

CADD QUALIFICATION

CADD files prepared by the Consultant for this project are instruments of the Consultant's professional services for use solely with respect to this project. These CADD files shall not be used on other projects. For additions to this project, or for completion of this project by others without written approval by the Consultant, with the Consultant's approval, others may be permitted to obtain copies of the CADD drawing files for information and reference only. All intentional or unintentional revisions, additions, or deletions to these CADD files shall be made at the full risk of that party making such revisions, additions or deletions and that party shall hold harmless and indemnify the Consultant from any & all responsibilities, claims, and liabilities.

SUBMITTAL/REVISIONS

10/12/20 SURVEY ISSUED

PROFESSIONAL SIGNATURE

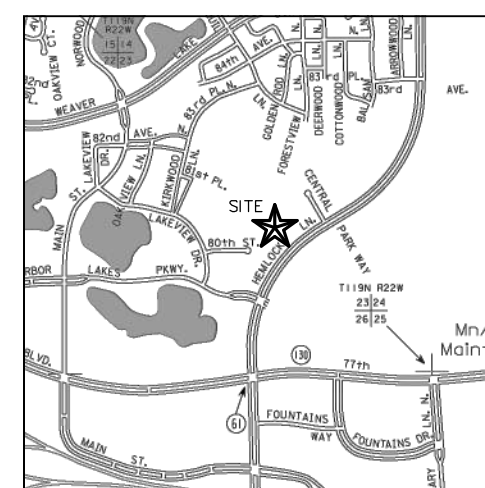
I hereby certify that this survey, plan or report was prepared by me or under my direct supervision and that I am a duly Licensed Land Surveyor under the laws of the State of Minnesota.

Max L. Stanislawski - PLS License No. 48988
Date 10/12/20

QUALITY CONTROL

Loucks Project No. 12023E
Project Lead MLS
Drawn By KMM
Checked By MLS
Field Crew DJP/SFD

VICINITY MAP



DESCRIPTION OF PROPERTY SURVEYED

(Per Hennepin County Tax Assessor)

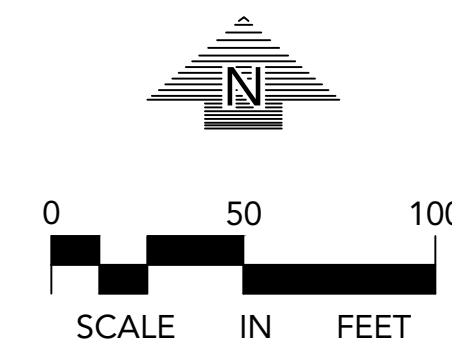
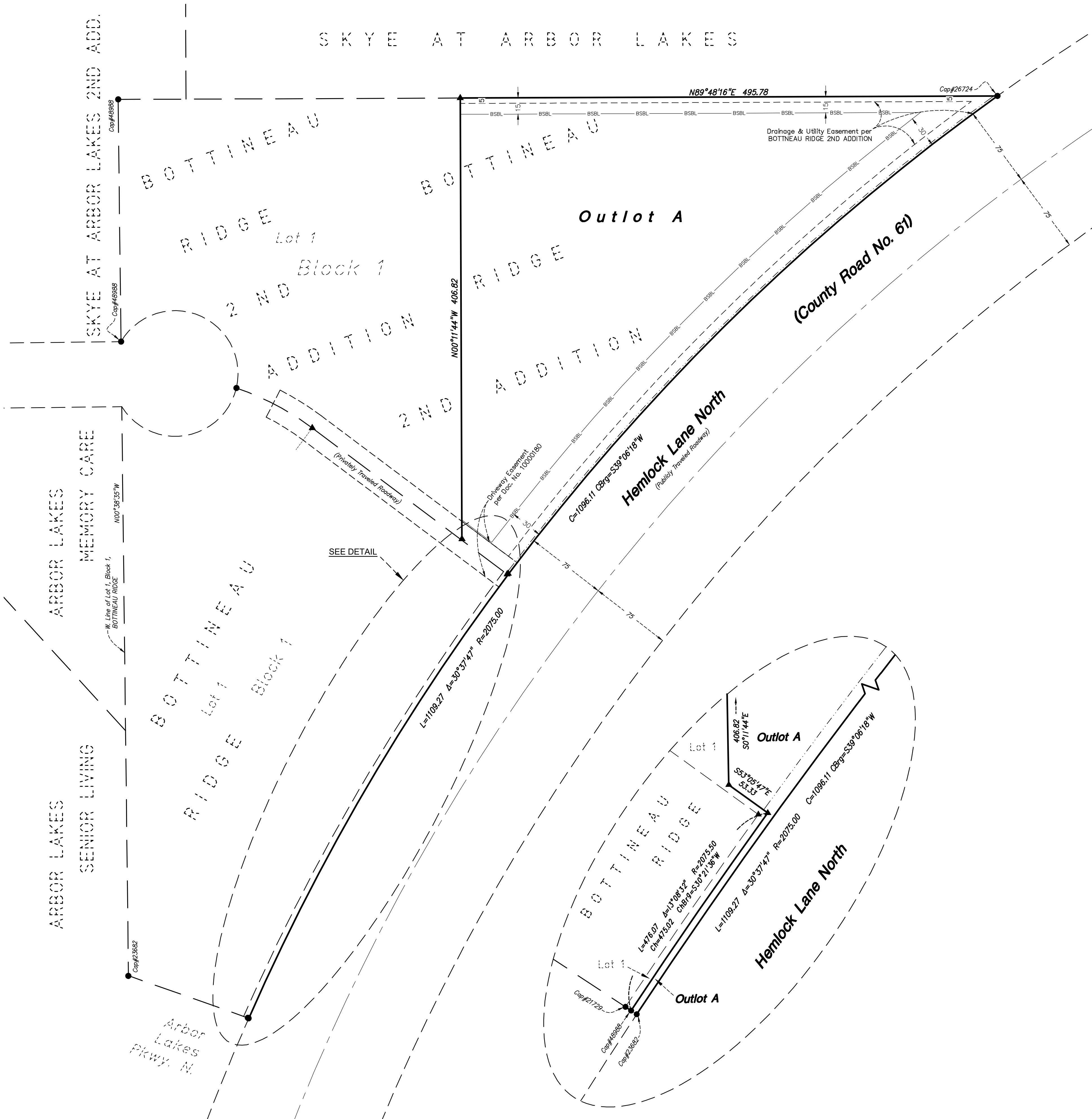
Outlot A, BOTTINEAU RIDGE 2ND ADDITION, Hennepin County, Minnesota.

Abstract Property.

SURVEY REPORT

- The purpose of this survey is to show topography and existing improvements for the property.
- This survey was prepared without the benefit of a Title Commitment. There may or may not be easements of record encumbering this property.
- Monuments placed (or a reference monument or witness to the corner) at all major corners of the boundary of the property, unless already marked or reference by existing monuments or witness to the corners are shown hereon.
- The address, if disclosed in documents provided to or obtained by the surveyor, or observed while conducting the fieldwork is unassigned.
- The Gross land area is 107,708 +/- square feet or 2.47 +/- acres.
- The bearings for this survey are based on the plat of BOTTINEAU RIDGE, with the west line of Lot 1, having an assumed bearing of North 00 degrees 38 minutes 35 seconds West.
- Benchmark: Top nut of hydrant located south of Outlot A as shown hereon on Sheet C2-2. Elevation = 912.32 (NDVD29)
Site Benchmark: Top nut of hydrant located west of Outlot A as shown hereon on Sheet C2-2. Elevation = 912.98 (NDVD29)
- There are no striped parking stalls on this site.
- Substantial features observed in the process of conducting fieldwork, are shown hereon.
- We have shown underground utilities on and/or serving the surveyed property per Gopher State One-Call Ticket Nos. 202553331 & 202553337. The following utilities and municipalities were notified:

ARVIG	(218) 346-5500	CITY OF MAPLE GROVE	(763) 494-6370
COMCAST	(800) 778-9140	CENTURYLINK	(800) 778-9140
HENNEPIN COUNTY PUBLIC WORKS	(406) 541-9571	MCI	(800) 624-9675
CENTER POINT ENERGY	(608) 223-2014	WRIGHT HENNEPIN COOP	(800) 778-9140
XCEL ENERGY	(800) 848-7558		
- Utility operators do not consistently respond to locate requests through the Gopher State One Call service for surveying purposes such as this. Those utility operators that do respond, often will not locate utilities from their main line to the customer's structure or facility. They consider those utilities "private" installations that are outside their jurisdiction. These "private" utilities on the surveyed property or adjoining properties, may not be located since most operators will not mark such "private" utilities. A private utility locator may be contacted to investigate these utilities further, if requested by the client.
- Maps provided by those notified above, either along with a field location or in lieu of such a location, are very often inaccurate or inconclusive. **EXTREME CAUTION MUST BE EXERCISED BEFORE AN EXCAVATION TAKES PLACE ON OR NEAR THIS SITE. BEFORE DIGGING, YOU ARE REQUIRED BY LAW TO NOTIFY GOPHER STATE ONE CALL AT LEAST 48 HOURS IN ADVANCE AT 811 or (651) 454-0002.**
- The field work was completed on October 5, 2020.



**BOTTINEAU
RIDGE 3RD
ADDITION**

MAPLE GROVE, MN

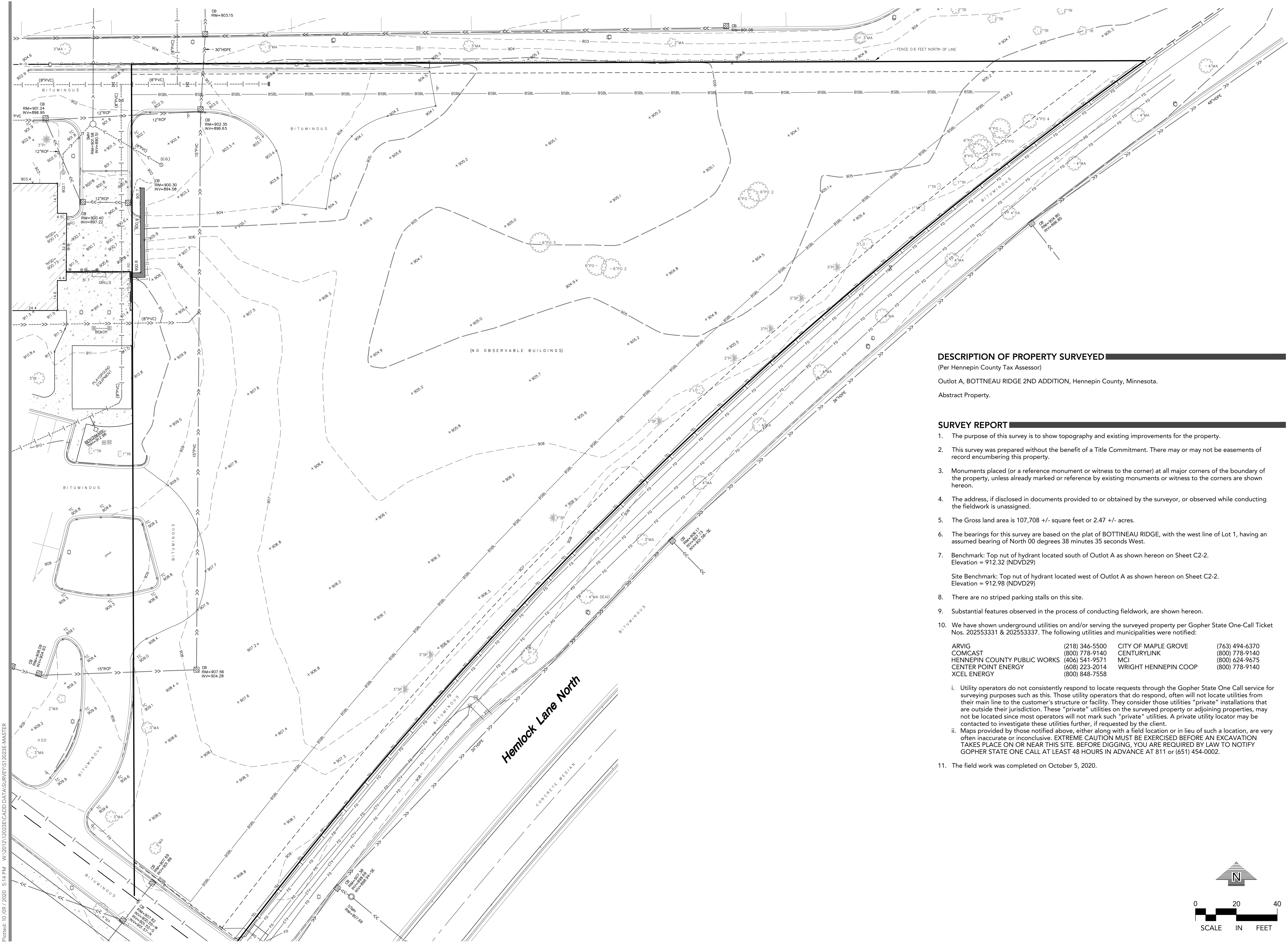
**DUFFY
DEVELOPMENT**

11900 WAYZATA BLVD.
MINNETONKA, MN 55305



PLANNING
CIVIL ENGINEERING
LAND SURVEYING
LANDSCAPE ARCHITECTURE
ENVIRONMENTAL

7200 Hemlock Lane, Suite 300
Maple Grove, MN 55369
763.424.5505
www.louckscinc.com



DESCRIPTION OF PROPERTY SURVEYED

(Per Hennepin County Tax Assessor)

Outlot A, BOTTINEAU RIDGE 2ND ADDITION, Hennepin County, Minnesota.

Abstract Property.

SURVEY REPORT

- The purpose of this survey is to show topography and existing improvements for the property.
- This survey was prepared without the benefit of a Title Commitment. There may or may not be easements of record encumbering this property.
- Monuments placed (or a reference monument or witness to the corner) at all major corners of the boundary of the property, unless already marked or reference by existing monuments or witness to the corners are shown hereon.
- The address, if disclosed in documents provided to or obtained by the surveyor, or observed while conducting the fieldwork is unassigned.
- The Gross land area is 107,708 +/- square feet or 2.47 +/- acres.
- The bearings for this survey are based on the plat of BOTTINEAU RIDGE, with the west line of Lot 1, having an assumed bearing of North 00 degrees 38 minutes 35 seconds West.
Elevation = 912.32 (NDVD29)
- Benchmark: Top nut of hydrant located south of Outlot A as shown hereon on Sheet C2-2.
Elevation = 912.32 (NDVD29)
Site Benchmark: Top nut of hydrant located west of Outlot A as shown hereon on Sheet C2-2.
Elevation = 912.98 (NDVD29)
- There are no striped parking stalls on this site.
- Substantial features observed in the process of conducting fieldwork, are shown hereon.
- We have shown underground utilities on and/or serving the surveyed property per Gopher State One-Call Ticket Nos. 202553331 & 202553337. The following utilities and municipalities were notified:

ARVIG	(218) 346-5500	CITY OF MAPLE GROVE	(763) 494-6370
COMCAST	(800) 778-9140	CENTURYLINK	(800) 778-9140
HENNEPIN COUNTY PUBLIC WORKS	(406) 541-9571	MCI	(800) 624-9675
CENTER POINT ENERGY	(608) 223-2014	WRIGHT HENNEPIN COOP	(800) 778-9140
XCEL ENERGY	(800) 848-7558		
- Utility operators do not consistently respond to locate requests through the Gopher State One Call service for surveying purposes such as this. Those utility operators that do respond, often will not locate utilities from their main line to the customer's structure or facility. They consider those utilities "private" installations that are outside their jurisdiction. These "private" utilities on the surveyed property or adjoining properties, may not be located since most operators will not mark such "private" utilities. A private utility locator may be contacted to investigate these utilities further, if requested by the client.
- Maps provided by those notified above, either along with a field location or in lieu of such a location, are very often inaccurate or inconclusive. EXTREME CAUTION MUST BE EXERCISED BEFORE AN EXCAVATION TAKES PLACE ON OR NEAR THIS SITE. BEFORE DIGGING, YOU ARE REQUIRED BY LAW TO NOTIFY GOPHER STATE ONE CALL AT LEAST 48 HOURS IN ADVANCE AT 811 or (651) 454-0002.
- The field work was completed on October 5, 2020.

CADD QUALIFICATION

CADD files prepared by the Consultant for this project are instruments of the Consultant's professional services for use solely with respect to this project. These CADD files shall not be used on other projects, for additions to this project, or for completion of this project by others without written approval by the Consultant. With the Consultant's approval, others may be permitted to obtain copies of the CADD drawing files for information and reference only. All intentional or unintentional revisions, additions, or deletions to these CADD files shall be made at the full risk of that party making such revisions, additions or deletions and that party shall hold harmless and indemnify the Consultant from any & all responsibilities, claims, and liabilities.

SUBMITTAL/REVISIONS

10/12/20 SURVEY ISSUED

PROFESSIONAL SIGNATURE

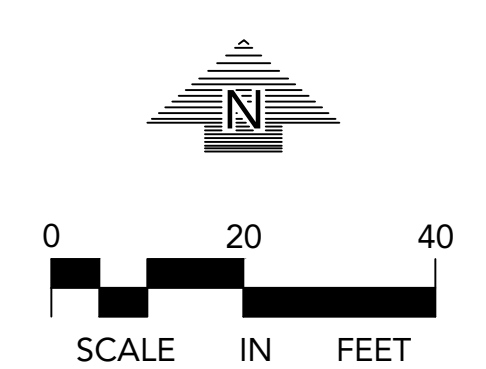
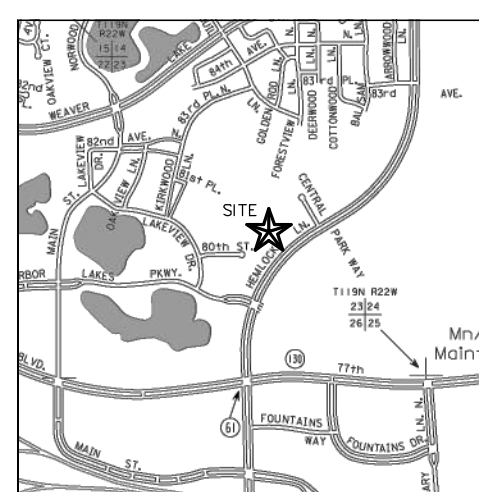
I hereby certify that this survey, plan or report was prepared by me or under my direct supervision and that I am a duly Licensed Land Surveyor under the laws of the State of Minnesota.

Max L. Stanislawski - PLS License No. 48988
Date 10/12/20

QUALITY CONTROL

Loucks Project No. 12023E
Project Lead MLS
Drawn By KMM
Checked By MLS
Field Crew DJP/SFD

VICINITY MAP



**TOPOGRAPHIC
SURVEY
C1-2**

Plotted: 10/09/2020 5:14 PM W:\2021\12023E\CADD DATA\SURVEYS\12023E.MASTER

**BOTTINEAU
RIDGE 3RD
ADDITION**

MAPLE GROVE, MN

**DUFFY
DEVELOPMENT**

11900 WAYZATA BLVD.
MINNETONKA, MN 55305



PLANNING
CIVIL ENGINEERING
LAND SURVEYING
LANDSCAPE ARCHITECTURE
ENVIRONMENTAL

7200 Hemlock Lane, Suite 300
Maple Grove, MN 55369
763.424.5505
www.loucksin.com

CADD QUALIFICATION

CADD files prepared by the Consultant for this project are instruments of the Consultant's professional services for use solely with respect to this project. These CADD files shall not be used on other projects, for additions to this project, or for completion of this project by others without written approval by the Consultant. With the Consultant's approval, others may be permitted to obtain copies of the CADD drawing files for information and reference only. All intentional or unintentional revisions, additions, or deletions to these CADD files shall be made at the full risk of that party making such revisions, additions or deletions and that party shall hold harmless and indemnify the Consultant from any & all responsibilities, claims, and liabilities.

SUBMITTAL/REVISIONS

10/12/20 SURVEY ISSUED

PROFESSIONAL SIGNATURE

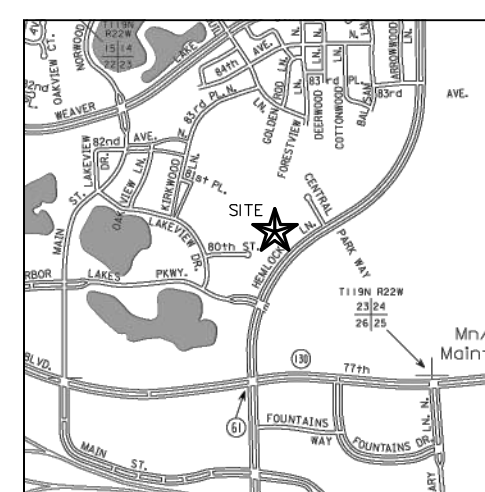
I hereby certify that this survey, plan or report was prepared by me or under my direct supervision and that I am a duly Licensed Land Surveyor under the laws of the State of Minnesota.

Max L. Stanislawski - PLS 48988
License No. 48988
Date 10/12/20

QUALITY CONTROL

12023E
Loucks Project No. 12023E
Project Lead MLS
Drawn By KMM
Checked By MLS
Field Crew DJP/SFD

VICINITY MAP



**PRELIMINARY
PLAT**

C1-3

LEGAL DESCRIPTION

(Per Hennepin County Tax Assessor)

Outlot A, BOTTINEAU RIDGE 2ND ADDITION, Hennepin County, Minnesota.

Abstract Property.

GENERAL NOTES

SURVEYOR:
Loucks
7200 Hemlock Lane, Suite 300
Maple Grove, MN 55330
763-424-5505

OWNER/DEVELOPER:
Duffy Development
11900 Wayzata Blvd.
Minnetonka, MN 55305
952-544-6769

1. Prepared October 12, 2020.
2. This survey was performed without the benefit of a Title Commitment. There may or may not be easements of record encumbering this property.
3. The address, if disclosed in documents provided to or obtained by the surveyor, or observed while conducting the fieldwork is unassigned.
4. The bearings for this survey are based on the plat of BOTTINEAU RIDGE, with the west line of Lot 1, having an assumed bearing of North 00 degrees 38 minutes 35 seconds West.
Benchmark: Top nut of hydrant located south of Outlot A as shown hereon on Sheet C2-2.
Elevation = 912.32 (NDVD29)
Site Benchmark: Top nut of hydrant located west of Outlot A as shown hereon on Sheet C2-2.
Elevation = 912.98 (NDVD29)
5. This property is contained in unprinted Flood Insurance Rate Map, Community Panel No. 27053C0181E
6. The field work was completed on October 5, 2020.

SITE DATA

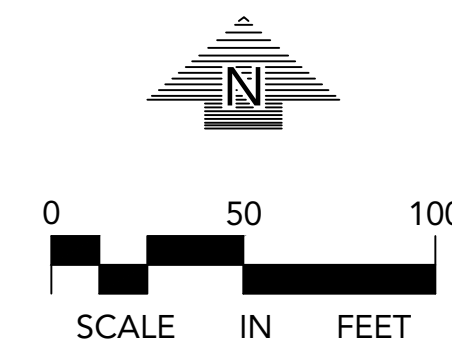
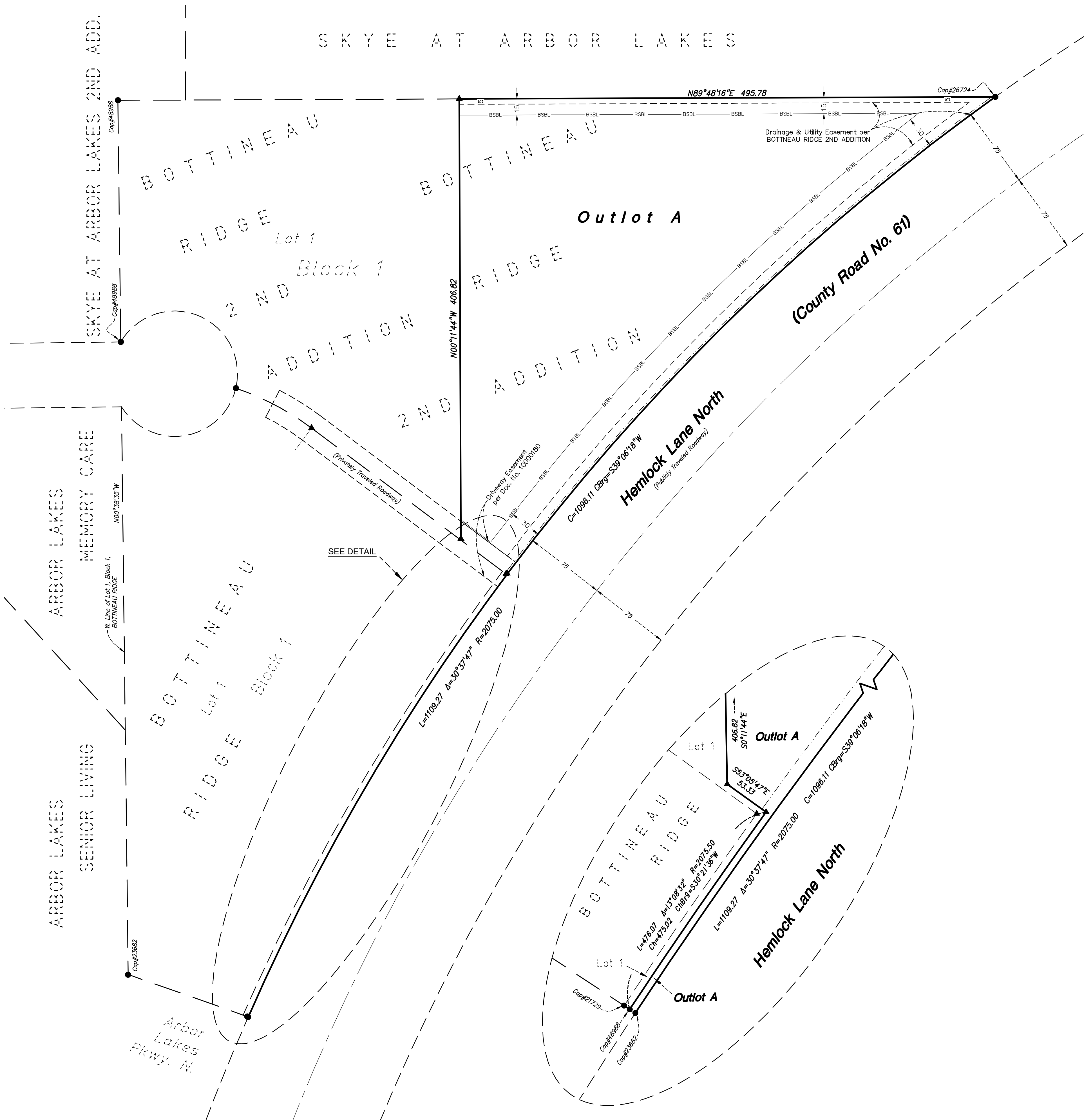
Areas
The Gross land area is 107,708 +/- square feet or 2.47 +/- acres.

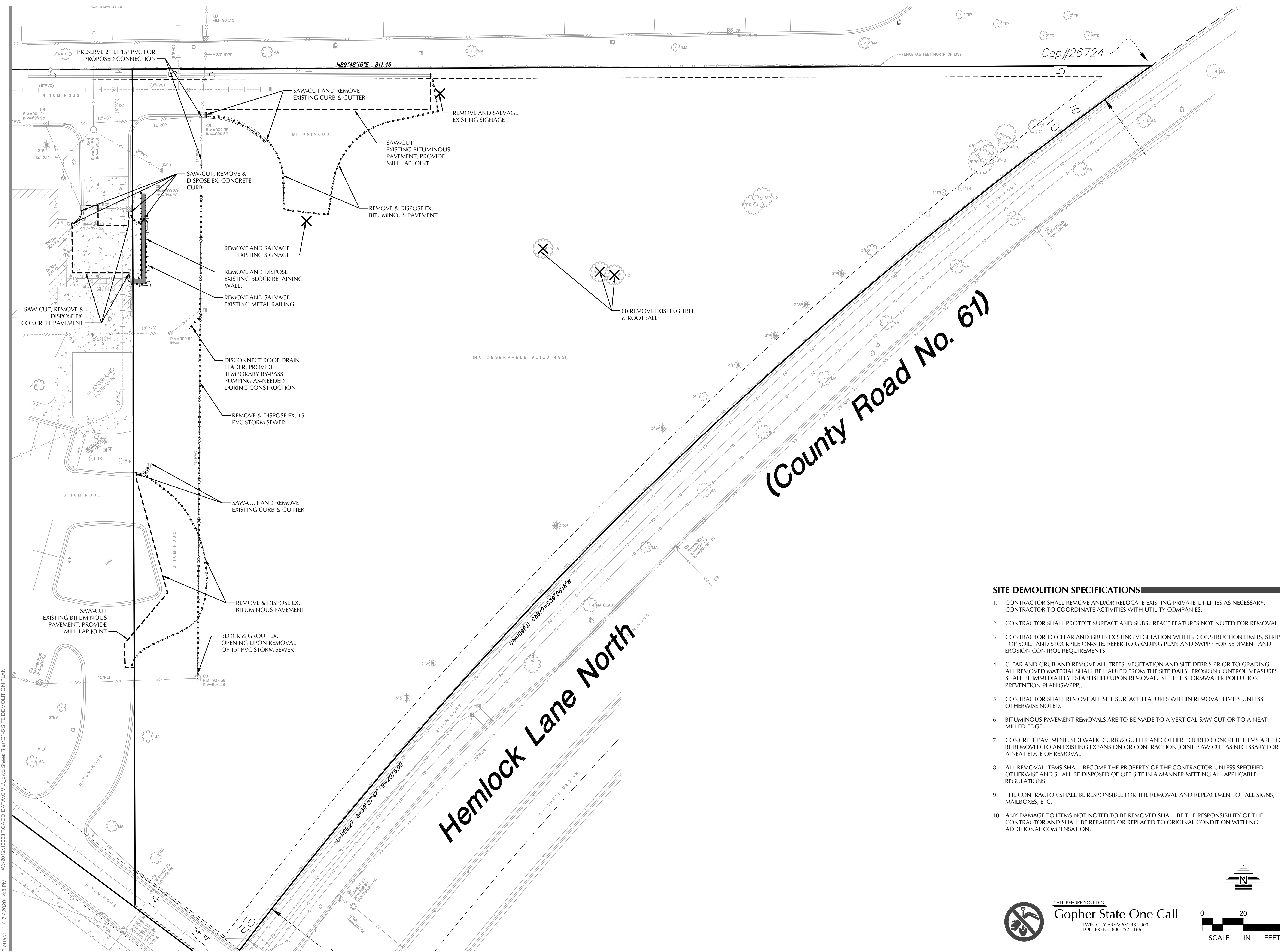
Zoning
Current Zoning: Zone PUD (Planned Unit Development)

Setbacks
Front = 30 Feet
Side = 15 Feet
Rear = 15 Feet

LEGEND

- ▲ DENOTES MAG NAIL FOUND
- DENOTES IRON MONUMENT FOUND, MARKED "LS 26724" UNLESS OTHERWISE SHOWN





BOTTINEAU RIDGE 3RD ADDITION
MAPLE GROVE, MN

DUFFY DEVELOPMENT
11900 Wayzata Blvd.
Minnetonka, MN 55305

LOUCKS
PLANNING
CIVIL ENGINEERING
LAND SURVEYING
LANDSCAPE ARCHITECTURE
ENVIRONMENTAL
7200 Hemlock Lane, Suite 300
Maple Grove, MN 55369
763.424.5505
www.loucksin.com

CADD QUALIFICATION
CADD files prepared by the Consultant for this project are instruments of the Consultant's professional services for use solely with respect to this project. These CADD files shall not be used on other projects, for additions to this project, or for completion of this project by others without written approval by the Consultant. With the Consultant's approval, others may be permitted to obtain copies of the CADD drawing files for information and reference only. All intentional or unintentional revisions, additions, or deletions to these CADD files shall be made at the full risk of that party making such revisions, additions or deletions and that party shall hold harmless and indemnify the Consultant from any & all responsibilities, claims, and liabilities.

SUBMITTAL/REVISIONS
10/12/20 PUD APPLICATION
11/18/20 CITY COMMENT RESPONSE

PROFESSIONAL SIGNATURE
I hereby certify that this plan, specification, report 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.
PRELIMINARY NOT FOR CONSTRUCTION

QUALITY CONTROL
Loucks Project No. 12023F
Project Lead MJS
Drawn By DDL
Checked By MJS
Review Date 10/09/20

SHEET INDEX

C1-1	BOUNDARY SURVEY
C1-2	TOPOGRAPHIC SURVEY
C1-3	PRELIMINARY PLAN
C1-4	FINAL PLAN
C1-5	SITE DEMOLITION PLAN
C2-1	SITE PLAN
C3-1	GRADING PLAN
C3-2	SWPPP
C3-3	SWPPP NOTES & DETAILS
C4-1	UTILITY PLAN
C8-1	CIVIL DETAILS
C8-2	CIVIL DETAILS
L1-1	LANDSCAPE PLAN
L2-1	LANDSCAPE DETAILS

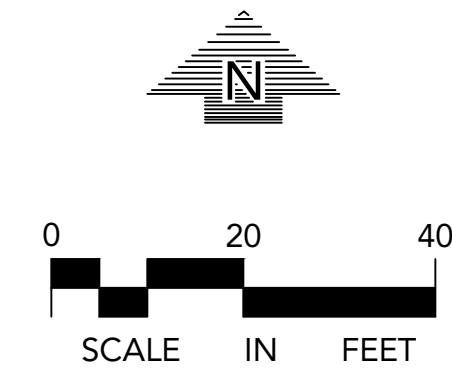
SITE DEMOLITION PLAN
C1-5

SITE DEMOLITION SPECIFICATIONS

- CONTRACTOR SHALL REMOVE AND/OR RELOCATE EXISTING PRIVATE UTILITIES AS NECESSARY. CONTRACTOR TO COORDINATE ACTIVITIES WITH UTILITY COMPANIES.
- CONTRACTOR SHALL PROTECT SURFACE AND SUBSURFACE FEATURES NOT NOTED FOR REMOVAL.
- CONTRACTOR TO CLEAR AND GRUB EXISTING VEGETATION WITHIN CONSTRUCTION LIMITS, STRIP TOP SOIL, AND STOCKPILE ON-SITE. REFER TO GRADING PLAN AND SWPPP FOR SEDIMENT AND EROSION CONTROL REQUIREMENTS.
- CLEAR AND GRUB AND REMOVE ALL TREES, VEGETATION AND SITE DEBRIS PRIOR TO GRADING. ALL REMOVED MATERIAL SHALL BE HAULED FROM THE SITE DAILY. EROSION CONTROL MEASURES SHALL BE IMMEDIATELY ESTABLISHED UPON REMOVAL. SEE THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP).
- CONTRACTOR SHALL REMOVE ALL SITE SURFACE FEATURES WITHIN REMOVAL LIMITS UNLESS OTHERWISE NOTED.
- BITUMINOUS PAVEMENT REMOVALS ARE TO BE MADE TO A VERTICAL SAW CUT OR TO A NEAT MILLED EDGE.
- CONCRETE PAVEMENT, SIDEWALK, CURB & GUTTER AND OTHER POURED CONCRETE ITEMS ARE TO BE REMOVED TO AN EXISTING EXPANSION OR CONTRACTION JOINT, SAW CUT AS NECESSARY FOR A NEAT EDGE OF REMOVAL.
- ALL REMOVAL ITEMS SHALL BECOME THE PROPERTY OF THE CONTRACTOR UNLESS SPECIFIED OTHERWISE AND SHALL BE DISPOSED OF OFF-SITE IN A MANNER MEETING ALL APPLICABLE REGULATIONS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL AND REPLACEMENT OF ALL SIGNS, MAILBOXES, ETC.
- ANY DAMAGE TO ITEMS NOT NOTED TO BE REMOVED SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE REPAIRED OR REPLACED TO ORIGINAL CONDITION WITH NO ADDITIONAL COMPENSATION.



CALL BEFORE YOU DIG!
Gopher State One Call
TWIN CITY AREA: 651-454-0002
TOLL FREE: 1-800-252-1166



Plotted: 11/17/2020 4:8 PM W:\2021\12023F\CADD DATA\CIVIL.dwg Sheet Files\C1-5 SITE DEMOLITION PLAN

CADD QUALIFICATION

CADD files prepared by the Consultant for this project are instruments of the Consultant's professional services for use solely with respect to this project. These CADD files shall not be used on other projects, for additions to this project, or for completion of this project by others without written approval by the Consultant. With the Consultant's approval, others may be permitted to obtain copies of the CADD drawing files for information and reference only. All intentional or unintentional revisions, additions, or deletions to these CADD files shall be made at the full risk of that party making such revisions, additions or deletions and that party shall hold harmless and indemnify the Consultant from any & all responsibilities, claims, and liabilities.

SUBMITTAL/REVISIONS

10/12/20 PUD APPLICATION
11/18/20 CITY COMMENT RESPONSE

PROFESSIONAL SIGNATURE

I hereby certify that this plan, specification, report 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.

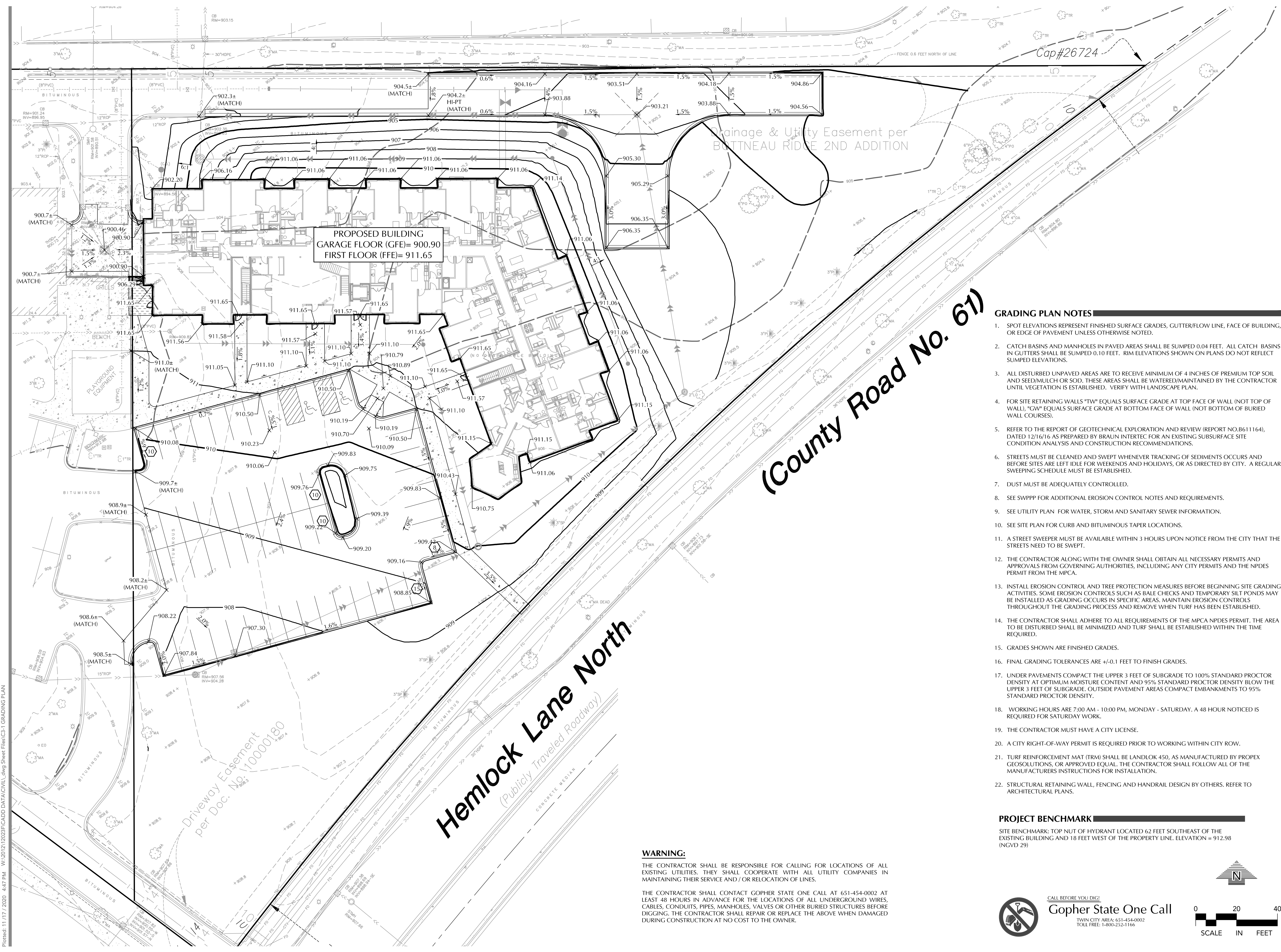
**PRELIMINARY
NOT FOR
CONSTRUCTION**

QUALITY CONTROL

Loucks Project No. 12023F
Project Lead MJS
Drawn By DDL
Checked By MJS
Review Date 10/09/20

SHEET INDEX

C1-1	BOUNDARY SURVEY
C1-2	TOPOGRAPHIC SURVEY
C1-3	PRELIMINARY PLAN
C1-4	FINAL PLAN
C1-5	SITE DEMOLITION PLAN
C2-1	SITE PLAN
C3-1	GRADING PLAN
C3-2	SWPPP NOTES & DETAILS
C3-3	SWPPP NOTES & DETAILS
C4-1	UTILITY PLAN
C8-1	CIVIL DETAILS
C8-2	CIVIL DETAILS
L1-1	LANDSCAPE PLAN
L2-1	LANDSCAPE DETAILS



Drainage & Utility Easement per
BOTTINEAU RIDGE 2ND ADDITION

PROPOSED BUILDING
GARAGE FLOOR (GFE)= 900.90
FIRST FLOOR (FFE)= 911.65

(County Road No. 61)

Hemlock Lane North
(Publicly Traveled Roadway)

Driveway Easement
per Doc. No. 10000180

GRADING PLAN NOTES

- SPOT ELEVATIONS REPRESENT FINISHED SURFACE GRADES, GUTTER/FLOW LINE, FACE OF BUILDING, OR EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.
- CATCH BASINS AND MANHOLES IN PAVED AREAS SHALL BE SUMPED 0.04 FEET. ALL CATCH BASINS IN GUTTERS SHALL BE SUMPED 0.10 FEET. RIM ELEVATIONS SHOWN ON PLANS DO NOT REFLECT SUMPED ELEVATIONS.
- ALL DISTURBED UNPAVED AREAS ARE TO RECEIVE MINIMUM OF 4 INCHES OF PREMIUM TOP SOIL AND SEED/MULCH OR SOD. THESE AREAS SHALL BE WATERED/MAINTAINED BY THE CONTRACTOR UNTIL VEGETATION IS ESTABLISHED. VERIFY WITH LANDSCAPE PLAN.
- FOR SITE RETAINING WALLS "TW" EQUALS SURFACE GRADE AT TOP FACE OF WALL (NOT TOP OF WALL), "GW" EQUALS SURFACE GRADE AT BOTTOM FACE OF WALL (NOT BOTTOM OF BURIED WALL COURSES).
- REFER TO THE REPORT OF GEOTECHNICAL EXPLORATION AND REVIEW (REPORT NO.B61164), DATED 12/16/16 AS PREPARED BY BRAUN INTERTEC FOR AN EXISTING SUBSURFACE SITE CONDITION ANALYSIS AND CONSTRUCTION RECOMMENDATIONS.
- STREETS MUST BE CLEANED AND SWEEPED WHENEVER TRACKING OF SEDIMENTS OCCURS AND BEFORE SITES ARE LEFT IDLE FOR WEEKENDS AND HOLIDAYS, OR AS DIRECTED BY CITY. A REGULAR SWEEPING SCHEDULE MUST BE ESTABLISHED.
- DUST MUST BE ADEQUATELY CONTROLLED.
- SEE SWPPP FOR ADDITIONAL EROSION CONTROL NOTES AND REQUIREMENTS.
- SEE UTILITY PLAN FOR WATER, STORM AND SANITARY SEWER INFORMATION.
- SEE SITE PLAN FOR CURB AND BITUMINOUS TAPER LOCATIONS.
- A STREET SWEEPER MUST BE AVAILABLE WITHIN 3 HOURS UPON NOTICE FROM THE CITY THAT THE STREETS NEED TO BE SWEEPED.
- THE CONTRACTOR ALONG WITH THE OWNER SHALL OBTAIN ALL NECESSARY PERMITS AND APPROVALS FROM GOVERNING AUTHORITIES, INCLUDING ANY CITY PERMITS AND THE NPDES PERMIT FROM THE MPCA.
- INSTALL EROSION CONTROL AND TREE PROTECTION MEASURES BEFORE BEGINNING SITE GRADING ACTIVITIES. SOME EROSION CONTROLS SUCH AS BALE CHECKS AND TEMPORARY SILT PONDS MAY BE INSTALLED AS GRADING OCCURS IN SPECIFIC AREAS. MAINTAIN EROSION CONTROLS THROUGHOUT THE GRADING PROCESS AND REMOVE WHEN TURF HAS BEEN ESTABLISHED.
- THE CONTRACTOR SHALL ADHERE TO ALL REQUIREMENTS OF THE MPCA NPDES PERMIT, THE AREA TO BE DISTURBED SHALL BE MINIMIZED AND TURF SHALL BE ESTABLISHED WITHIN THE TIME REQUIRED.
- GRADES SHOWN ARE FINISHED GRADES.
- FINAL GRADING TOLERANCES ARE +/-0.1 FEET TO FINISH GRADES.
- UNDER PAVEMENTS COMPACT THE UPPER 3 FEET OF SUBGRADE TO 100% STANDARD PROCTOR DENSITY AT OPTIMUM MOISTURE CONTENT AND 95% STANDARD PROCTOR DENSITY BLOW THE UPPER 3 FEET OF SUBGRADE. OUTSIDE PAVEMENT AREAS COMPACT EMBANKMENTS TO 95% STANDARD PROCTOR DENSITY.
- WORKING HOURS ARE 7:00 AM - 10:00 PM, MONDAY - SATURDAY. A 48 HOUR NOTICED IS REQUIRED FOR SATURDAY WORK.
- THE CONTRACTOR MUST HAVE A CITY LICENSE.
- A CITY RIGHT-OF-WAY PERMIT IS REQUIRED PRIOR TO WORKING WITHIN CITY ROW.
- TURF REINFORCEMENT MAT (TRM) SHALL BE LANDLOK 450, AS MANUFACTURED BY PROPEX GEOSOLUTIONS, OR APPROVED EQUAL. THE CONTRACTOR SHALL FOLLOW ALL OF THE MANUFACTURERS INSTRUCTIONS FOR INSTALLATION.
- STRUCTURAL RETAINING WALL, FENCING AND HANDRAIL DESIGN BY OTHERS. REFER TO ARCHITECTURAL PLANS.

PROJECT BENCHMARK

SITE BENCHMARK: TOP NUT OF HYDRANT LOCATED 62 FEET SOUTHEAST OF THE EXISTING BUILDING AND 18 FEET WEST OF THE PROPERTY LINE. ELEVATION = 912.98 (NGVD 29)

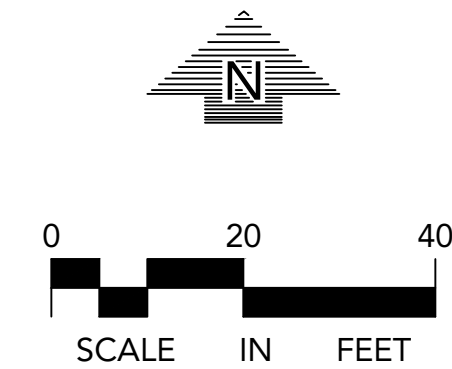
WARNING:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR CALLING FOR LOCATIONS OF ALL EXISTING UTILITIES. THEY SHALL COOPERATE WITH ALL UTILITY COMPANIES IN MAINTAINING THEIR SERVICE AND /OR RELOCATION OF LINES.

THE CONTRACTOR SHALL CONTACT GOPHER STATE ONE CALL AT 651-454-0002 AT LEAST 48 HOURS IN ADVANCE FOR THE LOCATIONS OF ALL UNDERGROUND WIRES, CABLES, CONDUITS, PIPES, MANHOLES, VALVES OR OTHER BURIED STRUCTURES BEFORE DIGGING. THE CONTRACTOR SHALL REPAIR OR REPLACE THE ABOVE WHEN DAMAGED DURING CONSTRUCTION AT NO COST TO THE OWNER.



CALL BEFORE YOU DIG!
Gopher State One Call
TWIN CITY AREA: 651-454-0002
TOLL FREE: 1-800-252-1166



CADD QUALIFICATION

CADD files prepared by the Consultant for this project are instruments of the Consultant's professional services for use solely with respect to this project. These CADD files shall not be used on other projects, for additions to this project, or for completion of this project by others without written approval by the Consultant. With the Consultant's approval, others may be permitted to obtain copies of the CADD drawings files for information and reference only. All intentional or unintentional revisions, additions, or deletions to these CADD files shall be made at the full risk of that party making such revisions, additions or deletions and that party shall hold harmless and indemnify the Consultant from any & all responsibilities, claims, and liabilities.

SUBMITTAL/REVISIONS

10/12/20 PUD APPLICATION
11/18/20 CITY COMMENT RESPONSE

PROFESSIONAL SIGNATURE

I hereby certify that this plan, specification, report 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.

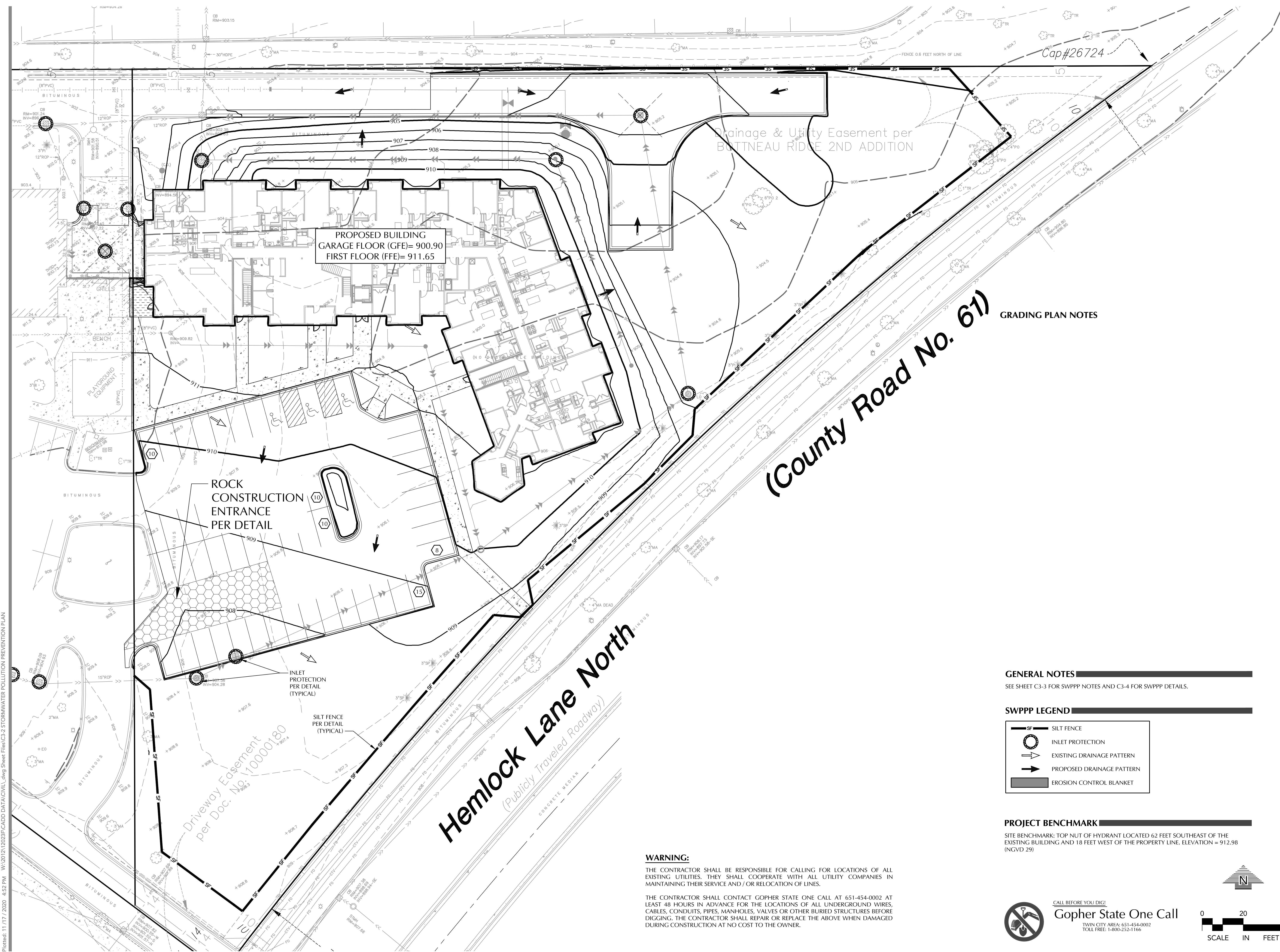
Lic. No. 10000180
Date: 10/09/20

QUALITY CONTROL

Loucks Project No. 12023F
Project Lead MJS
Drawn By DDL
Checked By MJS
Review Date 10/09/20

SHEET INDEX

C1-1	BOUNDARY SURVEY
C1-2	TOPOGRAPHIC SURVEY
C1-3	PRELIMINARY PLAN
C1-4	FINAL PLAN
C1-5	SITE DEMOLITION PLAN
C2-1	SITE PLAN
C3-1	GRADING PLAN
C3-2	SWPPP PLAN
C3-3	SWPPP NOTES & DETAILS
C4-1	UTILITY PLAN
C8-1	CIVIL DETAILS
C8-2	CIVIL DETAILS
L1-1	LANDSCAPE PLAN
L2-1	LANDSCAPE DETAILS



PROPOSED BUILDING
GARAGE FLOOR (GFE) = 900.90
FIRST FLOOR (FFE) = 911.65

ROCK
CONSTRUCTION
ENTRANCE
PER DETAIL

INLET
PROTECTION
PER DETAIL
(TYPICAL)

SILT FENCE
PER DETAIL
(TYPICAL)

Driveway Easement
per Doc. No. 10000180

Drainage & Utility Easement per
BOTTINEAU RIDGE 2ND ADDITION

GRADING PLAN NOTES

(County Road No. 61)

Hemlock Lane North
(Publicly Traveled Roadway)

WARNING:

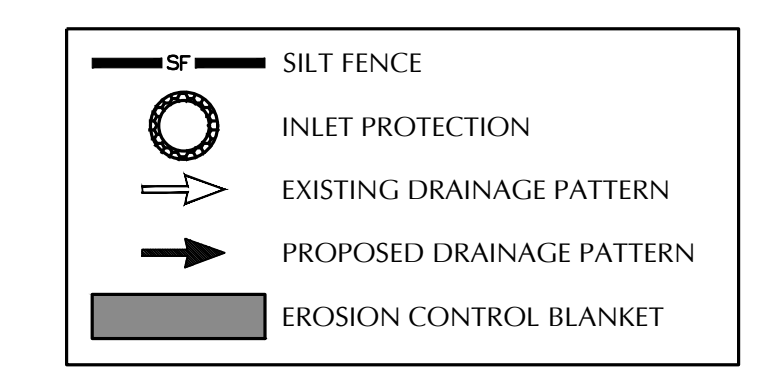
THE CONTRACTOR SHALL BE RESPONSIBLE FOR CALLING FOR LOCATIONS OF ALL EXISTING UTILITIES. THEY SHALL COOPERATE WITH ALL UTILITY COMPANIES IN MAINTAINING THEIR SERVICE AND / OR RELOCATION OF LINES.

THE CONTRACTOR SHALL CONTACT GOPHER STATE ONE CALL AT 651-454-0002 AT LEAST 48 HOURS IN ADVANCE FOR THE LOCATIONS OF ALL UNDERGROUND WIRES, CABLES, CONDUITS, PIPES, MANHOLES, VALVES OR OTHER BURIED STRUCTURES BEFORE DIGGING. THE CONTRACTOR SHALL REPAIR OR REPLACE THE ABOVE WHEN DAMAGED DURING CONSTRUCTION AT NO COST TO THE OWNER.

GENERAL NOTES

SEE SHEET C3-3 FOR SWPPP NOTES AND C3-4 FOR SWPPP DETAILS.

SWPPP LEGEND

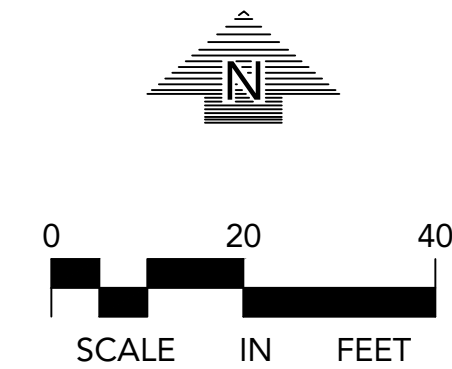


PROJECT BENCHMARK

SITE BENCHMARK: TOP NUT OF HYDRANT LOCATED 62 FEET SOUTHEAST OF THE EXISTING BUILDING AND 18 FEET WEST OF THE PROPERTY LINE. ELEVATION = 912.98 (NGVD 29)



CALL BEFORE YOU DIG!
Gopher State One Call
TWIN CITY AREA: 651-454-0002
TOLL FREE: 1-800-252-1166



SWPPP NOTES

- THE NATURE OF THIS PROJECT WILL CONSIST OF CONSTRUCTING ONE APARTMENT BUILDING, SURFACE PAVEMENTS, AND UTILITIES. IT IS INTENDED FOR THIS PROJECT TO BE CONSTRUCTED IN ONE PHASE - INCLUDING ALL SITE WORK AND APARTMENT BUILDING CONSTRUCTION.
- THE INTENDED SEQUENCING OF MAJOR CONSTRUCTION ACTIVITIES ARE AS FOLLOWS:
 - INSTALL VEHICLE TRACKING BMP
 - INSTALL SILT FENCE AROUND SITE
 - CLEAR AND GRUB SITE
 - STRIP AND STOCKPILE TOPSOIL
 - REMOVE PAVEMENTS AND UTILITIES
 - ROUGH GRADE SITE
 - IMPORT CLEAN FILL FOR REPLACEMENT AND BALANCE
 - INSTALL UTILITIES
 - INSTALL BUILDING FOUNDATIONS (APARTMENTS AND TOWNHOMES)
 - INSTALL CURB AND GUTTER
 - INSTALL PAVEMENTS AND WALKS
 - FINAL GRADE SITE
 - REMOVE ACCUMULATED SEDIMENT FROM STORMWATER SYSTEMS
 - INSTALL POST CONSTRUCTION SILT FENCE AROUND STORMWATER SYSTEMS
 - SOD OR SEED AND MULCH
 - INSTALL DITCHES OR SILT FENCE AT BACK OF CURB OR PAVEMENT, AS NECESSARY THROUGH APARTMENT AND TOWNHOME CONSTRUCTION PROCESS
 - WHEN ALL CONSTRUCTION ACTIVITY IS COMPLETE AND THE SITE IS STABILIZED, REMOVE SILT FENCE AND RESEED ANY AREAS DISTURBED BY THE REMOVAL
- SITE DATA:

AREA OF DISTURBANCE:	±2.21 AC
PRE-CONSTRUCTION IMPERVIOUS AREA:	±0.17 AC
POST-CONSTRUCTION IMPERVIOUS AREA:	±1.10 AC

GENERAL SOIL TYPE: SEE GEOTECHNICAL EVALUATION REPORT
 EXPECTED RAINFALL: SEE STORMWATER MANAGEMENT PLAN FOR FREQUENCY, INTENSITY, AND DURATION OF PRECIPITATION
- THE LOCATION OF AREAS NOT TO BE DISTURBED MUST BE IDENTIFIED WITH FLAGS, STAKES, SIGNS, SILT FENCE, ETC. BEFORE CONSTRUCTION BEGINS.
- NO DRAINAGE AREA TO BE MORE THAN FIVE (5) ACRES OF RUNOFF CAUSING THE NEED FOR A TEMPORARY SEDIMENT BASIN.
- THE LOCATION OF INFILTRATION SYSTEMS SHALL BE CLEARLY MARKED ON SITE AND COMPACTION OF UNDERLYING SOILS SHALL BE AVOIDED. HEAVY EQUIPMENT, CONSTRUCTION TRAFFIC, CONSTRUCTION STAGING, AND ANY OTHER ACTIVITY RESULTING IN COMPACTION SHALL BE KEPT OUT OF THE INFILTRATION PRACTICE. HEAVY EQUIPMENT SHALL NOT BE USED TO EXCAVATE INFILTRATION SYSTEMS UNLESS WORK IS COMPLETED FROM OUTSIDE OF THE INFILTRATION PRACTICE.
- ALL DISTURBED GROUND LEFT INACTIVE FOR SEVEN (7) OR MORE DAYS SHALL BE STABILIZED BY SEEDING OR SODDING (ONLY AVAILABLE PRIOR TO SEPTEMBER 15) OR BY MULCHING OR COVERING OR OTHER EQUIVALENT CONTROL MEASURE.
- RECEIVING WATERS: SURFACE WATERS DRAIN TO THE EXISTING STORM SEWER IN LIVINGSTON AVE. WHICH IS ASSUMED TO FLOW EAST TO THE MISSISSIPPI RIVER. THIS RIVER HAS AN EPA APPROVED IMPAIRMENT FOR FECAL COLIFORM, MERCURY, PCB, PFOS, PFOA, AND TSS.
 - DURING CONSTRUCTION:
 - STABILIZATION OF ALL EXPOSED SOIL AREAS MUST BE INITIATED IMMEDIATELY TO LIMIT SOIL EROSION BUT IN NO CASE COMPLETED LATER THAN SEVEN (7) DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED.
 - TEMPORARY SEDIMENT BASIN REQUIREMENTS DESCRIBED IN SECTION 14 MUST BE USED FOR COMMON DRAINAGE LOCATIONS THAT SERVE AN AREA WITH FIVE (5) OR MORE ACRES DISTURBED AT ONE TIME, (IF PRESENT)
 - POST CONSTRUCTION: THE WATER QUALITY VOLUME THAT MUST BE RETAINED ON SITE BY THE PROJECT'S PERMANENT STORMWATER MANAGEMENT SYSTEM DESCRIBED IN SECTION 15 SHALL BE ONE AND ONE TENTH (1.1) INCH OF RUNOFF FROM THE NEW IMPERVIOUS SURFACES CREATED BY THE PROJECT. SEE SECTION 15 FOR MORE INFORMATION ON INFILTRATION DESIGN, PROHIBITIONS AND APPROPRIATE SITE CONDITIONS.
 - BUFFER ZONE: THE PERMITEE(S) SHALL INCLUDE AN UNDISTURBED BUFFER ZONE OF NOT LESS THAN 100 LINEAR FEET FROM THE SPECIAL WATER (NOT INCLUDING TRIBUTARIES) AND THIS BUFFER ZONE SHALL BE MAINTAINED AT ALL TIMES, BOTH DURING CONSTRUCTION AND AS A PERMANENT FEATURE POST CONSTRUCTION, EXCEPT WHERE A WATER CROSSING OR OTHER ENCROACHMENT IS NECESSARY TO COMPLETE THE PROJECT. THE PERMITEE(S) MUST FULLY DOCUMENT THE CIRCUMSTANCE AND REASONS THAT THE BUFFER ENCROACHMENT IS NECESSARY IN THE SWPPP AND INCLUDE RESTORATION ACTIVITIES. REPLACEMENT OF EXISTING IMPERVIOUS SURFACE WITHIN THE BUFFER IS ALLOWED UNDER THIS PERMIT. ALL POTENTIAL WATER QUALITY, SCENIC AND OTHER ENVIRONMENTAL IMPACTS OF THESE EXCEPTIONS MUST BE MINIMIZED BY THE USE OF ADDITIONAL OR REDUNDANT BMP'S AND DOCUMENTED IN THE SWPPP FOR THE PROJECT. (IF PRESENT)
- ON SLOPES 3:1 OR GREATER MAINTAIN SHEET FLOW AND MINIMIZE RILLS AND/OR GULLIES. SLOPE LENGTHS CAN NOT BE GREATER THAN 75 FEET.
- ALL STORM DRAINS AND INLETS MUST BE PROTECTED UNTIL ALL SOURCES OF POTENTIAL DISCHARGE ARE STABILIZED.
- TEMPORARY SOIL STOCKPILES MUST HAVE EFFECTIVE SEDIMENT CONTROL AND CAN NOT BE PLACED IN SURFACE WATERS OR STORM WATER CONVEYANCE SYSTEMS. TEMPORARY STOCKPILES WITHOUT SIGNIFICANT AMOUNT OF SILT, CLAY, OR ORGANIC COMPOUNDS ARE EXEMPT EX: CLEAN AGGREGATE STOCK PILES, DEMOLITION CONCRETE STOCKPILES, SAND STOCKPILES.
- SEDIMENT LADEN WATER MUST BE DISCHARGED TO A SEDIMENTATION BASIN WHENEVER POSSIBLE. IF NOT POSSIBLE, IT MUST BE TREATED WITH THE APPROPRIATE BMP'S.
- SOLID WASTES MUST BE STORED, COLLECTED AND DISPOSED OF PROPERLY PER MPCA STANDARDS.
- EXTERNAL WASHING OF CONSTRUCTION VEHICLES MUST BE LIMITED TO A DEFINED AREA OF THE SITE. RUNOFF MUST BE PROPERLY CONTAINED.
- NO ENGINE DEGREASING IS ALLOWED ON SITE.
- THE OWNER WHO SIGNS THE NPDES PERMIT APPLICATION IS A PERMITEE AND IS RESPONSIBLE FOR COMPLIANCE WITH ALL TERMS AND CONDITIONS OF THE PERMIT. THE OPERATOR (CONTRACTOR) WHO SIGNS THE NPDES PERMIT APPLICATION IS A PERMITEE FOR ALL APPLICABLE CONSTRUCTION ACTIVITY REQUIREMENTS FOUND IN SECTIONS 3, 4, 6-24 OF THE NPDES PERMIT AND IS JOINTLY RESPONSIBLE WITH THE OWNER FOR COMPLIANCE WITH THOSE PORTIONS OF THE PERMIT.

ESTIMATED QUANTITIES

DESCRIPTION	UNIT	QUANTITY
TEMPORARY ROCK CONSTRUCTION ENTRANCE	EA	1
EROSION CONTROL BLANKET	SF	N/A
BIO-ROLL	LF	N/A
SILT FENCE	LF	980
INLET PROTECTION	EA	12

RECEIVING WATERS

NAME OF WATER BODY	TYPE OF WATER BODY	SPECIAL WATER	IMAIRED WATER	TYPE OF SPECIAL WATER
CENTRAL PARK	LAKE	NO	NO	

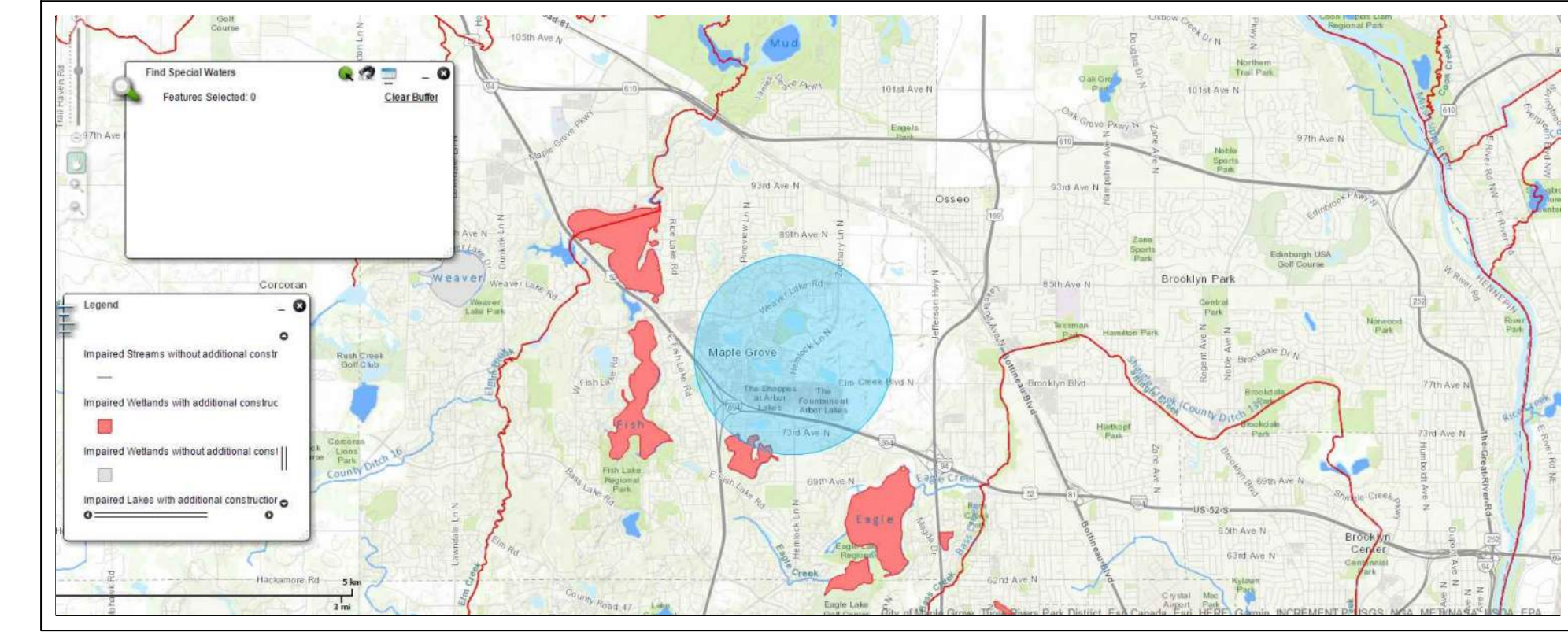
- TERMINATION OF COVERAGE-PERMITEE(S) WISHING TO TERMINATE COVERAGE MUST SUBMIT A NOTICE OF TERMINATION (NOT) TO THE MPCA. ALL PERMITEE(S) MUST SUBMIT A NOT WITHIN 30 DAYS AFTER ONE OR MORE OF THE FOLLOWING CONDITIONS HAVE BEEN MET:
 - FINAL STABILIZATION, PER NPDES PERMIT SECTION 13 HAS BEEN ACHIEVED ON ALL PORTIONS OF THE SITE FOR WHICH THE PERMITEE IS RESPONSIBLE.
 - TRANSFER OF OWNERSHIP AS DESCRIBED IN THE PERMIT.
- INSPECTIONS
 - INITIAL INSPECTION FOLLOWING SILT FENCE INSTALLATION BY CITY REPRESENTATIVE IS REQUIRED.
 - EXPOSED SOIL AREAS: ONCE EVERY 7 DAYS AND WITHIN 24 HOURS FOLLOWING A 0.5" OVER 24 HOUR RAIN EVENT.
 - PERMITEES MUST OBTAIN RAINFALL AMOUNTS BY EITHER A PROPERLY MAINTAINED RAIN GAUGE INSTALLED ONSITE, A WEATHER STATION THAT IS WITHIN ONE (1) MILE OF YOUR LOCATION, OR A WEATHER REPORTING SYSTEM THAT PROVIDES SITE SPECIFIC RAINFALL DATA FROM RADAR SUMMARIES
 - STABILIZED AREAS: ONCE EVERY 30 DAYS
 - FROZEN GROUND: AS SOON AS RUNOFF OCCURS OR PRIOR TO RESUMING CONSTRUCTION.
 - INSPECTION AND MAINTENANCE RECORDS MUST BE RETAINED FOR 3 YEARS AFTER FILING OF THE NOTICE OF TERMINATION AND MUST INCLUDE: DATE AND TIME OF ACTION, NAME OF PERSON(S) CONDUCTING WORK, FINDING OF INSPECTIONS AND RECOMMENDATIONS FOR CORRECTIVE ACTION, DATE AND AMOUNT OF RAINFALL EVENTS GREATER THAN 0.5 INCHES IN A 24 HOUR PERIOD.
- MINIMUM MAINTENANCE
 - SILT FENCE TO BE REPAIRED, REPLACED, SUPPLEMENTED WHEN NONFUNCTIONAL, OR 1/3 FULL: WITHIN 24 HOURS
 - SEDIMENT BASINS DRAINED AND SEDIMENT REMOVED WHEN REACHES 1/2 STORAGE VOLUME. REMOVAL MUST BE COMPLETE WITHIN 72 HOURS OF DISCOVERY.
 - SEDIMENT REMOVED FROM SURFACE WATERS WITHIN (7)SEVEN DAYS
 - CONSTRUCTION SITE EROSION INSPECTED, TRACKED SEDIMENT REMOVED WITH 24 HOURS.
 - PROVIDE COPIES OF EROSION INSPECTION RESULTS TO CITY ENGINEER FOR ALL EVENTS GREATER THAN 1/2" IN 24 HOURS
- THE SWPPP, INCLUDING ALL CHANGES TO IT, AND INSPECTIONS AND MAINTENANCE RECORDS MUST BE KEPT AT THE SITE DURING CONSTRUCTION ACTIVITY BY THE PERMITEE(S) WHO HAVE OPERATIONAL CONTROL OF THE SITE.
- OWNER MUST KEEP RECORDS OF ALL PERMITS REQUIRED FOR THE PROJECT, THE SWPPP, ALL INSPECTIONS AND MAINTENANCE, PERMANENT OPERATION AND MAINTENANCE AGREEMENTS, AND REQUIRED CALCULATIONS FOR TEMPORARY AND PERMANENT STORM WATER MANAGEMENT SYSTEMS. THESE RECORDS MUST BE RETAINED FOR THREE YEARS AFTER FILING NPDES NOTICE OF TERMINATION.
- SWPPP MUST BE AMENDED WHEN:
 - THERE IS A CHANGE IN DESIGN, OPERATION, MAINTENANCE, WEATHER OR SEASONAL CONDITIONS THAT HAS A SIGNIFICANT EFFECT ON DISCHARGE
 - INSPECTIONS INDICATE THAT THE SWPPP IS NOT EFFECTIVE AND DISCHARGE IS EXCEEDING WATER QUALITY STANDARDS.
 - THE BMP'S IN THE SWPPP ARE NOT CONTROLLING POLLUTANTS IN DISCHARGES OR IS NOT CONSISTENT WITH THE TERMS AND CONDITIONS OF THE PERMIT.
- CONCRETE WASHOUT AREA
 - CONTRACTOR TO PROVIDE PREFABRICATED CONCRETE WASH-OUT CONTAINER WITH RAIN PROTECTION PER PLAN.
 - CONCRETE WASH-OUT TO BE IDENTIFIED WITH SIGNAGE STATING "CONCRETE WASHOUT AREA DO NOT OVERFILL."
 - CONCRETE WASHOUT WATER NEEDS TO BE PUMPED WITHIN 24 HOURS OF STANDING WATER IN WASHOUT AREA.
- POLLUTION PREVENTION AND OTHER BMP'S
 - PESTICIDES HERBICIDES, FERTILIZERS, TREATMENT CHEMICALS, ETC MUST BE UNDER COVER.
 - HAZARDOUS MATERIALS (OIL, GAS, PAINT, ETC) MUST BE PROPERLY STORED IN SEALED CONTAINERS AND MEET STATE SECONDARY CONTAINMENT REQUIREMENTS.
 - PORTABLE TOILETS MUST BE SECURED.
 - ADEQUATE SPILL RESPONSE KIT AD DISPOSAL PLAN ON-SITE. SPILLS MUST BE CLEANED UP IMMEDIATELY.
 - ALL MPCA LIQUID AND SOLID WASTE (CONCRETE, STUCCO, PAINT, CURES, ETC) WASHOUT REQUIREMENTS MUST BE MET ON SITE.
- IN THE EVENT OF ENCOUNTERING A WELL OR SPRING DURING CONSTRUCTION CONTRACTOR TO CEASE CONSTRUCTION ACTIVITY AND NOTIFY ENGINEER.
- PIPE OULLETS MUST BE PROVIDED WITH TEMPORARY OR PERMANENT ENERGY DISSIPATION WITHIN 24 HOURS AFTER CONNECTION TO A SURFACE WATER.
- FINAL STABILIZATION

FINAL STABILIZATION REQUIRES THAT ALL SOIL DISTURBING ACVTIVITIES HAVE BEEN COMPLETED AND THAT DISTURBED AREAS ARE STABILIZED BY A UNIFORM PERENNIAL VEGETATIVE COVER WITH 70% OF THE EXPECTED FINAL DENSITY, AND THAT ALL PERMANENT PAVEMENTS HAVE BEEN INSTALLED. ALL TEMPORARY BMP'S SHALL BE REMOVED, DITCHES STABILIZED, AND SEDIMENT SHALL BE REMOVED FROM PERMANENT CONVEYANCES AND SEDIMENTATION BASINS IN ORDER TO RETURN THE POND TO DESIGN CAPACITY.
- RESPONSIBILITIES
 - THE OWNER MUST IDENTIFY A PERSON WHO WILL OVERSEE THE SWPPP IMPLEMENTATION AND THE PERSON RESPONSIBLE FOR INSPECTION AND MAINTENANCE:

CONTACT: _____
 COMPANY: _____
 PHONE: _____
 - THE OWNER MUST IDENTIFY THE A PERSON WHO WILL BE RESPONSIBLE FOR LONG TERM OPERATIONS AND MAINTENANCE OF THE PERMANENT STORMWATER MANAGEMENT SYSTEM:

CONTACT: _____
 COMPANY: _____
 PHONE: _____
- THE WATERSHED DISTRICT OR THE CITY MAY HAVE REQUIREMENTS FOR INSPECTIONS OR AS-BUILT DRAWINGS VERIFYING PROPER CONSTRUCTION OF THE BMP'S.

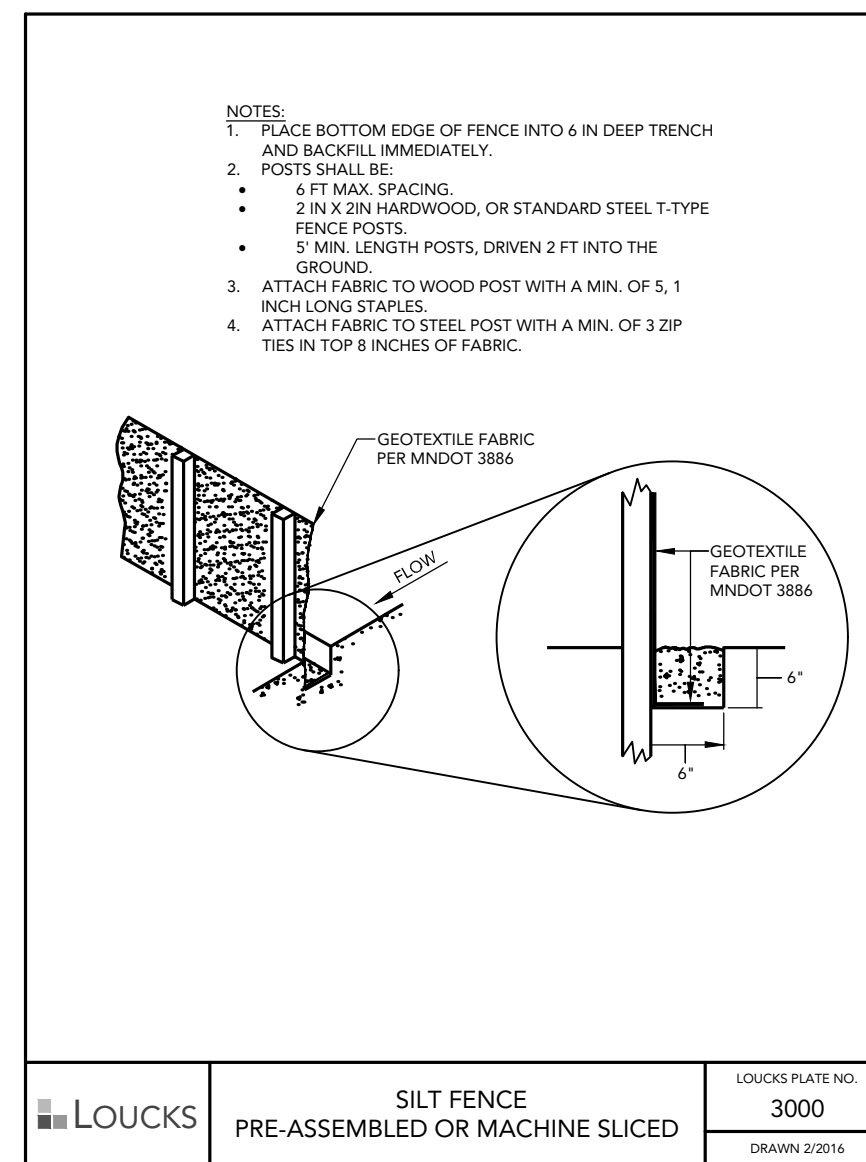
CONSTRUCTION STORMWATER SPECIAL WATERS SEARCH MAP



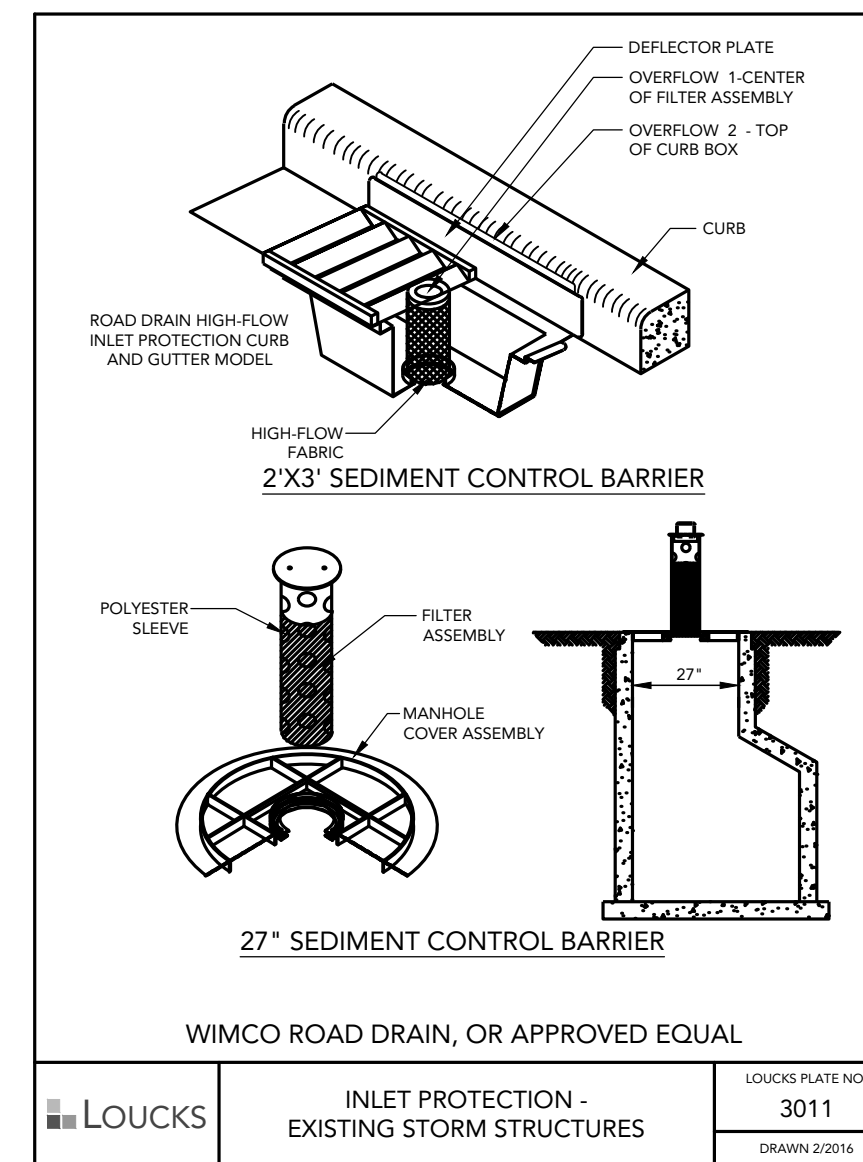
SITE VICINITY MAP



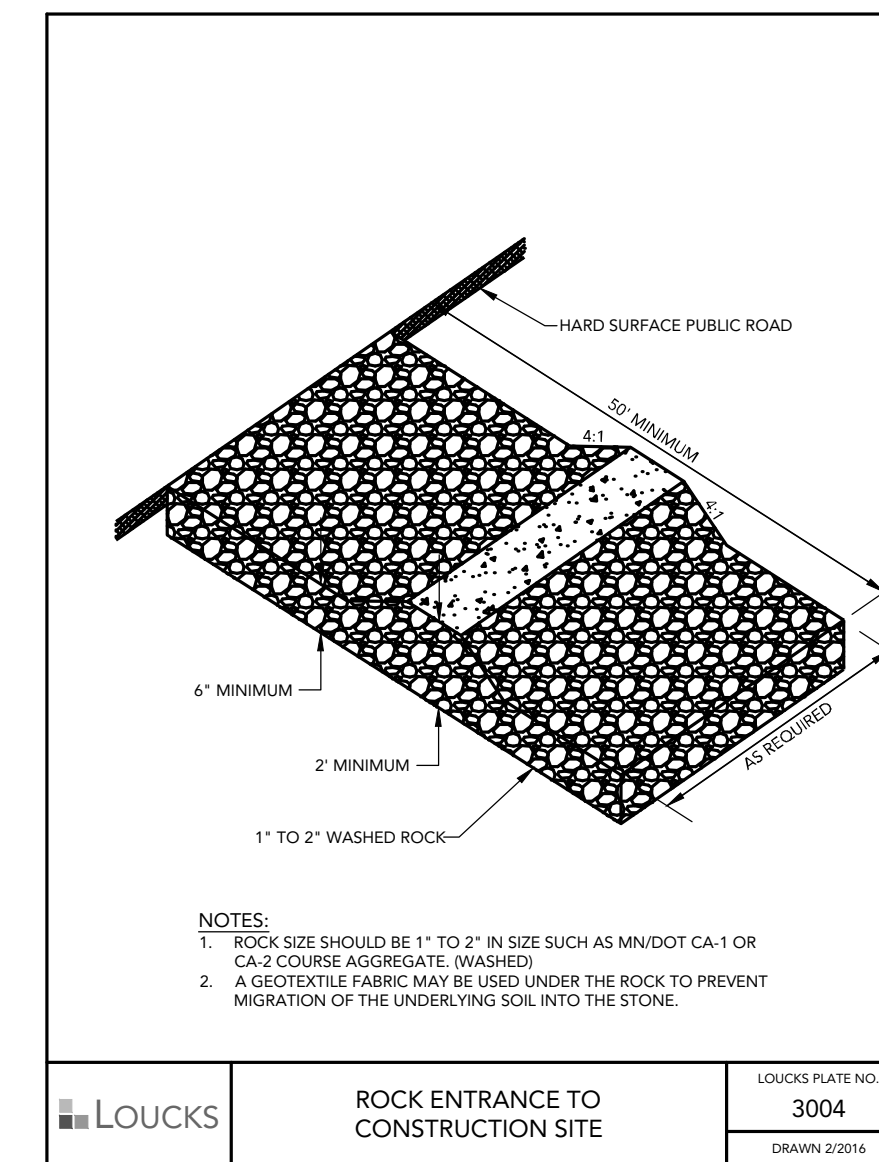
Plotted: 10/09/2020 3:56 PM W:\2021\12023\F\CADD DATA\CIVIL.dwg Sheet Files\C3-3 SWPPP NOTES & DETAILS



LOUCKS SILT FENCE PRE-ASSEMBLED OR MACHINE SLICED LOUCKS PLATE NO. 3000 DRAWN 2/05/16



LOUCKS INLET PROTECTION - EXISTING STORM STRUCTURES LOUCKS PLATE NO. 3011 DRAWN 2/05/16



LOUCKS ROCK ENTRANCE TO CONSTRUCTION SITE LOUCKS PLATE NO. 3004 DRAWN 2/05/16

BOTTINEAU RIDGE 3RD ADDITION

MAPLE GROVE, MN

DUFFY DEVELOPMENT

11900 Wayzata Blvd.
Minnetonka, MN 55305

LOUCKS

PLANNING
CIVIL ENGINEERING
LAND SURVEYING
LANDSCAPE ARCHITECTURE
ENVIRONMENTAL

7200 Hemlock Lane, Suite 300
Maple Grove, MN 55369
763.424.5505
www.loucksinc.com

CADD QUALIFICATION

CADD files prepared by the Consultant for this project are instruments of the Consultant's professional services for use solely with respect to this project. These CADD files shall not be used on other projects, for additions to this project, or for completion of this project by others without written approval by the Consultant. With the Consultant's approval, others may be permitted to obtain copies of the CADD drawings files for information and reference only. All intentional or unintentional revisions, additions, or deletions to these CADD files shall be made at the full risk of that party making such revisions, additions or deletions and that party shall hold harmless and indemnify the Consultant from any & all responsibilities, claims, and liabilities.

SUBMITTAL/REVISIONS

10/12/20 PUD APPLICATION

PROFESSIONAL SIGNATURE

I hereby certify that this plan, specification, report 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.

PRELIMINARY NOT FOR CONSTRUCTION

QUALITY CONTROL

Loucks Project No. 12023F
Project Lead MJS
Drawn By DDL
Checked By MJS
Review Date 10/09/20

SHEET INDEX

- C1-1 BOUNDARY SURVEY
- C1-2 TOPOGRAPHIC SURVEY
- C1-3 PRELIMINARY PLAT
- C1-4 FINAL PLAT
- C1-5 SITE DEMOLITION PLAN
- C2-1 SITE PLAN
- C3-1 GRADING PLAN
- C3-2 SWPPP NOTES & DETAILS
- C3-3 SWPPP NOTES & DETAILS
- C4-1 UTILITY PLAN
- C8-1 CIVIL DETAILS
- C8-2 CIVIL DETAILS
- L1-1 LANDSCAPE PLAN
- L2-1 LANDSCAPE DETAILS

SWPPP NOTES & DETAILS

C3-3

CADD QUALIFICATION

CADD files prepared by the Consultant for this project are instruments of the Consultant's professional services for use solely with respect to this project. These CADD files shall not be used on other projects, for additions to this project, or for completion of this project by others without written approval by the Consultant. With the Consultant's approval, others may be permitted to obtain copies of the CADD drawing files for information and reference only. All intentional or unintentional revisions, additions, or deletions to these CADD files shall be made at the full risk of that party making such revisions, additions or deletions and that party shall hold harmless and indemnify the Consultant from any & all responsibilities, claims, and liabilities.

SUBMITTAL/REVISIONS

10/12/20 PUD APPLICATION
11/18/20 CITY COMMENT RESPONSE

PROFESSIONAL SIGNATURE

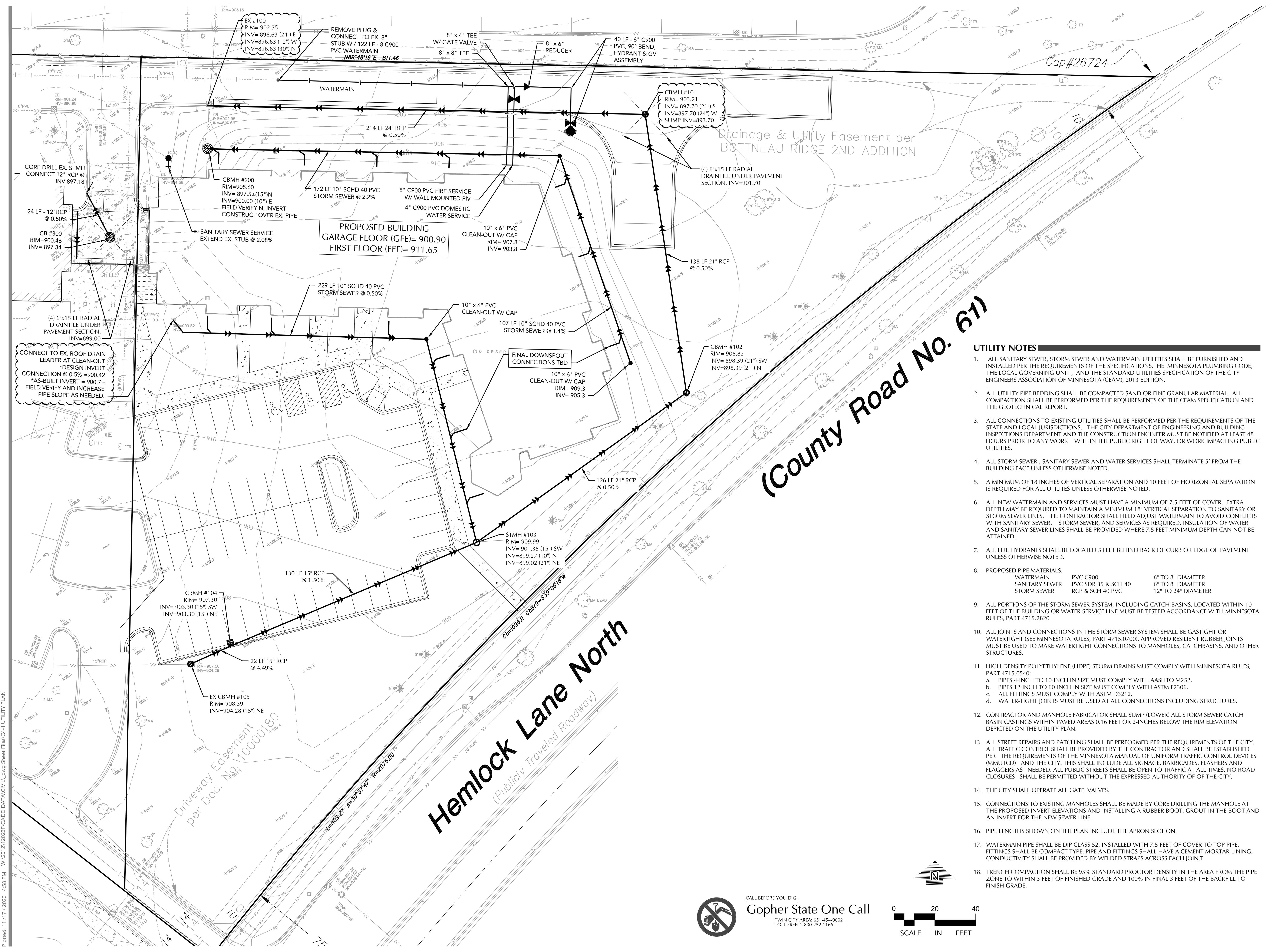
I hereby certify that this plan, specification, report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
**PRELIMINARY
NOT FOR
CONSTRUCTION**

QUALITY CONTROL

Loucks Project No. 12023F
Project Lead MJS
Drawn By DDL
Checked By MJS
Review Date 10/09/20

SHEET INDEX

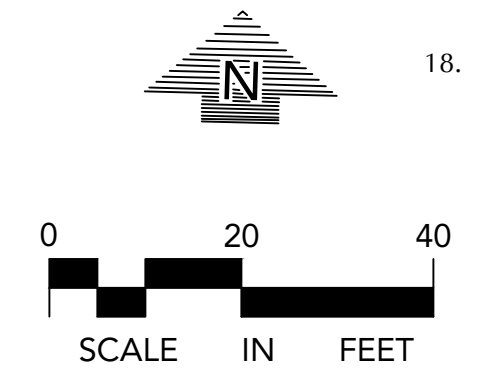
C-1 BOUNDARY SURVEY
C-2 TOPOGRAPHIC SURVEY
C-3 PRELIMINARY PLAN
C-4 FINAL PLAN
C-5 SITE DEMOLITION PLAN
C-7 SITE PLAN
C-8 GRADING PLAN
C-9 SWPPP NOTES & DETAILS
C-10 UTILITY PLAN
C-11 CIVIL DETAILS
C-12 CIVIL DETAILS
L-1 LANDSCAPE PLAN
L-2 LANDSCAPE DETAILS



UTILITY NOTES

- ALL SANITARY SEWER, STORM SEWER AND WATERMAIN UTILITIES SHALL BE FURNISHED AND INSTALLED PER THE REQUIREMENTS OF THE SPECIFICATIONS, THE MINNESOTA PLUMBING CODE, THE LOCAL GOVERNING UNIT, AND THE STANDARD UTILITIES SPECIFICATION OF THE CITY ENGINEERS ASSOCIATION OF MINNESOTA (CEAM), 2013 EDITION.
- ALL UTILITY PIPE BEDDING SHALL BE COMPACTED SAND OR FINE GRANULAR MATERIAL. ALL COMPACTION SHALL BE PERFORMED PER THE REQUIREMENTS OF THE CEAM SPECIFICATION AND THE GEOTECHNICAL REPORT.
- ALL CONNECTIONS TO EXISTING UTILITIES SHALL BE PERFORMED PER THE REQUIREMENTS OF THE STATE AND LOCAL JURISDICTIONS. THE CITY DEPARTMENT OF ENGINEERING AND BUILDING INSPECTIONS DEPARTMENT AND THE CONSTRUCTION ENGINEER MUST BE NOTIFIED AT LEAST 48 HOURS PRIOR TO ANY WORK WITHIN THE PUBLIC RIGHT OF WAY, OR WORK IMPACTING PUBLIC UTILITIES.
- ALL STORM SEWER, SANITARY SEWER AND WATER SERVICES SHALL TERMINATE 5' FROM THE BUILDING FACE UNLESS OTHERWISE NOTED.
- A MINIMUM OF 18 INCHES OF VERTICAL SEPARATION AND 10 FEET OF HORIZONTAL SEPARATION IS REQUIRED FOR ALL UTILITIES UNLESS OTHERWISE NOTED.
- ALL NEW WATERMAIN AND SERVICES MUST HAVE A MINIMUM OF 7.5 FEET OF COVER. EXTRA DEPTH MAY BE REQUIRED TO MAINTAIN A MINIMUM 18" VERTICAL SEPARATION TO SANITARY OR STORM SEWER LINES. THE CONTRACTOR SHALL FIELD ADJUST WATERMAIN TO AVOID CONFLICTS WITH SANITARY SEWER, STORM SEWER, AND SERVICES AS REQUIRED. INSULATION OF WATER AND SANITARY SEWER LINES SHALL BE PROVIDED WHERE 7.5 FEET MINIMUM DEPTH CAN NOT BE ATTAINED.
- ALL FIRE HYDRANTS SHALL BE LOCATED 5 FEET BEHIND BACK OF CURB OR EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.
- PROPOSED PIPE MATERIALS:
WATERMAIN PVC C900 6" TO 8" DIAMETER
SANITARY SEWER PVC SDR 35 & SCH 40 6" TO 8" DIAMETER
STORM SEWER RCP & SCH 40 PVC 12" TO 24" DIAMETER
- ALL PORTIONS OF THE STORM SEWER SYSTEM, INCLUDING CATCH BASINS, LOCATED WITHIN 10 FEET OF THE BUILDING OR WATER SERVICE LINE MUST BE TESTED ACCORDANCE WITH MINNESOTA RULES, PART 4715.2820
- ALL JOINTS AND CONNECTIONS IN THE STORM SEWER SYSTEM SHALL BE GASTIGHT OR WATERTIGHT (SEE MINNESOTA RULES, PART 4715.0700). APPROVED RESILIENT RUBBER JOINTS MUST BE USED TO MAKE WATERTIGHT CONNECTIONS TO MANHOLES, CATCHBASINS, AND OTHER STRUCTURES.
- HIGH-DENSITY POLYETHYLENE (HDPE) STORM DRAINS MUST COMPLY WITH MINNESOTA RULES, PART 4715.0540:
a. PIPES 4-INCH TO 10-INCH IN SIZE MUST COMPLY WITH AASHTO M252.
b. PIPES 12-INCH TO 60-INCH IN SIZE MUST COMPLY WITH ASTM F2306.
c. ALL FITTINGS MUST COMPLY WITH ASTM D3212.
d. WATER-TIGHT JOINTS MUST BE USED AT ALL CONNECTIONS INCLUDING STRUCTURES.
- CONTRACTOR AND MANHOLE FABRICATOR SHALL SUMP (LOWER) ALL STORM SEWER CATCH BASIN CASTINGS WITHIN PAVED AREAS 0.16 FEET OR 2-INCHES BELOW THE RIM ELEVATION DEPICTED ON THE UTILITY PLAN.
- ALL STREET REPAIRS AND PATCHING SHALL BE PERFORMED PER THE REQUIREMENTS OF THE CITY. ALL TRAFFIC CONTROL SHALL BE PROVIDED BY THE CONTRACTOR AND SHALL BE ESTABLISHED PER THE REQUIREMENTS OF THE MINNESOTA MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MMUTCD) AND THE CITY. THIS SHALL INCLUDE ALL SIGNAGE, BARRICADES, FLASHERS AND FLAGGERS AS NEEDED. ALL PUBLIC STREETS SHALL BE OPEN TO TRAFFIC AT ALL TIMES. NO ROAD CLOSURES SHALL BE PERMITTED WITHOUT THE EXPRESSED AUTHORITY OF THE CITY.
- THE CITY SHALL OPERATE ALL GATE VALVES.
- CONNECTIONS TO EXISTING MANHOLES SHALL BE MADE BY CORE DRILLING THE MANHOLE AT THE PROPOSED INVERT ELEVATIONS AND INSTALLING A RUBBER BOOT. GROUT IN THE BOOT AND AN INVERT FOR THE NEW SEWER LINE.
- PIPE LENGTHS SHOWN ON THE PLAN INCLUDE THE APRON SECTION.
- WATERMAIN PIPE SHALL BE DIP CLASS 52. INSTALLED WITH 7.5 FEET OF COVER TO TOP PIPE. FITTINGS SHALL BE COMPACT TYPE. PIPE AND FITTINGS SHALL HAVE A CEMENT MORTAR LINING. CONDUCTIVITY SHALL BE PROVIDED BY WELDED STRAPS ACROSS EACH JOINT.
- TRENCH COMPACTION SHALL BE 95% STANDARD PROCTOR DENSITY IN THE AREA FROM THE PIPE ZONE TO WITHIN 3 FEET OF FINISHED GRADE AND 100% IN FINAL 3 FEET OF THE BACKFILL TO FINISH GRADE.

CALL BEFORE YOU DIG!
Gopher State One Call
TWIN CITY AREA: 651-454-0002
TOLL FREE: 1-800-252-1166



CADD QUALIFICATION

CADD files prepared by the Consultant for this project are instruments of the Consultant's professional services for use solely with respect to this project. These CADD files shall not be used on other projects, for additions to this project, or for completion of this project by others without written approval by the Consultant. With the Consultant's approval, others may be permitted to obtain copies of the CADD drawing files for information and reference only. All intentional or unintentional revisions, additions, or deletions to these CADD files shall be made at the full risk of that party making such revisions, additions or deletions and that party shall hold harmless and indemnify the Consultant from any & all responsibilities, claims, and liabilities.

SUBMITTAL/REVISIONS

10/12/20 PUD APPLICATION

PROFESSIONAL SIGNATURE

I hereby certify that this plan, specification, report 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.

**PRELIMINARY
NOT FOR
CONSTRUCTION**

QUALITY CONTROL

Loucks Project No. 12023F
Project Lead MJS
Drawn By DDL
Checked By MJS
Review Date 10/09/20

SHEET INDEX

C1-1	BOUNDARY SURVEY
C1-2	TOPOGRAPHIC SURVEY
C1-3	PRELIMINARY PLAN
C1-4	FINAL PLAN
C1-5	SITE DEMOLITION PLAN
C2-1	SITE PLAN
C3-1	GRADING PLAN
C3-2	SWPP PLAN
C3-3	SWPPP NOTES & DETAILS
C4-1	UTILITY PLAN
C8-1	CIVIL DETAILS
C8-2	CIVIL DETAILS
L1-1	LANDSCAPE PLAN
L2-1	LANDSCAPE DETAILS

