONE, ELECTRIC SHALL BE PLACED UNDERGROUND IN ACCORDANCE WITH THE PROVISIONS OF ALL APPLICABLE CITY ORDINANCES.
 10. ALL UTILITIES TO BE LOCATED IN THE FLOOD PLAIN SHALL BE FLOOD PROOFED IN ACCORDANCE WITH THE BUILDING CODE OR ELEVATED ABOVE THE FLOOD PROTECTION ELEVATION.
 11. SAND FILTER AND DRAINAGE FOR THE FILTER BASIN SHALL BE INSTALLED AFTER FINAL STABILIZATION.

- ON-SITE BMPs**
1. RIP RAP - RIP RAP WILL BE UTILIZED AT ALL APRONS FOR ENERGY DISSIPATION AND PROVIDE SEDIMENT CONTROL
 2. INLET PROTECTION - INLET PROTECTION WILL BE INSTALLED AND MAINTAINED IN ALL CATCH BASINS & REAR YARD STRUCTURES. REFER TO THE DETAILS ON THE EROSION CONTROL PLAN TO DETERMINE WHICH INLET PROTECTION DEVICE IS APPLICABLE.
 3. SLOPE STABILIZATION - SILT FENCE WILL BE INSTALLED ALONG DOWN GRADIENT GRADING LIMITS AND WOODFIBER BLANKET WILL BE UTILIZED ON ALL SLOPES 3:1 OR GREATER TO PROVIDE ADEQUATE SLOPE STABILIZATION.
 4. BIOROLLS - BIOROLLS WILL BE INSTALLED ALONG REAR YARD SWALES TO PREVENT SEDIMENT FROM REACHING THE NURP POND AND ULTIMATELY DOWNSTREAM WETLANDS.
 5. INFILTRATION RETENTION AREAS - INFILTRATION RETENTION AREAS WILL BE UTILIZED TO REDUCE/RETAIN THE RUNOFF FROM THE INCREASED HARD SURFACE.
 6. STREET SWEEPING - STREET SWEEPING WILL BE DONE A MINIMUM OF ONCE PER WEEK OR MORE FREQUENTLY TO CONTROL DUST AND VEHICLE TRACKING.
 10. PHOSPHOROUS FREE FERTILIZER - PHOSPHOROUS FREE FERTILIZER WILL ALSO BE USED ON SITE.

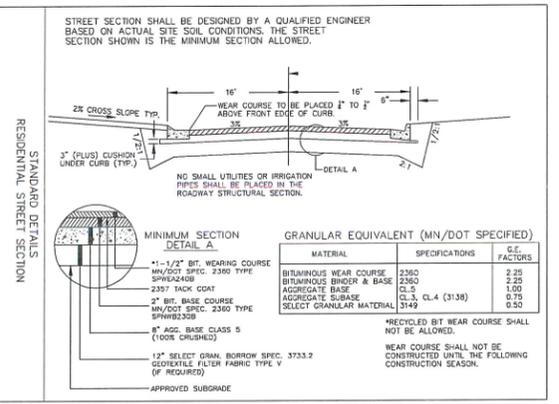
- CONSTRUCTION SEQUENCING**
1. INSTALL APPROPRIATE TEMPORARY EROSION CONTROL DEVICES TO PREVENT SEDIMENT FROM LEAVING OR ENTERING THE PRACTICE DURING CONSTRUCTION.
 2. ALL DOWN-GRADIENT PERIMETER SEDIMENT CONTROL BMPs MUST BE IN PLACE BEFORE ANY UP GRADIENT LAND DISTURBING ACTIVITY BEGINS.
 3. PERFORM CONTINUOUS INSPECTIONS OF EROSION CONTROL PRACTICES, ESPECIALLY AFTER EACH RAINFALL EVENT.
 4. INSTALL ALL UTILITIES (WATER, SANITARY SEWER, ELECTRIC, NATURAL GAS, PHONE, FIBER OPTIC, ETC) PRIOR TO SETTING FINAL GRADE OF INFILTRATION BASIN.
 5. INFILTRATION AREAS ARE NOT ALLOWED TO BE USED AS TEMPORARY SEDIMENT BASINS.
 6. COMPLETE, STABILIZE, AND VEGETATE ALL OTHER SITE IMPROVEMENTS.
 7. ONLY AFTER UPSTREAM CONSTRUCTION IS COMPLETED, CAN THE INFILTRATION BASIN BE CONSTRUCTED TO FINAL GRADE. ONCE GRADING IS COMPLETED, INSTALL FILTER TOPSOIL BORROW AND VEGETATE IN ACCORDANCE WITH THE RESTORATION PLAN.
 8. MINOR FILTER TOPSOIL BORROW SHALL BE TILED AFTER INSTALLATION IN THE BASIN TO REDUCE COMPACTION DURING INSTALLATION.
 9. REMOVE TEMPORARY EROSION CONTROL DEVICES AFTER THE CONTRIBUTING DRAINAGE AREA IS ADEQUATELY VEGETATED.

INFILTRATION BASIN DESIGN INFORMATION

INFILTRATION BASIN	TOP OF MEDIA	DEPTH OF FILTER TOPSOIL
NORTH BASIN	902.0	18 FEET
SOUTH BASIN	902.0	18 FEET



- NOTES:**
1. GRADE (999.0) BEHIND EACH HOMESITE IS PROPOSED TOP TO TOPSOIL. SUBGRADE SHALL BE DOWN 0.50 FEET.
 2. ESTABLISH FINISH GRADE AT ALL 12' FRONT YARD UTILITY EASEMENT LOCATIONS.



DRAWING NAME	NO.	BY	DATE	REVISIONS
AW-PRELIM SHEETS				
DRAWN BY				
CHECKED BY				
DATE				
01/23/2020				

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I HEREBY CERTIFY THAT THIS PLAN OR SPECIFICATION WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Eric R. Johnson
 ERIC R. JOHNSON, P.E.
 Date: 01/23/20 Lic. No. 56659

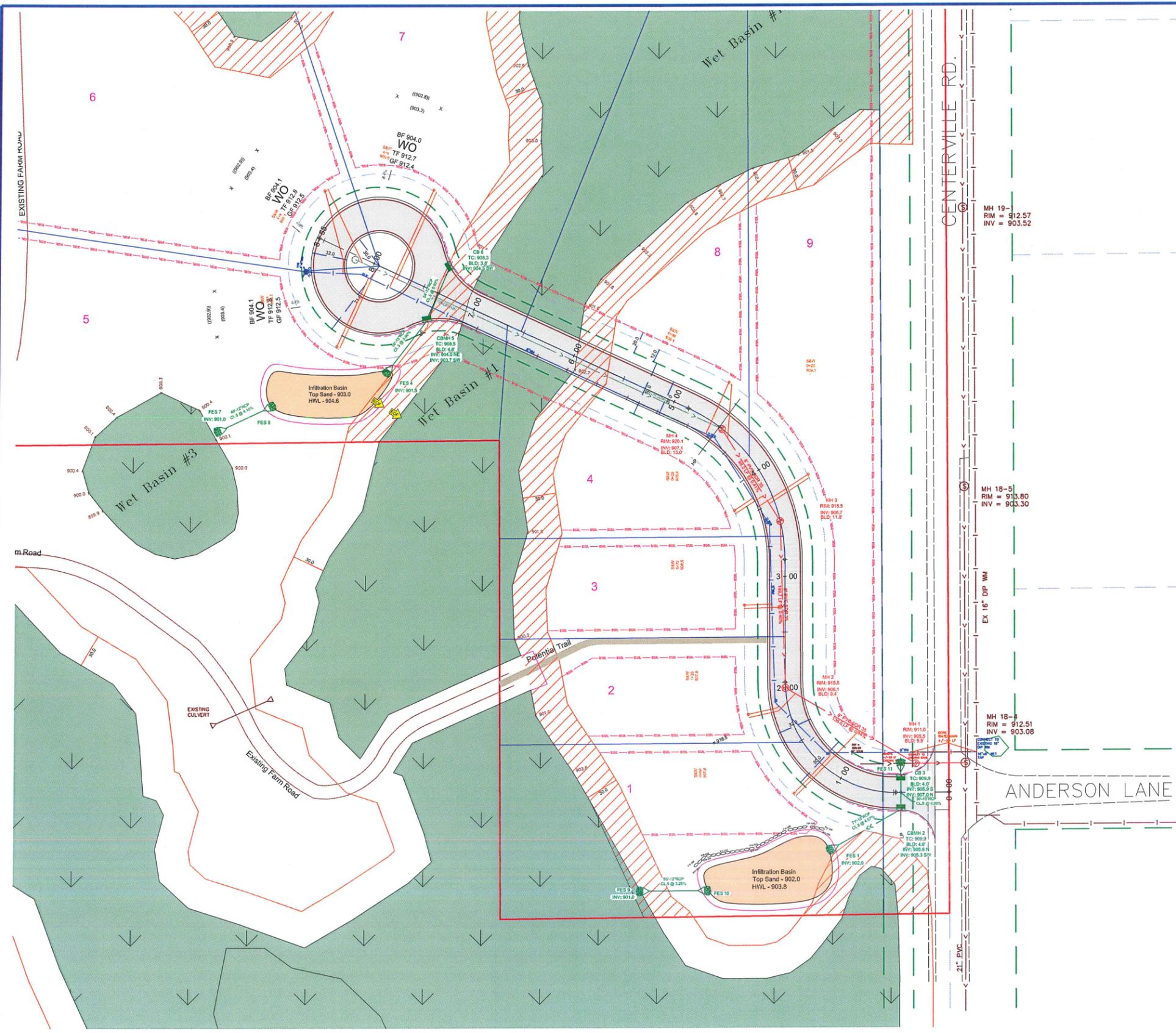


SATHRE-BERGQUIST, INC.
 150 SOUTH BROADWAY WAYZATA, MN. 55391 (952) 476-6000

CITY PROJECT NO.
 NORTH OAKS, MINNESOTA

Exhibit H: Preliminary Grading Plan

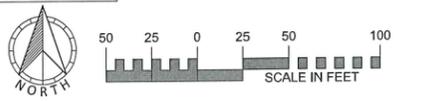
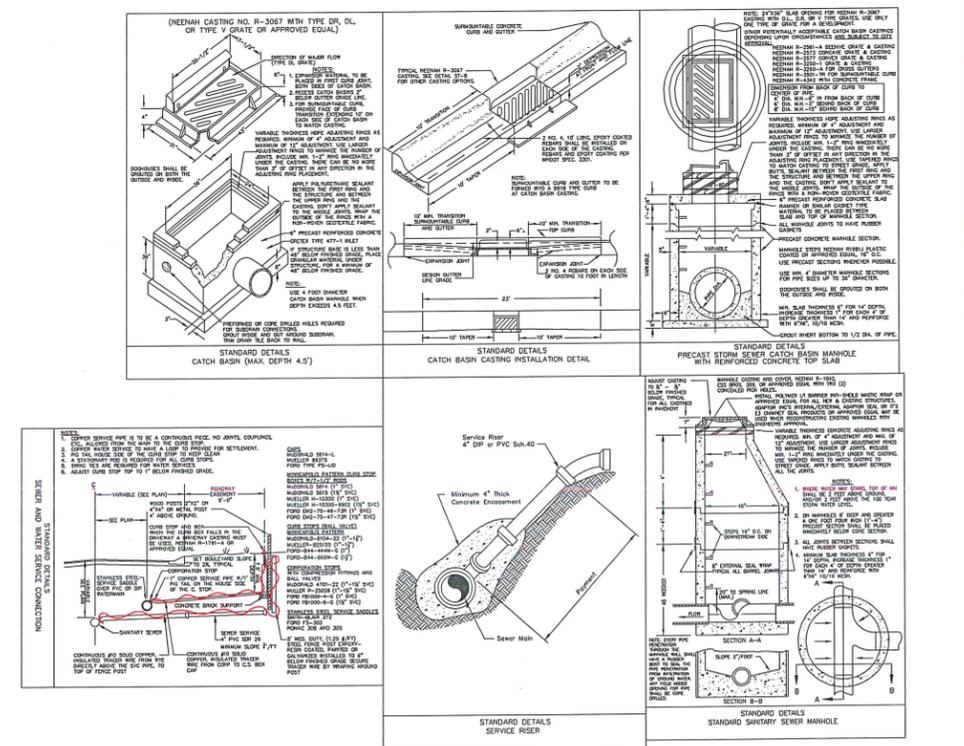
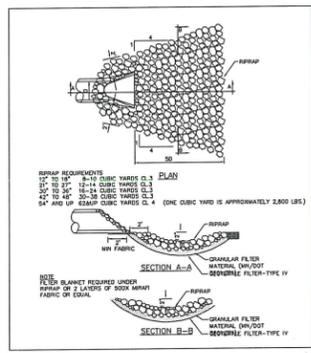
NORTH OAKS



- SANITARY SEWER AND WATERMAIN NOTES:**
1. ALL HYDRANT BENCHMARKS ARE TOP NUT OF HYDRANT.
 2. WYE LOCATIONS TO BE SUPPLIED & VERIFIED BY CONTRACTORS. WYE STATIONING IS CALCULATED FROM THE DOWN STREAM MANHOLES.
 3. ALL TIES AND DISTANCES ARE TO THE CENTER OF SURFACE STRUCTURES.
 4. ALL HYDRANTS AND HYDRANT GATE VALVES ARE RETAINED AND TIED BACK TO THE WATERMAIN TEE BY MEANS OF APPROVED MEGALUGS UNLESS OTHERWISE NOTED.
 5. ALL SEWER SERVICES ARE LOCATED 3 FEET DOWNSTREAM OF WATER SERVICES IF SEWER AND WATER ARE IN THE SAME TRENCH.
 6. ALL SEWER AND WATER SERVICES ARE EXTENDED TO THE EASEMENT UNLESS NOTED.
 7. ALL VALVES ON THE WATERMAIN FOR THIS PROJECT SHALL BE GATE VALVES. NO BUTTERFLY VALVES SHALL BE USED ON THE WATERMAIN FOR THIS PROJECT. POLY WRAP ENTIRE VALVE.
 8. INSTALL HYDRANTS 5' BEHIND CURB (TYPICAL).
a) POLY WRAP ALL HYDRANT BARRELS
b) BAG ALL HYDRANTS UNTIL THEY ARE TESTED AND PUT IN SERVICE.
 9. ALL 4"-12" WATERMAIN SHALL BE PVC AWWA C900 (DR18).
 10. MECHANICAL BALLS SHALL BE INSTALLED IN SANITARY SEWER AT CONNECTION POINTS FOLLOWING INSTALLATION OF PIPE TO PROTECT EXISTING LINES FROM DEBRIS, & SEDIMENT INFILTRATION. BALLS SHALL REMAIN UNTIL LINES ARE TESTED & ACCEPTED BY THE CITY.
 11. THE CONTRACTOR SHALL CONTACT THE WHITE BEAR TOWNSHIP AT LEAST 48 HOURS PRIOR TO ANY PUBLIC SEWER/WATERMAIN CONNECTION.
 12. ALL SANITARY SEWER MANHOLE ADJUSTING RINGS INSTALLATIONS SHALL HAVE POLYMER II BARRIERS IS TO BE INFI-SHIELD MASTIC WRAP OR APPROVED EQUAL INSTALLED.
 13. CONCRETE ADJUSTING RINGS SHALL BE USED ON ALL MANHOLES AND CATCH BASINS.
 14. ALL BELOW GRADE BOLTS, T-BOLTS, NUTS AND RODDING SHALL BE ASTM F 593 TYPE 316 STAINLESS STEEL. THIS APPLIES TO ALL FITTINGS, GATE VALVES, AND HYDRANTS.
 15. SANITARY SERVICES SHALL BE 4" PVC SDR 26 WITH TRACER WIRE.
 16. PROVIDE TRACE WIRE ALONG ALL PVC WATERMAIN, #10 AWG THWN WITH BLUE INSULATION SUITABLE FOR UNDERGROUND BURY.
 17. ALL FITTINGS SHALL BE DIP COMPACT FITTINGS WITH STAINLESS STEEL BOLTS AND POLY WRAPPED.

NOTES

1. 4" DRAINTILE (WISOCK) SHALL BE INSTALLED AT THE LOWPOINT CATCH BASINS 50' MIN. (STD) IN EACH DIRECTION & 100' IN THE UPHILL DIRECTION FOR ON SLOPE CATCH BASINS.
2. TIE THE LAST 6 PIPE JOINTS TO FLARED END SECTIONS (TYPICAL).
3. TRASH GUARDS SHALL BE PLACED ON ALL FLARED END SECTIONS 24" OR LARGER. THERE ARE NO TRASH GUARDS ON 12" THROUGH 21" F.E.S.'S.
4. TIE ALL PIPE JOINTS IN AND OUT OF ALL OUTLET STRUCTURES.
5. WIMCO'S OR APPROVED EQUAL TO BE INSTALLED AT ALL STORM INLETS.
6. RIP-RAP FOR STORM SEWER SHALL BE CLASS 3 AND SHALL BE HAND PLACED.
7. WET BASIN TO BE CLAY LINED. (2' MINIMUM CLAY LINER)
8. ALL ADJUSTING RINGS TO BE HDPE.
9. SAND FILTER AND DRAINTILE FOR THE FILTER BASIN SHALL BE INSTALLED AFTER FINAL STABILIZATION.
10. OUTLET CONTROL STRUCTURE GRATE TO BE GALVANIZED GRATE (SPLIT) 4" X 4" OPENINGS.



EXISTING UTILITIES SHOWN ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ANY AND ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES ARISING OUT OF HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL EXISTING UTILITIES.

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DRAWN BY		ERJ		
CHECKED BY		RSM		
DATE			01/23/2020	

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Eric R. Johnson
 ERIC R. JOHNSON, P.E.
 Date: 01/23/20 Lic. No. 56659

ENGINEERS SURVEYORS DESIGNERS PLANNERS

SATHRE-BERGQUIST, INC.
 150 SOUTH BROADWAY WAYZATA, MN. 55391 (952) 476-6000

CITY PROJECT NO. ---

NORTH OAKS, MINNESOTA

Exhibit I: Preliminary Utility Plan

NORTH OAKS

9

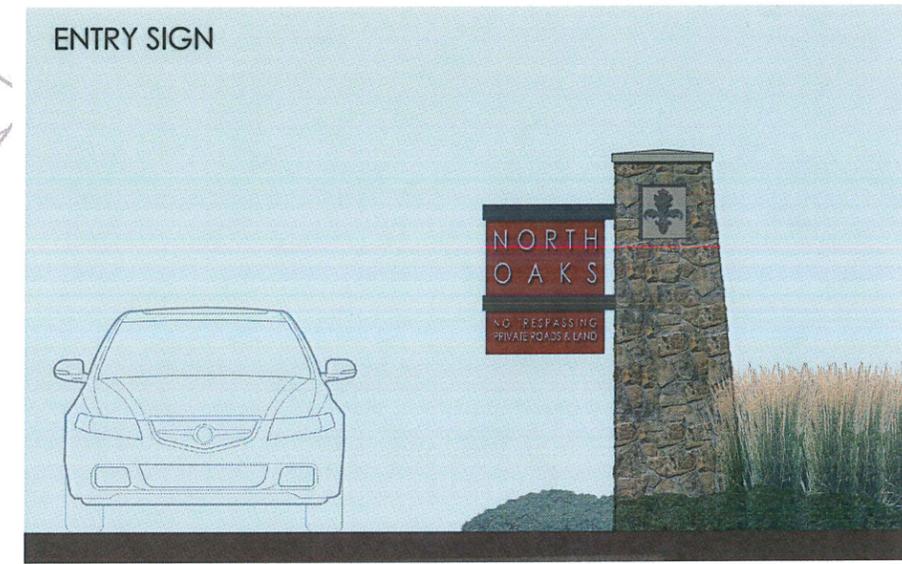
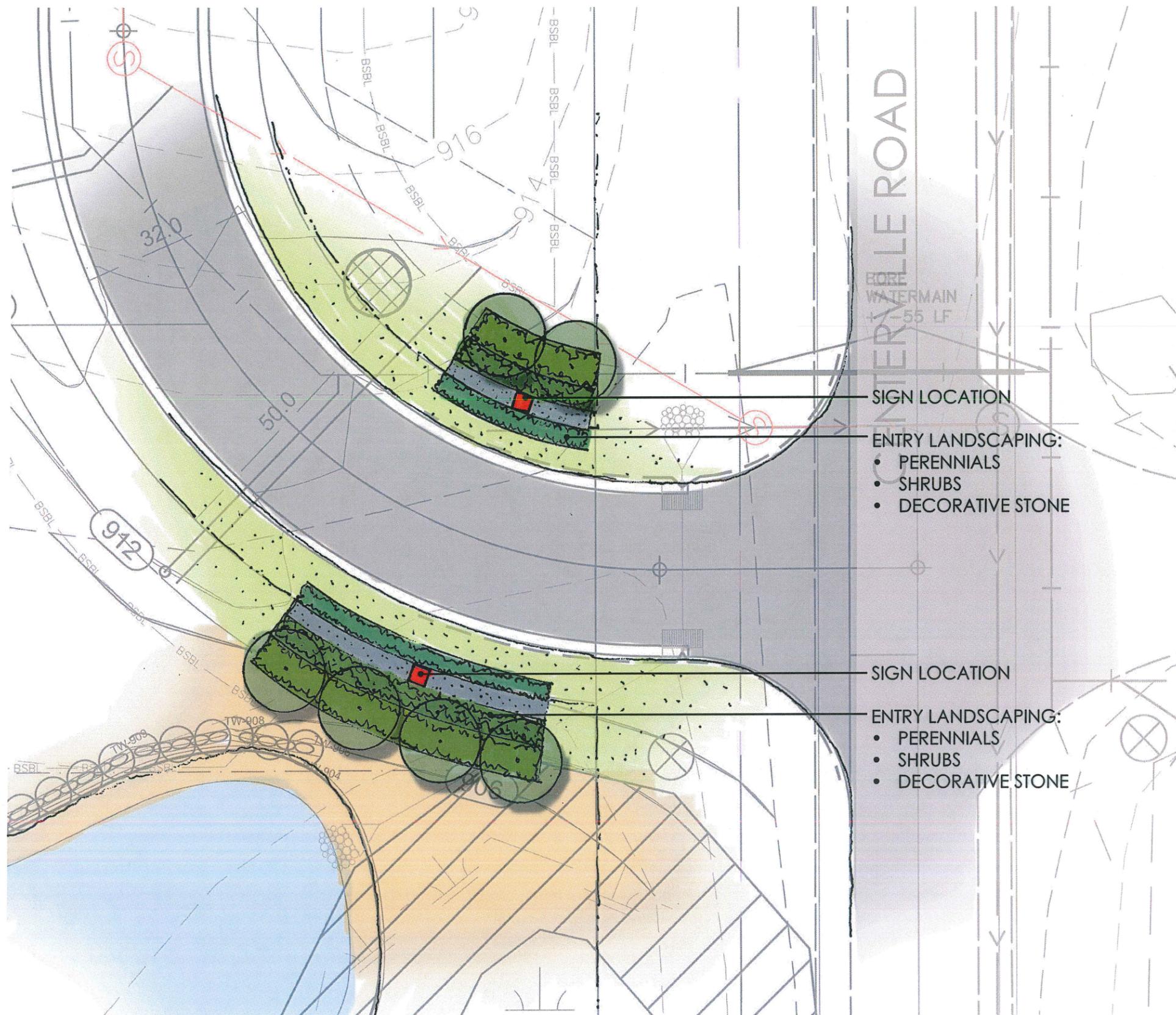


Exhibit J: Preliminary Landscape / Sign Plan

SHEET 6



800 County Road E East, Vadnais Heights, MN 55127
www.vlawmo.org

TO: Kevin Kress

FROM: Brian Corcoran Vadnais Lake Area WMO (VLAWMO)

DATE: February 11, 2020

SUBJECT: Comments – Preliminary Plans **Anderson Woods** & Nord Development Site C– North Oaks

Kevin,

Below are our comments to the Preliminary Plans for **Anderson Woods** & Nord Development Site C Submittal received 2-7-2020.

- No issues at this time for the Nord Development Site C preliminary plans. Will need stormwater/hydro plans and a Minnesota Routine Assessment Method (MnRAM) report for the wetlands on site for formal application review.
- No issues at this time for the Anderson Woods site preliminary plans. Will need stormwater/hydro plans and a replacement plan application for wetland impact on site for formal application review.

VLAWMO will provide detailed comments once formal applications are received for these two projects.

Thank you,

A handwritten signature in black ink, appearing to read "Brian Corcoran", with a long horizontal line extending to the right.

Brian Corcoran

Cc: Gary Eagles – North Oaks Company

Forestry Assessment for Anderson Woods and Nord

RE: Planning Commission request to determine significant and heritage tree impacts in “civil” work areas (streets, trails, storm ponds, etc.) and to provide the information to City Staff prior to the public hearing.

The City does not have a definition of what constitutes a “Significant” tree nor a “Heritage” (aka Specimen) tree in its ordinances. Also, the City does not have a tree preservation policy in place. After reviewing numerous tree preservation policies throughout the Twin Cities, some examples of the most common definitions, and the City from which it came, are included below:

Significant Tree (Lake Elmo). “A healthy tree measuring a minimum of six (6) inches in diameter for hardwood deciduous trees, eight (8) inches in diameter for coniferous/evergreen trees, or twelve (12) inches in diameter for common trees, as defined herein.”

Significant Tree (Apple Valley). “Any healthy deciduous tree measuring eight inches or greater in diameter, or any coniferous tree measuring six inches or greater in diameter, at four and one-half feet above grade.”

Specimen/Heritage Tree (Eagan). “A healthy tree measuring equal to or greater than thirty (30) inches in diameter breast height.”

Specimen tree (Maplewood) “a tree of any species that is 28 inches in diameter or greater, except invasive species. Specimen trees must have a life expectancy of greater than ten years, have a relatively sound and solid trunk with no extensive decay or hollow, and have no major insects, pathological problem, or defects. Specimen trees are valued for their size and their legacy.”

*It is also common practice to not include multiple stemmed trees as heritage trees even if the cumulative diameter of all the stems meets the heritage tree definition for diameter requirements. For instance, a five-stemmed tree with 6” trunks would not be defined as a heritage tree.

**Some communities also use the term heritage stand as defined below.

Specimen Tree or Stand (Shorewood): Any tree or grouping of trees which has been determined to be of a high value by the Zoning Administrator because of its species, size, age, or other professional criteria.

In general, these definitions are similar in nature and intent and can be used going forward.

Anderson Woods

Southern Hill and Old Nursery

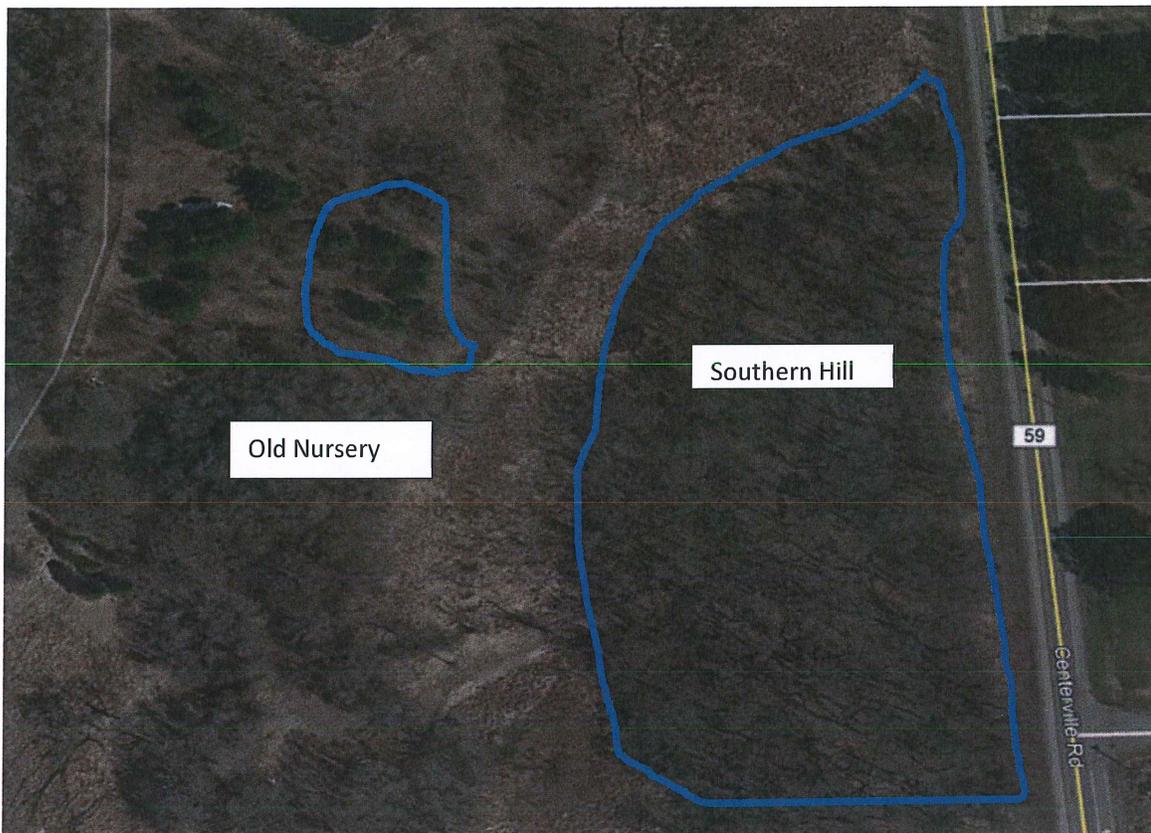


Figure 1 Anderson Woods Aerial with Southern Hill and Old Nursery defined

Southern Hill

The Southern Hill at Anderson Woods is comprised mostly of oak species. A tree inventory was conducted within the last few years based on visible tags on the trees. A map of the tree inventory is included as Appendix A. There are 293 trees on site. Tree species as well as diameter are included on the map. Since the site is on a mound some leveling of the hill will have to occur. Also, as the road turns toward the west the construction limits need to be extended to compensate for the change of grade. Based on the tree inventory, oaks comprise 71% of the trees on site. Within that 71%, red oaks contribute 38%, bur oaks 46%, and white oaks 16%. The remaining 29% of tree species on site include cherry, and ash. The understory is 99% buckthorn.

Based on the map provided (Appendix A), anticipated removals due to the construction of the sedimentation pond will include 18 oak trees and two ash trees, the oaks averaging 16" in diameter.

The construction of the street will result in the removal of approximately 83 trees. The breakdown of removed species is similar to the breakdown of total species on site. Total oaks removed will be near 73,

with ash and cherry species nearing 10 total trees. The largest diameter tree scheduled for removal is a 30" Green ash and the average diameter of removed trees is near 16".

A total of perhaps three trees will need to be removed for the installation of the trail.

A table of anticipated removals is included below. One hundred six trees out of two hundred and ninety-three trees is scheduled for removal, or 36%.

Tree Removal Totals for Anderson Woods Southern Hill

	Oaks	Other (ash, cherry)
Pond	18	2
Street	73	10
Trails	2	1
Totals	93	13

Old Nursery

The Old Nursery is located across the wetland from Southern Hill. Trees within the construction limits have been removed from the site. At one point this was one of many nurseries established on North Oaks Company property. Throughout the year's trees were pulled from these nurseries to be planted in areas that needed tree cover. Based on aerial photos from Google Earth and conversations with North Oaks Company, approximately 10-20 White pine and perhaps another 20-40 small diameter lilac trees were removed, and silt fence was installed. The trees that were removed were not suitable for transplanting as they were either too large or had poor form due to growing too close to neighboring trees. They were most likely planted in the early 1990's. They were removed during the construction of Vista Hills to the north. A map of the construction limits is included as Appendix B.



Figure 2 Clearing at Old Nursery facing east

Estimated Species Make-up of Trees Removed at Old Nursery

	White Pine (average)
Cul-de-sac	15

Based on the information provided there were four trees that could be considered Heritage trees using the definitions provided above. Two are planned to be removed, and two are planned to be saved. The forest consists of semi-mature oak on the south and wetland associated species such as aspen to the west. Trees near construction limits will have to be individually assessed to first see if they are worthy of preservation, and secondly, to determine impacts. Usually trees that have impacts from construction to just one side of the tree remain fairly healthy because of the non-disturbance to the other side of the tree. Depending on how close and how intrusive the disturbance some trees may show signs of die-back in following years.



Figure 3 Southern Hill view looking north from Center Line

Total Anticipated Tree Removals at Anderson Woods

	Oak	Other
Southern Hill	93	13
Old Nursery	0	15
Total	93	28

Nord

A tree inventory was not undertaken at this site by North Oaks Company. A tally of trees on site demonstrated that oaks are the pre-dominant species. On the western edge of the site, just off Sherwood Road, ash trees are also well represented and make up the dominant species for the first 500 feet of the proposed street development. Aspen are also well represented to the south of the proposed street as they are associated with wetland edges and wetter sites. After crossing over a few small gullies, the species change from ash/aspen into an oak component. White oaks (bur and white oaks) make up approximately 70% of the oak tree species and Red oaks make up about 30%. A few other species such as hackberry, elm, birch, and boxelder are responsible for a very small percent of the overall tree population in this area. The understory is comprised of about 95% buckthorn and some smaller tree species.



Figure 4 Tree Species Locations at Nord

The construction of the street, pond, and trail will result in the removal of approximately 216 trees (Appendix C). The breakdown of removed species is similar to the breakdown of species throughout the site. Total oaks removed will be around 95 (26 Red oaks and 69 White oaks), 65 aspen, 49 ash trees, and 7 cherry trees. The largest diameter tree within construction limits is a 30+” Red oak and the average oak tree diameter is near 20”. The Red oak should not be considered a heritage tree as it appeared to have die-back associated with decay. In general, the oak trees were slightly larger than at Anderson Woods. Ash trees on site average approximately 12”. A table of anticipated removals is included below.

Approximate Tree Removal Totals for Nord

	Oaks	Ash	Aspen	Cherry
Pond	6	4	8	0
Street	87	39	56	7
Trails	2	6	1	0
Totals	95	49	65	7

The area is a nice forest of semi-mature oak to the east and an ash/aspen component to the west. The developer does have some discretion with regards to road placement and therefore, tree preservation. If there are some nice trees that could be preserved efforts will be made to nudge the street a few feet in one direction or another. Trees near construction limits will have to be individually assessed to first see if they are worthy of preservation and secondly, to determine impacts. Usually trees that have impacts from construction to just one side of the tree remain fairly healthy because of the non-disturbance to the other side of the tree. Depending on how close and how intrusive the disturbance some trees may show signs of die-back in the future.

The area of the development proposed to go off North Deep Lake Road is devoid of trees (Appendix D). There is a cluster of willow trees near the gate adjacent to North Deep Lake Road which would most likely have to be removed but no other tree removals are anticipated based on submitted plans.

Oak Wilt

We are now in the high-risk period for Oak wilt and this will most likely continue until the beginning of July. The University of Minnesota has scientists who determine when it is OK to cut oaks again and that can be monitored. It is imperative that save trees are not wounded during this time frame. If construction needs to take place within this timeframe precautions should be put in place. There do not appear to be any active oak wilt infection centers in the proposed development areas.

While working on a pipeline project several years ago outside of North Oaks, Kunde Company (previous contracted City Forester), was contracted to paint all oak stumps on site immediately after removal and also any time they were re-wounded but before the stumps could be removed (popped). Arborists were stationed with each tree removal work crew and would have paint on hand to re-paint tree stumps as construction equipment maneuvered their way along the corridor. This will almost guarantee that oak wilt will not start in this area and a recent review of aerial photographs seems to back up that claim. Even exposed stumps that are not immediately removed, and not immediately painted, can contribute to oak wilt appearing in neighboring save trees later in the growing season. Oak trees graft roots and if a stump were to become "infected", it can pass the oak wilt fungus into healthy save trees nearby.

Also, it is recommended to have a long extension pole on site (or a climber) with a brush roller and paint to apply to save trees that may have had a limb accidentally broken off or a wound to a trunk higher up. Applying wound dressing (paint) to a wound immediately after it occurs will almost guarantee that the tree will not get oak wilt. There is existing research which validates this. These measures are a small step that can be taken to keep the forest disease free and preserve a significant oak resource enhancing property values and the potential sale of the parcels.

If the tree removal work takes place after the beginning of July the risk becomes much lower, but it is still a risk and the same precautions could be put into place. The best time to work on oak trees is in the winter.

Emerald Ash Borer

No signs of Emerald Ash Borer (EAB) were visible on the ash trees at Nord or Anderson Woods. It is my opinion that the ash trees on proposed parcels should stay and should not be removed proactively ahead of development. While this may save a few future homeowners of countless ash tree removals their removal would also cause a dramatic shift in the visual appeal and function of the site. The benefits gained from leaving the trees and having them continue to provide habitat, absorb water, clean air and water, keep down dust, add privacy, reduce noise and glare, etc., outweigh the impacts of proactive removal. Its possible these trees will remain viable for many years before they potentially succumb to EAB. At that point the homeowner will have decide the proper course of action.

Recommendations to Preserve Save Trees on Site

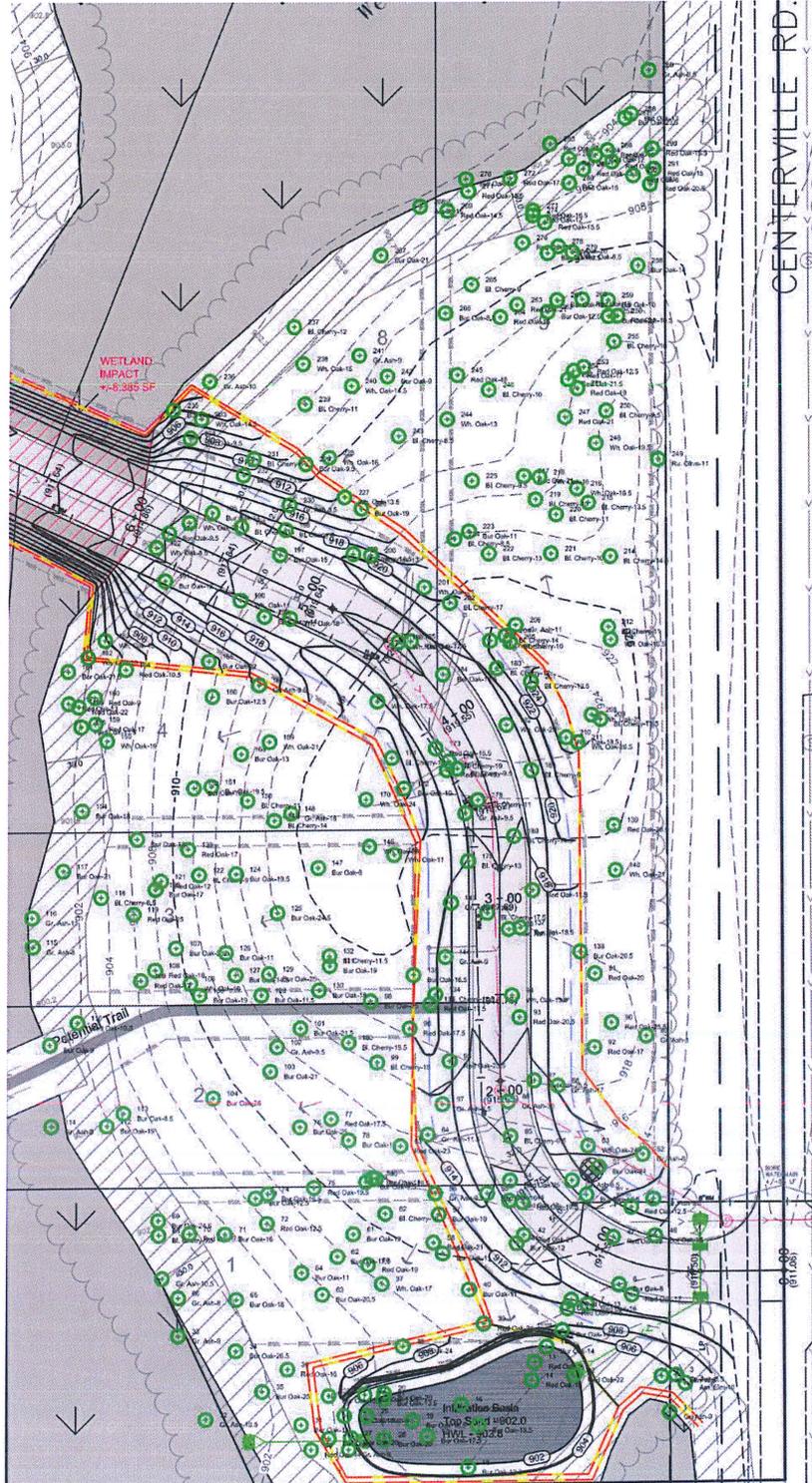
- Fell all remove tree towards the Center Line to limit injuring to save trees.
- Install tree protection fence immediately after tree removals. Make sure fence is respected by contractors on site and immediately raise fence if it is compromised. Pre-construction meetings are an excellent time to implement the seriousness of tree preservation efforts and penalties for violations.
- If grade changes are excessive retaining walls may be a viable option.
- Do not place fill around save trees.
- If save trees are going to be preserved within the construction limits armor trees with 2X4's to reduce the chance of mechanical injury to the trunk.
- After harvesting, blow chipped tops of trees along tree protection fencing to help reduce soil compaction from construction equipment and moderate soil temperatures and moisture levels.
- Before preserving save trees on edges make sure they are healthy (good structure, no decay, etc.) and will not become a hazard tree within a few years. An arborist or City Forester assessment may be justified for individual trees.
- Root cutting and growth hormone regulator treatments for high-value trees are also options that could be implemented.
- Brushing of understory material outside of construction limits may be an option since it is 99% buckthorn. An inventory to look for any non-buckthorn species could be incorporated to mark and avoid those shrubs during buckthorn removal. Care should be taken to minimize impacts to soil during this process. Scraping off of any topsoil should be prohibited as 90% of the tree's roots are within the top one foot of soil.
- Follow the oak wilt protocol included above.

Mark Rehder

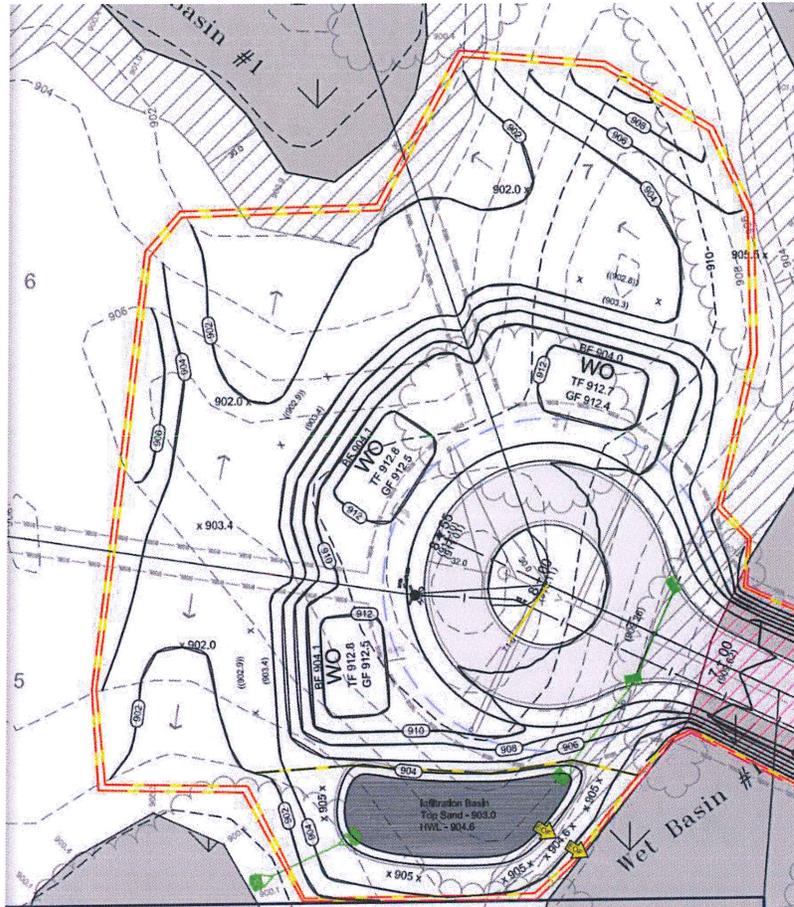
North Oaks Contracted City Forester



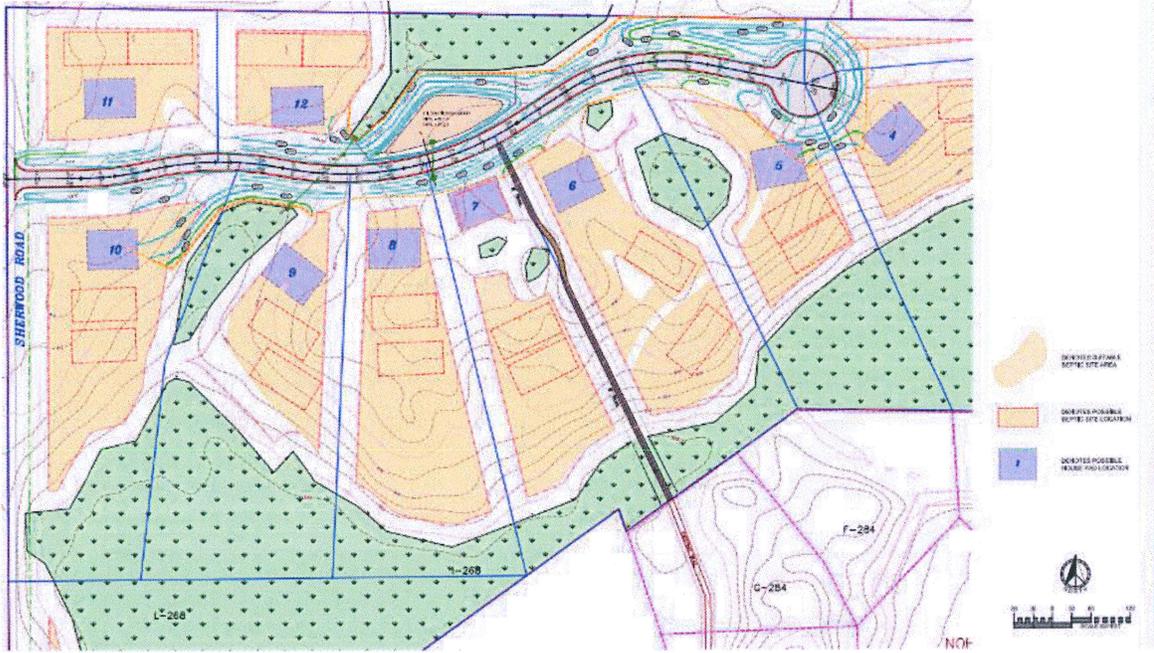
Appendix A



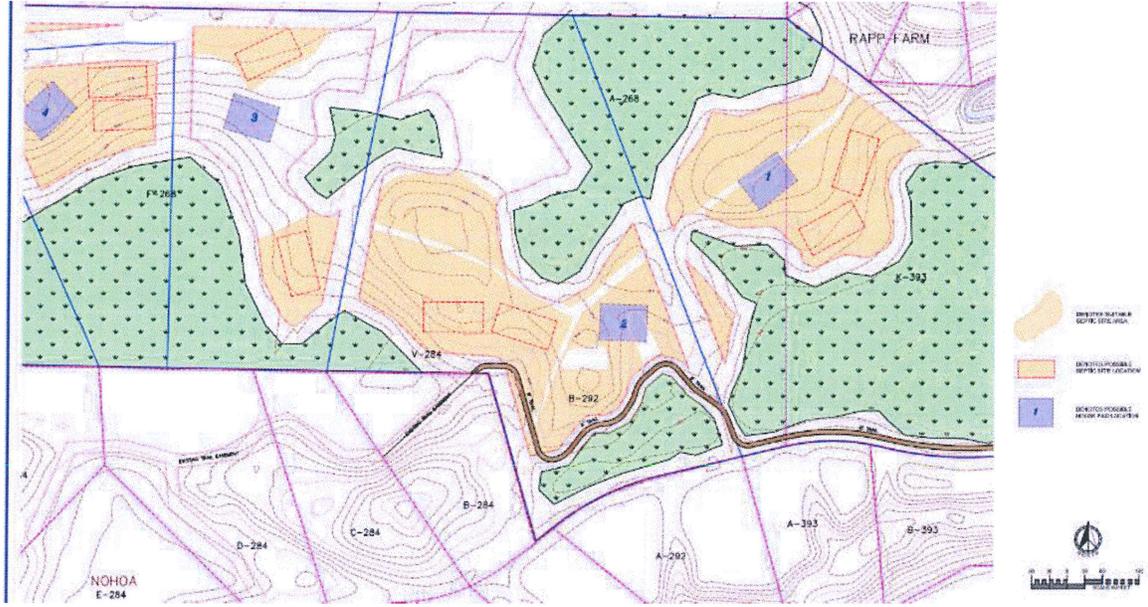
Appendix B



Appendix C



Appendix D





NORTH OAKS
HOME OWNERS' ASSOCIATION

April 7, 2020

Mr. Gregg Nelson, Mayor
Council Persons: Rick Kingston, Martin Long, Kara Ries, and Katy Ross
City of North Oaks
100 Village Center Drive, Suite 230
North Oaks, MN 55127

RE: East Oaks PDA – Anderson Woods Preliminary Plans

The North Oaks Home Owners' Association (NOHOA) has reviewed the preliminary plans submitted by the North Oaks Company for the Anderson Woods development site. NOHOA has particularly placed a technical focus on those components for which NOHOA will ultimately be responsible for maintaining, such as roads and trails. The following summarizes NOHOA's recommendations, additional requested information, and suggested plan modifications for the development to be accepted into the Association. NOHOA respectfully requests that the City incorporate these into any recommendations or approvals.

1. A center island is indicated on the plans within the cul-de-sac. For plowing purposes it is requested that this island be removed or a planting plan provided to ensure snow storage capabilities. NOHOA will not be completing any landscape maintenance in this development.
2. Trail maintenance and construction fall under the purview of NOHOA. As such the following is requested:
 - a. Wetland boundaries should be flagged in the field and the proposed trail alignment staked to allow for field verification of impacts.
 - b. Trail construction details should be provided to NOHOA for review and comment. These details should include any necessary boardwalk and culvert installation locations.
 - c. Trail widths should be cleared and graded appropriately to a width of 12-feet to allow for future maintenance activities.
 - d. Elevations should be provided of the existing culvert noted under the existing farm road to verify that the trail will remain dry during rain events.

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- e. Details on how Wet Basin #3 drains should be provided to ensure any outflow will not over top the trail.
3. NOHOA prefers the road concept as shown in the preliminary plan as it will create less impervious surface, be less maintenance for NOHOA, and protect the private nature of the community.
4. NOHOA's willingness to accept the revised road plan as proposed by the North Oaks Company does not waive NOHOA's right to require compliance with the terms of the 1999 PDA as to all future developments.
5. To allow for appropriate future road maintenance, NOHOA requests that the Company provides soil boring information and a geotechnical report that details the required pavement section for a 7-ton pavement design. The roadway as proposed crosses a wetland and a soil boring should be taken in this area and the geotechnical report should provide specific design and construction requirements.
6. Plan and profile information for the road should be provided to NOHOA for review and comment as to any maintenance concerns as part of the final plan approval process.
7. The road side slopes at the wetland crossing are indicated as 1:1 slopes on either side with approximately 12 to 14-feet of fill on the high side. A minimum slope of 3:1 is required for future maintenance.
8. Copies of the stormwater plans, drainage calculations and a wetland replacement plan are requested. Approval from VLAWMO will be required for the improvements prior to acceptance. NOHOA reserves the right to comment on plans as they are revised to avoid wetland impacts.
9. Two infiltration basins are noted for stormwater practices to meet water quality and rate control as a result of stormwater runoff from the road. As this infrastructure relates to the road that NOHOA will maintain we request soil boring information be provided at each infiltration practice. Documentation is also requested that indicates that there is three feet of separation from the bottom of the infiltration practice to the groundwater level. A geotechnical report should be provided that documents the infiltration rate of the soils at each location. Stormwater runoff will be required to infiltrate within 48 hours. If infiltration is allowed in this location pretreatment should be provided prior to the storm sewer discharging to the basins for ease of future maintenance. This pretreatment should be in the form of a forebay and sump structure with a Safl baffle at the storm sewer structure just upstream of the discharge point. A 10-foot bench should be graded around the basin for maintenance access.

Mr. Greg Nelson, Mayor
April 7, 2020

10. The maximum wall height that the Association will accept is 4-feet in height. A wall is currently being shown that is 5-feet in height in the vicinity of the pond. This should be revised. In addition, drainage from above the wall should be routed around the wall instead of over the top.

11. Documentation should be provided as to approval by Ramsey County of the road access.

The recommendations and comments set forth above are specific to the set of plans deemed complete by the City on February 27th. NOHOA reserves the right to review and make additional recommendations and comments as plans are subsequently revised and additional information received.

In addition, it is expected that development of the Anderson Woods site will comply with all conditions set forth by local, state, and federal agencies. Prior to acceptance into NOHOA, the Anderson Woods development will be reviewed for compliance with all such requirements and the developer will be required to address any issues identified.

Furthermore, NOHOA requests that no development declarations be recorded or given to purchasers until NOHOA has approved them. NOHOA will not be bound by any declarations that were not reviewed and approved by NOHOA prior to being recorded.

If you have any questions or would like to discuss any of these comments further, please feel free to contact NOHOA.

Thank you,

(Signed copy on file)

Katherine Emmons
President

Cc: Kevin Kress, City Administrator
Mark Houge, President, North Oaks Company
North Oaks Planning Commission
NOHOA Board of Directors