

**INVER GROVE HEIGHTS
PLANNING COMMISSION AGENDA
TUESDAY, SEPTEMBER 15, 2020 – 7:00 p.m.**

NOTICE TO RESIDENTS: The Planning Commission is taking proactive steps to prevent the spread of Covid 19 by meeting remote. People wishing to testify at the public hearing should call into the meeting using the following information:

Phone number: 651-450-2471

Individuals may submit written public comments in advance of the meeting by emailing comments to Kim Fox (kfox@invergroveheights.org). Comments received prior to 4:00 p.m. on Monday, September 14, 2020, will be provided to the Planning Commission before the September 15, 2020 meeting.

1. CALL TO ORDER

2. APPROVAL OF PLANNING COMMISSION MINUTES FOR AUGUST 18, 2020

3. APPLICANT REQUESTS AND PUBLIC HEARINGS

3.01 TITAN LAND - CASE NO. 20-24PUD -THIS ITEM IS TABLED UNTIL OCTOBER 6, 2020

Consider the following requests for the property located at 1462 80th Street:

- a) A Preliminary Plat for one lot, one outlot subdivision.
- b) A Preliminary Planned Unit Development for a 152-unit apartment building and 30 townhome units.

3.02 ERIC & JILL MORSE - CASE NO. 20-25V

Consider a Variance from the front yard setback on a corner lot to construct a fence 48" in height whereas 42" is the maximum height allowed. This request is for the property located at 7605 Boyd Avenue.

Planning Commission Action _____

3.03 JAMES POLAK - CASE NO. 20-26V

Consider a Variance to allow an accessory dwelling unit to be 1,312 square feet in size whereas 1,000 square feet is the maximum size allowed. This request is for the property located at 7346 Bancroft Way.

Planning Commission Action _____

3.04 WATERMARK PROPERTIES – CASE NO. 20-27PUD

Consider the following requests for the property located at the NE corner of South Robert and 70th Street, identified as PID No. 20-00500-52-011 & 20-00500-52-012:

- a) A Rezoning of the property to R-1C, Single Family PUD, R-3B, Multiple Family PUD and R-3C, Multiple Family PUD

Planning Commission Action _____

- b) A Preliminary Plat for 120 single family lots, and one lot for an approximate 100-150 unit apartment building plus 6 outlots

Planning Commission Action _____

- c) A Preliminary Planned Unit Development for a 120-unit single family villa development and a 100-150 unit apartment

Planning Commission Action _____

3.05 BITUMINOUS ROADWAYS – CASE NO. 20-12CA

Consider the following requests for the property located at 11201 Rich Valley Boulevard:

- a) A conditional use permit amendment and an amendment to the sand and gravel overlay district to add a bulk storage facility to load, store, and unload asphalt cement on the property.

Planning Commission Action _____

- b) A variance to allow the storage tanks 48 feet in height whereas 35 feet is maximum height allowed in the A, Agricultural District.

Planning Commission Action _____

4. OTHER BUSINESS

5. ADJOURN

This document is available upon 3 business day request in alternate formats such as Braille, large print, audio recording, etc. Please contact Kim Fox at 651.450.2545 or kfox@invergroveheights.org

PLANNING COMMISSION MINUTES - CITY OF INVER GROVE HEIGHTS

Tuesday, August 18, 2020 – 7:00 p.m.

****REMOTE MEETING****

Chair Maggi called the Planning Commission meeting to order at 7:00 p.m.

Commissioners Present: Joan Robertson
Elizabeth Niemioja
Annette Maggi
Brett Kramer
Dennis Wippermann
Pat Simon
Scott Clancy
Jonathan Weber

Commissioners Absent: Kate Challeen (excused)

Others Present: Allan Hunting, City Planner

APPROVAL OF MINUTES

The minutes from the July 7, 2020 and July 21, 2020 Planning Commission meetings were approved as submitted.

MIKE JANSSEN – CASE NO. 20-22V

Reading of Notice

Commissioner Simon read the public hearing notice to consider the request for a variance to allow two accessory buildings on the property whereas one is the maximum allowed for personal use, and a variance to allow for an accessory building to be located 15 feet from the side property line whereas 25 feet is required, for the property located at 2785 – 104th Court. 5 notices were mailed.

Presentation of Request

Allan Hunting, City Planner, explained the request as detailed in the report. He advised that for lots 5 acres or larger in the Agricultural district you can have up to two accessory structures for personal use of up to 2,400 square feet in size. In this case they would be allowed one structure for personal use of up to 1,600 square feet. The other structures on the property are used for agricultural purposes, so they do not count towards the maximum number of structures. The lot is a metes and bounds legal description, which includes the 104th and 105th Street road easements, for a total of 5.2 acres. Because the subdivision code states that lot area excludes roadway easements, the lot size is brought down to 4.84 acres. The proposed structure and the existing structure being used for personal use would total 1,652 square feet; 52 square feet over the maximum allowed. The subdivision code was adopted in 1974 and staff believes the subject property was created prior to that going into effect. The closest point of the proposed structure would be 15 feet from the side property line. Practical difficulties for both variances have been listed in the report and staff recommends approval.

Commissioner Weber asked for clarification of how the roadway easement would affect a lot's size as listed on the Dakota County website.

Mr. Hunting replied that lots in a subdivision plat would exclude the roadway easement. Lots with a metes and bounds description would include the roadway easement in their total size listed on the Dakota County website.

Opening of Public Hearing

Mike Janssen, 2785 - 104th Court East, advised he was available to answer any questions.

Chair Maggi asked the applicant if he read and understood the staff report.

Mr. Janssen replied in the affirmative. He noted that commissioners should have received a letter from his neighbors on the side where the building would be located stating that they had no issue with the request.

Commissioner Niemioja asked the applicant when he purchased the property.

Mr. Janssen replied 1983.

Commissioner Niemioja asked if he recalled being told that the lot was over 5 acres at the time of purchase.

Mr. Janssen replied that he was aware that the removal of the road easement would put them a little under 5 acres.

Chair Maggi asked the applicant if he considered adding onto the existing accessory building versus adding a second building for personal use.

Mr. Janssen replied that he is in a wheelchair and needs the garage to be in the proposed location so he can get in and out of his van from the driveway. They also need space to store his wife's car and a couple classic cars.

Chair Maggi closed the public hearing.

Planning Commission Discussion

Commissioner Wippermann asked for clarification of a statement in the report that the lot became less than 5 acres based on a change in subdivision code.

Mr. Hunting advised that was an incorrect statement in the report, and that from what he could tell the original subdivision code included that lot size requirement.

Commissioner Wippermann asked if other types of easements (i.e. utility) would count against lot square footage.

Mr. Hunting replied they would not; it was specific only to roadway easements.

Commissioner Wippermann asked if that was a State requirement.

Mr. Hunting replied that he assumes it was just a City requirement.

Commissioner Robertson stated that the letter from a neighbor referred to earlier by Mr. Janssen was not included in the packet.

Mr. Hunting replied that he may have inadvertently left that out of the report.

Chair Maggi asked if the context of the letter was that the neighbor that abuts where the proposed building would be located was fine with the request.

Mr. Hunting replied that is what Mr. Janssen stated.

Commissioner Simon asked for clarification of roadway easements on a metes and bounds lot.

Mr. Hunting replied that roadway easements were included in the total lot size of a metes and bounds legal description; however, when a property is subdivided into a lot and block subdivision the right-of-way is dedicated and is no longer part of the description for that lot.

Commissioner Robertson asked if staff had located the letter yet from the abutting neighbor.

Ms. Fox advised that she located the letter and she read it aloud to the Planning Commission. The letter was from Larry and Vicki Zabel and stated they did not have a problem with the request.

Commissioner Niemioja believed this to be an exceptional circumstance in which a different way of defining legal property descriptions affected the lot size of this parcel. She did not believe there would be many similar situations in the City. As long as the most affected neighbor was okay with the request, she thinks this is a reasonable request with the practical difficulties as listed by staff.

Mr. Janssen replied that the letter from the Zabel's that was just read aloud was the letter he had referred to earlier.

Planning Commission Recommendation

Motion by Commissioner Weber, second by Commissioner Niemioja, to approve the request for a variance to allow two accessory buildings on the property whereas one is the maximum allowed for personal use, and a variance to allow for an accessory building to be located 15 feet from the side property line whereas 25 feet is required, for the property located at 2785 – 104th Court, with the conditions and practical difficulties listed in the report..

Motion carried (8/0). This item goes to City Council on August 24, 2020.

OTHER BUSINESS

Mr. Hunting advised that the September 1, 2020 Planning Commission meeting has been cancelled.

Commissioner Robertson asked about the Titan Land proposal which was scheduled for a public hearing on September 1.

Mr. Hunting advised that their application was determined to be incomplete and it was moved to September 15.

Commissioner Simon advised that Bill Klein passed away over the weekend.

Commissioner Robertson provided the visitation and funeral details.

Chair Maggi noted that Bill Klein was a former City Councilman and Planning Commissioner, a well-known resident, and had done a lot of service for the City over the years.

The meeting was unanimously adjourned at 7:27 p.m.

Respectfully submitted,

Kim Fox
Recording Secretary

M E M O

CITY OF INVER GROVE HEIGHTS

TO: Planning Commission

FROM: Allan Hunting, City Planner

DATE: September 11, 2020

SUBJECT: TITAN LAND (THE CROSSINGS AT INVER WOOD) CASE NO. 20-24PUD

The above item has been tabled by staff and applicant.

Since the applicant will not be present at the meeting and no staff report has been prepared, the item should not be discussed. The item will be on the October 6 meeting.

P L A N N I N G R E P O R T
C I T Y O F I N V E R G R O V E H E I G H T S

HEARING DATE: September 15, 2020

CASE NO: 20-25V

APPLICANT & PROPERTY OWNER: Eric and Jill Morse

REQUEST: Variance to allow a 48-inch chain link fence whereas 42-inches in the maximum height allowed within the corner front setback

LOCATION: 7605 Boyd Avenue

COMPREHENSIVE PLAN: Low Density Residential

ZONING: R-1C, Single-family Residential

REVIEWING DIVISIONS: Planning

PREPARED BY: Heather Botten
Associate Planner

BACKGROUND

The applicant is requesting a variance to allow a chain link fence 48 inches in height within the corner front yard setback. The proposed fence would be installed along the side and rear property lines and 15 feet from the corner front property line. The ordinance requires all fences within a front yard area to be no taller than 42 inches and shall be at least 75% open visibility. The reasons for the rule appear to be mainly visibility for traffic and emergency vehicles along the street and driveways. A second reason would be aesthetics, both in uniformity along front views and visual appeal. The applicant is proposing a chain link fence, complying with the 75% clear visibility requirement but is requesting it to be 48 inches high instead of the 42-inch maximum height in the front yard. The fence would be located about 30 feet from the road.

The applicant's property is in a developed residential neighborhood. The abutting property to the rear, most affected by the fence, sits higher in elevation and has tall bushes that would help screen the fence. Also, the neighbor's driveway is on the opposite side of the property therefore there would not be any issues with access or visibility.

The specific request consists of the following:

- a) A Variance to allow a 48-inch chain link fence in the corner front yard whereas 42 inches is the maximum height allowed.

EVALUATION OF THE REQUEST

SURROUNDING USES: The subject site is surrounded by the following uses:
Residential; zoned R-1C, single-family; guided LDR, Low Density Residential

Engineering. Engineering has reviewed the request and takes no exception to the proposed fence height.

VARIANCE REVIEW

City Code Title 11, Chapter 3. **Variances**, states that the City Council may grant variances when they are in harmony with the general purposes and intent of the zoning ordinance and consistent with the comprehensive plan and establishes that there are practical difficulties in complying with the official control. In order to grant the requested variances, City Code identifies criteria which are to be considered practical difficulties. The applicant's request is reviewed below against those criteria.

1. *The variance request is in harmony with the general purpose and intent of the city code and consistent with the comprehensive plan.*

The applicant's neighborhood is developed with single-family homes. The intent of the rule appears to be mainly visibility for traffic and emergency vehicles along the street and driveways. The fence would be located about 30-feet from the road, not affecting traffic visibility from the road, intersections, or neighboring driveways. The request is in harmony with the intent of the comprehensive plan as the lot is being utilized as a residential lot which would contain improvements such as fences.

2. *The property owner proposes to use the property in a reasonable manner not permitted by the zoning ordinance.*

City code allows 42-inch high, chain link fences within the front yard. Fences along the side and rear property lines can be up to seven feet in height. The property is a corner lot and therefore must conform to the rules for two "front" yards. Staff believes installing a 48-inch fence to be a reasonable use of the property when 42 inches is the maximum allowed in the corner front yard. The fence would be chain link, complying with the 75% open visibility requirement. The applicants would not be installing the fence up to the corner front property line, the fence would be about 15 feet from the property line, about 30 feet from the road.

3. *The plight of the landowner is due to circumstances unique to the property not created by the landowner.*

A practical difficulty can be found in the fact the lot is a corner lot with two front yard setback requirements for fences and while the fence is proposed at 48 inches it would be located about 30 feet from the road not affecting the visibility along the right-of-way or neighboring driveway. The property is unique in the fact there should be relatively no impact to the abutting property to the west (rear) as that property sits at a higher elevation than the applicants, their driveway is over 50 feet from the fence, and they have shrubs closer to the road than the proposed 48 inch fence.

4. *The variance will not alter the essential character of the locality.*

Staff does not believe the proposed fence would alter the essential character of the neighborhood. One of the functions of setback requirements is to maintain consistency of

structure placement and aesthetic qualities from street and neighboring views. Aesthetically, a 48-inch chain link fence is a common fence height that would not look out of place as the fence would be located about 30 feet from the road. There would be no impact to site lines or traffic visibility concerns.

5. *Economic considerations alone do not constitute an undue hardship.*
Economic considerations do not appear to be a basis for this request.

ALTERNATIVES

The Planning Commission has the following alternatives for the requested action:

Approval: If the Planning Commission finds the variance to be acceptable, the Commission has the following options:

A. Approval of the Variance to allow a 48-inch chain link fence whereas 42 inches is the maximum height allowed in the front yard subject to the following condition:

1. The fence shall be in substantial conformance with the site plan on file with the Planning Department.

Denial: If the Planning Commission does not favor the proposed Variance, the above request should be recommended for denial. With a recommendation for denial, findings or the basis for the denial should be given.

RECOMMENDATION

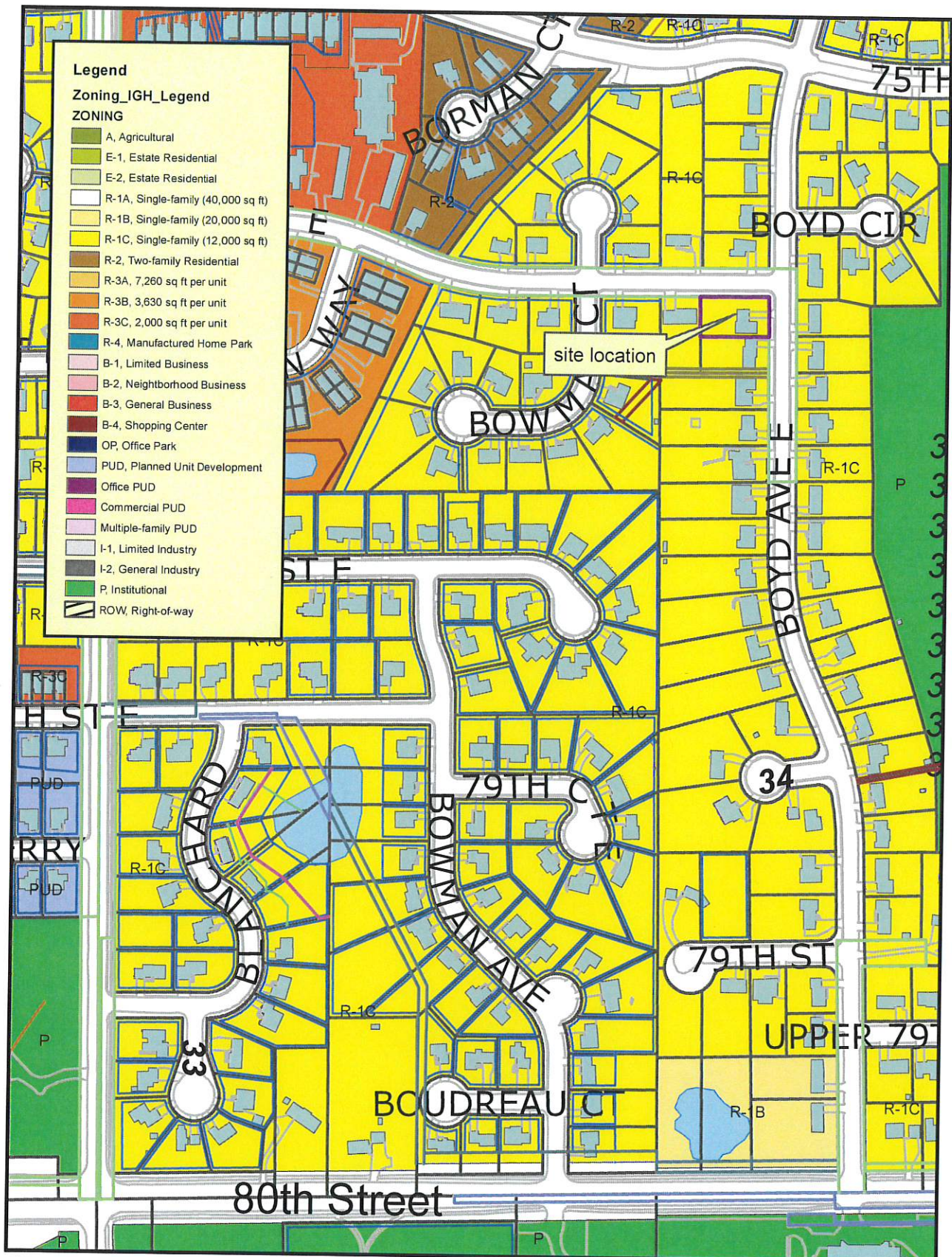
Staff believes the proposed fence would not be out of character of the neighborhood and is consistent with the comprehensive plan. The request to install a 48-inch, chain link fence in the corner front property is a reasonable use of the property and does not appear to have an adverse impact on the neighboring properties. A practical difficulty can be found in the fact the lot is a corner lot with two front yard setback requirements for fences and while the fence is proposed at 48 inches it would be located about 30 feet from the road not affecting the visibility along the right-of-way or neighboring driveway.

Based on the information in the preceding report and the condition listed in Alternative A, staff is recommending approval of the fence height variance.

Attachments: Zoning & Location Map
 Estimate Fence Location
 Applicant Narrative
 Site Plan



7605 Boyd Avenue Case No. 20-25V



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Exhibit A
Zoning and Location Map

Map not to scale



7605 Boyd Avenue
Case No. 20-25V



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Exhibit B
estimate fence location

Map not to scale

To Whom it May Concern:

We are asking for a variance for a 4 ft fence in our back yard including part of our side yard that butts up to the neighbor behind us front yard. However, there are tall bushes in their yard separating our back yard from their front yard. These bushes are taller than our fence will be. The fence will not be near the corner of our front yard. We are asking for a variance because we are installing a fence for our dogs and we have great danes which could very easily jump a 42inch fence.

Please consider this variance as we are looking out for the safety of our animals and to put neighbors walking by at ease that our big dogs will not jump the fence to greet them at the street.

Our fence will not be near the property line on the street side. I have already put in for the permit as I thought this was already submitted. The fence is being installed by Dan's fence company.

This company was not aware that the fence could only be 42 inches on that side but I want to make sure all is right with the city and get your approval for this variance.

Thank you for your time and consideration.

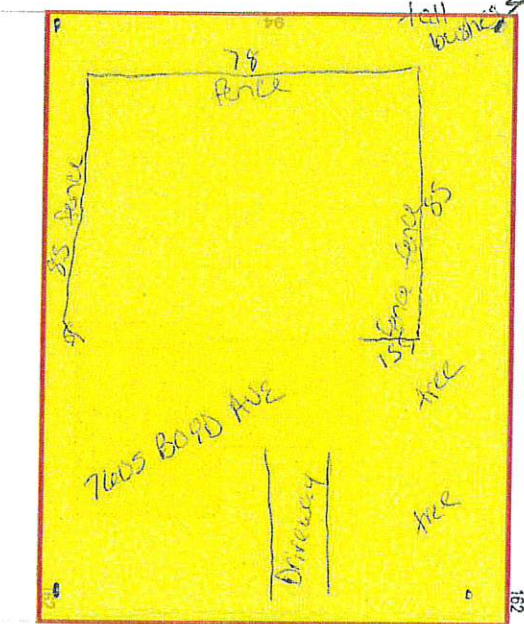
Eric and Jill Morse

7605 Boyd Avenue

Inver Grove Heights, MN 55076

100

95
Pin under electrical box. 158



FRONT 48

P L A N N I N G R E P O R T
CITY OF INVER GROVE HEIGHTS

HEARING DATE: September 15, 2020

CASE NO: 20-26V

APPLICANT/PROPERTY OWNER: James Polak

REQUEST: Variance to allow an accessory dwelling unit (ADU) 1,312 square feet in size

LOCATION: 7346 Bancroft Way

COMPREHENSIVE PLAN: LDR, Low Density Residential

ZONING: R-1C, Single-family Residential

REVIEWING DIVISIONS: Planning

PREPARED BY: Heather Botten
Associate Planner

BACKGROUND

The applicant is proposing an accessory dwelling unit (ADU) in the lower level of an existing home that would be greater than 1,000 square feet. The owners recently finished their basement and would like to add a stove to the lower level to complete the kitchen. The total square footage of the ADU would be 1,312 square feet in size. The lower level of the home does not have its own access, it is shared through the main level of the home.

The intent of the ADU ordinance, adopted in 2015, is to provide a modest, secondary living space for a family member or potential rental. An ADU would have its own kitchen, bath and sleeping and living space which constitute a dwelling unit. The City created the ordinance with a list of standard conditions, one being a minimum and maximum size to help keep the units subordinate and accessory to the principle use while providing a reasonable living space.

Prior to the adoption of the ADU ordinance, the zoning code allowed only one single family dwelling unit per lot. A dwelling unit has its own kitchen, bath, living and sleeping spaces. A resident could create a separate area for living, bath and sleeping spaces, but a full kitchen was not allowed.

SPECIFIC REQUESTS

The variance request consists of the following:

1. Variance to allow an accessory dwelling unit greater than 1,000 square feet

EVALUATION OF THE REQUEST

The following land uses, zoning districts, and comprehensive plan designations surround the property:

North, West, and East – Single family residential; zoned R-1C, single-family; guided LDR, Low Density Residential
South – Water Treatment facility; zoned P, Institutional; guided P, Public/Institutional

VARIANCE REVIEW

City Code Title 10, Chapter 3. Variances, states that the City Council may grant variances when they are in harmony with the general purposes and intent of the zoning ordinance and consistent with the comprehensive plan and establishes that there are practical difficulties in complying with the official control. In order to grant the requested variances, City Code identifies criteria which are to be considered practical difficulties. The applicant's request is reviewed below against those criteria.

1. *The variance request is in harmony with the general purpose and intent of the city code and consistent with the comprehensive plan.*

The City Council adopted the ADU ordinance in 2015. The ordinance allows for an ADU to be in the lower level of a home. The ordinance states that an accessory dwelling unit shall be clearly a subordinate part of the single-family dwelling. In no case shall the ADU be more than 1,000 square feet, nor less than 250 square feet. The applicant is asking for a 30% increase in size, staff does not believe the variance request is consistent with, or in harmony with the zoning ordinance and comprehensive plan.

2. *The property owner proposes to use the property in a reasonable manner not permitted by the zoning ordinance.*

The intent of the ADU ordinance is to provide a unit that is accessory and subordinate to the main dwelling unit. The applicant lives in a single-family neighborhood, a specific size was created to keep the ADU's small so single-family homes do not become duplexes. The livable finished space of the basement could be configured to accommodate the maximum size.

3. *The plight of the landowner is due to circumstances unique to the property not created by the landowner.*

The applicant's home, built in 1993, has a foundation footprint of about 2,000 square feet. The home was not built with the intent of having an ADU in the lower level. The applicant recently finished the lower level of the home in 2019/early 2020 after the ADU ordinance was created.

4. *The variance will not alter the essential character of the locality.*

Overall, this specific request for a larger ADU does not appear to alter the essential character of the neighborhood. The applicant is requesting a variance for an ADU in the lower level of the existing home. No building additions are being requested and the access is shared with the main entrance for the home. The property has a three-car attached garage with plenty of off-street parking, complying with the parking requirements for an ADU. The applicant has stated that his daughter and son-in-law reside in the lower level, complying with the maximum number of occupants allowed in an ADU.

5. *Economic considerations alone do not constitute an undue hardship.*
Economic considerations do appear to be a basis for this request as there would be a cost to add walls or reconfigure the existing layout of the lower level of the home.

ALTERNATIVES

- A. **Approval:** If the Planning Commission finds the application acceptable, the request should be recommended for approval subject to the following conditions:

- a. The site shall be developed in substantial conformance with the Site Plan on file with the Planning Division except as modified herein.

Practical difficulty:

- B. **Denial.** If the Planning Commission does not favor the proposed request, it should be recommended for denial, which could be based on the following rationale:

1. Denying the variance request does not preclude the applicant from reasonable use of the property.
2. Approval of the variance could set a precedent for other accessory dwelling unit size variances.
3. The facts presented did not satisfy the criteria needed to show a practical difficulty on the lot to support granting a variance. A larger ADU appears to be a convenience to the landowner and not dictated by unique circumstances of the property.

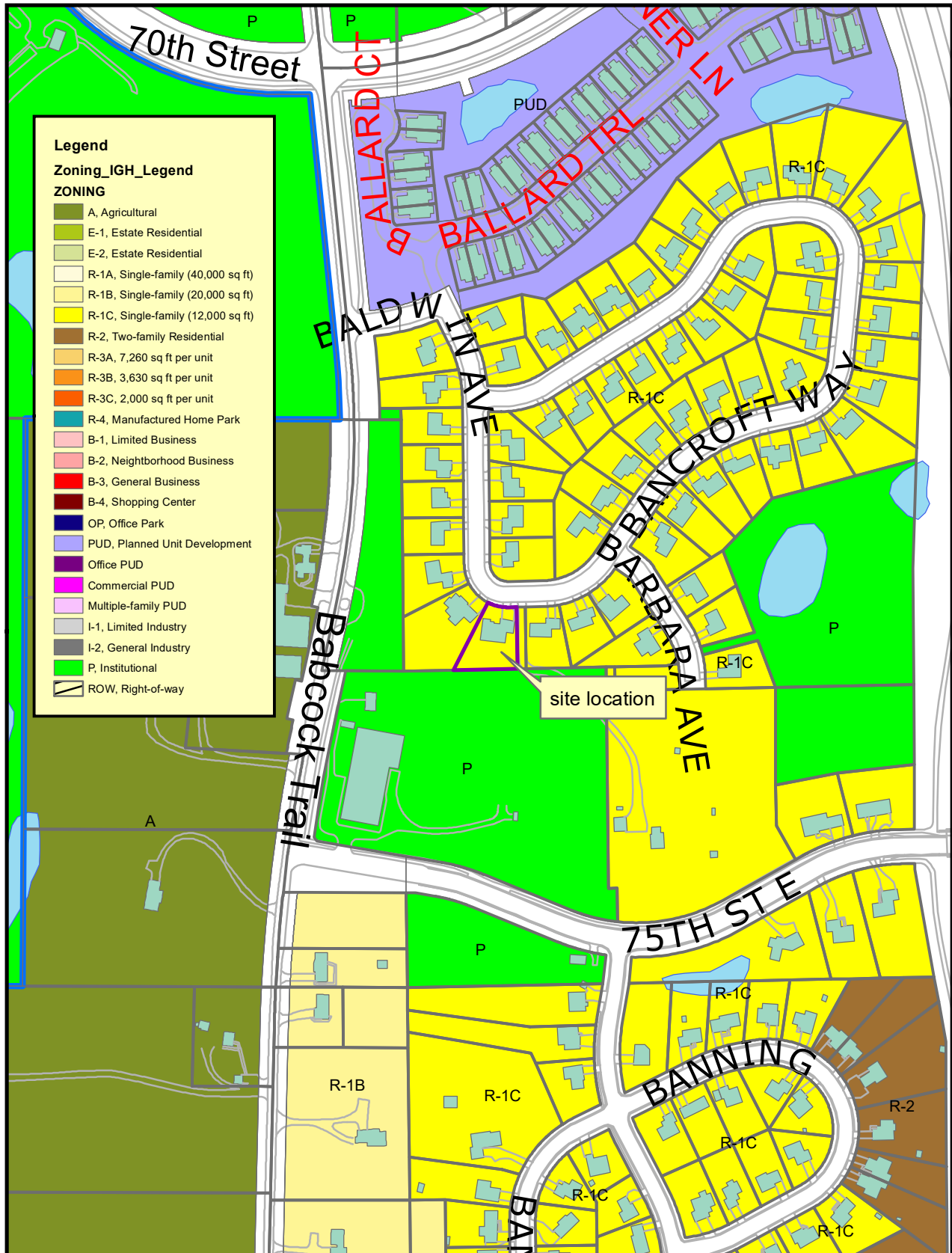
RECOMMENDATION

The intent of the ADU ordinance is to provide a unit that is accessory and subordinate to the main dwelling unit. The applicant lives in a single-family neighborhood, a specific size was created to keep the ADU's small so single-family homes do not turn into duplexes. Staff does not believe there is sufficient rationale to support all criteria of a variance review and therefore recommends denial of the request as proposed.

Attachments: Exhibit A –Location Map
Exhibit B –Narrative
Exhibit C – Site Plan
Exhibit D – ADU Criteria



7346 Bancroft Way Case No. 20-26V



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Exhibit A
Zoning and Location Map

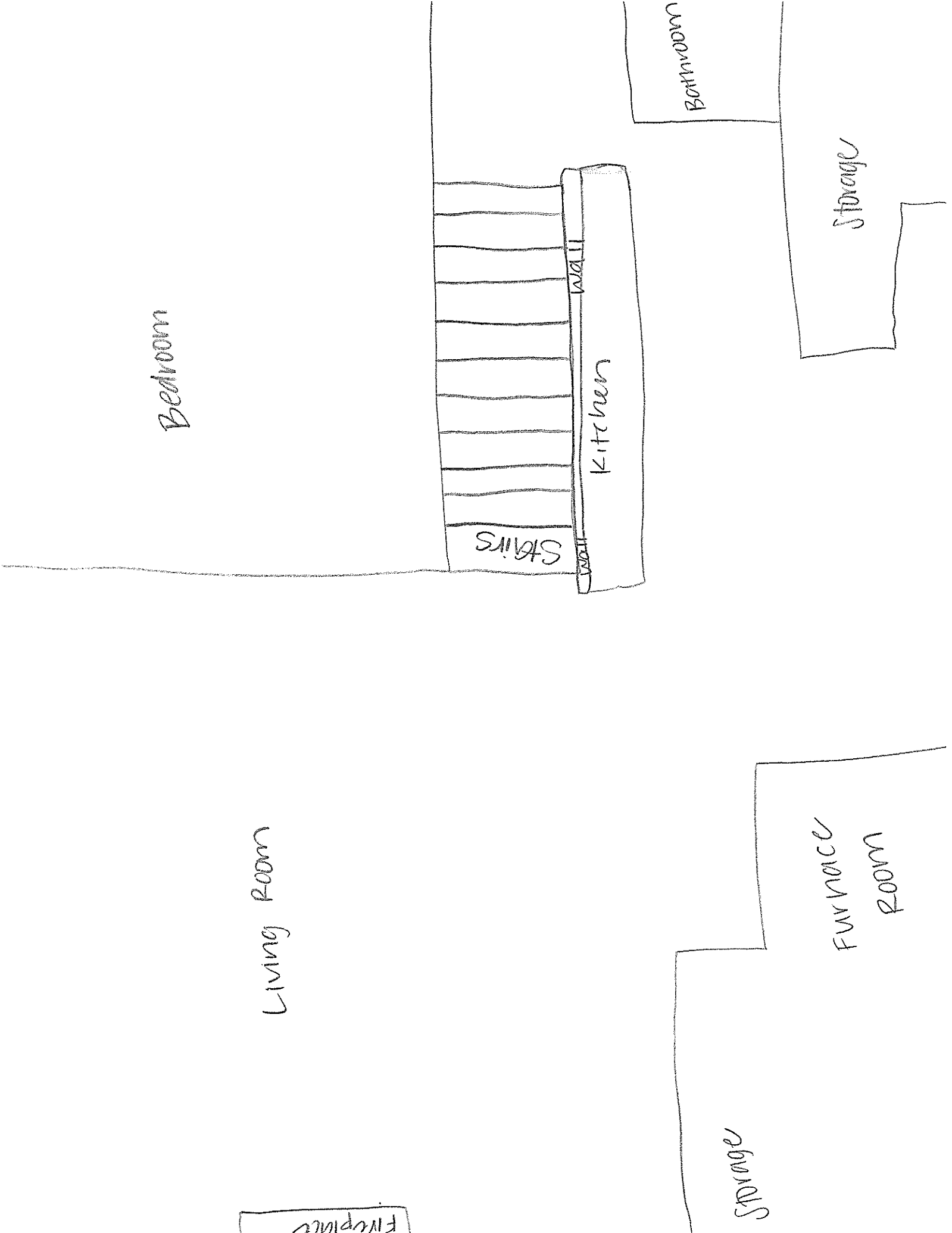
Map not to scale

I, James G Polak along with my wife Christine C Polak are seeking a variance at 7346 Bancroft Way, Inver Grove Heights, MN 55077. The variance falls under IGH Code, Title 10, chapters 3-4 that deals with zoning and land restrictions. The variance requested is actually 10-18-1 the Accessory Dwelling Units part. That section says the size must be under 1,000 feet of livable and usable space. We satisfy all the other parts 1-13 except for number 3.

We have recently remodeled our basement which is 1,312 square feet in size not counting two storage/utility rooms and the under stairway space for storage. The storage/utility rooms contain the furnace, electrical, water and gas accesses to the home. The remodeling is on file with the City of Inver Grove. Final approval has been obtained from the city.

We would like a variance which would allow us to put an electric cooking stove in our remodeled basement. We did not increase or decrease the available square footage in our remodeling, we used what the original builder gave us in design back in 1993, the year in which the house was built and well before Title 10 was adopted. We did not finish the basement until 2019-2020 because of money and absence of need. My only daughter and her husband are living in the basement since their marriage in 2019.

It would be practically impossible to use the space as originally designed to bring the square footage under 1,000 square feet and still use the basement in the manner in which it was originally intended. We cannot unfinish 313 square feet to get to 1,000 square feet. It is already finished. The variance will be consistent with the original intent of the city and will not be used as rental property to the general public. All neighbors will not be affected in any way.



Bedroom

Living Room

Stairs

Wall

Kitchen

Bathroom

Storage

Furnace Room

Storage

Furnace

CHAPTER 18

ACCESSORY DWELLING UNITS

SECTION:

10-18-1: Accessory Dwelling Unit Requirements

10-18-1: ACCESSORY DWELLING UNIT REQUIREMENTS:

A. Accessory dwelling units (ADU) may be permitted as an accessory use to a single family dwelling in the A, E-1, E-2, R-1A, R-1B and R-1C Zoning Districts subject to the following:

1. A rental license for the non-owner-occupied unit shall be obtained if required by this Code.
2. Each accessory dwelling unit shall require a City registration.
3. An accessory dwelling unit shall be clearly a subordinate part of the single-family dwelling. In no case shall the ADU be more than one thousand (1,000) square feet, nor less than two hundred fifty (250) square feet.
4. An accessory dwelling unit may be permitted within a detached accessory structure provided the lot size on which the unit would be located is one acre or greater and provided the ADU shares the same septic system and well as the principal unit in areas not served by Municipal sewer and water. The ADU is not allowed its own private septic system and well.
5. No more than one accessory dwelling unit shall be allowed on a lot.
6. The property owner must reside in either the primary residence or the ADU as their permanent residence.
7. An ADU may not be subdivided or otherwise segregated in ownership from the primary residence structure.
8. The exterior design of an accessory dwelling unit shall incorporate a similar architectural style, roof pitch, colors, and materials as the principal building on the lot, and shall be compatible with the character of the surrounding residential buildings.
9. The total number of occupants in the accessory dwelling unit shall not exceed three (3) persons.
10. Lots with accessory dwelling units shall provide at least two (2) off-street parking spaces in addition to the one off-street parking space required for the primary residence.
11. Accessory dwelling units in combination with their associated single family dwelling unit must conform to all City Code requirements for single family dwellings, including but not limited to setback, height, impervious surface and accessory structure standards.
12. The accessory dwelling unit and the associated single-family dwelling unit must meet current State Building, Plumbing, Electrical, Mechanical and Fire Code provisions including fire emergency vehicle access to any accessory dwelling unit.
13. An accessory dwelling unit in a detached accessory structure shall have a separate address from the principal dwelling unit on the lot and shall be identified with address numbers assigned by the City and pursuant to size and location regulations of this Code. (Ord. 1358, 10-8-2018)

P L A N N I N G R E P O R T
CITY OF INVER GROVE HEIGHTS

CASE NO.: 20-27PUD

APPLICANT: Watermark Properties

PROPERTY OWNER: IMH Special Asset 175

REQUEST: Preliminary Plat and PUD, Rezoning

LOCATION: Northeast corner of 70th Street and Hwy 3

HEARING DATE: September 15, 2020

COMPREHENSIVE PLAN: LMDR and Mixed Use

ZONING: Planned Unit Development

REVIEWING DIVISIONS: Planning
Engineering

PREPARED BY: Allan Hunting
City Planner

BACKGROUND

The applicant is proposing a development with three product types consisting of: 69 single family units on 30 foot wide lots, 51 single family units on 50 foot wide lots and a site for a 100-150 unit apartment building. The applicant is proposing the development as all rental units with common open space and shared club amenities.

REQUESTS

The specific requests for the development project include the following:

1. Rezoning of the property to R-1C/PUD Single Family Residential District, R-3B/PUD Single Family Residential District and R-3C/PUD Multiple Family Residential District.
2. Preliminary Plat approval of Canvas at Inver Grove Heights resulting in 120 single family lots, one lot for future 100-150 unit apartment building and 6 outlots.
3. Preliminary PUD approval of the Canvas at Inver Grove Heights PUD as required by the Northwest Overlay District.

EVALUATION OF THE REQUEST

SURROUNDING USES

The subject property is surrounded by:

North:	Farmland, vacant land; zoned A, Agricultural; guided LMDR and LDR
East:	Large lot residential; zoned A; guided LMDR.
West:	Large lot single family residential/farmland; zoned A, Agricultural; guided Mixed Use and HDR.
South:	Commercial, large lot residential; zoned B-3 and A; guided Mixed Use and MDR.

IDENTIFICATION OF NATURAL RESOURCES

In 2003, a Natural Resource Inventory and Management Plan were completed for the Northwest Area. The NRI inventoried and qualified natural resources systems within the area and established a management classification system to guide the preferred treatment of these features.

The site contains primarily Manage 3 and 4 uplands and wetlands. There is a DNR protected wetland on the northwest corner of the site (247W). The wetland in the northwest corner of the site would not be disturbed and additional open space is being preserved around it. The wetland in the southeast corner of the site will be impacted by the collector street that will run north south through the project.

NET DEVELOPABLE AREA

Note: the numbers that are referenced within this staff report are approximate based on preliminary plan submittals. They will likely change slightly between preliminary and final plat. The numbers provided are sufficient for preliminary plat review.

Net developable area is defined as the area of a property remaining after excluding those portions that are either: a) encumbered by right-of-way for arterials roads as defined in the IGH Comprehensive Plan; or b) lying below the ordinary high water level of public waters; or c) lying within the boundaries of delineated wetlands; or d) bluffs in shoreland areas; or e) land to be dedicated for public park needs. Based on this definition, the proposed project area contains approximately 32.93 net developable acres. The request has been sent to MnDOT and Dakota County for their review on right-of-way needs. There may be some additional right-of-way to be dedicated along Hwy 3, but we don't expect any more along 70th Street (Co Rd 26).

General Project Data	Acres
Gross Project Area	39.54
Delineated Wetlands	1.70
Public Water Bodies (PWI)	0.00
Bluffs in Shoreland Area	0.00

Planned “Arterial” Road Right of Way	4.91
Total Net Developable Area	32.93

NATURAL AREA/OPEN SPACE

Section 10-13J-5. D. establishes requirements for open space preservation within the Northwest Area Overlay. Based on the net developable area the project contains the following:

	Required Acres	Proposed Acres
<i>Total Net Developable Area</i>	<i>32.93</i>	<i>NA</i>
Minimum Open Space Required = 20% of net area	6.58	11.59 (35%)
Required contiguous area = 75% of required open space with a minimum 100 foot corridor width	4.94	4.95 (75%)
Area to be undisturbed = 50% of required open space	3.29	4.77 (72%)

The site design has prioritized the open space areas along the perimeters of the site including the wetlands and pipeline easement. The site complies with or exceeds all the open space requirements.

The developer shall be responsible for installing marker posts at reasonable locations to define the boundary of the open space. The final PUD plans must show the location of the marker posts.

DEVELOPMENT CAPACITY PLAN

Section 10-13J-5. E. of the Northwest Area Overlay Ordinance outlines a process by which a site’s development capacity is determined as a means to allocate development across a site. This exercise only determines the number of units that would be permissible on the site and not the actual proposed development.

The development capacity plan was established for the proposed project utilizing the base zoning district of R-1C , R-3B and R-3C. When applying the base district and factoring in the open space as part of the R-1C district, the development capacity plan yields a range of 29 to 53 possible units. This equates to a density range of 1.9 to 3.6 units per net acre. When applying the base district and factoring in the open space as part of the R-3B district, the development capacity plan yields a range of 61 to 92 possible units. This equates to a density range of 7.9 to 11.9 units per net acre. When applying the base district and factoring in the open space as part of the R-3C district, the development capacity plan yields a range of 99 to 180 possible units. This equates to a density range of 12.0 to 21.7 units per net acre.

Base Zoning District	Net Acres*	Min Density (units per acre)	Max Density (based on lot size per zoning code)	Min Units	Max Units
R-1C	14.59	2	12,000	29	53
R-3B	7.70	8	3,630	61	92
R-3C	8.29	12	2,000	99	180

The proposed net density for the R-1C district would be 3.5 units/acre, the proposed density for the R-3B district would be 8.9 units/acre and the proposed net density for the R-3C district would be 12 to 18 units/acre.

The project is proposed with all residential development and no commercial which is the same as was approved for Hannah Meadows in 2015. Once it was determined that there would be only one access onto 70th Street and no direct access onto Hwy 3, the viability of commercial greatly diminished. The best use of land is to maximize residential development at this location with potential for commercial opportunities at the other quadrants of this intersection.

PROPOSED DEVELOPMENT MAGNITUDE, DENSITY AND BULK STANDARDS

Building setbacks and separation.

The Northwest Area Zoning Overlay establishes suggested guidelines for building separation and setbacks. The objectives for establishing such regulations are to ensure adequate area for certain uses on a site such as storm water management, parking, buffering of mechanical equipment and landscaping. The Northwest Area setbacks and structure separation standards consider compact development and reduced setbacks in order to minimize hard surface coverage and enable greater ability to leave larger areas of intact open space.

Units within the proposed development comply with the required setbacks, except for the following situations listed below:

- Building separation. Building setbacks within the development are proposed with a separation of eight and ten feet. The code requires a minimum 20 foot separation. The intent of the code requirement was to provide space between houses for infiltration basins or rain gardens. In order for this to work, houses would have to be built at the same time so an infiltration system could be installed between the houses on both lots. This typically will not occur because houses are not always built at the same time and the infiltration feature must be constructed all at the same time in order for it to function correctly. The applicant is not proposing any storm water features between houses, but in larger basin areas. The setback separation proposed is similar to that approved with the villa homes in Scenic Hills. Since all of the units are rental and not owned, there will be no future requests for building additions or improvements in backyards. Since this is not the case with this

development, staff supports this request to help achieve the densities assumed for this parcel.

- Setbacks to collector street. Applicant is proposing 20 foot setback for front and side yard. The project is proposed with all garage access onto the private roads acting like alleys. There are no individual access points proposed to the collector street. The front of the units would face the collector street and would have a sidewalk access to the trail and sidewalk along the collector. Reduced setbacks have been approved in other developments. Based on the unique design of the project, staff would support the request.
- Rear yard setbacks. The NWA overlay district requires 30 foot rear yard setbacks. Applicant is proposing 20 feet. Since nearly all rear yards are internal and most face the pipeline easement, staff would support. The exception would be for Lots 6-14, Block 1. Since their rear yard setbacks are a project perimeter setback, the 30 foot requirement must be adhered to. Staff recommends the lots on this block meet the required 30 foot setback.

Impervious surface coverage.

Impervious surface coverage standards are applied to give the city the authority to ensure sufficient areas for infiltration. Impervious surface areas include roads, sidewalks, parking areas, buildings, and other hard surface areas that do not allow infiltration.

The applicant has provided impervious surface calculations for the entire project.

Impervious Surface	Maximum Allowed	Proposed
R-1C	25%	32.3%
R-3B	55%	47.5%
R-3C	65%	14.8%

Including the impervious surface area for the collector street, the total site impervious surface would be 35.36%. Overall, the project provides less impervious surface than would be allowed by code.

PRELIMINARY PLAT

The applicant is proposing a preliminary plat which consists of 120 single family lots, , one common lot for the club amenities and 5 outlots. Outlot E is for the future apartment building and the rest of the outlots are for storm water purposes. There are 51 single family lots with 50 foot wide lot widths and range from approximately 6,028 square feet to 12,335 square feet. There are 69 single family lots with 30 foot lot widths. This neighborhood would look like a detached townhome development. Those lots range from 3,525 square feet to 8,596 square feet in size.

The plat has been sent to MnDOT and Dakota County for their review on right-of-way needs. We expect MnDOT will require a 60 foot dedication from centerline of Hwy 3. We believe all right-of-

way has already been dedication for the existing round-a-bout and along 70th Street. In any case, approval of the preliminary plat would be subject to review and comments from MnDOT and Dakota County.

PARKS/TRAILS

The site plan identifies sidewalk and trail along both sides the collector street as required by the Northwest Ordinance.

The Parks and Recreation Commission met on September 9 to discuss the project for park and trail needs. The Commission recommended:

1. Developer to provide cash dedication at the rate in effect at the time of final plat for the 120 single family lots and the apartment lot.
2. Dedicate an approximate five foot easement along the east boundary for a future trail once the land to the east develops.
3. Dedicate enough right-of-way in the southeast corner of the site for a future underpass of 70th Street to be constructed if feasible when 70th is reconstructed.
4. Work towards construction of a trail in the pipeline easement if feasible.
5. Outlot F to be conveyed to the city for future park purposes. City and developer continue discussions about city purchasing one or two lots adjacent to Outlot F for expanded park opportunities.

The plan should also provide an easement along Hwy 3 for a future trail. Easement expected to be 10 feet wide. There should also be some internal sidewalk connections to both 70th Street and Hwy 3 for those future trails

STREETS & CONNECTIVITY

The project consists of a series of private streets to serve the neighborhood. Road A is a collector street that is identified in the city collector street study. The street will continue north along the east side of Hwy 3 to serve all properties to the north. The apartment and single family lots would be served by a series of private roads/drives. The intersection points along the collector are acceptable. The internal private streets function like alleys as all the garage doors face the private roads and front of the buildings would have sidewalks connecting to the internal sidewalk system.

Street right-of-way widths meet standards as identified in the Northwest Area Overlay. ROW widths are adequate to accommodate travel lanes, storm water management systems, landscaping and sidewalks on major streets.

Staff has looked at access from this project to the land to the east. Since the County controls access on to 70th, there will probably be only one access point allowed for the property to the east once it develops. Staff has recommended to the applicant that they analyze a potential public street connection to the property to the east. This would provide a local street connection offering alternate access rather than all trips going to 70th Street. Staff recommends the applicant explore this option as part of the approved plan. It was noted that the plat of Hannah Meadows did not

contain a connection to the east. Since that previous approval, staff has looked at the internal road connection again and feels this is necessary.

PARKING

The development is proposed with 24 foot wide private roads. Roads of this width would not allow any on street parking. The proposed units provide the required parking with two car garages and two-wide driveways but is not sufficient for guest parking. The applicant has prepared a parking plan which shows an additional 56 off street spaces scattered throughout the project.

DAKOTA COUNTY/MnDOT REVIEW

The plans have been sent to Dakota County and MnDOT for their review and comment. Have not received any comments to date. As stated earlier, the plans should be consistent with the County's needs for right-of-way. There may some comment on turn lanes on 70th. We expect MnDOT to comment on and recommend at least a 60 foot half right-of-way dedication along Hwy 3. A condition of approval would be that the plans satisfy the conditions set forth by both Dakota County and MnDOT.

LANDSCAPING/TREE PRESERVATION

Landscape/Tree Preservation & Reforestation Plan:

The developer has provided a tree inventory of the site. The Code allows a tree removal of 40% for the project. The code allows removal beyond the threshold and requires replacement for those trees over the limit. Tree removal threshold would exceed 40%, thus reforestation is required. In this case, a total of 1,491 caliper inches or 597 trees are required to be replanted.

The proposed landscape plan provides for the required plantings overstory and coniferous trees planted all over the site. The reforestation and landscape plans comply with city standards.

WETLANDS

The preliminary plans identify 3 wetlands on the site. Wetland 1 located in the southeast corner, Wetland 2 located in the northwest corner and Wetland 3 located on the eastern half of the site. Preliminary numbers indicate Wetland 1 would be impacted by the construction of the collector street. Wetland fill would be about 6,710 square feet of the 22,941 square foot wetland. Wetland 2 would not be impacted. Wetland 3 would have impact on its entire 966 square feet.

The collector street location is dictated by County spacing guidelines which set up the location to line up and intersect with Allen Way on the south side of 70 Street. A wetland mitigation plan will be required as part of the final PUD plans for the project to approve the wetland mitigation. Mitigation is typically accomplished through purchase of wetland bank credits.

GRADING, DRAINAGE, STORMWATER AND UTILITIES

The Engineering Department has sent the plans to Stantec to review the project against the trunk watermain master plan, Bolton & Menk to review the project against the trunk sewer master plan and Wenk & Associates to review the project against the trunk storm sewer master plan including the temporary storm lift station and forcemain. These reviews have not been completed and will

require more time for review. Staff recommends the item be tabled in order to provide more time to review the engineering plans.

FIRE MARSHAL REVIEW

The Fire Marshal has reviewed the plans and notes that since there may be some time before roads are extended and there are other ways in and out of the site, a temporary fire lane access be provided possibly in the southwest corner of the site. The final plan set must include a temporary fire lane access at a location and design approved by the city Fire Marshal. See attached comments from the Fire Marshal.

NORTHWEST AREA TRUNK UTILITY CHARGES

To fund the utility improvements in the Northwest Area, the Council adopted a funding resource of collecting connection fees at time of development rather than assess properties. To cover the cost of the sewer, water and storm water improvements, there are connection fees paid at time of final plat and connection fees paid at time of building permit. Plat connection fees are due at time of final plat release for each phase. A break down of the fees are listed in the development contract. The building permit connection fees are due with building permit for each unit.

DEVELOPMENT CONTRACT

The Developer and Owner shall enter into a Development Contract and other associated agreements with the City. The list of agreements and details of the contract will be discussed with the applicant, city attorney and staff as part of the final PUD review. All of the agreements will be approved by the City Council as part of the final PUD review.

ALTERNATIVES

The Planning Commission has the following actions available on the proposed project:

- A. **Approval:** If the proposed request is found to be acceptable, approval of the applicable following actions should be taken:

Approval of the Preliminary Plat, Preliminary PUD and Rezoning subject to the following conditions:

1. The final plat and accompanying site plans shall be in substantial conformance with the following plans on file with the Planning Department except as may be modified by the conditions below.
 1. Canvas at Inver Grove Heights Preliminary Plat and PUD Submittal plan set dated 8/17/2020 (34 sheets).
 2. Natural Area/Open Space Plan dated 9/3/2020 -v2.
 3. Hard Surface Exhibit Plan dated 9/3/2020
 4. Parking Exhibit Plan dated 9/3/2020

***The final list of approved plans and date of plans shall be identified in the development contract.**

2. Lots 6-14, Block 1 shall maintain the required 30 foot rear yard setback. All other setbacks shall be consistent with those listed on the preliminary site plan.
3. Prior to final plat and plan approval, the final grading, drainage and erosion control, and utility plans shall be approved by the City Engineer and subject to all conditions noted by the City Engineer and consultants.
4. Drainage and utility easements shall be provided on the final plat as required by the City Engineer.
5. The developer shall be responsible for installing marker posts at reasonable locations to define the boundary of the open space. This provides identification for future land owners to know boundaries of the open space areas. The final PUD plans must show the location of the marker posts.
6. Plan approval shall be subject to the recommendations of the Park and Recreation Commission from their meeting September 9, 2020. A summary is listed in this staff report.
7. The final plan set shall be subject to the city Fire Marshal review memo dated 8/27/20 including, but not limited to providing fire lanes and providing a temporary fire lane access for a secondary access to the site.
8. The approval of the preliminary Plat and PUD development plans are subject to the review and comment from Dakota County and MnDOT.
9. Developer shall investigate providing a public street right-of-way to property to the east and modify plans accordingly.
10. A wetland mitigation plan for the impacted wetlands shall be submitted per the Wetland Conservation Act and must be approved by the TEP review panel and the city. Any wetland impact shall be approved prior to or at time of City Council action on the final plans.
11. Prior to execution of the plat by the City and prior to recording of the plat with the County, the Owner shall execute a Storm Water Facilities Maintenance Agreement with the City whereby the developer shall be responsible for the maintenance of storm water improvements on such lots.
12. The developer shall be responsible to ensure the undisturbed area shown on the Open Space Plan remains undisturbed through all construction grading. Prior to execution of the plat by the City and prior to recording of the plat with the County, the Developer must

pay the City utility plat connection fees consisting of a Water Utility Fee, Sanitary Sewer Utility fee and Storm Water Sewer Utility fee according to the formulas adopted by city ordinance.

13. In the Development Contract, the Developer and Owner shall agree that the following elements of the Planned Unit Development shall not be altered, changed or removed without first obtaining the following consents:

Site Plan Element	Consent Required By
Building Location	City Council
Driveways and Private Roads	Planning Department
Landscaping	Planning Department
Location of Utilities	Engineering Department
Location of Conservation Easement and Open Space	City Council

14. The Developer and Owner shall execute an Acknowledgement of Planned Unit Development Zoning. This Acknowledgement shall state that property within the plat is subject to the approved PUD plans and PUD zoning and that the development on the property must conform to the PUD plans and PUD zoning. This Acknowledgement shall be recorded when the plat is recorded.
15. The Developer and Owner shall enter into a Development Contract with the City. The form of Development Contract shall substantially comply with the model Development Contract which is part of the Administrative Code, taking into account the particular requirements of the Planned Unit Development plans.
16. The following documents shall be recorded when the plat is recorded:
- Development Contract;
 - Storm Water Facilities Maintenance Agreement;
 - Acknowledgement of PUD Zoning.
17. Northwest Area plat connection fees are due at time of final plat release for each phase. The connection fees will be listed in the development contract. The Northwest Area building permit connection fees are due with building permit for each unit. Final details of the amounts to be paid shall be part of the final PUD plan review.
18. Street lighting shall be required along all public streets. The street lighting plans shall be approved by the City prior to installation.

- B. Denial:** Should the proposed request or portions thereof, not be found to be acceptable, the appropriate requests described above should be denied. The basis for denial must be stated in any such motion.

RECOMMENDATION

The project complies with nearly all performance standards of the Northwest Area. Flexibility requests have been made for building separation and setbacks. Staff supports these requests.

Engineering and its consultants have not had sufficient time to review the plans against the ordinance and master plans.

Staff suggests discussion of the item be presented at the September 15 meeting but recommends tabling the item until Engineering has provided comments are recommendations.

Attachments:

Location Map

Applicant Narrative

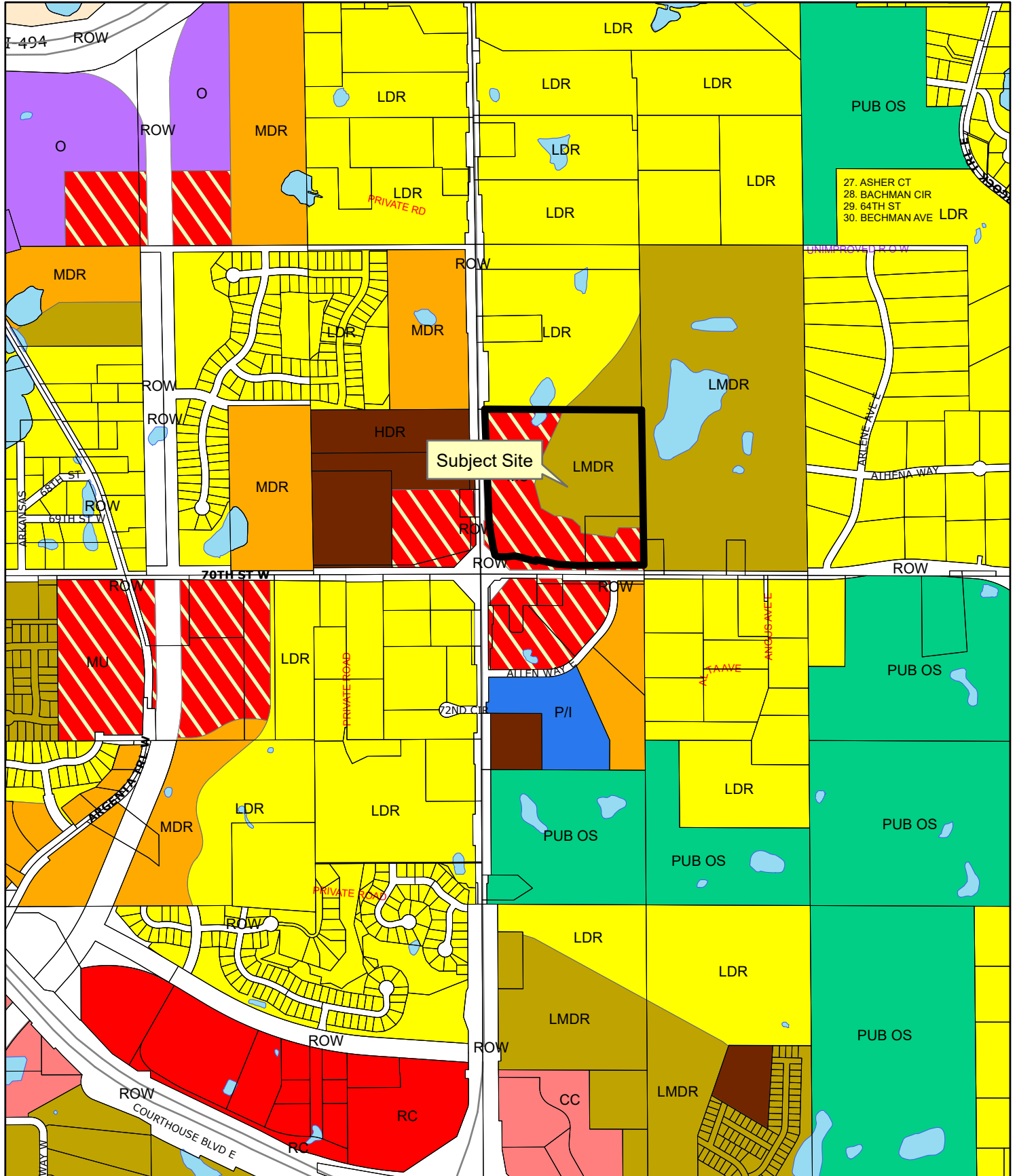
Fire Marshal Comment Memo

Canvas at Inver Grove Heights Preliminary Plat and PUD Submittal plan set dated 8/17/2020 (34 sheets).

Natural Area/Open Space Plan dated 9/3/2020 -v2.

Hard Surface Exhibit Plan dated 9/3/2020

Parking Exhibit Plan dated 9/3/2020



**PLANNED UNIT DEVELOPMENT / PRELIMINARY PLAT
REVIEW
SUBMITTAL NARRATIVE**

**CANVAS AT INVER GROVE HEIGHTS
Inver Grove Heights, Minnesota
August 17, 2020
Updated September 3, 2020**

DEVELOPMENT TEAM

Applicant/Developer/Builder: Watermark Equity Group, Ian Peterson
Civil Engineer: Alliant Engineering, Inc., Mark Rausch
Surveyor: Alliant Engineering, Inc., Peter Goers
Landscape Architect: Alliant Engineering, Inc., Mark Kronbeck

SITE INFORMATION

Legal Description:

The Southwest Quarter of the Southwest Quarter of Section 5, Township 27, Range 22, Dakota County, Minnesota.

Abstract Property

Address: Unassigned

PID: 200050052011 and 200050052012

Total Acres: 39.542 ac

PLANNED UNIT DEVELOPMENT REQUEST

The proposed development request consists of a PUD, consisting of 69-30' wide and 51-50' wide single family lots in addition to a 100-150 unit apartment site.

COMPREHENSIVE PLAN DESIGNATION

The development property is guided as Mixed Use and Low-Medium Residential within the City's 2040 Land Use Plan. The City's Mixed Use land use designation targets a residential dwelling unit density range of 12-35 units per acre. The Low-Medium Density Residential targets a residential dwelling unit density range of 4-8 residential units/net acre. See Site Plan for statistics.

ZONING DESIGNATION

The development site currently zoned (PUD) Planned Unit Development. The requested zoning for the site will establish a PUD zoning for the entire development site, compatible and consistent with the City's goals and objectives for the property.

EXISTING SITE DESCRIPTION

The development property is located within the City of Inver Grove Heights's Northwest Area Overlay District and is currently undeveloped with a mixture of 'treeless meadow' growth and portions wooded. The property is a combination of 2 parcels totaling 39.542 acres and bound by Robert Trail S to the West, 70th St E to the South and private properties to the North and East. The site is adjacent to available public infrastructure including: sanitary sewer, water main, and roadways for servicing the proposed development.

The proposed plat boundary contains three wetland areas that were previously delineated and have been confirmed by an environmental specialist at Alliant Engineering. Two of the wetlands on site have been identified as landlocked basins by the city as part of the Northwest Area Stormwater Management Plan. Two of three wetlands on site will show impacts, Wetland 1 will be impacted as part of the construction of collector road for the proposed development and Wetland 2 will be impacted due to site constraints.

PROPOSED RESIDENTIAL PUD DEVELOPMENT PLAN

The applicant proposes to provide the City of Inver Grove Heights with phased residential development of diverse housing styles that preserves natural site features, extends public infrastructure and provides for stormwater management goals. The current application proposes for a neighborhood of 50' wide lots and 30' wide lots surrounding a private club house/amenity area. It is proposed that an environmental area generally encompass the two neighborhoods and separate an additional single family neighborhood to the north in addition to an apartment building to the northwest. All neighborhoods and the apartment building are to be provided with access via the extension of public roadway with sidewalks and trails. It is proposed that the public roadway extend north from 70th Street and be provided with public utilities sized to accommodate future development to the north.

It is the applicants respectful opinion that the proposed development plan is consistent with the City of Inver Grove Heights Northwest Area Overlay District. The following is a summary of primary project elements currently proposed:

- Diverse housing styles
 - 51-50' wide single family homes with multiple product styles.
 - 69-30' wide single family homes with multiple product styles.
 - 100-150 unit apartment
- Central club house & amenity area
- Preservation of environmental features and dedication of open space.

- HOA maintained community
- HOA maintained open areas
- Extension of collector roadway with trails and walks
- Extension of sanitary sewer and water for future development to the north and east
- Preservation of wetland areas with limited impacts
- Multiple stormwater management areas
- Enhanced development landscaping

Development Plan Area

Gross Acreage	39.54 acres
Arterial ROW	4.91 acres
<u>Wetland Area</u>	<u>1.70 acres</u>
Net Development Acreage	32.93 acres

Northwest Area Overlay District Criteria	Required	Provided
Open Area (20%)	6.59 AC	11.59 AC
Non-Disturbed Open Area (10%)	3.29 AC	4.77 AC
Contiguous Area (75% open space)	4.94AC	4.95 AC (largest cont. area)

Other

Pipeline Easement Area	3.12 acres
Collector ROW Area	2.75 acres

<u>Lot Dimensions</u>	<u>30'/50'</u>
Width	30'/50' min.
Depth	117'/120' min.
Lot Size Minimum	See Preliminary Plat
Lot Area average	See Preliminary Plat

<u>Structure Setbacks</u>	<u>30' Wide Lots</u>
Front	20'
Side (internal)	4'
Side to Private Drive B/C	15'
Any Side to Public ROW	20'
To Private Parking Stalls	5'
Rear/Garage Side	34'
Garage to Private Drive B/C/D (min driveway length)	22'
Setback to Robert Trail and 70 th Street	50'

<u>Structure Setbacks</u>	<u>50' Wide Lots</u>
Rear	20'
Side (internal)	5'
Side to Private Drive B/E	15'
Any Side to Public ROW	20'
To Private Parking Stalls	5'
Front/Garage Side	34'
Front to Private Drive B/C (min driveway length)	22'

PUD/Preliminary Plat Review

Upd. September 3, 2020

CANVAS AT INVER GROVE HEIGHTS

Page 3 of 6

Architecture

It is currently anticipated that architecture be compatible for different housing types in addition to the club house, apartment building and amenity area. Refer to single family building elevations.

Site Access, Pedestrian Circulation and Parking

Vehicular access from public right of way to the proposed development will occur via a proposed road access to 70th St E / CSAH 26.

The development will be providing a sidewalk and trail along the proposed collector road.

The development will have ample parking to support the future residents and their guests. The plan as proposed provides the following parking:

Parking Summary

Private Driveway (2/home)	240
Private Garage (2/home)	240
<u>Private Guest Parking</u>	<u>56</u>
Total Available Parking	536 Stalls (4.5 stalls / unit)

Apartment building will be required to meet all City of Inver Grove Heights parking requirements.

Grading

The existing site area will be re-graded to shape in the proposed roadways, lot configurations, stormwater management basin and common area. The site is graded to match elevations at the site perimeter and to drain to a proposed infiltration basin throughout the development. Low floor elevations satisfy all requirements per the City of Inver Grove Heights for freeboard from EOF's and HWL's. Roadways are designed to meet all City requirements.

Sanitary Sewer and Watermain

The development site currently contains a sanitary sewer stub provided at the southern edge of the property on 70th St E. The site will provide sanitary sewer stubs to the East and North per the City's Northwest Area Planned Utility Map. The remainder of the site will be served by 8" sanitary sewer.

The development will connect to and extend a watermain service at the western edge of the property along Robert Trail S. The connection will require the removal of a hydrant. Stubs will be provided to the East and North per the City's Northwest Area Planned Utility map. The remainder of the site will be served by 8" watermain and hydrants will be spread through the development to meet city requirements.

Stormwater Management

The development site falls within the City's Northwest Area and will have to meet the Northwest Area Stormwater Management requirements. To meet these requirements the site will utilize multiple infiltration basins and will use proprietary and sediment forebays as means of pretreatment. The site drains to two landlocked basins EP-027 and EP-034. All storage at both the 50 yr and 100 yr HWL has been replaced for the roadway connection that impacts EP-034. See stormwater management plan for more detailed calculations and explanations.

Wetlands

Two of the wetlands on site have been identified as landlocked basins by the city as part of the Northwest Area Stormwater Management Plan. Two of three wetlands on site will show impacts, Wetland 1 will be impacted as part of the construction of collector road for the proposed development and Wetland 2 will be impacted due to site constraints.

Wetland Summary:

- | | |
|----------------|--------------------------------|
| 1) Wetland 1 - | 22,941 sf – Impact proposed |
| 2) Wetland 2 - | 51,152 sf – No Impact proposed |
| 3) Wetland 3 - | 965 sf – Impact proposed |

Tree Preservation/Replacement

A tree inventory was completed on behalf of the City of Inver Grove Heights and that information is included in the proposed development plans. The tree inventory was performed on the full development parcel from the western boundary of Robert Trail S to 70th St E to the South and private properties to the North and East. The development site contains a mixture of 'treeless meadow' as well as several stands of significant trees. Trees will generally be preserved in the south east around existing wetland, in the north east, and the north west around existing wetland. Trees within the center of the site will be removed to grade the subdivision.

As the submittal is a PUD and includes a mixture of compact 30' lots, 50' single family lots and an apartment building, a tree removal limit of 40% of significant or heritage caliper inches was suggested based on overall density. Beyond the 40% allowable removal, caliper inches are to be replaced at a rate of 50% for Category A trees, and 100% for Categories B and C. Any preserved significant or heritage tree damaged by construction within 30' of the tree preservation boundary shall be replaced by the applicant on a 1:1 DBH basis. Replacement trees shall be a minimum of 2 ½ diameter deciduous or 6' coniferous. The development plan does require the removal of 1,491 caliper inches which require mitigation; to mitigate the loss the landscape plan proposes reforestation of 1,491 caliper inches equal to 597 new trees.

Landscaping and Amenities

The project proposes a significant landscape plan including an amenity/club area which will feature plant material organized to suit the program once developed in further detail. A portion of trees proposed to mitigate existing tree loss are located at least 2 overstory trees per lot, with the exception

of block 1 lots 15-25 due to pad proximity to the gas easement. Additional mitigation trees are used to create a conifer buffer on the south along 70th St. as well as portions of S. Robert Trail and to enhance stormwater features. Final lot build-out will also include foundation planting to be provided by owner. The apartment site, once developed in future, will feature landscaping to compliment the building foundation, parking lot areas, and buffering as needed.

TIMING/PHASING

The Applicant will likely mass grade the project in one phase. If the City reviews and approves the requested PUD request, it is the Applicant's desire to proceed with an application for Final PUD/Plat for the project's first phase in Spring of 2021. Refer to phasing plan for further details on phasing of overall site.

CONCLUSION

The applicant respectfully concludes that the request for a planned unit development/subdivision approval will allow for a residential land use consistent with City's goals and objectives for this area. The single-family community and apartment site will provide a unique housing option for the City of Inver Grove Heights

From: [Jeff Schadegg](#)
To: [Heather Botten](#)
Subject: IGH PRC 8/27/20 – Watermark Properties (Preliminary Plat and PUD)- Case NO. 20-27PUD
Date: Thursday, August 27, 2020 11:45:28 AM

I have reviewed the submittal and have the following concerns:

- The entire subdivision has only one access unit the property to the north develops. There should be a second access into the subdivision. This can be accomplished in either a permanent or temporary manner.
- The road to the north should be completed to the edge of the property and it should be identified as a street that will continue on in the future.
- The twenty four foot private roads must be posted no parking fire lane on both sides. If parking on one side is desired they should be widened to 28'.
- The north end of Road A and the T on Road F appear to be provided to meet turn around requirements for fire lanes. Each leg must be at least 70' with a 28' turning radius. An example can be found in 2020 MSFC Appendix D – Acceptable Alternates to 120 – Foot Hammerhead

CANVAS AT INVER GROVE HEIGHTS

INVER GROVE HEIGHTS, MINNESOTA

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612.758.3080
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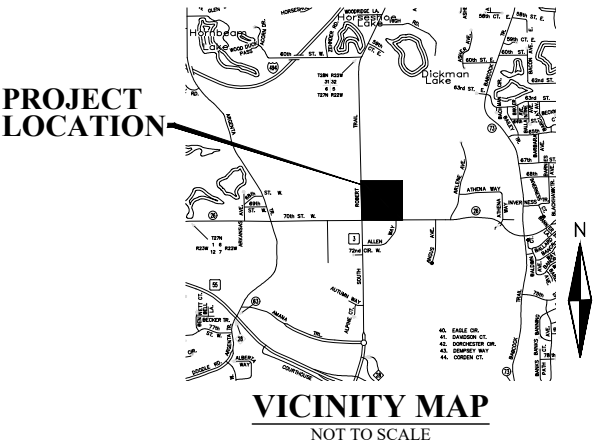
DEVELOPER
WATERMARK EQUITY GROUP
4000 SHORELINE DRIVE
SPRING LAKE PARK, MN 55384
CONTACT: IAN PETERSON
PHONE: 312-813-5228
EM: ipeterson@wmprops.com

CONSULTANT
ALLIANT ENGINEERING, INC.
733 MARQUETTE AVE
SUITE 700
MINNEAPOLIS, MINNESOTA 55402
PH: 612-758-3080

ENGINEER
MARK RAUSCH
LICENSE NO. 43480
EM: mrausch@alliant-inc.com

SURVEYOR
PETER GOERS
LICENSE NO. 44110
EM: pgoers@alliant-inc.com

LANDSCAPE ARCHITECT
MARK KRONBECK
LICENSE NO. 26222
EM: mkronbeck@alliant-inc.com



SHEET INDEX

NO.	SHEET TITLE
1	COVER SHEET
2	EXISTING CONDITIONS SURVEY
3	PHASING PLAN
4-6	PRELIMINARY PLAT
7-9	SITE PLAN
10-12	GRADING AND DRAINAGE PLAN
13	TYPICAL PAD - GRADING DETAILS
14	GRADING PROFILES
15-17	EROSION AND SEDIMENT CONTROL PLAN
18	EROSION AND SEDIMENT CONTROL NOTES
19-21	SANITARY SEWER AND WATERMAIN PLAN
22-24	STORM SEWER PLAN
25	WETLAND MANAGEMENT PLAN
26-28	TREE PRESERVATION PLAN
29-30	TREE INVENTORY
31-33	LANDSCAPE PLAN
34	LANDSCAPE SCHEDULE AND NOTES

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CANVAS AT INVER GROVE HEIGHTS
INVER GROVE HEIGHTS, MINNESOTA
PRELIMINARY PLAT AND PUD SUBMITTAL
COVER SHEET

I hereby certify that this plan, specification, or 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

MARK RAUSCH, PE	
Date	License No.
QUALITY ASSURANCE/CONTROL	
BY	DATE
DATE	ISSUE
8-17-2020	CITY SUBMITTAL
9-3-2020	CITY COMMENTS UPDATES
PROJECT TEAM DATA	
DESIGNED:	MPR
DRAWN:	TAS
PROJECT NO:	220-0092

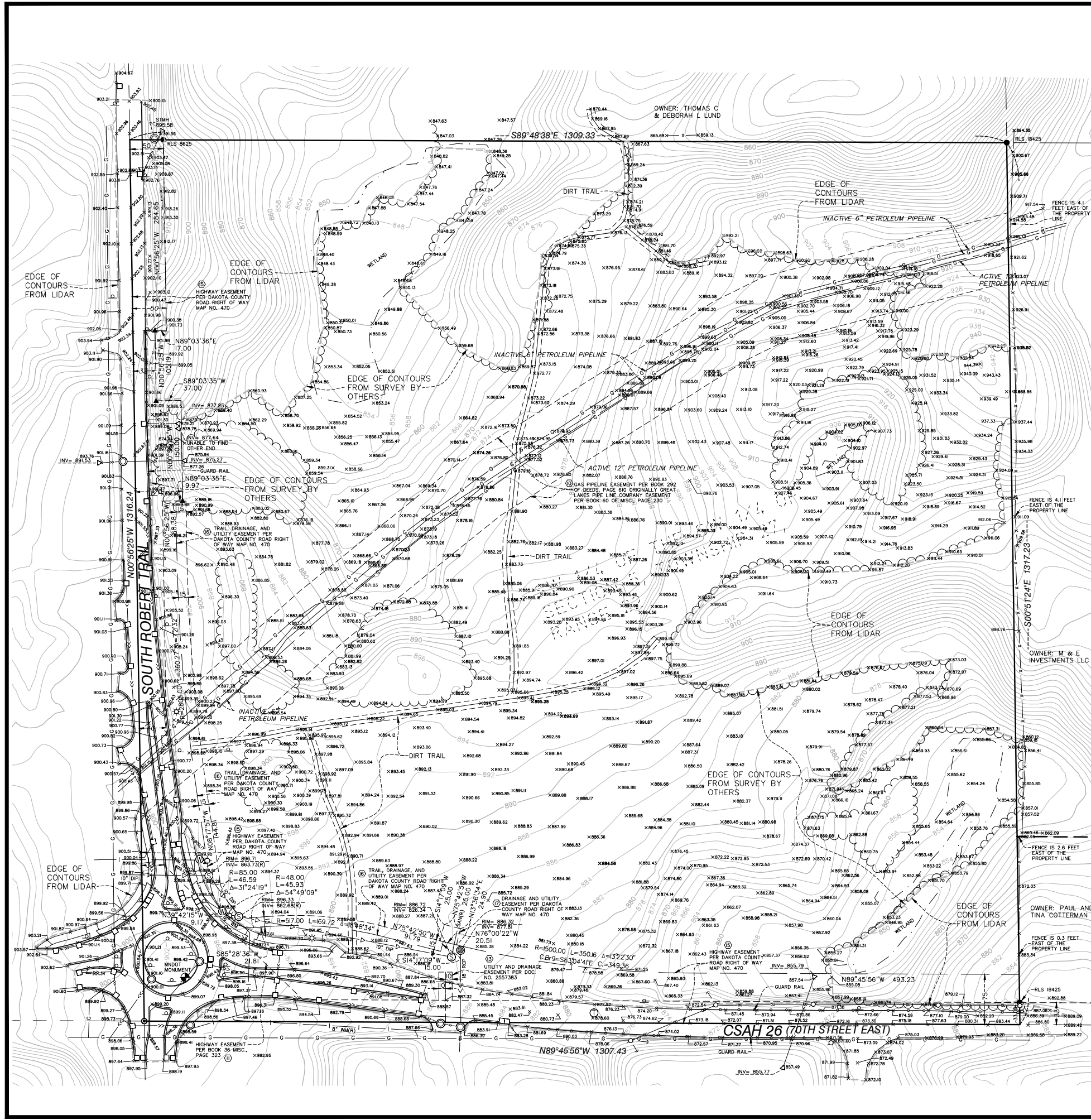


TABLE A ITEMS

- 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 referenced by existing monuments or witnesses to the corner are shown hereon.
- There is no assigned address to subject property per the Dakota County GIS tax records.
- The property lies within an area of minimal flood hazard and does not have a printed map according to the Federal Emergency Management Agency (FEMA) website.
- The area of the above described property is 1,722,460 square feet or 39.542 acres.
- Vertical relief per contour intervals, datum, and originating benchmark are shown herein.
- Substantial features observed in the process of conducting fieldwork, are shown hereon.
- The locations of existing utilities on or serving the property are depicted based on Gopher State One Call Ticket No. 201401884, available city maps, records and observed evidence locations. Lacking excavation, underground utility locations may not be exact. Verify critical utilities prior to construction or design.
- Names of adjoining owners are depicted based on Dakota County GIS tax information.
- No evidence of recent earth moving work at the time our field work was performed.
- Wetland delineated by Westwood Professional Services, Inc. on 4/20/15. Delineation re-approved by Dakota County SWCD, valid through 6/8/2025.

PROPERTY DESCRIPTION

The Southwest Quarter of the Southwest Quarter of Section 5, Township 27, Range 22, Dakota County, Minnesota.

Abstract Property

CERTIFICATION

To Watermark Equity Group, LLC, an Illinois limited liability company; IMH Special Asset NT 175-IGH, LLC, and Arizona limited liability company; and Commercial Partners Title, LLC as agent for Old Republic National Title Insurance Company:

This is to Certify that this map or plat and the survey on which it is based were made in accordance with the 2016 Minimum Standard Detail Requirements for ALTA/NSPS Land Title Surveys, jointly established and adopted by ALTA and NSPS, and includes items 1, 2, 3, 4, 5, 8, 11, 13, 16 and 18 of Table A thereof. The field work was completed on June 8, 2020.

Date of Plat or Map:

REVIEW COPY

Peter D. Goers, Professional Land Surveyor
Minnesota License No. 44110
Email: pgoers@alliant-inc.com

NOTES

1. This survey and the property description shown here on are based upon information found in the commitment for title insurance prepared by Commercial Partners Title, LLC as agent for Old Republic National Title Insurance Company, file no. 57189, dated May 7, 2020.

2. The locations of underground utilities are depicted based on Gopher State One Call, available city maps, records and field locations and may not be exact. Verify critical utilities prior to construction or design.

3. The basis of bearings is based on Dakota County Coordinate System NAD83 (96 adj.).

4. All distances are in feet.

5. Benchmark: MnDOT monument 1908 E, in southeast section of the center roundabout island having an elevation of 897.56 feet NAVD 88.

6. Survey related exceptions set forth in Schedule B, Section Two of the Title Commitment:

Item no. 10 references an Easement for pipe line purposes, in favor of Great Lakes Pipe Line Company, its successors and assigns, as created in document dated March 13, 1931, filed May 8, 1931, in Book 41 of Miscellaneous, Page 323.

Amended by Partial Release of Right of Way Agreement dated August 24, 1965, filed September 13, 1965, in Book 60 of Miscellaneous, Page 230.

Assigned to Williams Brothers Pipe Line Company by Deed dated March 15, 1966, filed April 4, 1966, in Book 292 of Deeds, Page 323. Documents are not available and information is depicted per survey provided by others.

Item no. 11 references Terms and conditions of and easements contained in Highway Easement, dated February 18, 1928, filed April 10, 1928, in Book 36 of Miscellaneous, Page 323. Documents are not available and information is depicted per survey provided by others.

Item no. 12 references Subject to the right of way of County State Aid Highway No. 26 (East 70th Street) as presently laid out and traveled. Depicted on survey.

Item no. 13 references an Easement for permanent utility and drainage purposes, in favor of the City of Inver Grove Heights, a Minnesota municipal corporation, as created in Permanent Utility and Drainage Easement and Temporary Construction Easement dated October 5, 2007, filed November 21, 2007, as Document No. 2557383. Depicted on survey.

Item no. 14 references Terms and conditions of and easements contained in Encroachment Agreement dated August 6, 2012, filed August 10, 2012, as Document No. 2886577, by and between Magellan Pipeline Company, L.P., a Delaware limited partnership, and Zayo Group, LLC, a Delaware limited liability company. Not plottable.

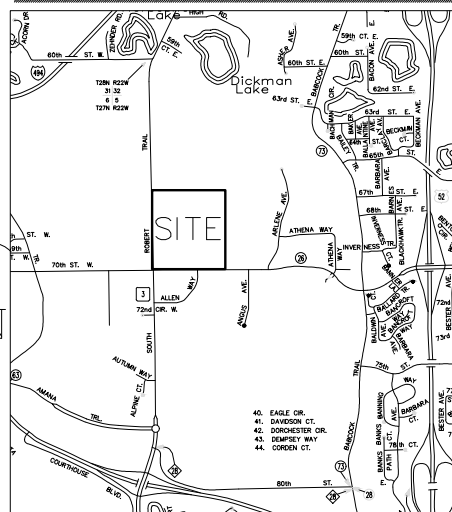
Item no. 15 references an Easement for highway purposes, in favor of Dakota County, as created in Highway Easement dated December 19, 2017, filed January 9, 2018, as Document No. 3231655. The easement is depicted in Parcel 4 of Dakota County Road Right of Way Map No. 470 filed January 9, 2018, as Document No. 3231649. Depicted on survey.

Item no. 16 references an Easement for trail, drainage and utility purposes, in favor of Dakota County, as created in Trail, Drainage Utility Easement dated December 19, 2017, filed January 9, 2018, as Document No. 3231655. The easement is depicted in Parcel 4 of Dakota County Road Right of Way Map No. 470 filed January 9, 2018, as Document No. 3231649. Depicted on survey.

Item no. 17 references an Easement for drainage and utility purposes, in favor of Dakota County, as created in Drainage and Utility Easement dated December 19, 2017, filed January 9, 2018, as Document No. 3231655. The easement is depicted in Parcel 4 of Dakota County Road Right of Way Map No. 470 filed January 9, 2018, as Document No. 3231649. Depicted on survey.

Item no. 18 references Terms and conditions of and easements contained in Encroachment Agreement dated April 24, 2019, filed May 17, 2019, as Document No. 3305267, by and between Magellan Pipeline Company, L.P., a Delaware limited partnership, and Dakota County, a political subdivision of the State of Minnesota. Not plottable.

VICINITY MAP NOT TO SCALE



LEGEND

- FOUND ALUMINUM MONUMENT
- FOUND IRON
- FIRE HYDRANT
- WATER VALVE
- LIGHT POLE
- SANITARY MANHOLE
- POWER POLE
- STORM MANHOLE
- SPOT ELEVATION
- CATCH BASIN
- WATER MANHOLE
- FLARED END SECTION
- BENCHMARK
- PER RECORD DRAWING
- EXCEPTION NUMBER
- SANITARY SEWER
- GAS LINE
- OVERHEAD ELECTRIC
- WATERMAIN
- STORM SEWER
- FENCE
- GUARD RAIL
- DELINEATED WETLAND
- EDGE OF TREES



733 Marquette Ave, Ste 700
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612.758.3080 MAIN
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**ALTA/NSPS
LAND TITLE
SURVEY**

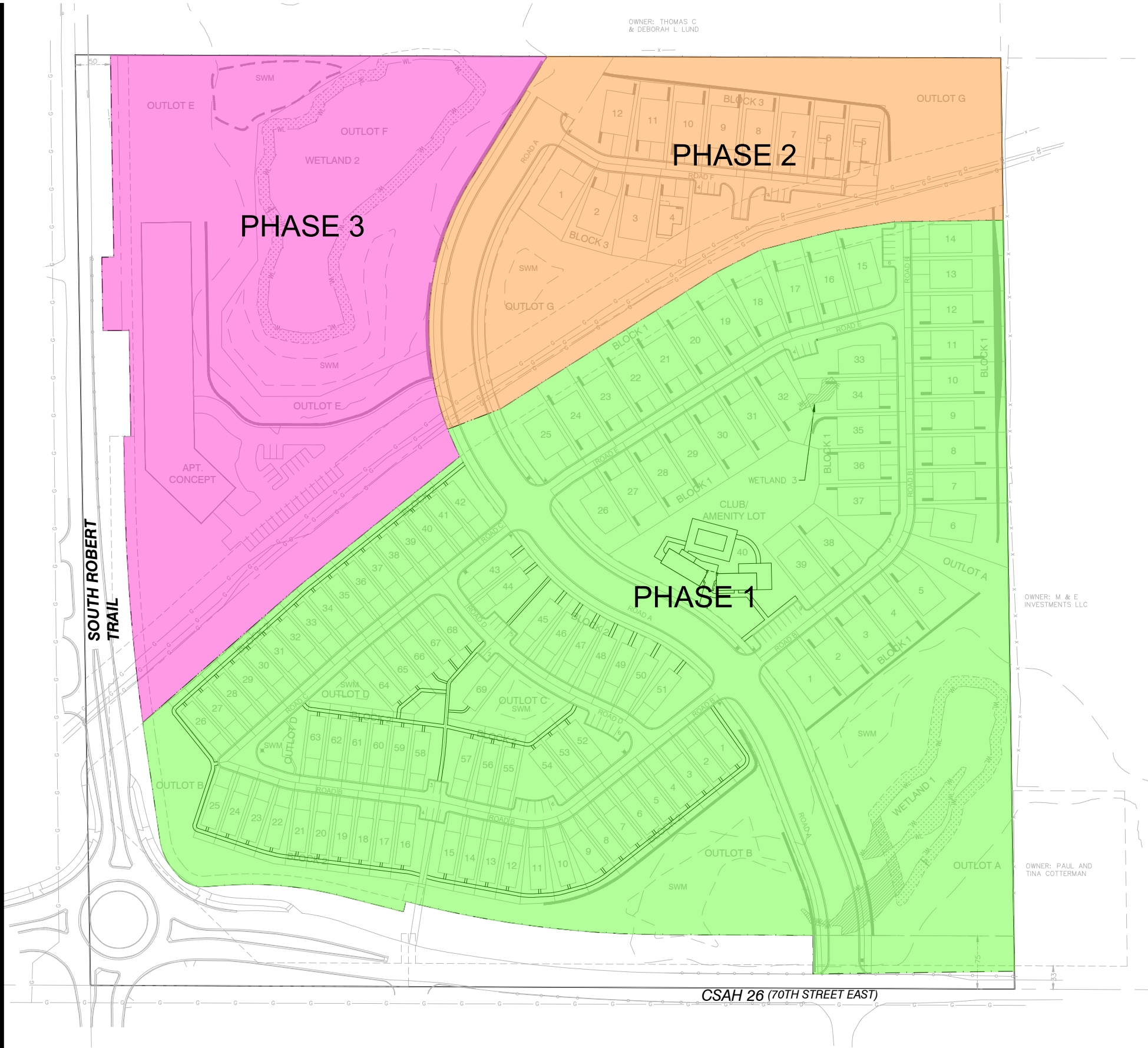
**ROBERT TRAIL AND
70TH STREET EAST**

INVER GROVE HEIGHTS, MINNESOTA

DRAWN BY	MDT
CHECKED BY	PDG
DATE ISSUED	06/15/2020
SCALE	1"=80'
JOB NO.	20-0092
FIELD	DA

0 40 80 160
SCALE IN FEET

Drawing name: C:\new_working\projectwise\mregion\dmso7844\200092\phase.dwg Sep. 03, 2020 11:55am



SITE LEGEND:

- PROPERTY LINE
- RIGHT-OF-WAY LINE
- LOT LINE
- PHASE 1
- PHASE 2
- PHASE 3

ENTIRE SITE IS TO BE MASS GRADED AT ONCE. STREET AND UTILITY WORK IS REPRESENTED BY PHASES.



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CANVAS AT INVER GROVE HEIGHTS

INVER GROVE HEIGHTS, MINNESOTA

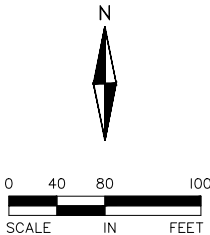
PRELIMINARY PLAT AND PUD SUBMITTAL

PHASING PLAN

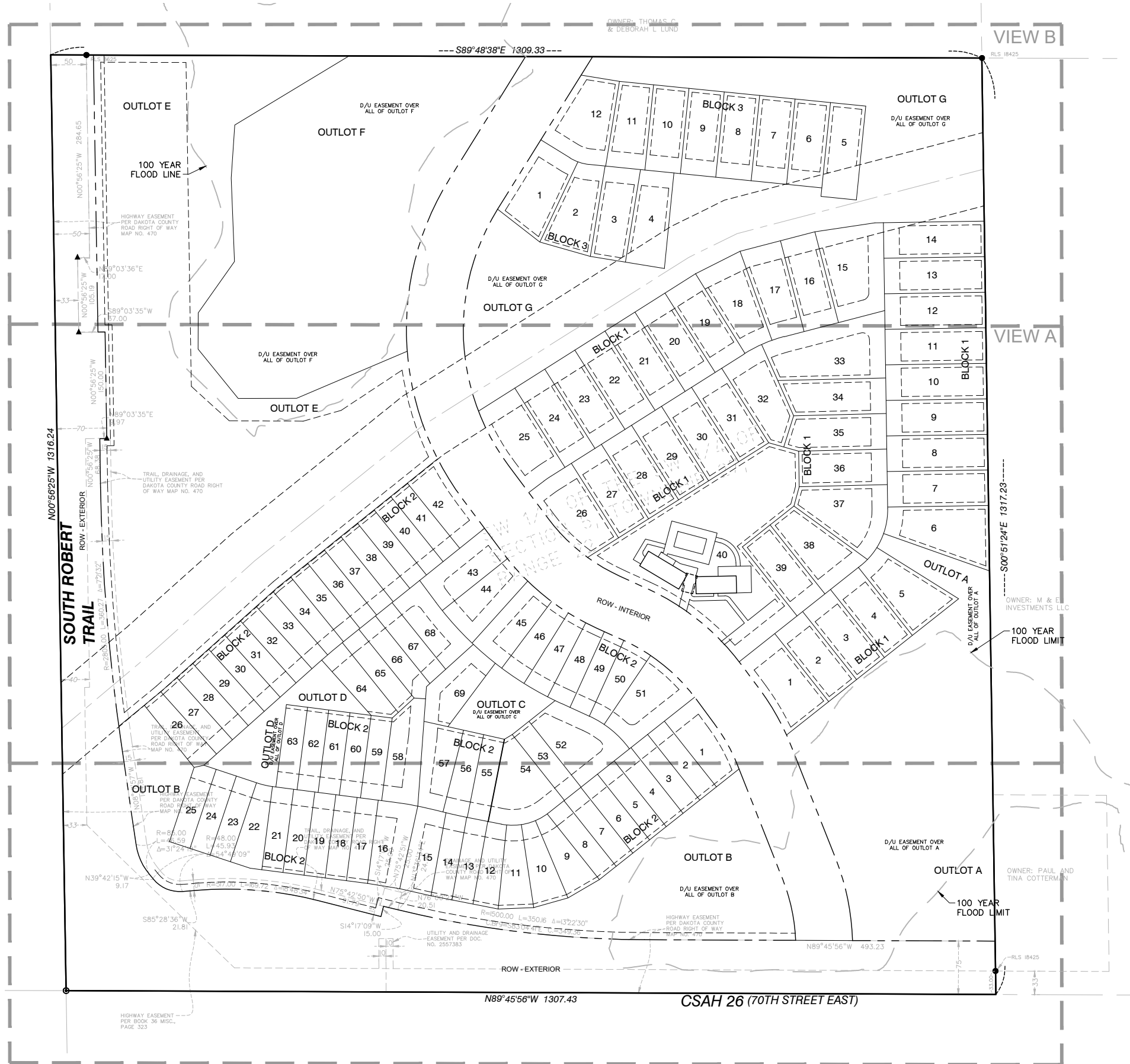
I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed PROFESSIONAL ENGINEER under the laws of the State of MINNESOTA

MARK RAUSCH, PE	
Date	License No.
QUALITY ASSURANCE/CONTROL	
BY	DATE
DATE	ISSUE
8-17-2020	CITY SUBMITTAL
9-3-2020	CITY COMMENTS UPDATES
PROJECT TEAM DATA	
DESIGNED:	MPR
DRAWN:	TAS
PROJECT NO:	220-0092

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Drawing name: C:\new_working\projectwise\mregion\dm\07844\2009092\prelplat.dwg Sep 03, 2020 -- 11:20am



- LEGEND:**
- PROPERTY LINE
 - LOT LINE
 - R.O.W
 - EASEMENT LINE
 - FOUND IRON MONUMENT

PROPERTY DESCRIPTION

THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 5, TOWNSHIP 27, RANGE 22, DAKOTA COUNTY, MINNESOTA.

ABSTRACT PROPERTY

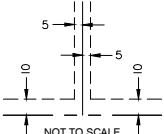
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PARCEL AREA TABLE		
PARCEL	AREA SF	AREA AC
B1-L1	8,213	0.19
B1-L2	6,100	0.14
B1-L3	6,100	0.14
B1-L4	6,100	0.14
B1-L5	7,552	0.17
B1-L6	9,406	0.22
B1-L7	7,096	0.16
B1-L8	7,096	0.16
B1-L9	7,096	0.16
B1-L10	7,096	0.16
B1-L11	7,095	0.16
B1-L12	7,095	0.16
B1-L13	7,095	0.16
B1-L14	7,095	0.16
B1-L15	10,476	0.24
B1-L16	6,600	0.15
B1-L17	6,961	0.16
B1-L18	7,382	0.17
B1-L19	6,631	0.15
B1-L20	6,600	0.15
B1-L21	6,600	0.15
B1-L22	6,600	0.15
B1-L23	6,600	0.15
B1-L24	6,600	0.15
B1-L25	8,571	0.20
B1-L26	8,093	0.19
B1-L27	6,200	0.14
B1-L28	6,200	0.14
B1-L29	6,200	0.14
B1-L30	6,200	0.14
B1-L31	6,200	0.14
B1-L32	7,204	0.17
B1-L33	12,335	0.28
B1-L34	7,050	0.16
B1-L35	6,857	0.16
B1-L36	6,200	0.14
B1-L37	9,066	0.21
B1-L38	7,431	0.17
B1-L39	6,200	0.14
B1-L40	43,266	0.99
B2-L1	5,953	0.14
B2-L2	3,540	0.08
B2-L3	3,540	0.08
B2-L4	3,540	0.08

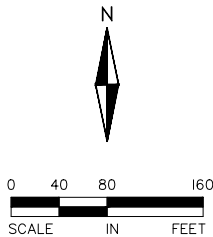
PARCEL AREA TABLE		
PARCEL	AREA SF	AREA AC
B2-L5	3,540	0.08
B2-L6	3,540	0.08
B2-L7	3,540	0.08
B2-L8	3,540	0.08
B2-L9	4,109	0.09
B2-L10	4,120	0.09
B2-L11	4,142	0.10
B2-L12	3,742	0.09
B2-L13	3,541	0.08
B2-L14	3,546	0.08
B2-L15	5,095	0.12
B2-L16	6,064	0.14
B2-L17	3,540	0.08
B2-L18	3,540	0.08
B2-L19	3,540	0.08
B2-L20	3,540	0.08
B2-L21	3,540	0.08
B2-L22	4,039	0.09
B2-L23	3,510	0.08
B2-L24	3,510	0.08
B2-L25	3,492	0.08
B2-L26	3,881	0.09
B2-L27	3,525	0.08
B2-L28	3,525	0.08
B2-L29	3,525	0.08
B2-L30	3,525	0.08
B2-L31	3,525	0.08
B2-L32	3,525	0.08
B2-L33	3,572	0.08
B2-L34	3,605	0.08
B2-L35	3,539	0.08
B2-L36	3,525	0.08
B2-L37	3,525	0.08
B2-L38	3,525	0.08
B2-L39	3,525	0.08
B2-L40	3,525	0.08
B2-L41	3,525	0.08
B2-L42	5,625	0.13
B2-L43	6,227	0.14
B2-L44	6,121	0.14
B2-L45	5,785	0.13
B2-L46	3,887	0.09
B2-L47	3,887	0.09
B2-L48	3,727	0.09

PARCEL AREA TABLE		
PARCEL	AREA SF	AREA AC
B2-L49	3,510	0.08
B2-L50	3,921	0.09
B2-L51	7,914	0.18
B2-L52	8,596	0.20
B2-L53	3,540	0.08
B2-L54	7,820	0.18
B2-L55	3,551	0.08
B2-L56	3,797	0.09
B2-L57	5,522	0.13
B2-L58	6,629	0.15
B2-L59	3,510	0.08
B2-L60	3,510	0.08
B2-L61	3,510	0.08
B2-L62	3,510	0.08
B2-L63	3,510	0.08
B2-L64	4,163	0.10
B2-L65	3,751	0.09
B2-L66	3,830	0.09
B2-L67	3,635	0.08
B2-L68	5,838	0.13
B2-L69	5,850	0.13
B3-L1	8,047	0.18
B3-L2	7,002	0.16
B3-L3	6,514	0.15
B3-L4	6,843	0.16
B3-L5	6,628	0.15
B3-L6	6,028	0.14
B3-L7	6,028	0.14
B3-L8	6,028	0.14
B3-L9	6,028	0.14
B3-L10	6,028	0.14
B3-L11	6,252	0.14
B3-L12	9,005	0.21
OUTLOT A	106,767	2.45
OUTLOT B	81,840	1.88
OUTLOT C	8,189	0.19
OUTLOT D	11,837	0.27
OUTLOT E	227,435	5.22
OUTLOT F	133,776	3.07
OUTLOT G	125,297	2.88
ROW - EXTERIOR	213,849	4.91
ROW - INTERIOR	119,569	2.74
TOTAL	1,722,460	39.54

DRAINAGE AND UTILITY EASEMENTS ARE SHOWN THUS:



Being 5 feet in width and adjoining lot lines and 10 feet in width and adjoining right of way lines, unless otherwise indicated on the plat.

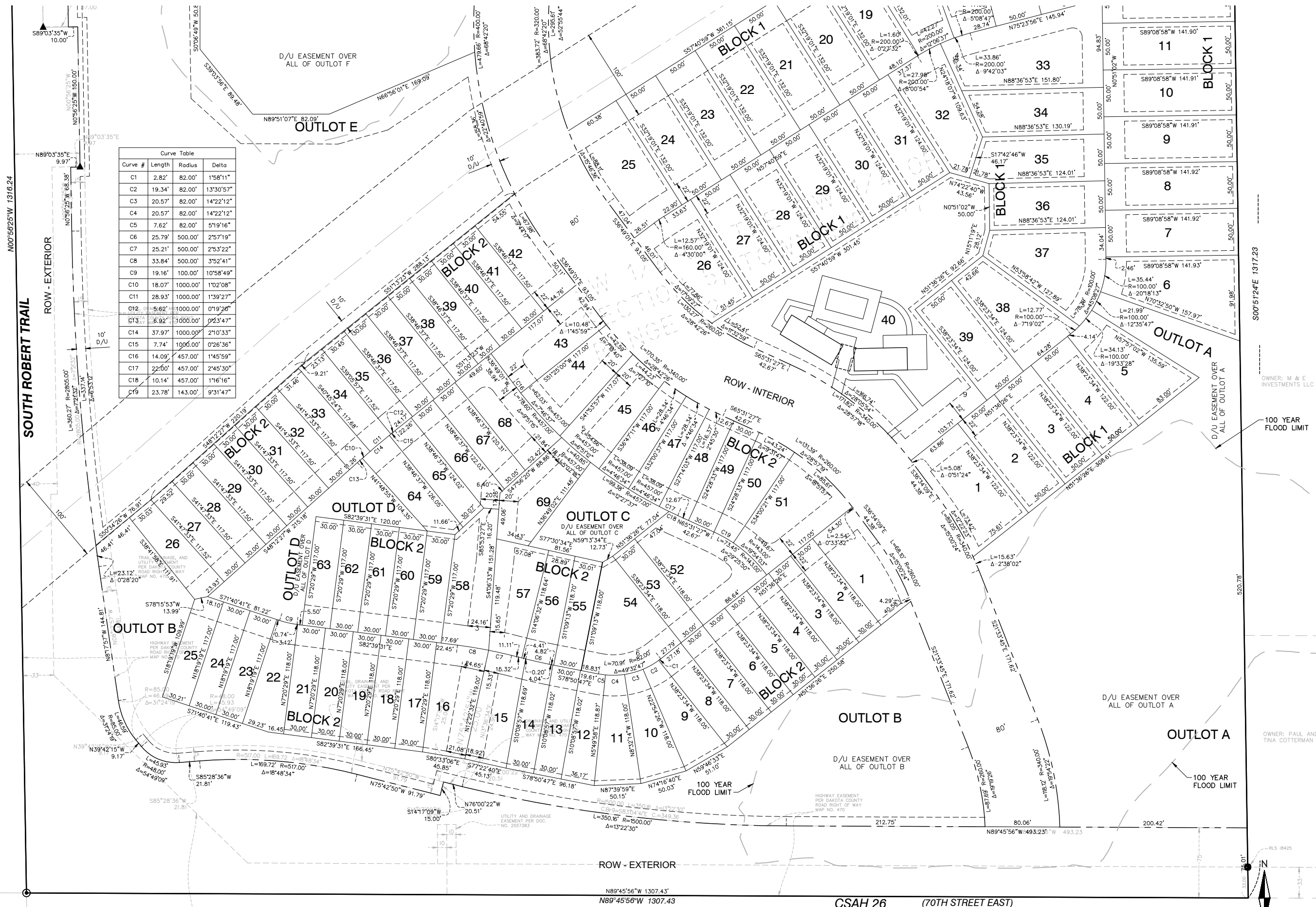


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CANVAS AT INVER GROVE HEIGHTS
INVER GROVE HEIGHTS, MINNESOTA
PRELIMINARY PLAT AND PUD SUBMITTAL
PRELIMINARY PLAT

I hereby certify that this plan, specification, or 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

MARK RAUSCH, PE	
Date	License No.
QUALITY ASSURANCE/CONTROL	
BY	DATE
DATE	ISSUE
8-17-2020	CITY SUBMITTAL
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PROJECT TEAM DATA	
DESIGNED:	MPR
DRAWN:	TAS
PROJECT NO:	220-0092



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CANVAS AT INVER GROVE HEIGHTS

INVER GROVE HEIGHTS, MINNESOTA

PRELIMINARY PLAT AND PUD SUBMITTAL

PRELIMINARY PLAT - VIEW A

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MARK RAUSCH, PE

Date License No.

QUALITY ASSURANCE/CONTROL

BY DATE

DATE ISSUE

8-17-2020 CITY SUBMITTAL

9-3-2020 CITY COMMENTS UPDATES

PROJECT TEAM DATA

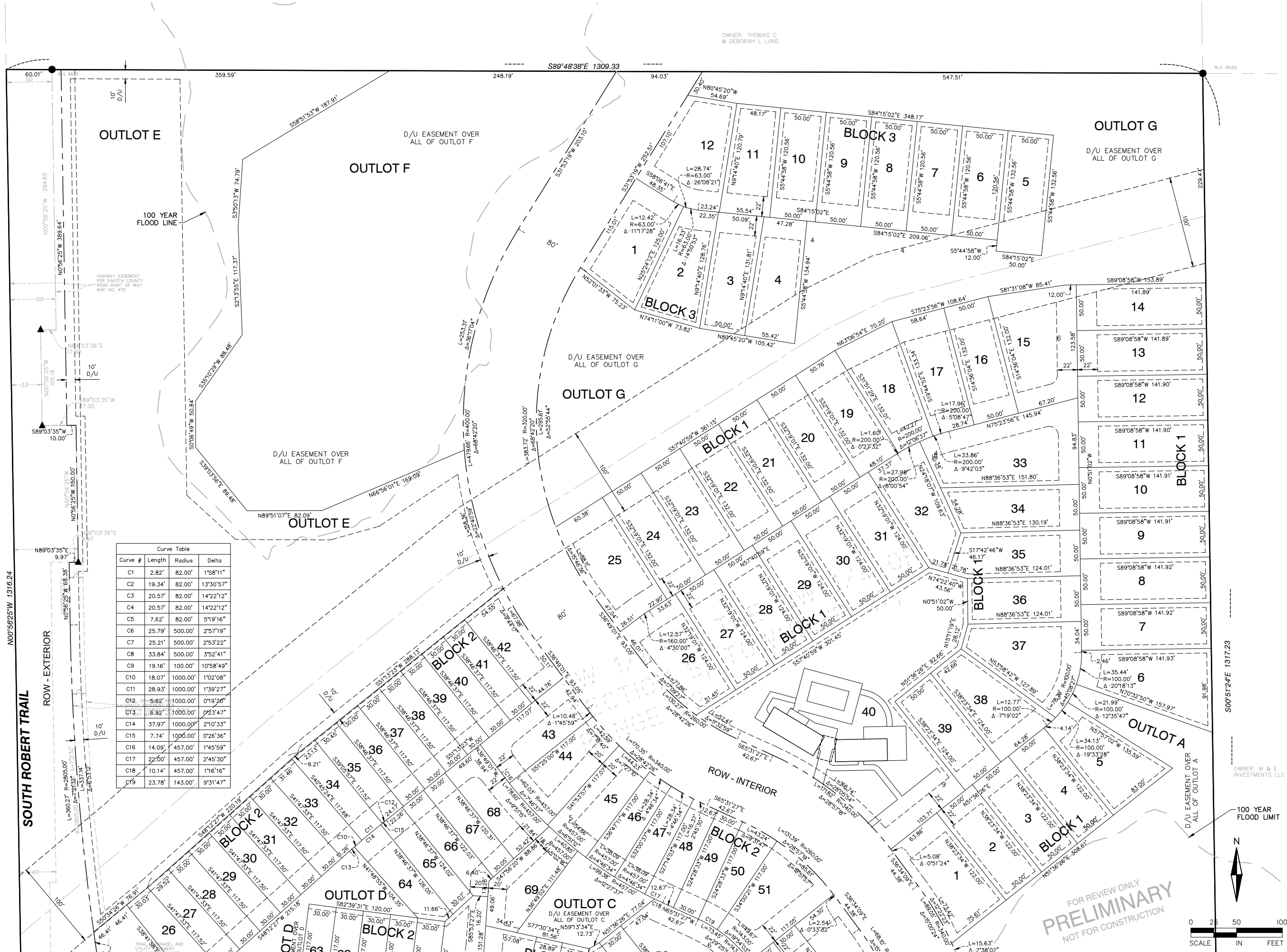
DESIGNED: MPR

DRAWN: TAS

PROJECT NO: 220-0092

5

SHEET 5 OF 34



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CANVAS AT INVER GROVE HEIGHTS
INVER GROVE HEIGHTS, MINNESOTA
PRELIMINARY PLAT AND PUD SUBMITTAL
PRELIMINARY PLAT - VIEW B

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MARK RAUSCH, PE

Date License No.

QUALITY ASSURANCE/CONTROL

BY DATE

DATE ISSUE

8-17-2020 CITY SUBMITTAL

9-3-2020 CITY COMMENTS UPDATES

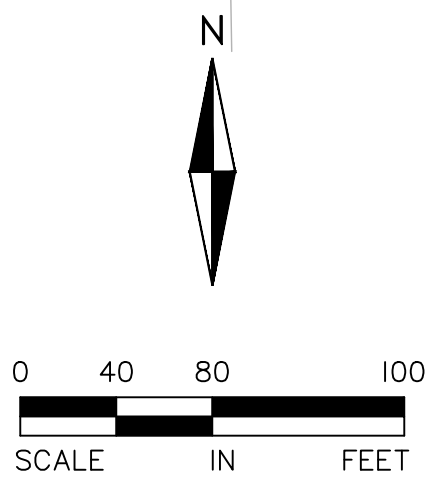
PROJECT TEAM DATA

DESIGNED: MPR

DRAWN: TAS

PROJECT NO: 220-0092

Drawing name: C:\new_working\projectwise\mregion\dm\07844\2000092\site.dwg Sep 08 2020 7:53am



SITE LEGEND:

- | | | | |
|-----------|-------------------|-----------|---|
| — | PROPERTY LINE | WL | EXISTING WETLAND |
| - - - | RIGHT-OF-WAY LINE | - - - | WETLAND BUFFER |
| --- | LOT LINE | | |
| - . - . - | EASEMENT LINE | [Pattern] | WETLAND BUFFER AREA (SEE WETLAND MANAGEMENT PLAN) |
| - - - | SETBACK LINE | [Pattern] | WETLAND IMPACT AREA (SEE WETLAND MANAGEMENT PLAN) |
| | | --- | PROPOSED CURB AND GUTTER |
| | | --- | PROPOSED RETAINING WALL |

OWNER: THOMAS C
& DEBORAH L LUND

OWNER: M & E
INVESTMENTS LLC

OWNER: PAUL AND
TINA COTTERMAN

CSAH 26 (70TH STREET EAST)

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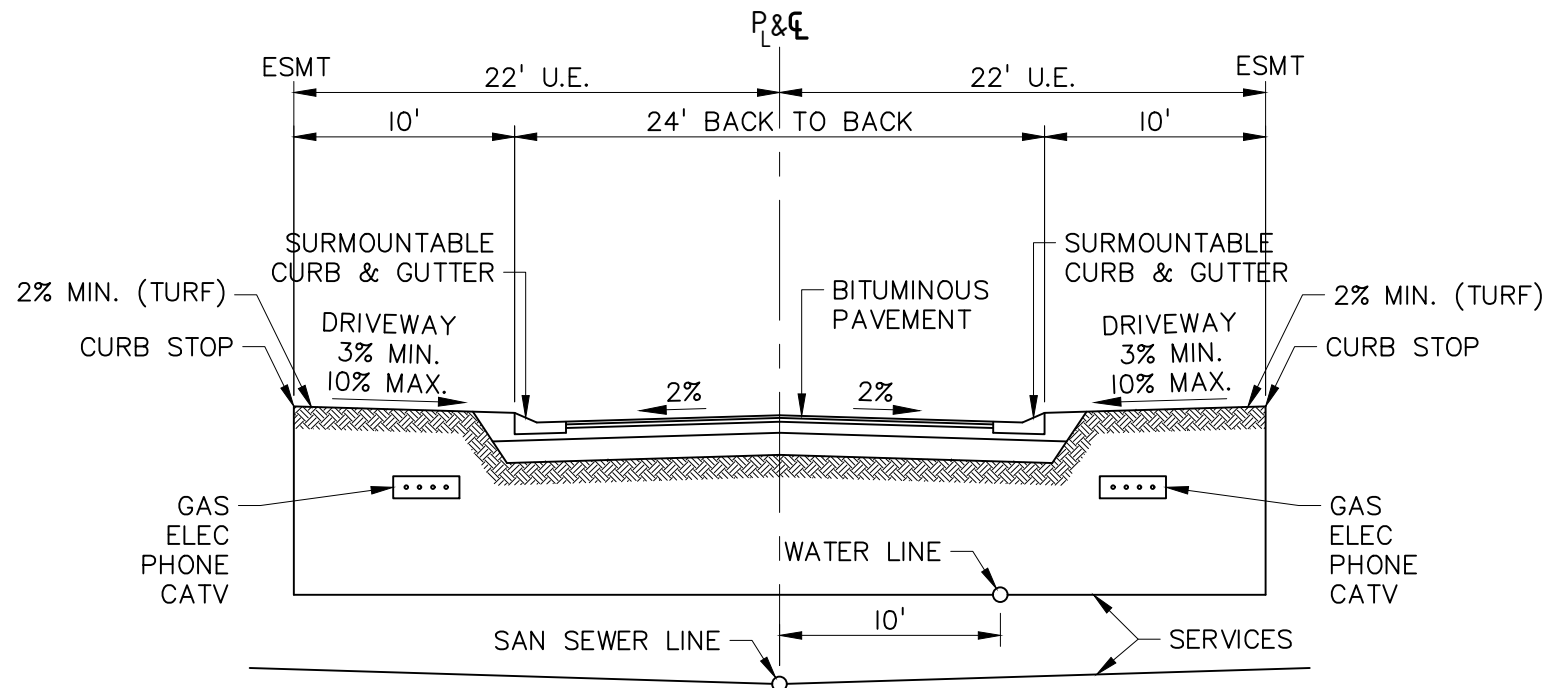
SITE PLAN DATA:

AREA AND DENSITY	
CURRENT ZONING	PUD
PROPOSED ZONING	PUD
GROSS SITE AREA	39.54 AC
ARTERIAL ROW AREA (ROBERT TRAIL S, & EAST 70TH ST)	4.91 AC
COLLECTOR ROW AREA	2.74 AC
PIPELINE EASEMENT AREA *	3.12 AC
EX. 100 YEAR FLOOD AREA *	6.23 AC
* EXCLUDES R/W AND EASEMENT OVERLAPS	
LOT TYPE	
30' WIDE	69 LOTS
50' WIDE	51 LOTS
APARTMENT SITE	100-150 UNITS
SETBACKS	
FRONT	34 FT
REAR	20 FT
SIDE (30' WIDE)	4 FT
SIDE (50' WIDE)	5 FT
SIDE TO PUBLIC ROW (TYPICAL)	20 FT

PARKING SUMMARY
2 GARAGE STALLS PER UNIT
2 DRIVEWAY STALLS PER UNIT
56 ADDITIONAL GUEST STALLS
= 4*69 + 4*51 + 56 = 536 TOTAL PARKING STALLS

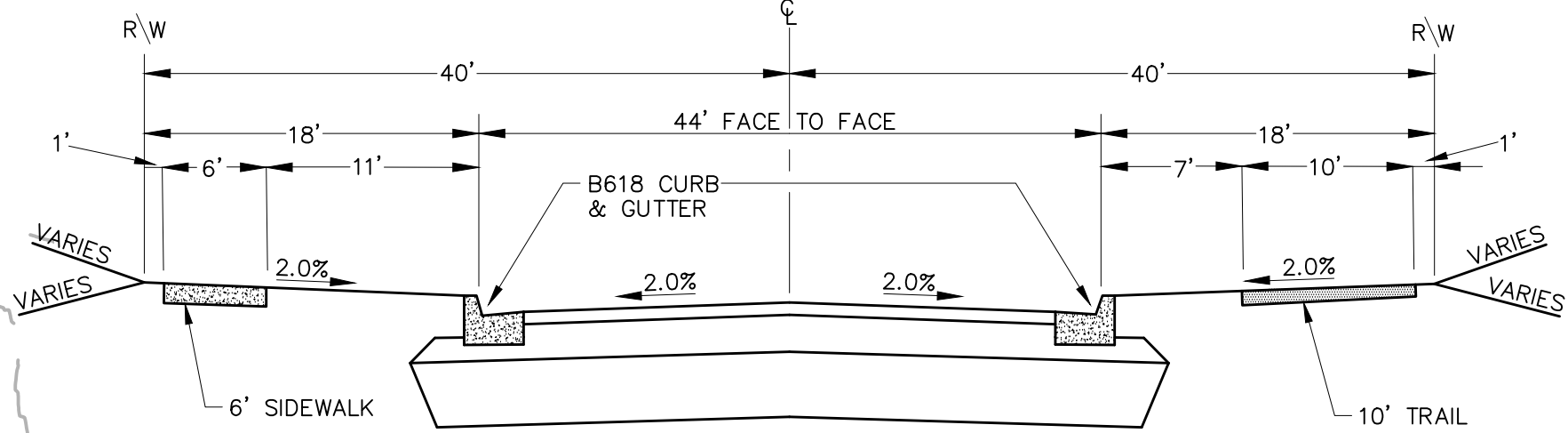
NATURAL AREA/ OPEN SPACE DATA:

GROSS SITE AREA	39.54 AC
ARTERIAL ROW AREA (ROBERT TRAIL S, & EAST 70TH ST)	4.91 AC
WETLAND AREA	1.70 AC
NET DEVELOPABLE AREA	32.93 AC
REQUIRED	
OPEN AREA (20%)	6.586 AC
NON-DISTURBED OPEN AREA (10%)	3.293 AC
CONTIGUOUS AREA (75%)	4.940 AC
PROVIDED	
OPEN AREA	11.594 AC
NON-DISTURBED OPEN AREA (A1-A4)	4.774 AC
CONTIGUOUS AREA (B1)	4.945 AC +
CONTIGUOUS AREA (B2)	2.729 AC



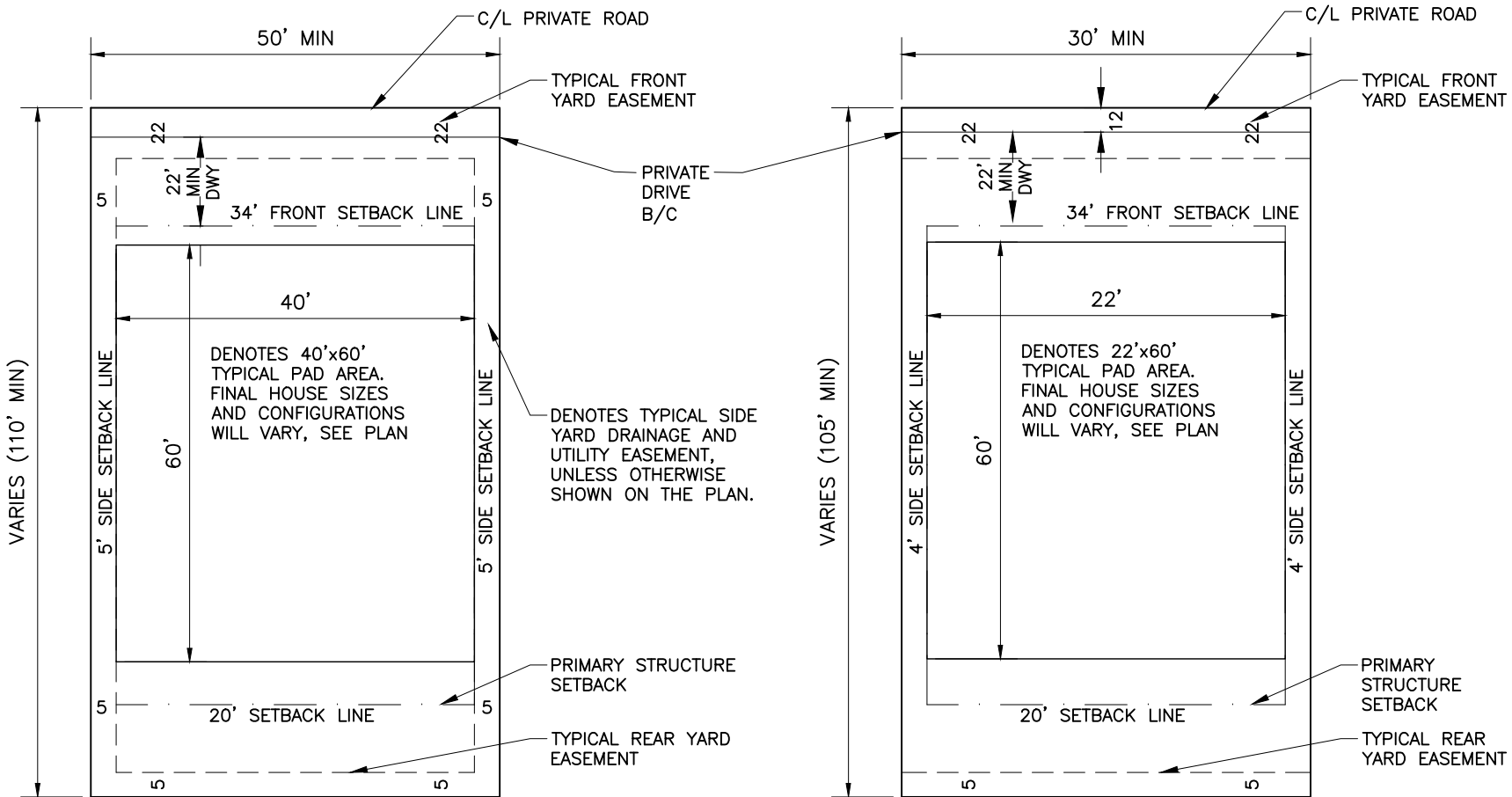
TYPICAL PRIVATE ROAD SECTION

NOT TO SCALE



TYPICAL 80' PUBLIC ROW ROAD SECTION

NOT TO SCALE



TYPICAL 50' LOT DETAIL

NOT TO SCALE

TYPICAL 30' LOT DETAIL

NOT TO SCALE



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CANVAS AT INVER GROVE HEIGHTS

INVER GROVE HEIGHTS, MINNESOTA

PRELIMINARY PLAT AND PUD SUBMITTAL

SITE PLAN

I hereby certify that this plan, specification, or 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

MARK RAUSCH, PE

Date License No.

QUALITY ASSURANCE/CONTROL

BY DATE

DATE ISSUE

8-17-2020 CITY SUBMITTAL

9-3-2020 CITY COMMENTS UPDATES

PROJECT TEAM DATA

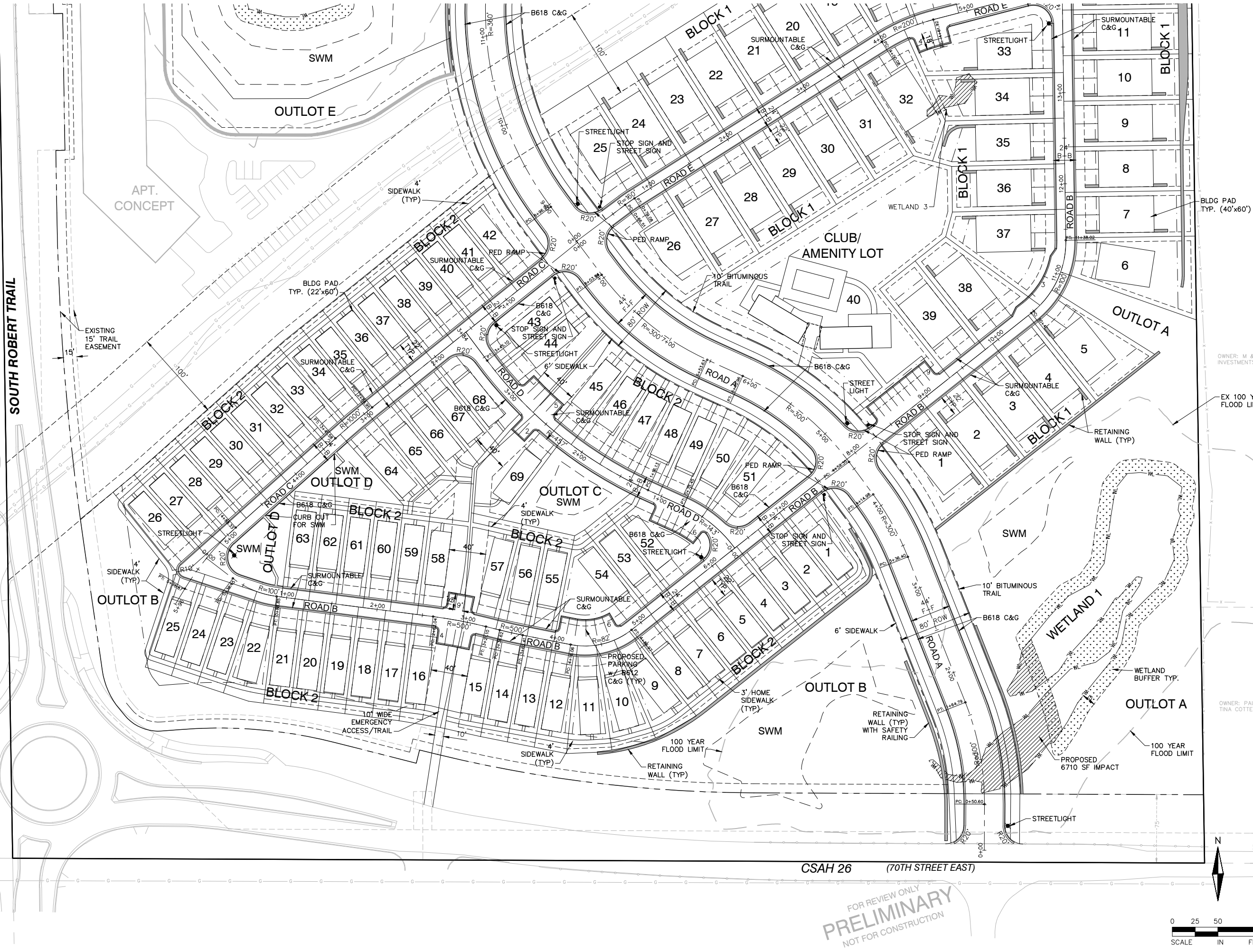
DESIGNED: MPR

DRAWN: TAS

PROJECT NO: 220-0092

Drawing name: C:\new_working\projectwise\mregion\dmso7844\200909\site.dwg Sep 03, 2020 11:20am

SOUTH ROBERT TRAIL



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CANVAS AT INVER GROVE HEIGHTS

INVER GROVE HEIGHTS, MINNESOTA

PRELIMINARY PLAT AND PUD SUBMITTAL

SITE PLAN - VIEW A

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PROJECT TEAM DATA

DESIGNED: MPR

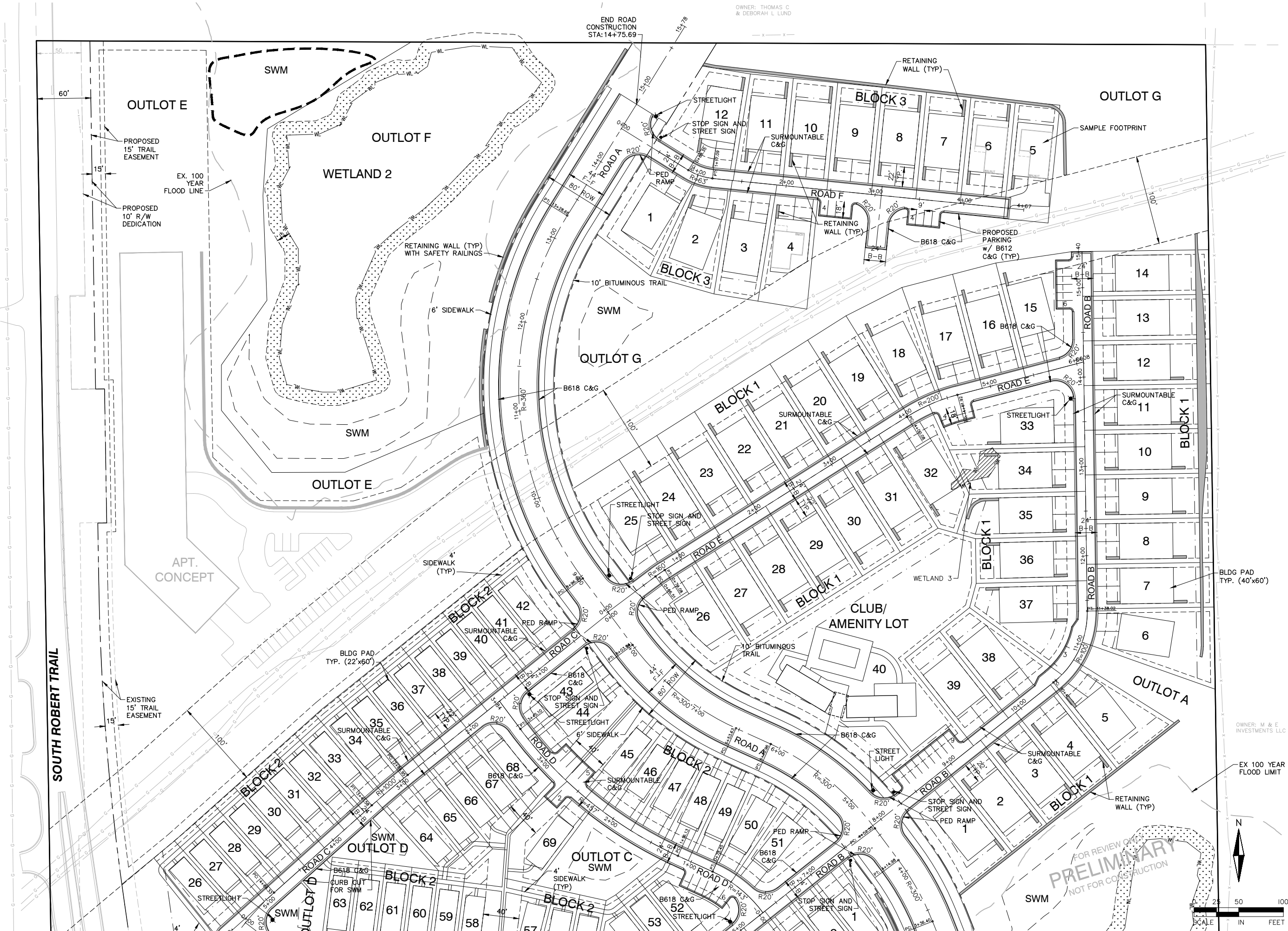
DRAWN: TAS

PROJECT NO: 220-0092

8

SHEET 8 OF 34

Drawing name: C:\paw_working\projectwise\mregionid\dms07844\200092\site.dwg Sep 03, 2020 11:20am



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CANVAS AT INVER GROVE HEIGHTS

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PRELIMINARY PLAT AND PUD SUBMITTAL

SITE PLAN - VIEW B

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Date License No.

QUALITY ASSURANCE/CONTROL

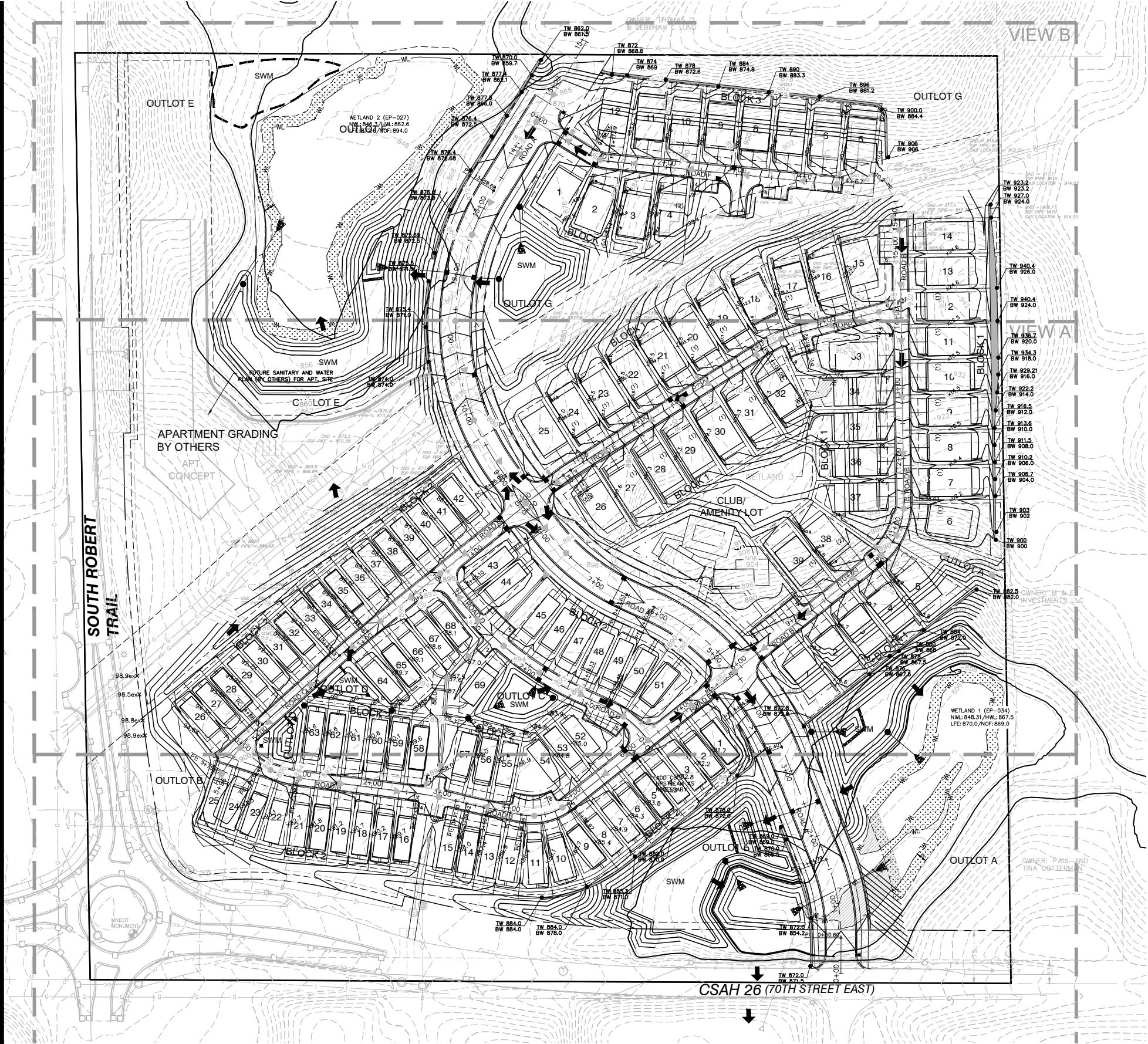
BY	DATE
DATE	ISSUE
8-17-2020	CITY SUBMITTAL
9-3-2020	CITY COMMENTS UPDATES

PROJECT TEAM DATA
DESIGNED: MPR
DRAWN: TAS
PROJECT NO: 220-0092

9

SHEET 9 OF 34

Drawing name: C:\new_working\projectwise\mregion\dm07844\2000092\road.dwg Sep 03, 2020 11:21am



GRADING LEGEND:

- 789 --- EXISTING CONTOUR
- 789 --- PROPOSED CONTOUR
- 789 --- PROPOSED RETAINING WALL
- 789 --- PROPOSED TC, CL ELEVATION
- 789 --- PROPOSED SPOT ELEVATION
- 789 --- DIRECTION OF DRAINAGE
- 789 --- EMERGENCY OVERFLOW ROUTING
- 789 --- PROPOSED CATCH BASINS
- 789 --- PROPOSED STORM SEWER
- 789 --- TOP OF WALL ELEVATION
- 789 --- BOTTOM OF WALL ELEVATION
- 789 --- PROPERTY LINE
- 789 --- LOT LINE
- 789 --- EASEMENT LINE
- 789 --- EOF ROUTING

COLLECTOR ROAD

- (INSET B)
- 2" TYPE WEARING COURSE MIX SPWEA330C OR SPWEA440C
- TACK COAT
- 2" TYPE NON-WEARING COURSE MIX SPWEA330C OR SPWEA440C
- TACK COAT
- 2" TYPE NON-WEARING COURSE MIX SPWEA330C OR SPWEA440C
- 10" AGGREGATE BASE CLASS 5 (MNDOT 3138)
- 24" SELECT GRANULAR MATERIAL GEOTEXTILE FABRIC MNDOT TYPE V

CONCRETE SIDEWALK

- 6" CONCRETE
- 6" AGGREGATE BASE CLASS 5

PRIVATE ROAD

- (INSET A)
- 2" WEARING COURSE MIX SPWEA330C
- TACK COAT
- 2" NON-WEARING COURSE MIX SPWEA330C
- 6" AGGREGATE BASE CLASS 5
- 24" SELECT GRANULAR MATERIAL GEOTEXTILE FABRIC

BITUMINOUS TRAIL

- 3" WEARING COURSE MIX (SPWEA230E)
- 6" AGGREGATE BASE CLASS 5
- COMPACTED SUBGRADE

PAVEMENT SECTIONS

NOT TO SCALE

GRADING NOTES:

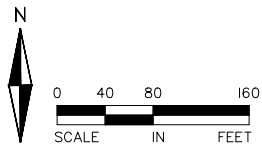
- ALL FINISHED GRADES SHALL SLOPE AWAY FROM PROPOSED BUILDINGS AT MINIMUM GRADE OF 2.0%. ALL SWALES SHALL HAVE A MINIMUM SLOPE OF 2.0%.
- THE CONTRACTOR SHALL KEEP THE ADJACENT ROADWAYS FREE OF DEBRIS AND PREVENT THE OFF-SITE TRACKING OF SOIL IN ACCORDANCE WITH THE REQUIREMENTS OF THE CITY AND WATERSHED.
- NOTIFY GOPHER STATE ONE CALL, AT (800)252-1166, 48 HOURS PRIOR TO START OF CONSTRUCTION.
- ALL IMPROVEMENTS TO CONFORM WITH CITY OF INVER GROVE HEIGHTS CONSTRUCTION STANDARDS SPECIFICATION, LATEST EDITION.
- ROCK CONSTRUCTION ENTRANCES SHALL BE PROVIDED AT ALL CONSTRUCTION ACCESS POINTS.
- REFER TO GEOTECHNICAL REPORT AND PROJECT MANUAL FOR SOIL CORRECTION REQUIREMENTS AND TESTING REQUIREMENTS.
- STRIP TOPSOIL PRIOR TO ANY CONSTRUCTION. REUSE STOCKPILE ON SITE. STOCKPILE PERIMETERS MUST BE PROTECTED WITH SILT FENCE.
- PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE TO MAKE SURE THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO CONSTRUCTION OR FABRICATION SHALL BEGIN UNTIL THE CONTRACTOR HAS RECEIVED AND THOROUGHLY REVIEWED ALL PLANS AND OTHER DOCUMENTS APPROVED BY ALL OF THE PERMITTING AUTHORITIES.
- IMMEDIATELY FOLLOWING GRADING OF (3:1 OR GREATER) SIDE SLOPES AND DRAINAGE SWALES, WOOD FIBER BLANKET OR OTHER APPROVED SOIL STABILIZING METHOD (APPROVED BY ENGINEER) SHALL BE APPLIED OVER APPROVED SEED MIXTURE AND A MINIMUM OF 4" TOPSOIL.
- THE GENERAL CONTRACTOR MUST DISCUSS DEWATERING PLANS WITH ALL SUBCONTRACTORS TO VERIFY NPDES REQUIREMENTS. IF DEWATERING IS REQUIRED DURING CONSTRUCTION, CONTRACTOR SHOULD CONSULT WITH EROSION CONTROL INSPECTOR AND ENGINEER TO DETERMINE APPROPRIATE METHOD.
- REFER TO EROSION CONTROL PLAN FOR ALL EROSION AND SEDIMENT CONTROL DEVICE LOCATIONS.

RETAINING WALL NOTES:

RETAINING WALL MASS GRADING PREPARATION

- ALL RETAINING WALLS SHALL BE ROUGH GRADED AT A 2:1 SLOPE WITH BASE OF SLOPE AT PROPOSED WALL FACE.
- THE RETAINING WALL SLOPE AREAS ARE TO BE MAINTAINED UNTIL RETAINING WALL CONSTRUCTION OCCURS. ANY EROSION SHALL BE REMEDIED AND RESTORED.
- BUILDING PERMITS ARE REQUIRED FOR ALL RETAINING WALLS 4 FEET IN HEIGHT OR GREATER AND THE WALLS SHALL BE DESIGNED BY A STRUCTURAL ENGINEER WITH DESIGN REVIEWED AND APPROVED BY THE CITY PRIOR TO INSTALLATION. ANY QUESTIONS REGARDING THE BUILDING PERMITS SHALL BE DIRECTED TO THE CITY BUILDING INSPECTOR.
- INSTALL SAFETY RAILING ATOP ALL WALLS WHERE REQUIRED BY CODE.
- RETAINING WALL CONTRACTOR AND/OR RETAINING WALL STRUCTURAL ENGINEER ARE RESPONSIBLE TO REVIEW CIVIL SITE ENGINEERING DRAWINGS. ANY OBSERVED CONCERNS WITH CIVIL SITE ENGINEERING DESIGN ELEMENTS RELATED TO RETAINING WALLS THAT REQUIRE MODIFICATIONS TO THE CIVIL SITE DESIGN IS THEIR RESPONSIBILITY TO COORDINATE WITH PROJECT OWNER AND CIVIL SITE ENGINEER. IF NO COORDINATION IS REQUESTED IT SHALL BE UNDERSTOOD THAT ALL CONDITIONS WITHIN THE CIVIL SITE DESIGN AND PLANS ARE ACCEPTABLE AND ABLE TO BE PROVIDED FOR IN THE RETAINING WALL DESIGN AND CONSTRUCTION.
- RETAINING WALLS ARE TO BE FINAL DESIGNED AND PERMITTED BY OTHERS.

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PRELIMINARY PLAT AND PUD SUBMITTAL

GRADING AND DRAINAGE PLAN

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DESIGNED: MPR

DRAWN: TAS

PROJECT NO: 220-0092

10

SHEET 10 OF 34

Drawing name: C:\paw_working\projectwise\mregion\dmso7844\200909\arad.dwg Sep 03, 2020 11:21am

SOUTH ROBERT TRAIL

APARTMENT GRADING
BY OTHERS

ART.
CONCEPT

OUTLOT B

OUTLOT E

OUTLOT D

OUTLOT C

OUTLOT A

OUTLOT B

OUTLOT C

OUTLOT D

OUTLOT E

OUTLOT F

OUTLOT G

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OUTLOT JP

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OUTLOT JR

OUTLOT JS

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OUTLOT KV

OUTLOT KW

OUTLOT KX

OUTLOT KY

OUTLOT KZ

OUTLOT LA

OUTLOT LB

OUTLOT LC

OUTLOT LD

OUTLOT LE

OUTLOT LF

OUTLOT LG

OUTLOT LH

OUTLOT LI

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OUTLOT LM

OUTLOT LN

OUTLOT LO

OUTLOT LP

OUTLOT LQ

OUTLOT LR

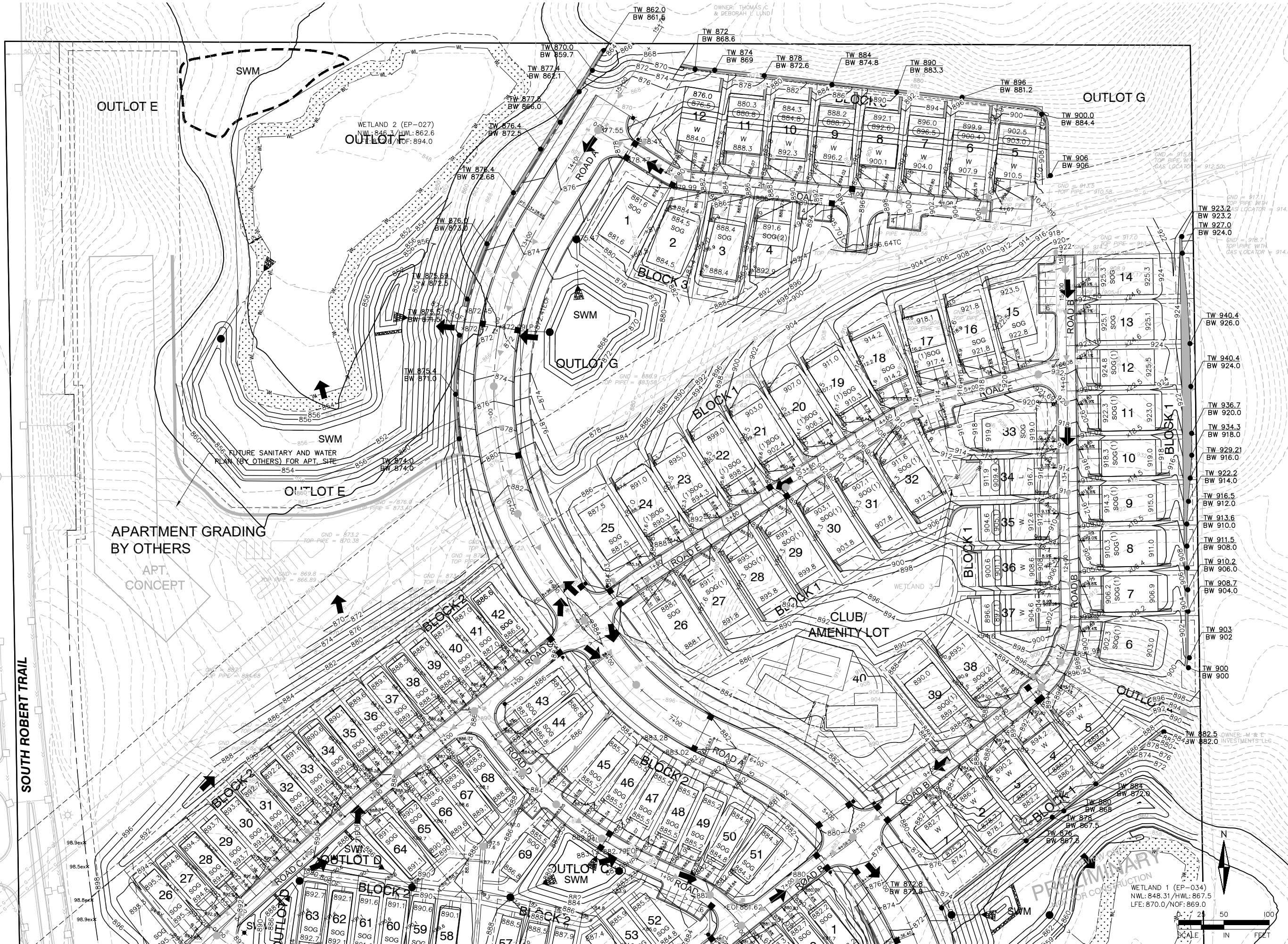
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OUTLOT LT

OUTLOT LU

OUTLOT LV

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CANVAS AT INVER GROVE HEIGHTS

INVER GROVE HEIGHTS, MINNESOTA

PRELIMINARY PLAT AND PUD SUBMITTAL

GRADING AND DRAINAGE PLAN - VIEW B

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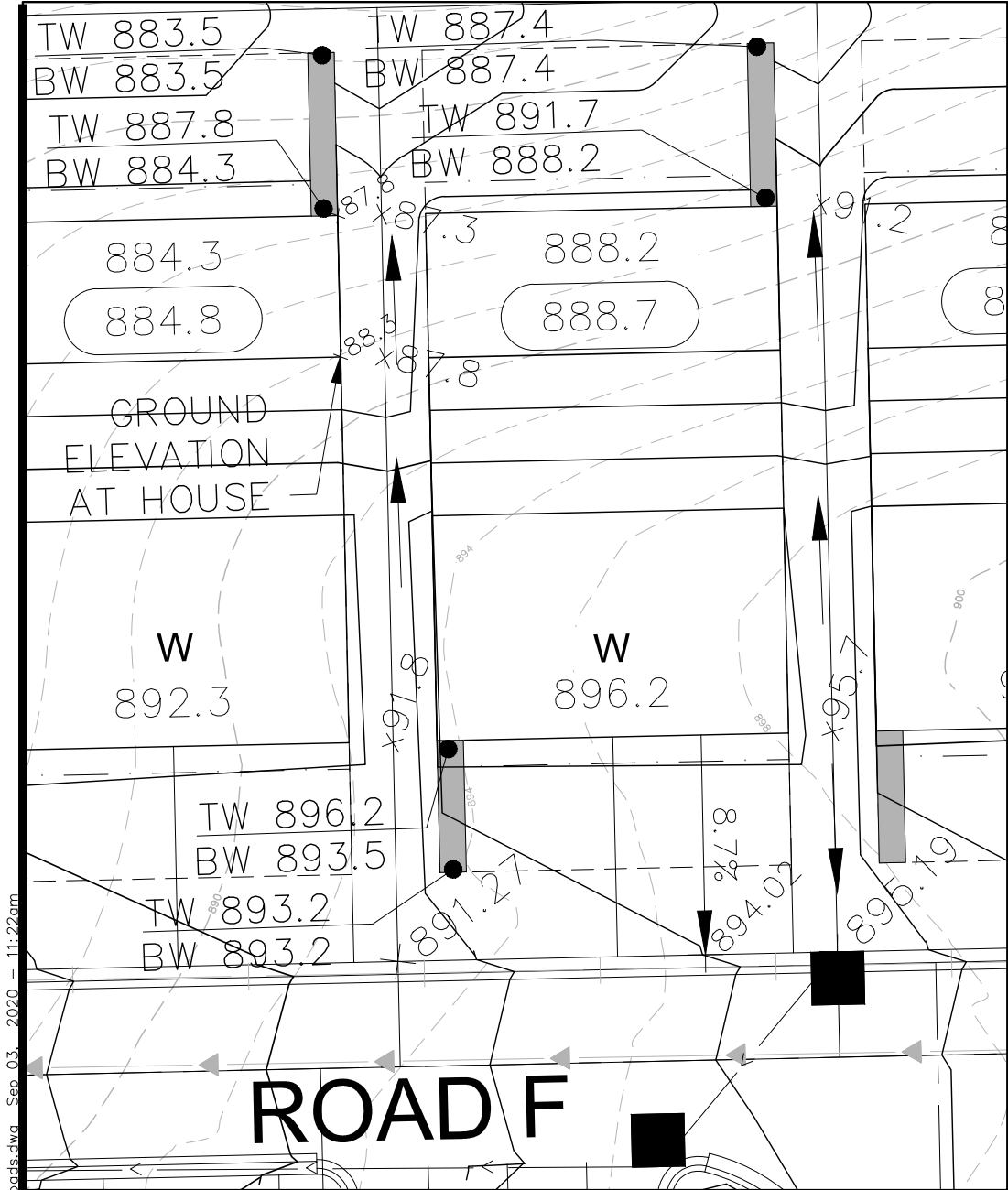
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DRAWN: TAS

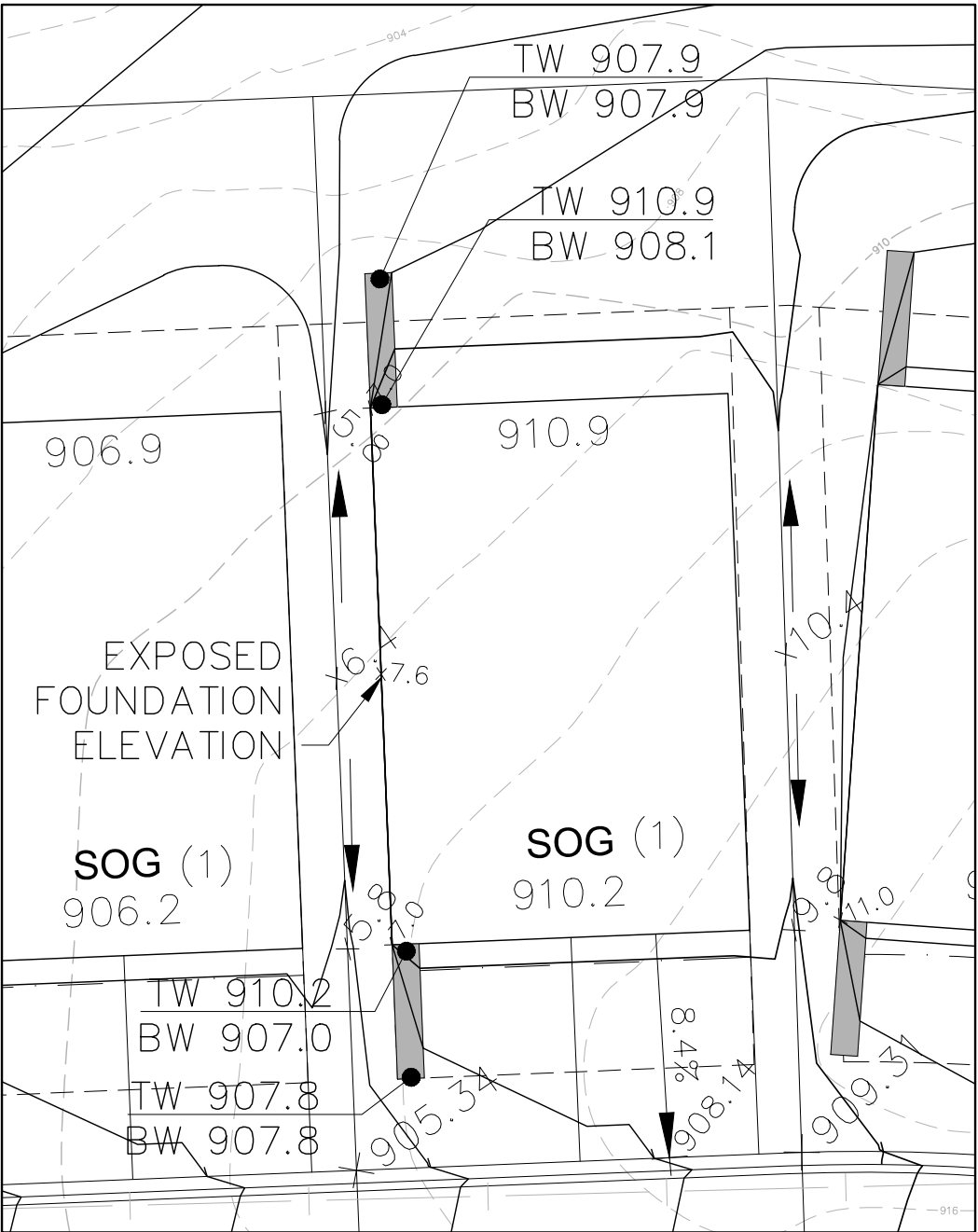
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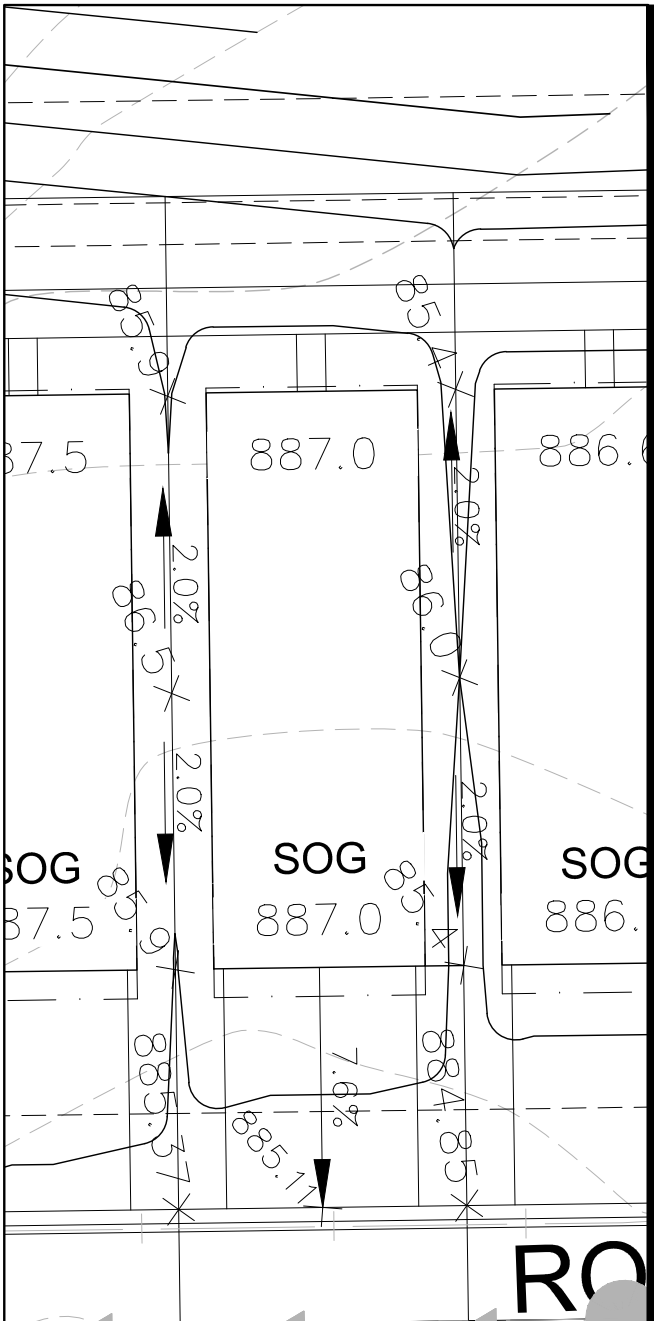
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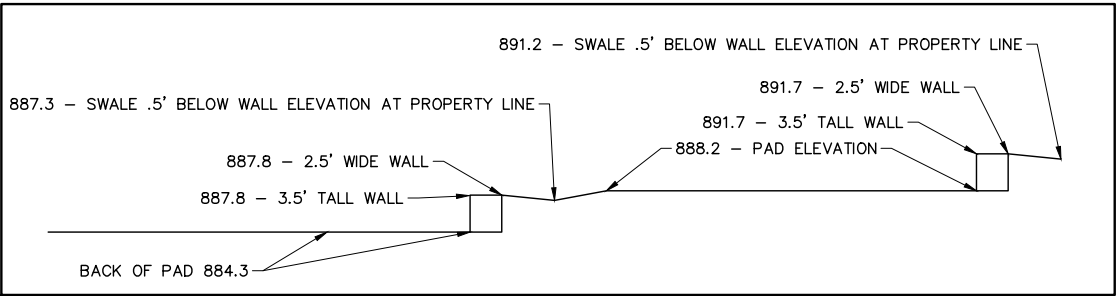
WALKOUT - TYPICAL PAD DETAIL



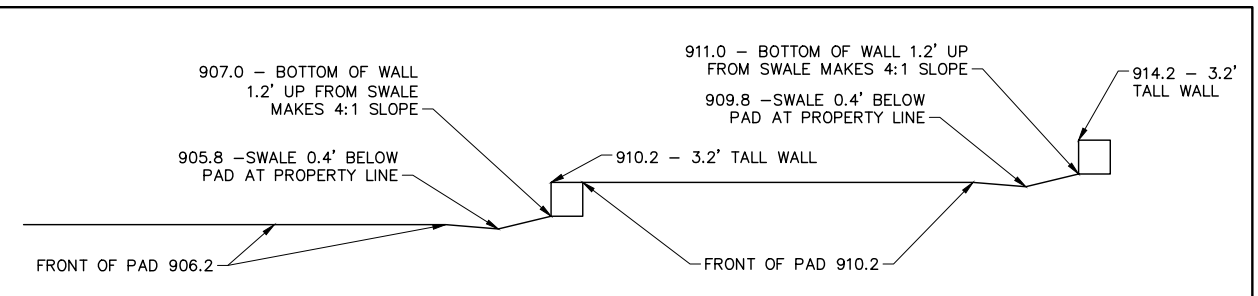
SLAB ON GRADE (SINGLE FAMILY) - TYPICAL PAD DETAIL



SLAB ON GRADE - TYPICAL PAD DETAIL
(HIGH DENSITY)

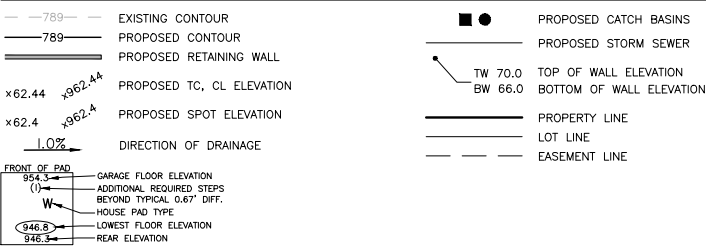


BACK OF WALKOUT PAD - TYPICAL CROSS SECTION
NOT TO SCALE

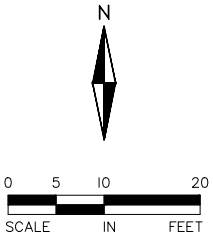


FRONT OF SLAB ON GRADE PAD - TYPICAL CROSS SECTION
NOT TO SCALE

GRADING LEGEND:



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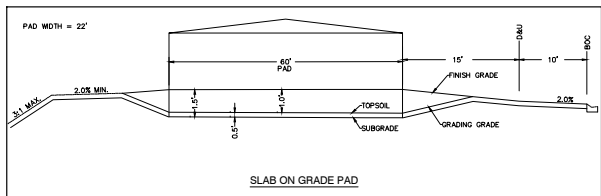
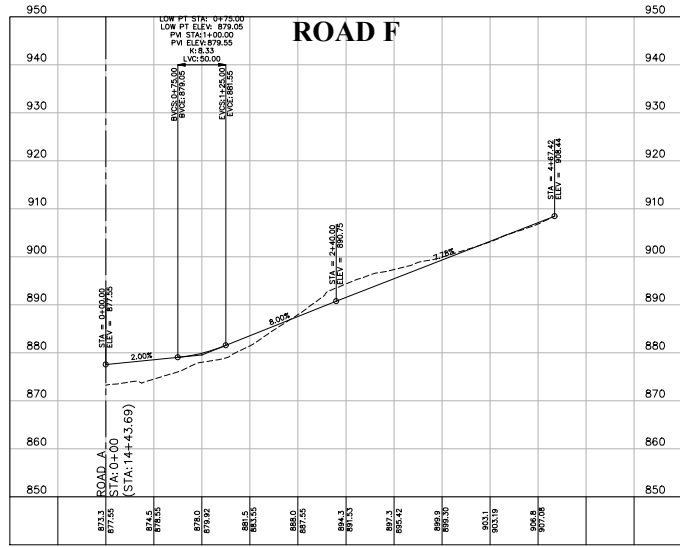
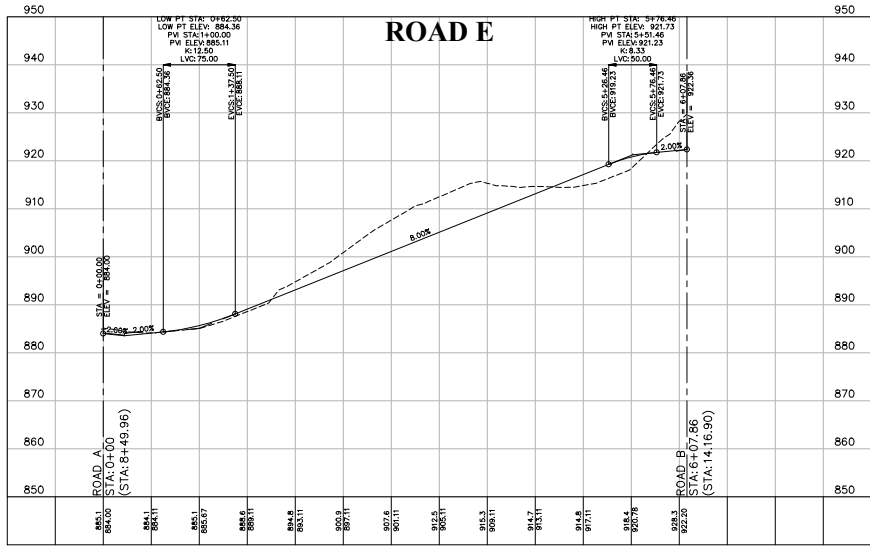
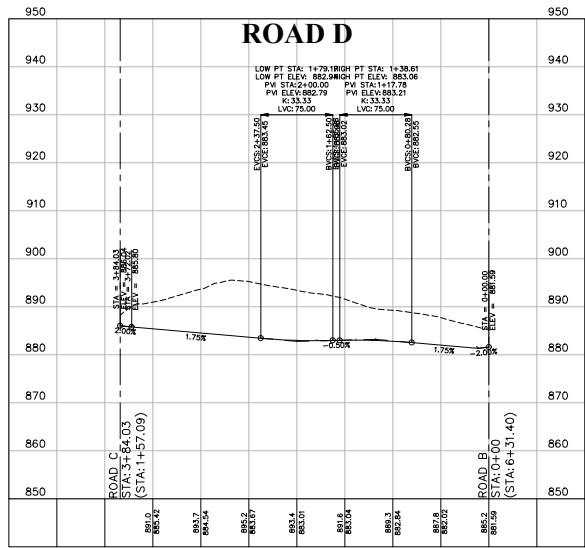
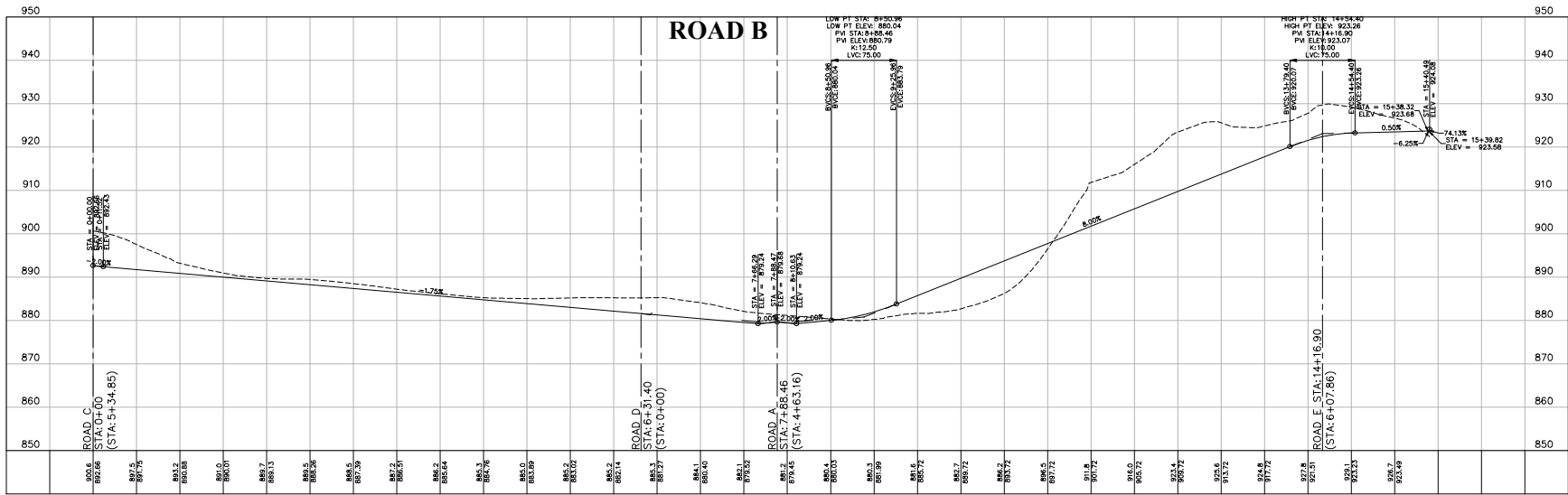
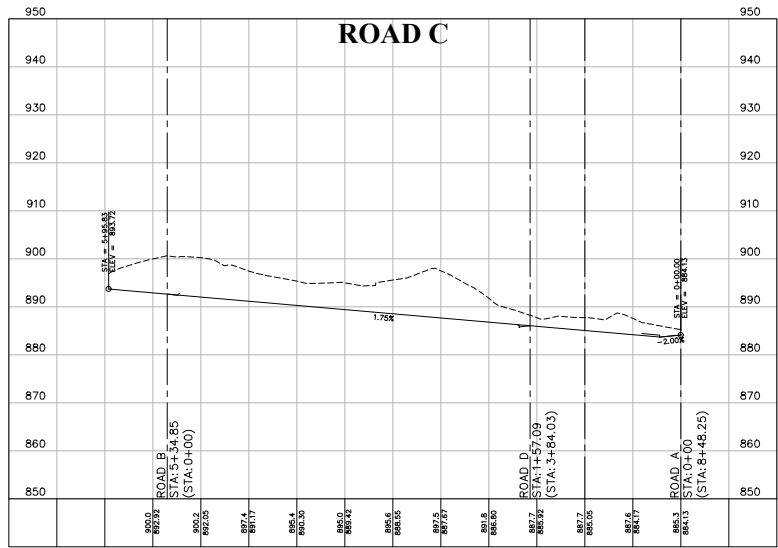
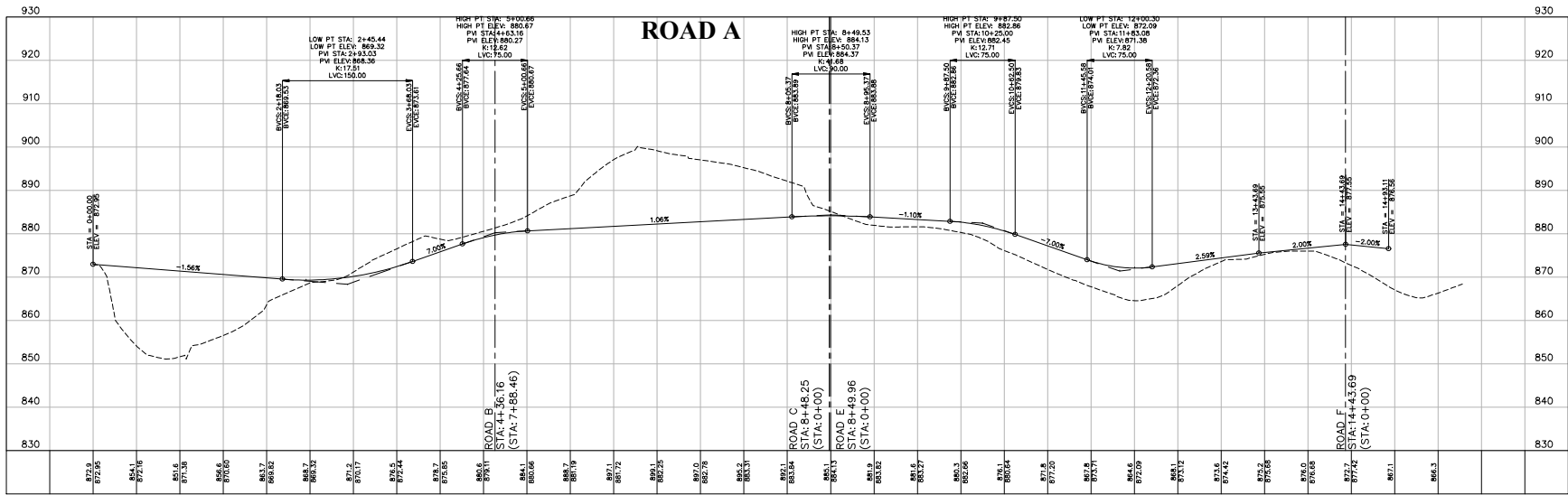
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DESIGNED: MPR

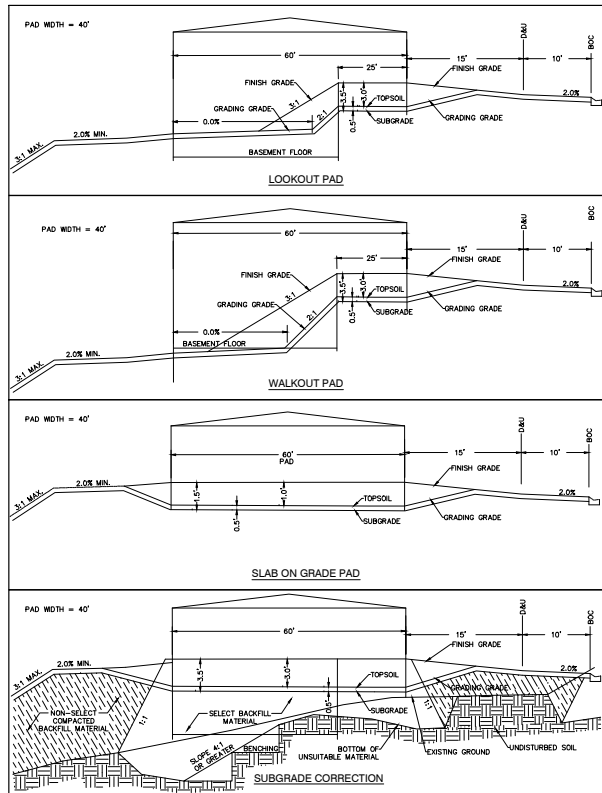
DRAWN: TAS

PROJECT NO: 220-0092

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HOLD DOWN DETAILS 30' WIDE LOTS
NOT TO SCALE



HOLD DOWN DETAILS 50' WIDE LOTS
NOT TO SCALE



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CANVAS AT INVER GROVE HEIGHTS

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GRADING PROFILES

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MARK RAUSCH, PE

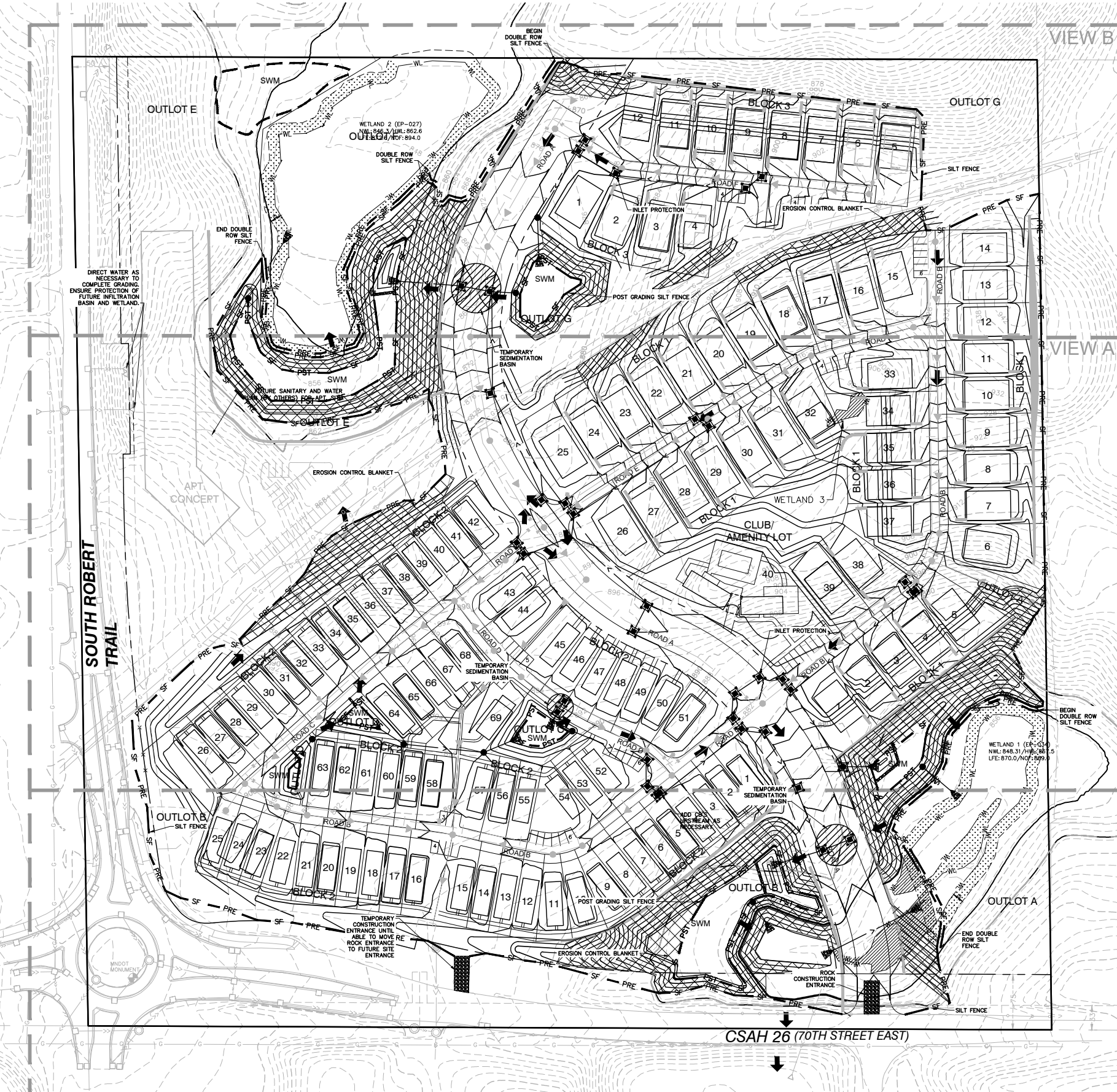
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EROSION CONTROL RESPONSIBLE PARTY:

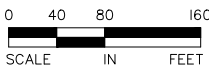
OWNER/DEVELOPER
WATERMARK EQUITY GROUP
4000 SHORELINE DRIVE
SPRING LAKE PARK, MN 55384
CONTACT: IAN PETERSON
PHONE: 312-813-5228
EM: ipeterson@wmprops.com

SWPPP INSPECTOR
TBD

CONTRACTOR
TBD

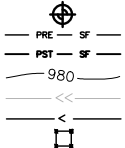
NOTES:

- SEE SHEET 18 FOR ALL EROSION AND SEDIMENT CONTROL NOTES AND DETAILS.

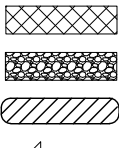


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LEGEND:



DENOTES SOIL BORING
PROPOSED SILT FENCE (PRE GRADING)
PROPOSED SILT FENCE (POST GRADING)
DENOTES PROPOSED CONTOURS
DENOTES EXISTING STORM SEWER
DENOTES PROPOSED STORM SEWER
DENOTES INLET SEDIMENT CONTROL



EROSION CONTROL BLANKET CAT 3
ROCK CONSTRUCTION ENTRANCE ANTI-TRACKING CONTROL
DENOTES TEMPORARY SEDIMENTATION BASIN



DRAINAGE DIRECTION

NOTE TO CONTRACTOR:

THE MASS GRADING CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ALL EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES (BMPs) AS SHOWN IN THE MASS GRADING SWPPP (EXCEPT FOR POST GRADE BMPs NEEDED AFTER UTILITY CONSTRUCTION ACTIVITY). THE BMPs ARE TO BE INSTALLED AT A MINIMUM AS SHOWN IN THE PLAN, IF CONDITIONS ARISE, ADDITIONAL BMP SUPPLEMENTATION TO PREVENT SITE EROSION OR SEDIMENT TRANSPORT MAY BE NECESSARY. THE MASS GRADING CONTRACTOR IS RESPONSIBLE FOR ALL BMPs REQUIRED TO COMPLETE THE MASS GRADING ACTIVITIES AND SUBSEQUENT TEMPORARY SOIL STABILIZATION NECESSARY TO PREPARE SITE FOR STREET AND UTILITY CONSTRUCTION AND HOME BUILDING. AT THE COMPLETION OF MASS GRADING WORK AND SATISFACTORY SITE SOIL STABILIZATION, THE DEVELOPER AND MASS GRADING CONTRACTOR SHALL COORDINATE THE TRANSFER OF NPDES PERMIT RESPONSIBILITIES TO THE STREET AND UTILITY CONTRACTOR AND THE CITY.

THE STREET AND UTILITY CONTRACTOR AND CITY WILL THEN ASSUME THE RESPONSIBILITY TO PROVIDE INSPECTION AND MAINTENANCE OF ANY IN-PLACE BMPs AS WELL AS INSTALL THE ADDITIONAL BMPs REQUIRED IN THE STREET AND UTILITY CONSTRUCTION DOCUMENT SWPPP. UPON COMPLETION OF STREET AND UTILITY CONSTRUCTION, THE STREET AND UTILITY CONTRACTOR SHALL REMOVE ANY BMPs INSTALLED DURING THE STREET AND UTILITY PHASE THAT ARE NO LONGER REQUIRED AND COORDINATE THE TRANSFER OF NPDES PERMIT RESPONSIBILITIES BACK TO THE DEVELOPER OR TERMINATE THE PORTION OF THE NPDES PERMIT TRANSFERRED TO THE CITY AND THEIR CONTRACTOR.

CONSTRUCTION SEQUENCING:

MASS GRADING PHASE:

- INSTALL STABILIZED CONSTRUCTION ENTRANCES.
- PREPARE TEMPORARY PARKING AND STORAGE AREA.
- INSTALL THE PRE-GRADING SILT FENCES AND INLET PROTECTION BMPs ON THE SITE.
- CONSTRUCT ALL PRE-GRADING EROSION AND SEDIMENTATION CONTROL BMPs.
- COMPLETE MASS GRADING AND INSTALL TEMPORARY AND PERMANENT SEEDING AND PLANTING.
- CONSTRUCT POST-GRADING SILT FENCE AND BMPs ON THE SITE.

STREET & UTILITY PHASE:

- INSTALL UTILITIES, UNDERDRAINS, STORM SEWERS, CURBS AND GUTTERS.
- INSTALL RIP RAP AROUND OUTLET STRUCTURES.
- INSTALL INLET PROTECTION AROUND ALL STORM SEWER STRUCTURES.
- PREPARE SITE FOR PAVING.
- PAVE SITE.
- INSTALL INLET PROTECTION DEVICES.
- INSTALL POST STREET AND UTILITY SILT FENCE.
- REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES (ONLY IF SITE IS STABILIZED), IF REQUIRED BY THE CONTRACT.

ACTIVE SWPPP LEGEND / SCHEDULE

CONSTRUCTION SEQUENCE	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR
MULCH BERM													
FIBER ROLLS / MULCH SOCKS													
SILT FENCE													
TEMPORARY MULCH COVER													
TEMPORARY HYDROMULCH													
EROSION CONTROL BLANKET													
ROCK DRIVEWAY / ROCK PADS													
INLET PROTECTION DEVICES													
PAVEMENT (DRIVEWAY/ROADS)													
SOD													
STOCKPILES													

NOTE: CONTRACTOR, GENERAL CONTRACTOR OR SWPPP INSPECTOR TO COMPLETE TABLE AS GRADING PROGRESSES

SWPPP BMP QUANTITIES (PER PLAN):

- STANDARD SILT FENCE
- EROSION CONTROL BLANKET
- INLET PROTECTION
- TEMPORARY SEEDING

SEDIMENT BARRIERS

- SILT FENCE (MnDOT 3886)

INLET PROTECTION DEVICES

- WIMCO (MnDOT TYPE A & C)
- INFRASAFE STORM DRAIN/CULVERT
- SILT SACK (MnDOT TYPE A)
- DANDY BAG (MnDOT TYPE B)

ANTI-TRACKING CONTROL

- 2" CRUSHED CLEAR ROCK (LAND DEVELOPMENT)

TEMPORARY SEED MIX

- MN 21-II2 (OATS 21-II20 DAY STABILIZATION)
- MN 22-III (2 YEAR STABILIZATION)

PERMANENT SEED MIX/STABILIZATION

- MN 25-141 (ROADSIDE MIX)

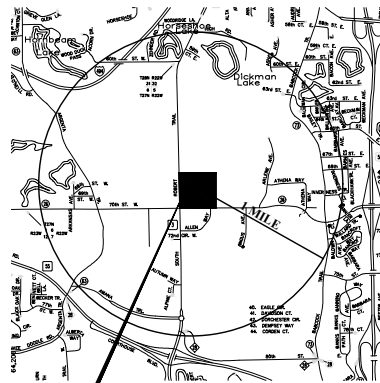
STABILIZATION BMP'S

- STRAW/HAY
MnDOT TYPE 1 MULCH
- EROSION CONTROL BLANKET
MnDOT CAT. 3
- HYDROMULCH
MnDOT TYPE 5
- TURF REINFORCEMENT MAT
SC250 NORTH AMERICAN GREEN
OR EQUAL-MNDOT CAT 6

GRADING ACTIVITY

- CONCRETE WASHOUT IS DONE TRUCK BY TRUCK WITH A MOBILE WASHOUT SYSTEM PROVIDED AND COMPLETED BY THE CONCRETE CONTRACTOR.

PROJECT LOCATION



VICINITY MAP
SCALE: 1" = 3000'

CANVAS AT INVER GROVE HEIGHTS

INVER GROVE HEIGHTS, MINNESOTA

PRELIMINARY PLAT AND PUD SUBMITTAL

EROSION AND SEDIMENT CONTROL PLAN

I hereby certify that this plan, specification, or 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

MARK RAUSCH, PE

Date License No.

QUALITY ASSURANCE/CONTROL

BY DATE

DATE ISSUE

8-17-2020 CITY SUBMITTAL

9-3-2020 CITY COMMENTS UPDATES

PROJECT TEAM DATA

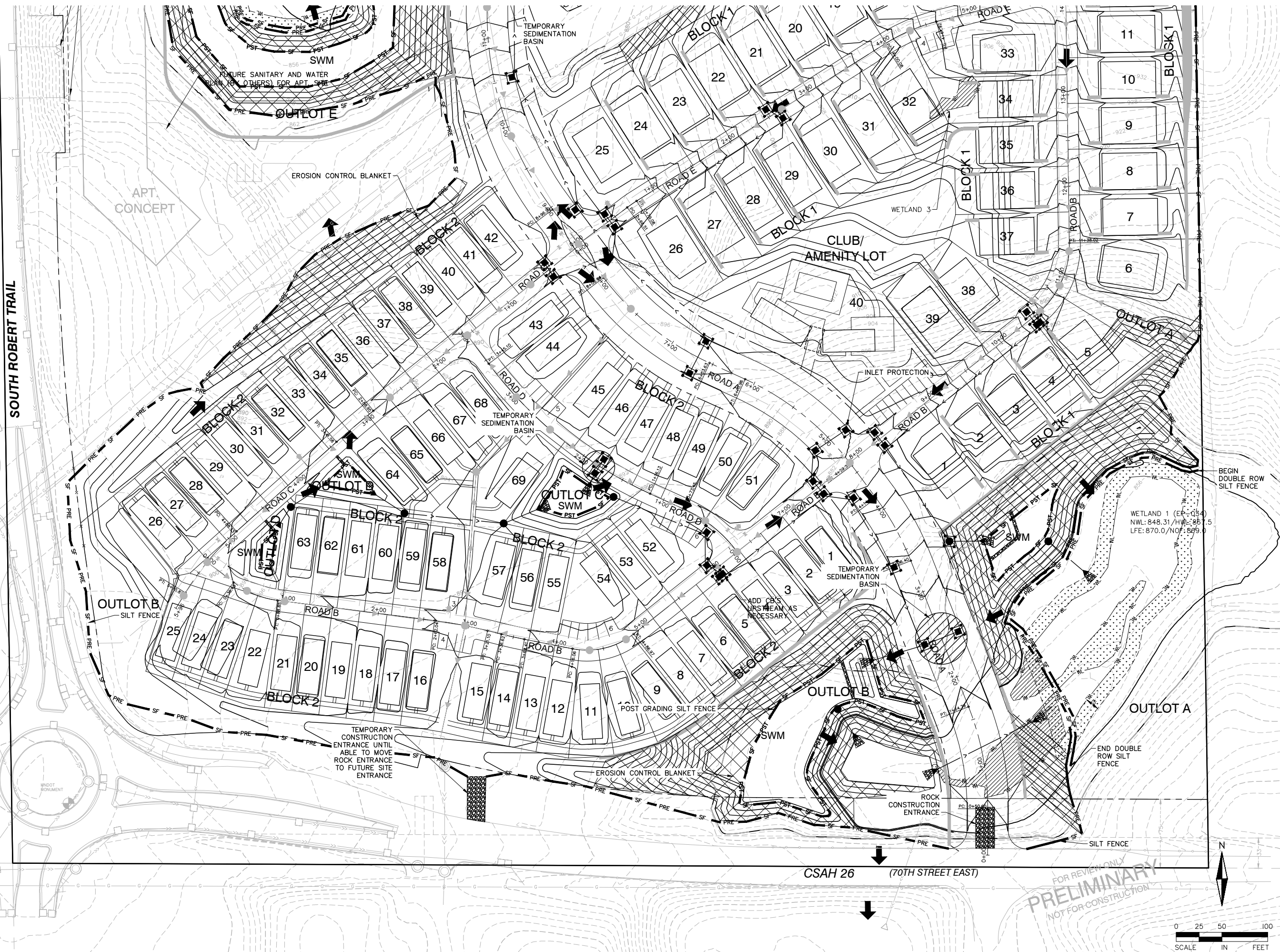
DESIGNED: MPR

DRAWN: TAS

PROJECT NO: 220-0092

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SOUTH ROBERT TRAIL



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CANVAS AT INVER GROVE HEIGHTS

INVER GROVE HEIGHTS, MINNESOTA

PRELIMINARY PLAT AND PUD SUBMITTAL

EROSION AND SEDIMENT CONTROL PLAN - VIEW A

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MARK RAUSCH, PE

Date License No.

QUALITY ASSURANCE/CONTROL

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PROJECT TEAM DATA

DESIGNED: MPR

DRAWN: TAS

PROJECT NO: 220-0092

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SHEET 16 OF 34

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CANVAS AT INVER GROVE HEIGHTS

INVER GROVE HEIGHTS, MINNESOTA

PRELIMINARY PLAT AND PUD SUBMITTAL

EROSION AND SEDIMENT CONTROL PLAN - VIEW B

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MARK RAUSCH, PE

Date License No.

QUALITY ASSURANCE/CONTROL

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PROJECT TEAM DATA	
DESIGNED:	MPR
DRAWN:	TAS
PROJECT NO:	220-0092

17

SHEET 17 OF 34

EROSION CONTROL GENERAL NOTES:

1. NO LAND DISTURBING ACTIVITY SHALL OCCUR UNTIL A GRADING PERMIT HAS BEEN ISSUED FROM THE CITY OF INVER GROVE HEIGHTS AND LOWER MISSISSIPPI RIVER.
2. BEST MANAGEMENT PRACTICES (BMP'S) REFER TO EROSION AND SEDIMENT CONTROL PRACTICES DEFINED IN THE MPCA PROTECTING WATER QUALITY IN URBAN AREAS AND THE MINNESOTA CONSTRUCTION SITE EROSION AND SEDIMENT CONTROL PLANNING HANDBOOK.
3. ALL BMP'S SELECTED SHALL BE APPROPRIATE FOR THE TIME OF YEAR, SITE CONDITIONS, AND ESTIMATED DURATION OF USE.
4. ALL WORK AND MATERIALS SHALL BE CONSTRUCTED ACCORDING TO THE APPROVED PLAN. ANY DEVIATION FROM THE APPROVED PLANS SHALL REQUIRE WRITTEN APPROVAL FROM THE ENGINEER OF RECORD.
5. A COPY OF THESE PLANS MUST BE ON THE JOB SITE WHENEVER CONSTRUCTION IS IN PROGRESS.
6. THE BOUNDARIES OF THE LAND DISTURBANCE LIMITS SHOWN ON THE PLANS SHALL BE CLEARLY FLAGGED IN THE FIELD PRIOR TO CONSTRUCTION. NO DISTURBANCE BEYOND THE DISTURBED LIMITS.
7. WHEREVER POSSIBLE, PRESERVE THE EXISTING TREES, GRASS AND OTHER VEGETATIVE COVER TO HELP FILTER RUNOFF.
8. ESTABLISH A PERMANENT VEGETATIVE COVER ON ALL EXPOSED SOILS WHERE LAND IS COMING OUT OF AGRICULTURAL PRODUCTION. PLANT AS SOON AS POSSIBLE TO ESTABLISH DENSE GRASS FILTER PRIOR TO CONSTRUCTION AND TO MINIMIZE WEED GROWTH.
9. ALL TREES NOT LISTED FOR REMOVAL SHALL BE PROTECTED. DO NOT OPERATE EQUIPMENT WITHIN THE DRIFTLINE, ROOT ZONES OR WITHIN TREE PROTECTION FENCE AREAS.
10. ALL EROSION AND SEDIMENT CONTROL FACILITIES (BMP'S) SHALL BE INSTALLED AND IN OPERATION PRIOR TO LAND DISTURBANCE ACTIVITIES AND THEY SHALL BE SATISFACTORILY MAINTAINED UNTIL CONSTRUCTION IS COMPLETED AND THE POTENTIAL FOR EROSION HAS PASSED.
11. SILT FENCE IS REQUIRED AT DOWN GRADIENT PERIMETER OF DISTURBED AREAS AND STOCKPILES. PROTECT WETLANDS, WATERCOURSES AND ADJACENT PROPERTIES FROM SEDIMENTATION AND STORMWATER RUNOFF.
12. THE BMP'S SHOWN ON THE PLANS ARE THE MINIMUM REQUIREMENTS FOR THE DISTURBANCE. WHEN CONDITIONS OF CONSTRUCTION PROGRESSES AND UNEXPECTED OR SEASONAL CONDITIONS DICTATE, THE PERMITTEE/CONTRACTOR SHALL ANTICIPATE THAT MORE BMP'S WILL BE NECESSARY TO ENSURE EROSION AND SEDIMENT CONTROL ON THE DISTURBED AREAS THROUGH THE COURSE OF CONSTRUCTION. IT IS THE RESPONSIBILITY OF THE PERMITTEE/CONTRACTOR TO ADDRESS ANY NEW CONDITIONS THAT MAY BE CREATED BY CONSTRUCTION ACTIVITIES AND/OR CLIMATIC EVENTS AND TO PROVIDE ADDITIONAL BMP'S AS NECESSARY TO PROTECT EFFECTIVE PROTECTION OF WATER AND SOIL RESOURCES.

13. THE BMP'S SHALL BE INSPECTED DAILY BY THE PERMITTEE/CONTRACTOR AND MAINTAINED AS NECESSARY TO ENSURE THEIR CONTINUED FUNCTIONING. Silt FENCES SHALL BE MAINTAINED OR REPLACED AS NECESSARY TO PREVENT Silt FROM ENTERING THE FENCE LINE.
14. LAND DISTURBING ACTIVITIES SHALL OCCUR IN INCREMENTS OF WORKABLE SIZE SUCH THAT ADEQUATE BMP CONTROL CAN BE PROVIDED THROUGHOUT ALL PHASES OF CONSTRUCTION. THE SMALLEST PRACTICAL AREA SHALL BE EXPOSED OR OTHERWISE PROTECTED AT ANY ONE TIME.
15. OPERATE TRACK EQUIPMENT (DOZER) UP AND DOWN EXPOSED SOIL SLOPES ON FINAL PASS, LEAVING TRACK GROOVES PERPENDICULAR TO THE SLOPE. DO NOT BACK-LEASE. LEAVE A SURFACE ROUGH TO MINIMIZE EROSION.
16. ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE STABILIZED FROM EROSION IMMEDIATELY AFTER THE COMPLETION OF SUBSTANTIAL COMPLETION OF GRADING IN THAT AREA. TEMPORARY SEED AND MULCH SHALL COVER ALL EXPOSED SOILS IF GRADING COMPLETION IS DELAYED LONGER THAN 7 DAYS. PERMANENT SEED AND MULCH SHALL BE APPLIED IMMEDIATELY AFTER COMPLETION OF GRADING.
17. GENERAL TEMPORARY SEED SHALL BE MNDOT MIX 22-112 @ 100 LBS. PER ACRE OR APPROVED EQUIV. PERMANENT SEED SHALL BE MNDOT MIX 25-151 @ 120 LBS. PER ACRE OR APPROVED EQUIV. (PLANTING DATES PER SPEC 2575) MULCH SHALL BE APPLIED IMMEDIATELY AFTER SEEDING. SEED SHALL BE ANCHORED IN PLACE OR APPROVED EQUIV. FERTILIZER SHALL BE 80-80-80 NPK PER ACRE (UNLESS P RESTRICTIONS APPLY) AND INCORPORATED INTO THE SEED BED.
18. POND, BASIN AND WETLAND AREAS SHALL BE SEED IN ACCORDANCE WITH MNDOT PLAN 608.
19. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE PROPERLY MAINTAINED AND REMOVED IMMEDIATELY AFTER FINAL SITE STABILIZATION IS ACHIEVED OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED.
20. AN ALTERNATE EROSION & SEDIMENT CONTROL PLAN SHALL BE REQUIRED FOR LAND DISTURBING ACTIVITIES THAT INVOLVE THE CONSTRUCTION OF FUTURE BUILDING PERMIT FOR THE CONSTRUCTION OF STRUCTURES AND DRIVEWAYS.

EROSION CONTROL SCHEDULE:

1. PRIOR TO ANY CONSTRUCTION OR DEMOLITION, SILT FENCE AND FILTERS SHALL BE INSTALLED AS SHOWN TO INTERCEPT RUNOFF.
2. ALL EROSION CONTROL INSTALLATIONS SHALL REMAIN IN PLACE AND BE MAINTAINED UNTIL THE EROSION CONTROL MEASURES HAVE BEEN RE-VEGETATED.
3. CONTRACTOR MAY REMOVE NECESSARY SILT FENCING/FILTERS TO CONSTRUCT ROADWAYS, WHILE MAINTAINING ADEQUATE EROSION CONTROL IN ADJACENT AREA.
4. SUFFICIENT TOPSOIL SHALL BE STOCKPILED TO ALLOW FOR THE REPLACEMENT OF 4" OF TOPSOIL TO 100% OF DISTURBED AREAS.
5. THE CONTRACTOR SHALL SCHEDULE SITE GRADING, UTILITY INSTALLATION AND PAVEMENT CONSTRUCTION SO THAT THE GENERAL SITE CAN BE MULCHED AND RE-SEEDED SOON AFTER DISTURBANCE, AND NOT MORE THAN 14 DAYS AFTER CONSTRUCTION TRAFFIC CESSATION. MULCH SHALL BE 2" DEEP AND NOT MIX WITH TOPSOIL. MULCH SHALL BE SODDED WITHIN SEVEN (7) DAYS OF BEING DISTURBED.
6. CONTRACTOR SHALL INSTALL EROSION CONTROL DEVICES AS INDICATED ON THIS EROSION CONTROL PLAN AND ANY ADDITIONAL REQUIRED BASED ON MEANS, METHODS AND SEQUENCES OF CONSTRUCTION.

SEDIMENT CONTROL PRACTICES:

1. SEDIMENT CONTROL PRACTICES MUST MINIMIZE SEDIMENT FROM ENTERING SURFACE WATERS, AND MUST BE DESIGNED TO PREVENT EROSION AND TO PROTECT DRAINAGE INLETS.
2. SEDIMENT CONTROL PRACTICES MUST BE ESTABLISHED ON ALL DOWN GRADIENT PERMITTERS BEFORE UPGRAD, AND DISTURBING ACTIVITIES. THESE PRACTICES SHALL REMAIN IN PLACE UNTIL FINAL STABILIZATION HAS BEEN ESTABLISHED.
3. THE TIMING OF THE INSTALLATION OF SEDIMENT CONTROL PRACTICES MAY BE ADJUSTED TO ACCORD WITH THE SEASONAL RAINFALL PATTERNS, OR PASSAGE OF PERMITS OR PASSAGE OF VEHICLES. ANY SHORT-TERM ACTIVITY MUST BE COMPLETED AS QUICKLY AS POSSIBLE AND THE SEDIMENT CONTROL PRACTICES MUST BE INSTALLED IMMEDIATELY AFTER THE ACTIVITY IS COMPLETED. SEDIMENT CONTROL PRACTICES MUST BE INSTALLED BEFORE THE NEXT PRECIPITATION EVENT EVEN IF THE ACTIVITY IS NOT COMPLETE.
4. ALL STORM DRAIN INLETS MUST BE PROTECTED BY APPROPRIATE BMPs DURING CONSTRUCTION UNTIL ALL SOURCES WITH POTENTIAL FOR DISCHARGING TO THE INLET HAVE BEEN STABILIZED.
5. TEMPORARY SOIL STOCKPILES MUST HAVE SILT FENCES OR OTHER EFFECTIVE SEDIMENT CONTROLS, AND CANNOT BE PLACED IN SURFACE WATERS, INCLUDING STORM WATER DRAINAGE CANALS OR CURBS AND GUTTERS, OR IN DRAINAGE OR CONDUITS AND DITCHES.
6. SITE CONSTRUCTION ENTRANCES WILL BE AS SHOWN ON THE PLAN. ROCK CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT EACH ENTRANCE.

FINAL STABILIZATION:

THE CONTRACTOR MUST ENSURE FINAL STABILIZATION OF THE SITE. THE CONTRACTOR MUST SUBMIT A NOTICE OF TERMINATION (NOT) WITHIN 30 DAYS AFTER FINAL STABILIZATION IS COMPLETE, OR ANOTHER OWNER/OPERATOR (PERMITTEE) HAS ASSUMED CONTROL OF ALL AREAS OF THE SITE THAT HAVE NOT UNDERGONE FINAL STABILIZATION. FINAL STABILIZATION CAN BE ACHIEVED IN THE FOLLOWING WAY:

ALL SOIL DISTURBING ACTIVITIES AT THE SITE HAVE BEEN COMPLETED AND ALL SOILS MUST BE STABILIZED BY A UNIFORM PERENNIAL VEGETATIVE COVER WITH A DENSITY OF 70 PERCENT OVER THE ENTIRE PERVIOUS SURFACE AREA, OR OTHER EQUIVALENT MEANS NECESSARY TO PREVENT SOIL FAILURE UNDER EROSION CONDITIONS AND;

- ALL THE SITE AFTER CONSTRUCTION IS COMPLETE, MUST BE STABILIZED TO PRECLUDE EROSION;
A. ALL TEMPORARY SYNTHETIC, AND STRUCTURAL EROSION PREVENTION AND SEDIMENT CONTROL BMPs (SUCH AS SILT FENCE) MUST BE REMOVED AS PART OF THE SITE FINAL STABILIZATION; AND
B. THE CONTRACTORS MUST STABILIZE SEDIMENT FROM CONVEYANCES AND FROM TEMPORARY SEDIMENTATION BASINS THAT ARE TO BE USED AS PERMANENT WATER QUALITY IMPROVEMENT SEDIMENTATION BASINS. BE STABILIZED TO PREVENT IT FROM BEING WASHED BACK INTO THE BASIN, CONVEYANCES OR DRAINAGE WAYS DISCHARGING OFF-SITE OR TO SURFACE WATERS. THE CLEAN OUT OF PERMANENT BASINS MUST BE SUFFICIENT TO RETURN THE BASIN TO DESIGN CAPACITY.

EROSION AND SEDIMENT CONTROL MAINTENANCE PROGRAM:

1. INSPECT SILT FENCES IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. IMMEDIATELY REPAIR FAILED OR FAILING SILT FENCE.
2. REPLACEMENT – FABRIC SHALL BE REPLACED PROMPTLY WHEN IT DECOMPOSES OR BECOMES INEFFECTIVE BEHIND THE BARRIER IS NO LONGER NECESSARY.
3. SEDIMENT REMOVAL – SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE-THIRD THE HEIGHT OF THE BARRIER. ANY SEDIMENT REMAINING IN PLACE AFTER THE SILT FENCE OR BARRIER IS NO LONGER NECESSARY SHALL BE DRESSED TO CONFORM WITH EXISTING GRADE, PREPARED, AND SEEDED WITH THE APPROPRIATE SEED MIX, OR SOODED AS DIRECTED BY THE ENGINEER.
4. REMOVAL OF SILT FENCE – SILT FENCES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UPWARD SLOPING AREA THEY HAVE SERVED IS PERMANENTLY STABILIZED. IF THE UPWARD SLOPING AREA IS TO BE EXPOSED LONGER THAN 15 DAYS, THAT AREA SHALL BE COVERED WITH TEMPORARY VEGETATION WHEN FIRST EXPOSED.
5. THE CONTRACTOR MUST ROUTINELY INSPECT THE CONSTRUCTION SITE ONCE EVERY SEVEN (7) DAYS DURING ACTIVE CONSTRUCTION AND WITHIN 24 HOURS AFTER A RAINFALL EVENT OF MORE THAN 0.5 INCHES.
6. ALL INSPECTIONS AND MAINTENANCE CONDUCTED DURING CONSTRUCTION MUST BE RECORDED IN WRITING AND THESE RECORDS MUST BE RETAINED WITH THE SWPPP RECORDS OF EACH INSPECTION AND MAINTENANCE ACTIVITY SHALL INCLUDE:
 - A. DATE AND TIME OF INSPECTIONS;
 - B. NAME OF PERSON(S) CONDUCTING INSPECTIONS;
 - C. FINDINGS OF INSPECTIONS, INCLUDING RECOMMENDATIONS FOR CORRECTIVE ACTIONS;
 - D. CORRECTIVE ACTIONS TAKEN (INCLUDING DATES, TIMES, AND PARTY COMPLETING MAINTENANCE ACTIVITIES);
 - E. DATE AND AMOUNT OF ALL RAINFALL EVENTS GREATER THAN 1/2 INCH (0.5 INCHES) OR MORE.
7. DOCUMENTS OF CHANGES MADE TO THE SWPPP AS REQUIRED IN PART II.A.4.

7. WHERE PARTS OF THE CONSTRUCTION SITE HAVE UNDERGONE FINAL STABILIZATION, BUT WORK REMAINS ON OTHER PARTS OF SITE, INSPECTIONS OF THE STABILIZED AREAS MAY BE REDUCED TO ONCE PER MONTH. WHERE WORK HAS BEEN SUSPENDED DUE TO FROZEN GROUND CONDITIONS, THE REQUIRED INSPECTIONS AND MAINTENANCE MUST TAKE PLACE AS SOON AS RUNOFF OCCURS AT THE SITE OR PRIOR TO RESUMING CONSTRUCTION, WHICHEVER COMES FIRST.

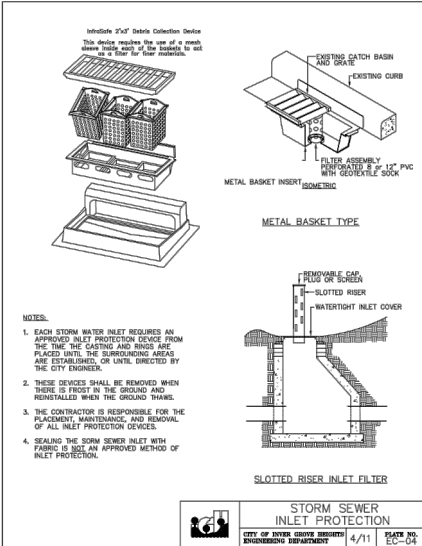
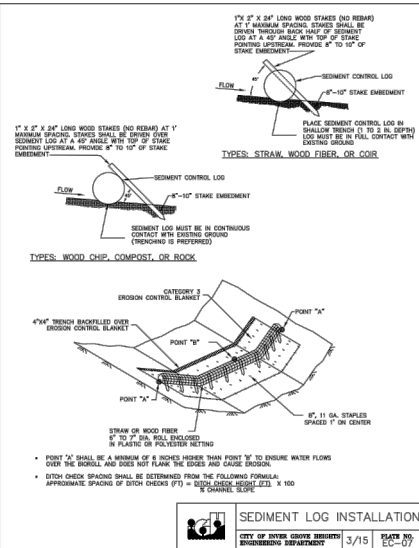
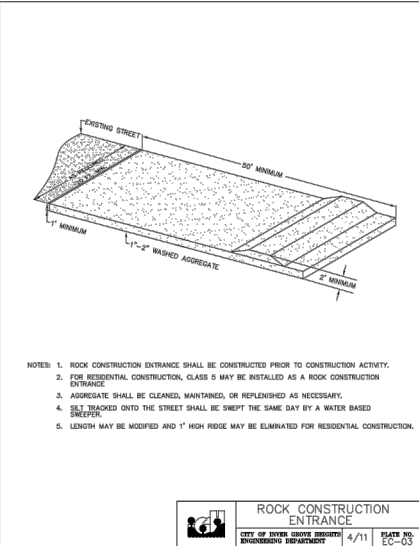
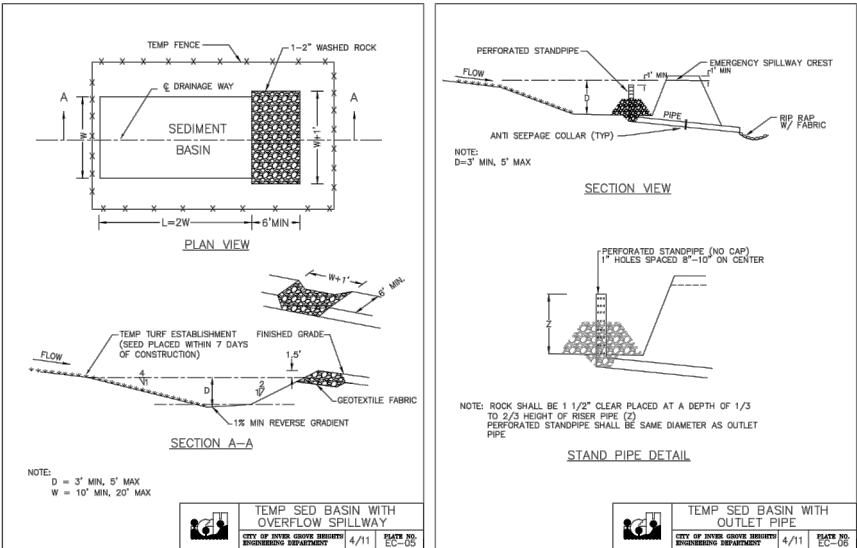
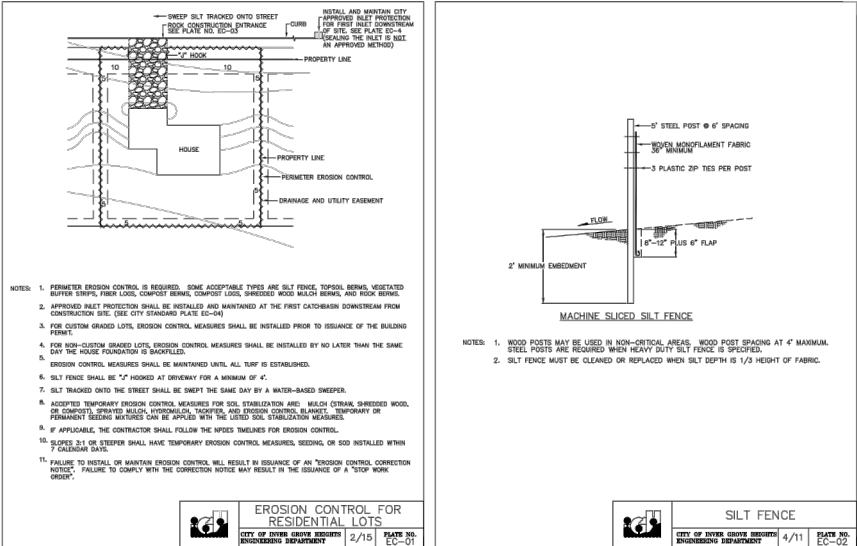
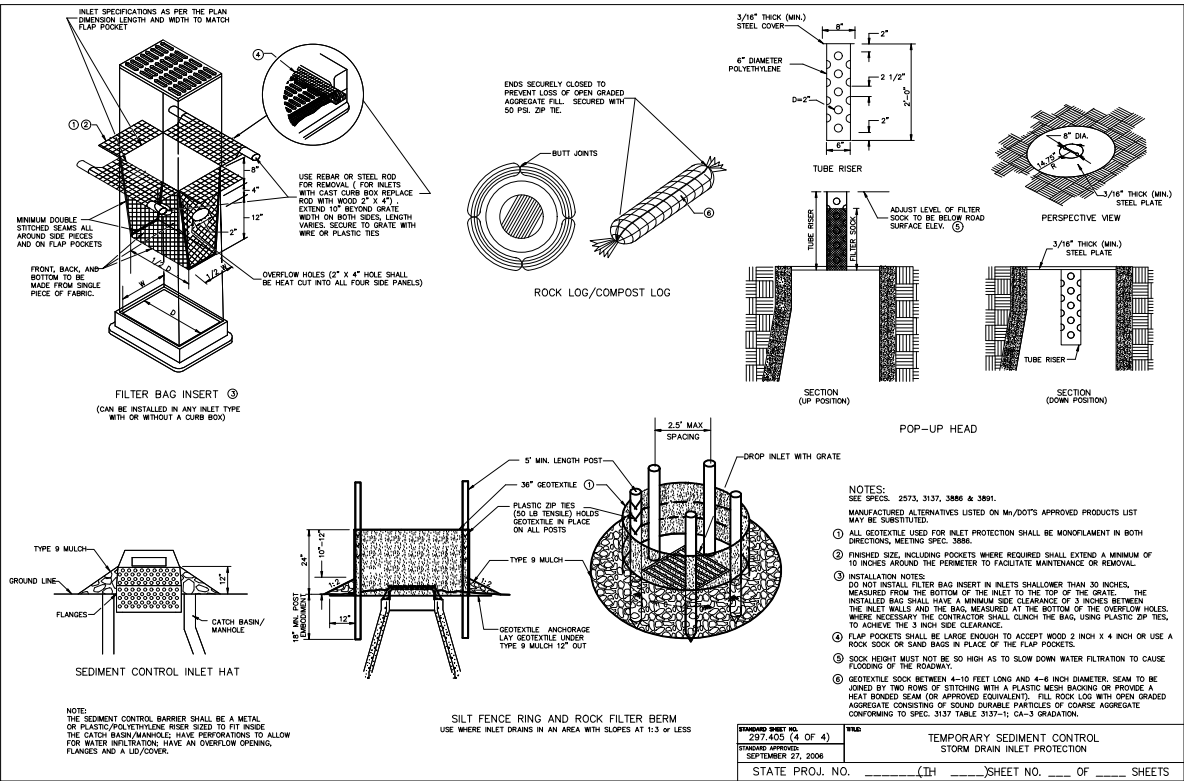
POLLUTION PREVENTION MANAGEMENT MEASURES

THE CONTRACTOR SHALL IMPLEMENT THE FOLLOWING POLLUTION PREVENTION MANAGEMENT MEASURES ON THE SITE:

1. **SOLID WASTE:** COLLECTED SEDIMENT, ASPHALT AND CONCRETE MILLINGS, FLOATING DEBRIS, PAINT, PLASTIC, FABRIC, CONSTRUCTION AND DEMOLITION DEBRIS AND OTHER WASTES MUST BE DISPOSED OF PROPERLY AND MUST COMPLY WITH MPCA DISPOSAL REQUIREMENTS.
2. **HAZARDOUS MATERIAL:** OIL, GASOLINE, PAINT AND ANY HAZARDOUS SUBSTANCES MUST BE PROPERLY STORED AND HANDLED TO PREVENT SECONDARY CONTAMINATION. TO PREVENT SPILLS, LEAKS OR OTHER DISCHARGE, RESTRICTED ACCESS TO STORAGE AREAS MUST BE PROVIDED TO PREVENT UNAUTHORIZED ACCESS. STORAGE OF HAZARDOUS MATERIALS MUST BE IN COMPLIANCE WITH MPCA STORAGE AND DISPOSAL OF HAZARDOUS WASTE MUST BE IN COMPLIANCE WITH MPCA
3. **CONCRETE WASHOUT** IS DONE TRUCK BY TRUCK WITH A MOBILE WASHOUT SYSTEM PROVIDED AND COMPLETED BY THE CONCRETE CONTRACTOR. RUNOFF MUST BE CONTAINED AND WASTE PROPERLY DISPOSED OF.
4. **NO ENGINE DEPOSING IS ALLOWED ON SITE.**

INFILTRATION AREA NOTES:

1. ALL TEMPORARY EROSION CONTROL DEVICES MUST BE INSTALLED PRIOR TO INSTALLATION/CONSTRUCTION OF INFILTRATION BASIN.
2. ALL STORMWATER RUNOFF SHALL BE DIVERTED AWAY FROM INFILTRATION AREA TO TEMPORARY STORAGE OR UNTIL INFILTRATION BASIN IS COMPLETELY GRADED AND PLANTED.
3. CONSTRUCTION OF BASIN SHALL BE SUSPENDED DURING PERIODS OF RAINFALL OR SNOWMELT. CONSTRUCTION SHALL REMAIN SUSPENDED IF PONDED WATER IS PRESENT OR RESIDUAL SOIL MOISTURE CONTRIBUTES SIGNIFICANTLY TO THE POTENTIAL FOR COMPACTION AND SMEARING OF THE SOILS BENEATH THE FLOOR AND SIDE SLOPES OF THE INFILTRATION BASIN. EXCAVATION AND LIFTING OF THE BASIN FLOOR SHALL BE THE AREA DEDICATED TO THE INFILTRATION BASIN SHALL BE CORDED OFF TO PREVENT ACCESS BY OTHERS. EXCAVATION AND LIFTING OF THE BASIN FLOOR SHALL BE THE RESPONSIBILITY OF THE EXCAVATION FIRM. LIGHT EQUIPMENT WITH TURTLE TYPE TIRES, MARSH EQUIPMENT OR WIDE TRACK LOADERS.
4. IF COMPACTION OCCURS AT THE BASE OF THE BASIN, THE SOIL SHALL BE REFRACUTURED BY A DEPTH OF 12" TO 18" USING A REFRACUTURING TOOL. THE SMEARED AREAS OF THE INTERFACE SHALL BE CORRECTED BY RAKING OR ROTO-TILLING.



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LEGEND:

	EXISTING GATE VALVE		PROPOSED STORM SEWER
	EXISTING HYDRANT		PROPOSED SANITARY SEWER
	EXISTING WATERMAIN		PROPOSED WATERMAIN
	EXISTING CATCH BASIN		PROPOSED CATCH BASIN
	EXISTING STORM MANHOLE		PROPOSED SANITARY MANHOLE
	EXISTING STORM SEWER		PROPOSED GATE VALVE
	EXISTING SANITARY MANHOLE		PROPOSED HYDRANT
	EXISTING SANITARY SEWER		

FOR REVIEW ONLY
PRELIMINARY
NOT FOR CONSTRUCTION



VIEW B

VIEW A

UTILITY NOTES:

- EXISTING UTILITIES, SERVICE LOCATIONS AND ELEVATIONS SHALL BE VERIFIED IN FIELD PRIOR TO CONSTRUCTION.
- MAINTAIN A MIN 18" VERTICAL SEPARATION AT ALL PIPE CROSSINGS. WATER AND SANITARY SEWER TRUNK LINES TO MAINTAIN 10' HORIZONTAL SEPARATION. LOWER WATERMAIN AS NECESSARY.
- CONTRACTOR IS RESPONSIBLE FOR ALL PERMITS PRIOR TO THE START OF CONSTRUCTION.
- PROVIDE POLYSTYRENE INSULATION FOR ALL STORM SEWER AND WATERMAIN CROSSINGS WHERE VERTICAL OR HORIZONTAL SEPARATION IS LESS THAN 3'.
- ALL UTILITY WORK WITHIN THE R.O.W. SHALL COMPLY WITH THE CITY OF INVER GROVE HEIGHTS ENGINEERING GUIDELINES.
- NOTIFY GOPHER STATE ONE CALL 48 HOURS IN ADVANCE OF ANY UTILITY WORK.
- PROVIDE TEMPORARY TRAFFIC CONTROL IN COMPLIANCE WITH MNDOT "TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS-FIELD MANUAL" LATEST REVISION, FOR ANY CONSTRUCTION WITHIN PUBLIC R.O.W.
- ALL SANITARY MANHOLES TO BE 48" DIAMETER CONCRETE W/NEENAH R-1642 CASTING, UNLESS NOTED OTHERWISE.
- WATERMAIN, SERVICES, AND VALVES SHALL BE INSTALLED WITH MINIMUM 7.5' OF COVER, THOUGH WATERMAIN DEPTH WILL BE INCREASED WHERE NECESSARY TO AVOID CONFLICT WITH SANITARY SEWER.
- WATER SERVICES SHALL BE 1" DIA. COPPER, TYPE K, W/ 1" CORP. STOP + 1" CURB BOX.
- SEWER SERVICES SHALL BE 4" PVC, SCH 40. MINIMUM 2% SLOPE UNLESS OTHERWISE NOTED ON THE PLANS.
- WATER SERVICES MAY BE PLACED IN SAME TRENCH AS SEWER SERVICES PROVIDED THAT A 18" VERTICAL & A 36" HORIZONTAL SEPARATION ARE MAINTAINED AND PIPE MATERIALS MEET THE CITY AND BUILDING CODES.
- ALL 6" AND 8" WATERMAIN SHALL BE DIP CL-52.
- ALL HYDRANTS SHALL HAVE A 6" LEAD WITH APPROPRIATE FITTINGS, EITHER A 8X6" TEE OR A 6" REDUCER.

SANITARY SEWER SCHEDULE

MH		PIPE	PIPE	PIPE	INVERT	INVERT	RIM ELEV	STRUCTURE SIZE [IN]	MANHOLE BUILD [FT]	PIPE TYPE
FROM	TO	O.D. [IN]	SLOPE	LENGTH	FROM	TO				
MH 33	MH 31	8	0.005	88.53	873.50	873.07	884.50	48	11.00	SDR-35 PVC
MH 32	MH 31	8	0.005	108.55	873.50	873.06	884.50	48	11.00	SDR-35 PVC
MH 31	MH 30	8	0.005	268.97	872.96	872.41	886.04	48	13.08	SDR-26 PVC
MH 30	MH 28	8	0.005	44.80	872.31	870.97	887.94	48	15.63	SDR-26 PVC
MH 29	MH 28	8	0.005	53.69	882.40	882.18	893.40	48	11.00	SDR-35 PVC
MH 28	MH 27	8	0.005	42.65	870.87	870.60	892.66	48	21.79	SDR-26 PVC
MH 27	MH 26	8	0.005	199.18	870.50	870.29	891.69	48	21.19	SDR-26 PVC
MH 26	MH 1	8	0.005	62.75	870.19	869.19	890.94	48	20.75	SDR-26 PVC
MH 25	MH 24	8	0.005	134.72	872.61	872.30	883.61	48	11.00	SDR-35 PVC
MH 24	MH 23	8	0.005	48.61	872.20	871.52	882.95	48	10.75	SDR-35 PVC
MH 23	MH 16	8	0.010	395.89	871.42	870.94	882.00	48	10.58	SDR-35 PVC
MH 22	MH 21	8	0.060	38.76	912.61	888.86	923.61	48	11.00	SDR-35 PVC
MH 21	MH 19	8	0.040	20.00	888.76	887.21	900.05	48	11.29	SDR-35 PVC
STUB	MH 20	8	0.005	147.38	855.00	854.90				DIP CL-52
MH 20	MH 19	8	0.005	35.56	854.80	854.06	893.00	48	38.20	DIP CL-52
MH 19	MH 18	8	0.005	265.92	853.96	853.79	896.93	48	42.97	DIP CL-52
MH 18	MH 17	8	0.005	157.06	853.69	852.36	894.07	48	40.38	DIP CL-52
MH 17	MH 16	8	0.005	154.56	852.26	851.47	879.71	48	27.45	DIP CL-52
MH 16	MH 15	8	0.005	41.64	851.37	850.60	881.59	48	30.22	DIP CL-52
MH 15	MH 14	8	0.005	138.63	850.50	850.29	884.29	48	33.79	DIP CL-52
MH 14	MH 1	8	0.005	144.30	850.19	849.50	885.03	48	34.84	DIP CL-52
MH 13	MH 12	8	0.071	164.29	910.71	900.46	921.71	48	11.00	SDR-35 PVC
MH 12	MH 11	8	0.071	266.70	900.36	888.70	911.61	48	11.25	SDR-35 PVC
MH 11	MH 4	8	0.053	337.68	888.60	874.46	898.46	48	9.86	SDR-35 PVC
MH 10	MH 9	8	0.079	105.13	895.04	868.36	906.54	48	11.50	SDR-35 PVC
MH 9	MH 8	8	0.005	89.26	868.26	867.74	880.21	48	11.95	SDR-35 PVC
STUB	MH 8	18	0.005	184.19	836.71	836.26				DIP CL-52
MH 8	MH 7	18	0.005	124.91	836.16	835.24	877.55	48	41.39	DIP CL-52
MH 7	MH 6	18	0.005	143.30	835.14	834.52	873.36	48	38.22	DIP CL-52
MH 6	MH 5	18	0.005	138.91	834.42	833.70	874.84	48	40.42	DIP CL-52
MH 5	MH 4	18	0.005	91.10	833.60	832.91	882.84	48	49.24	DIP CL-52
MH 4	MH 3	18	0.005	245.65	832.81	832.35	884.13	48	51.32	DIP CL-52
MH 3	MH 2	18	0.005	168.54	832.25	831.02	883.40	48	51.15	DIP CL-52
MH 2	MH 1	18	0.005	127.77	830.92	830.08	887.60	48	56.68	DIP CL-52
MH 1	EX STUB	18	0.005	0.00	829.98	829.34	887.46	48	57.48	DIP CL-52

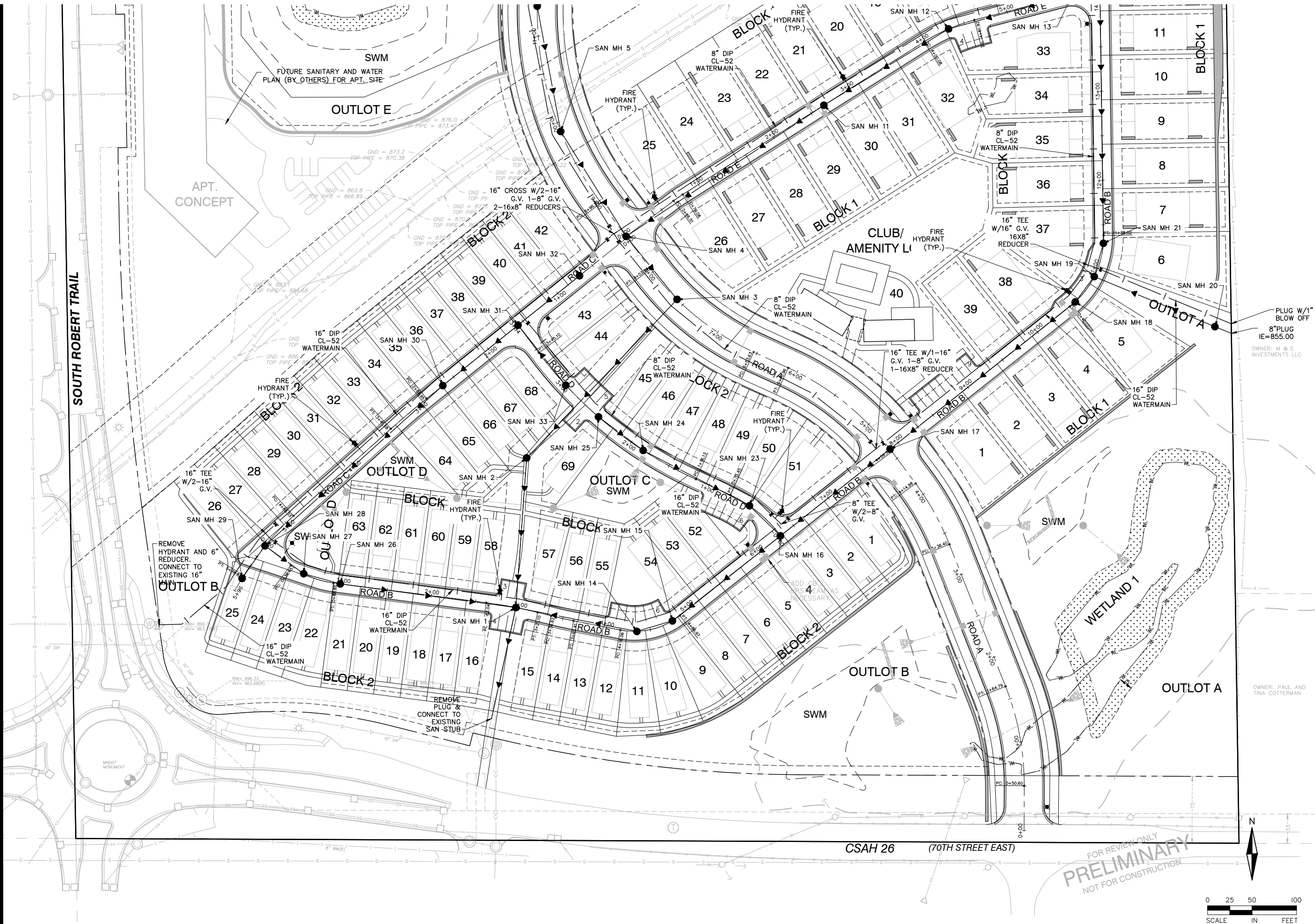
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PRELIMINARY PLAT AND PUD SUBMITTAL
SANITARY SEWER AND WATERMAIN PLAN

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MARK RAUSCH, PE	
Date	License No.
QUALITY ASSURANCE/CONTROL	
BY	DATE
DATE	ISSUE
8-17-2020	CITY SUBMITTAL
9-3-2020	CITY COMMENTS UPDATES
PROJECT TEAM DATA	
DESIGNED:	MPR
DRAWN:	TAS
PROJECT NO:	220-0092

Drawing name: C:\new_working\projectwise\mregion\dwg\07844\2009092util.dwg Sep 03, 2020 11:24am



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INVER GROVE HEIGHTS, MINNESOTA
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SANITARY SEWER AND WATERMAIN PLAN - VIEW A

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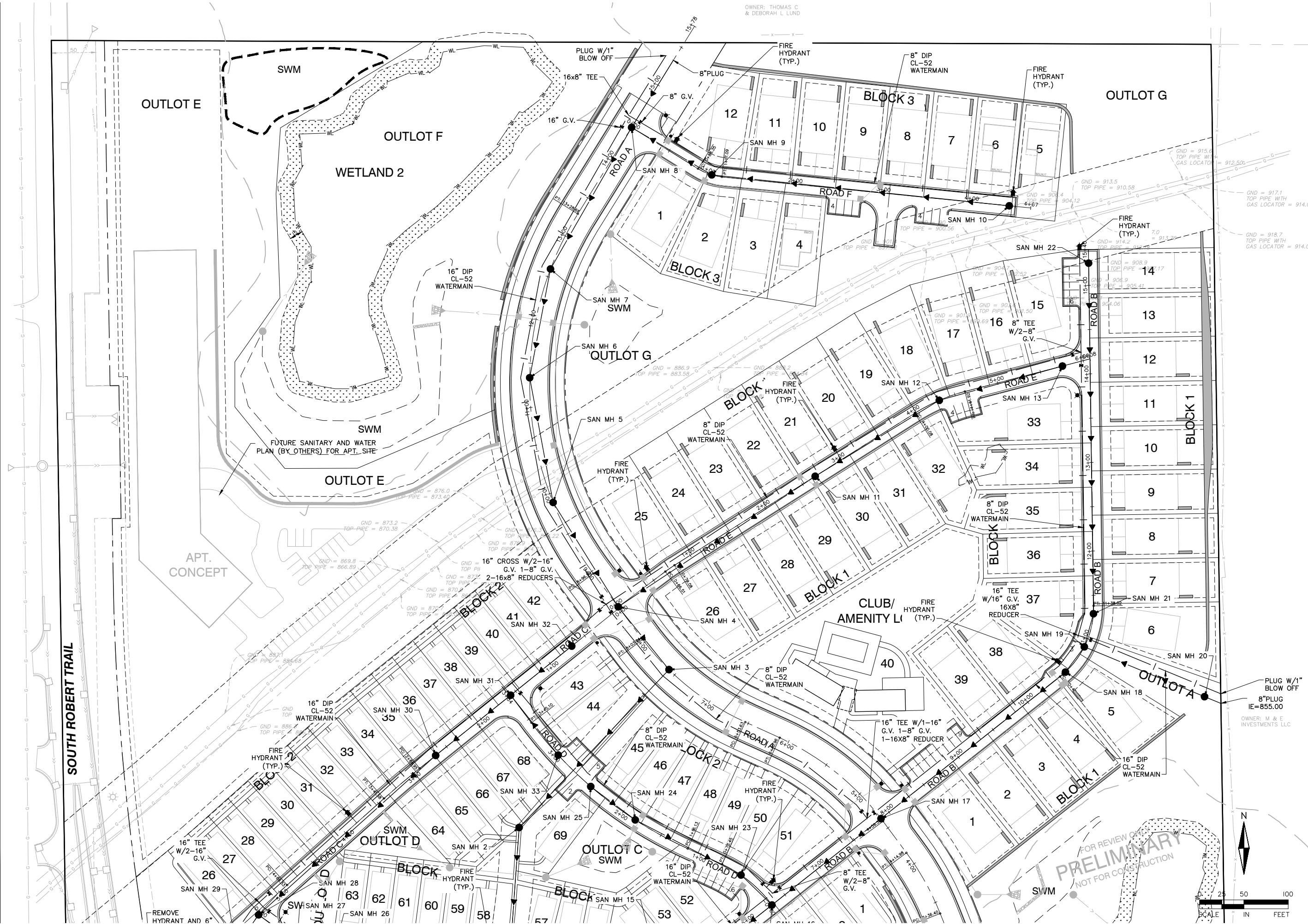
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QUALITY ASSURANCE/CONTROL

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PROJECT TEAM DATA	
DESIGNED:	MPR
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PROJECT NO:	220-0092

Drawing name: C:\paw_working\projectwise\mregionid\dms07844\200092util.dwg Sep 03, 2020 -- 11:24am



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SANITARY SEWER AND WATERMAIN PLAN - VIEW B

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PROJECT TEAM DATA	
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PROJECT NO:	220-0092

Drawing name: C:\new_working\projectwise\mvr\resid\dm\07844\2009092strm.dwg Sep 03, 2020 11:24am



LEGEND:

EXISTING GATE VALVE

EXISTING HYDRANT

EXISTING WATERMAIN

EXISTING CATCH BASIN

EXISTING STORM MANHOLE

EXISTING STORM SEWER

EXISTING SANITARY MANHOLE

EXISTING SANITARY SEWER

PROPOSED CATCH BASIN

PROPOSED WATERMAIN

PROPOSED SANITARY MANHOLE

PROPOSED GATE VALVE

PROPOSED HYDRANT

4" PERFORATED DRAIN TILE

PROPOSED STORM SEWER

PROPOSED SANITARY SEWER

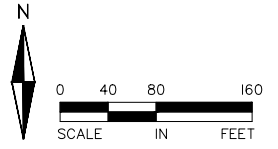
UTILITY NOTES:

- EXISTING UTILITIES, SERVICE LOCATIONS AND ELEVATIONS SHALL BE VERIFIED IN FIELD PRIOR TO CONSTRUCTION.
- MAINTAIN A MIN 18" VERTICAL SEPARATION AT ALL PIPE CROSSINGS. WATER AND SANITARY SEWER LINES TO MAINTAIN 10' HORIZONTAL SEPARATION. LOWER WATERMAIN AS NECESSARY.
- CONTRACTOR IS RESPONSIBLE FOR ALL PERMITS PRIOR TO THE START OF CONSTRUCTION.
- PROVIDE POLYSTYRENE INSULATION FOR ALL STORM SEWER AND WATERMAIN CROSSINGS WHERE VERTICAL OR HORIZONTAL SEPARATION IS LESS THAN 3'.
- ALL UTILITY WORK WITHIN THE R.O.W. SHALL COMPLY WITH THE CITY OF INVER GROVE HEIGHTS ENGINEERING GUIDELINES.
- NOTIFY GOPHER STATE ONE CALL 48 HOURS IN ADVANCE OF ANY UTILITY WORK.
- PROVIDE TEMPORARY TRAFFIC CONTROL IN COMPLIANCE WITH MNDOT "TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS-FIELD MANUAL" LATEST REVISION, FOR ANY CONSTRUCTION WITHIN PUBLIC R.O.W.

STORMSEWER SCHEDULE:

ME/CB	FROM	TO	P. DIA. D [IN]	P. SLOPE S [%]	P. TYPE	PIPE LENGTH [FT]	FROM INVERT	TO INVERT	RIM ELEV	STR. TYPE	CAST TYPE	BUILD (FT)
OCS 112	CBMH 111	15	0.33	RCP	108.16	877.90	877.54	882.00	OCS	GRATE		4.10
CBMH 111	CBMH 110	18	0.91	RCP	31.45	877.29	877.01	881.52	48"	R-3067-V		4.23
CBMH 110	CBMH 109	18	0.33	RCP	25.23	876.91	876.82	881.71	48"	R-3067-V		4.80
CB 109B	CBMH 109	15	0.70	RCP	5.00	876.72	876.69	881.81	2x3'	R-3067-V		5.09
CBMH 109	CBMH 105	18	0.95	RCP	140.63	876.44	875.10	881.64	48"	R-3067-V		5.20
CB 108	CBMH 107	12	1.00	RCP	45.98	876.01	875.55	880.01	2x3'	R-3067-V		4.00
CBMH 107	CBMH 106	12	2.00	RCP	26.69	875.45	874.92	880.12	48"	R-3067-V		4.67
CBMH 106	CBMH 105	12	2.30	RCP	24.00	874.82	874.26	879.30	48"	R-3067-V		4.48
CBMH 105	CBMH 104	18	3.79	RCP	28.73	873.76	872.68	879.18	48"	R-3067-V		5.42
CBMH 104	CBMH 103	18	6.70	RCP	87.14	872.58	866.74	877.39	48"	R-3067-V		4.81
CBMH 103	CBMH 101	18	2.58	RCP	90.96	866.49	864.14	871.15	48"	R-3067-V		4.66
CB 102	CBMH 101	12	0.44	RCP	45.34	864.78	864.58	868.78	2x3'	R-3067-V		4.00
CBMH 101	FES 100	24	0.48	RCP	59.50	857.29	857.00	868.78	48"	R-3067-V		15.49
CB 205	CBMH 204	12	0.44	RCP	24.00	888.67	888.56	892.67	2x3'	R-3067-V		4.00
CB 204B	CBMH 204	12	0.44	RCP	5.00	889.02	889.00	893.02	2x3'	R-3067-V		4.00
CBMH 204	CBMH 202	12	6.12	RCP	212.15	888.46	875.48	892.67	48"	R-3067-V		4.21
CB 203	CBMH 202	12	0.44	RCP	24.00	875.31	875.20	879.31	2x3'	R-3067-V		4.00
CBMH 202	MH 201	12	7.15	RCP	123.28	875.10	866.29	879.30	48"	R-3067-V		4.10
MH 201	FES 200	18	0.70	RCP	38.28	858.27	858.00	870.00	48"	R-1642		15.73
OCS 301	FES 300	18	0.00	RCP	54.50	856.25	856.00	859.50	OCS	GRATE		3.25
FES 401	FES 400	36	0.00	RCP	126.86	852.00	852.00					
CB 515	CBMH 514	12	0.64	RCP	26.29	892.84	892.67	896.84	2x3'	R-3067-V		4.00
CBMH 514	CBMH 512	12	5.83	RCP	219.02	892.57	879.80	897.69	48"	R-3067-V		5.12
CB 513	CBMH 512	12	0.44	RCP	24.00	879.53	879.42	883.53	2x3'	R-3067-V		4.00
CBMH 512	CBMH 507	15	1.11	RCP	28.02	879.17	878.86	883.52	48"	R-3067-V		4.35
CB 511	CBMH 510	12	0.44	RCP	45.34	877.91	877.71	881.91	2x3'	R-3067-V		4.00
CBMH 510	CBMH 507	12	0.44	RCP	138.22	877.61	877.00	883.90	48"	R-3067-V		6.29
CB 509	CBMH 508	12	0.44	RCP	24.10	879.59	879.48	883.59	2x3'	R-3067-V		4.00
CBMH 508	CBMH 507	12	0.70	RCP	68.13	879.38	878.91	883.74	48"	R-3067-V		4.36
CBMH 507	CBMH 506	18	1.20	RCP	64.00	876.50	875.73	883.47	48"	R-3067-V		6.97
CBMH 506	CBMH 505	18	1.56	RCP	159.41	875.63	873.15	883.47	48"	R-3067-V		7.84
CBMH 505	CBMH 502	18	4.00	RCP	137.00	873.05	867.57	879.94	48"	R-3067-V		6.89
OCS 503	CBMH 502	12	0.44	RCP	32.51	865.50	865.36	869.50	OCS	GRATE		4.00
CBMH 502	CBMH 501	18	7.00	RCP	45.34	864.86	861.69	871.56	48"	R-3067-V		6.70
CBMH 501	FES 500	27	0.41	RCP	85.35	852.35	852.00	871.56	48"	R-3067-V		23.21
CB 602	CBMH 601	12	0.44	RCP	24.00	879.21	879.10	882.51	2x3'	R-3067-V		3.30
CBMH 601	FES 600	15	0.80	RCP	12.50	879.10	879.00	882.62	48"	R-3067-V		7.52
FES 703	OCS 702	12	0.00	RCP	41.65	886.00	886.00					
OCS 702	MH 701	12	0.44	RCP	109.09	879.67	879.19					
MH 701	FES 700	12	0.44	RCP	43.54	879.19	879.00	887.90	48"	R-1642		8.71
CB 806	CBMH 805	12	3.81	RCP	31.79	890.69	889.48	894.69	2x3'	R-3067-V		4.00
CBMH 805	CBMH 804	12	7.63	RCP	178.15	889.38	875.79	893.18	48"	R-3067-V		3.80
CBMH 804	CBMH 802	12	2.39	RCP	59.39	875.69	874.27	879.49	48"	R-3067-V		3.80
CB 803	CBMH 802	12	0.44	RCP	24.00	873.97	873.86	877.97	2x3'	R-3067-V		4.00
CBMH 802	MH 801	12	1.42	RCP	102.88	873.76	872.30	877.97	48"	R-3067-V		4.21
MH 801	FES 800	15	0.90	RCP	56.18	868.50	868.00	877.00	48"	R-1642		12.50
OCS 901	FES 900	0	0.27	RCP	36.70	852.10	852.00	858.50	OCS	GRATE		9.40

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CANVAS AT INVER GROVE HEIGHTS

INVER GROVE HEIGHTS, MINNESOTA

PRELIMINARY PLAT AND PUD SUBMITTAL

STORM SEWER PLAN

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MARK RAUSCH, PE

Date License No.

QUALITY ASSURANCE/CONTROL

BY DATE

DATE ISSUE

8-17-2020 CITY SUBMITTAL

9-3-2020 CITY COMMENTS UPDATES

PROJECT TEAM DATA

DESIGNED: MPR

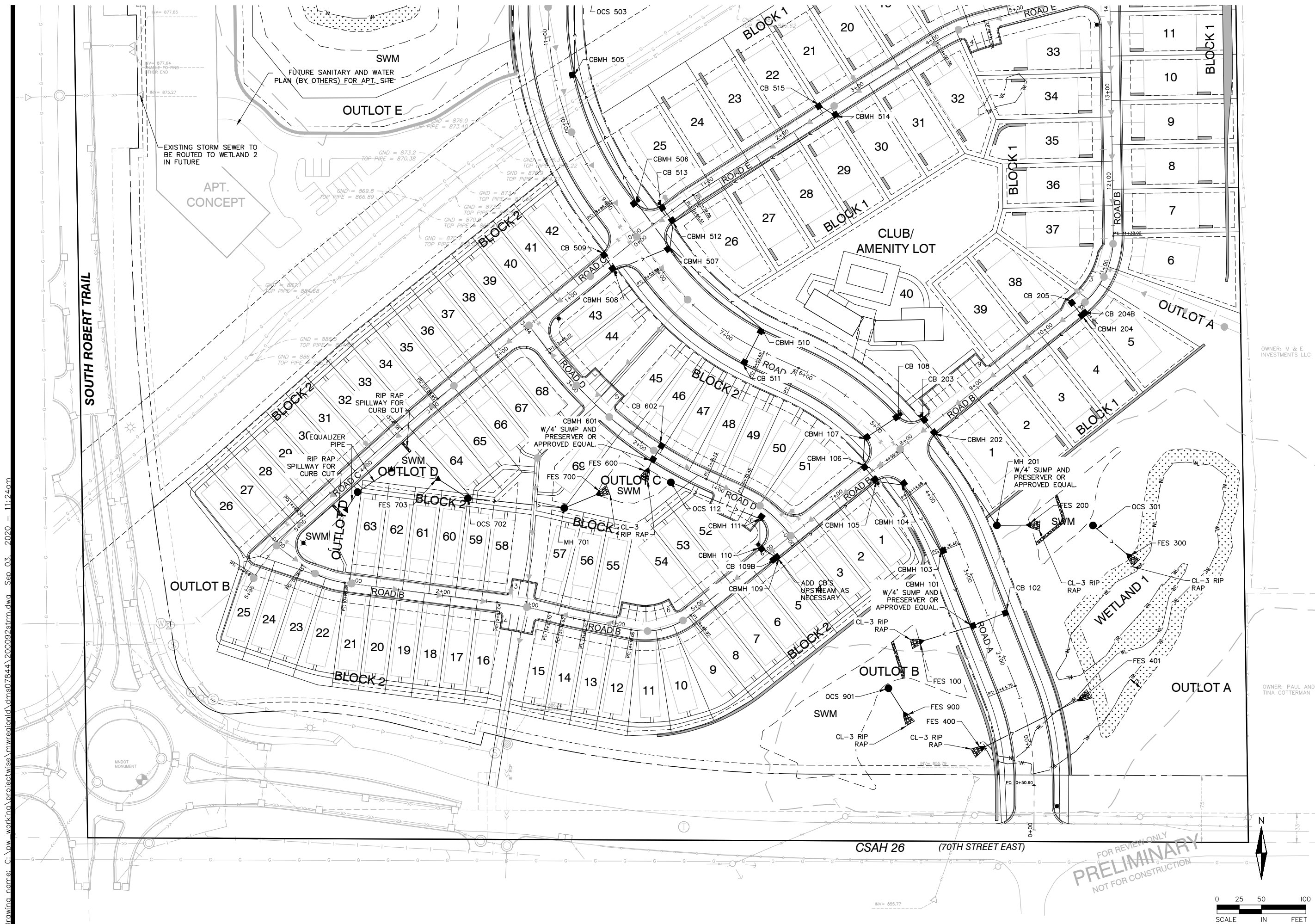
DRAWN: TAS

PROJECT No: 220-0092

22

SHEET 22 OF 34

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STORM SEWER PLAN - VIEW A

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PROJECT TEAM DATA

DESIGNED: MPR

DRAWN: TAS

PROJECT NO: 220-0092

23

SHEET 23 OF 34

0 25 50 100
SCALE IN FEET



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OWNER: THOMAS C
& DEBORAH L LUND



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STORM SEWER PLAN - VIEW B

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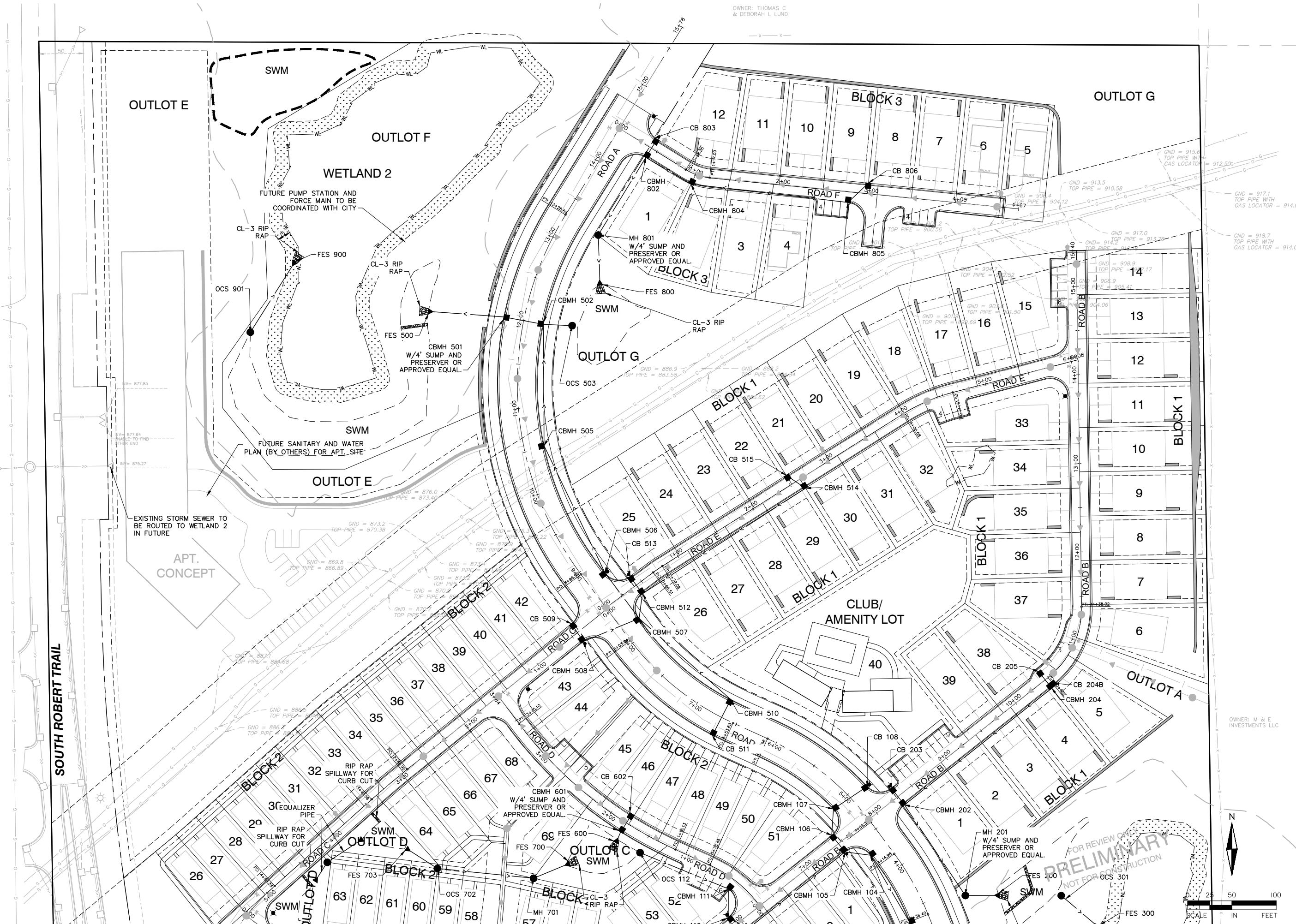
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DRAWN: TAS

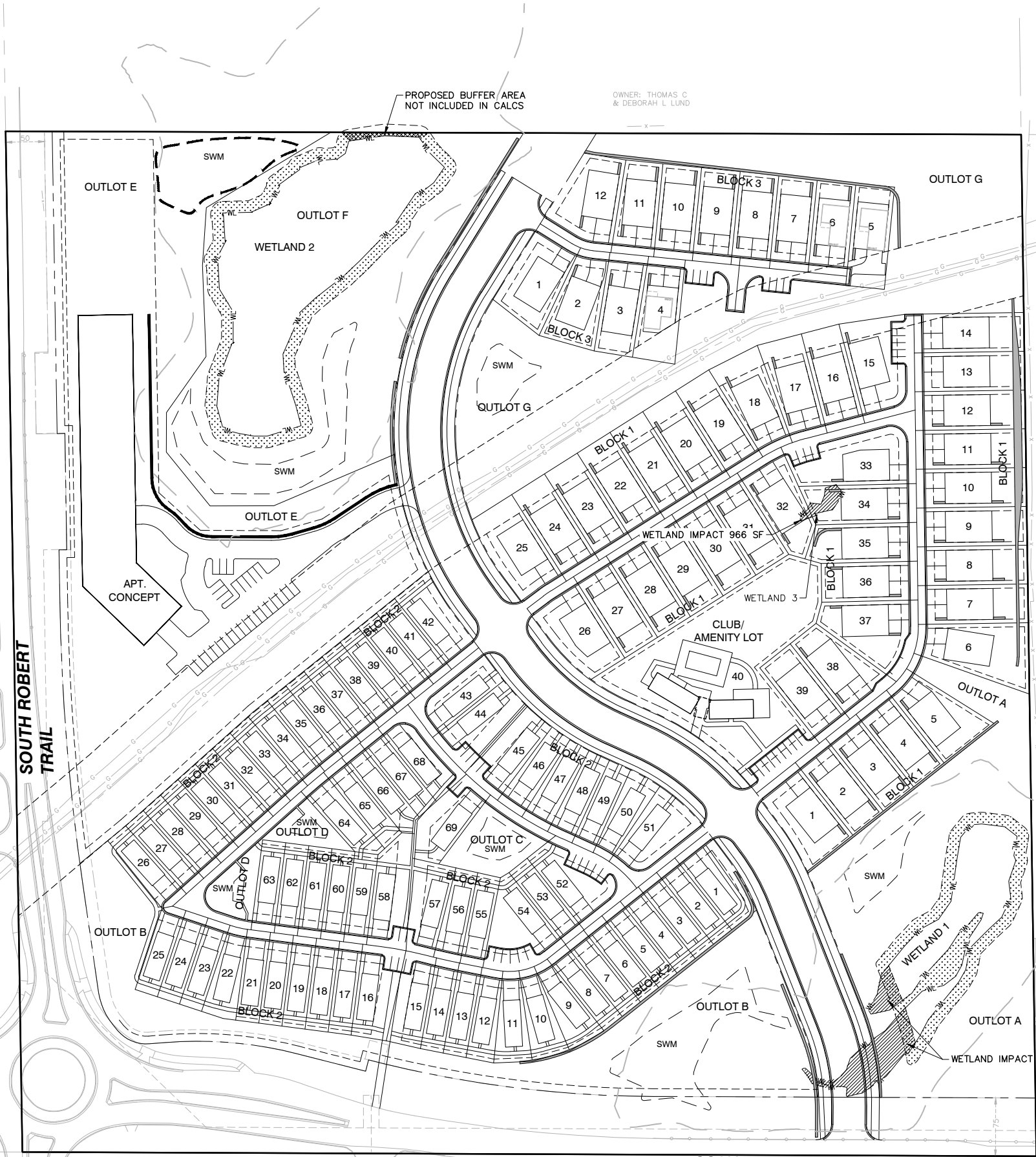
PROJECT NO: 220-0092

24

SHEET 24 OF 34



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WETLAND SUMMARY

WETLAND	AREA*	MANAGE_CLASS
WETLAND 1	22,941.19 SF (0.527 AC)	4
WETLAND 2	51,152.34 SF (1.174 AC)	4
WETLAND 3	965.74 SF (0.022 AC)	4
TOTAL AREA		75,059.27 SF (1.723 AC)

* AREA WITHIN WETLAND LIMITS AND INSIDE PROPERTY BOUNDARIES.

WETLAND IMPACT CALCULATION

WETLAND	IMPACT AREA
WETLAND 1	6,710 SF
WETLAND 3	966 SF

WETLAND BUFFER CALCULATION

WETLAND BUFFERS AND SETBACK REQUIREMENTS:

THE BUFFER REQUIREMENTS ARE AS FOLLOWS:

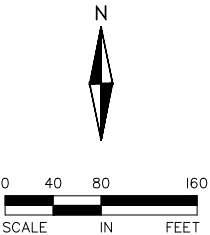
REQUIREMENT	MANAGE1 CLASS	MANAGE 2 CLASS	MANAGE 3 CLASS	MANAGE 4 CLASS
PERMANENT BUFFER	60'	30'	20'	15'
STRUCTURAL SETBACK FROM EDGE OF BUFFER	10'	15'	10'	10'

WETLAND	FRONTAGE*	PROVIDED BUFFER AREA*	MIN. BUFFER WIDTH	PROPOSED AVG. WIDTH
1	1,027.6 LF	14,125 SF	15'	15'
2	1,116.2 LF	16,632 SF	15'	15'

LEGEND:

- LOT LINE
- PROPERTY LINE
- ROW
- WETLAND DELINIATION
- WETLAND BUFFER
- WETLAND BUFFER AREA
- WETLAND IMPACT AREA
- WETLAND BUFFER AREA (EXCLUDED FROM CALCULATION)

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WETLAND MANAGEMENT PLAN

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PROJECT NO:	220-0092

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TREE PRESERVATION NOTES:

- BEFORE ANY CONSTRUCTION OR GRADING OF DEVELOPMENT PROJECT IS TO OCCUR, A TREE PROTECTION FENCE (AT LEAST 4 FEET IN HEIGHT AND STAKED WITH POSTS NO LESS THAN EVERY 5 FEET) SHALL BE INSTALLED AROUND THE DRIP LINE OF WOODED AREAS, THE DRIP LINES OF SIGNIFICANT TREES TO BE PRESERVED. SIGNS SHALL BE PLACED ALONG THIS FENCE LINE IDENTIFYING THE AREA AS A TREE PROTECTION AREA AND PROHIBITING GRADING BEYOND THE FENCE LINE. THIS FENCE MUST REMAIN IN PLACE UNTIL ALL GRADING AND CONSTRUCTION ACTIVITY IS TERMINATED.
- NO EQUIPMENT, CONSTRUCTION MATERIALS OR SOIL MAY BE STORED WITHIN THE TREE PROTECTION LIMITS.
- NO ENCROACHMENT, LAND DISTURBANCE, GRADE CHANGE, TRENCHING, FILLING, COMPACTION OF CHANGE IN SOIL CHEMISTRY SHALL OCCUR WITHIN FENCED AREAS PROTECTING SIGNIFICANT TREES.
- CONTRACTOR TO PREVENT THE CHANGE IN SOIL CHEMISTRY DUE TO CONCRETE WASHOUT AND LEAKAGE OR SPILLAGE OF TOXIC MATERIALS, SUCH AS FUELS OR PAINTS.
- DRAINAGE PATTERNS ON THE SITE SHALL NOT CHANGE CONSIDERABLY CAUSING DRASTIC ENVIRONMENTAL CHANGES IN THE SOIL MOISTURE CONTENT WHERE TREES ARE INTENDED TO BE PRESERVED.
- DEAD, DISEASED OR DYING TREES WERE NOT INCLUDED AS PART OF THE TREE PRESERVATION DATA.
- NO SIGNIFICANT TREES SHALL BE REMOVED UNTIL THIS TREE PRESERVATION PLAN IS APPROVED BY THE CITY OF INVER GROVE HEIGHTS.

TREE PRESERVATION DATA

TREE PRESERVATION CALCULATIONS	
Total Healthy Cal. In.	9,667
Allowable Removal (40%)	3,867

Total Cal. In. Removed	6,525
Class A	2,335
Class B	3,600
Class C	590

Allowed Removal (40%)	3,867
Class C	590
Class B	3,277

Cal. In. Requiring Replacement	2,658
Class B	323
Class A	2,335

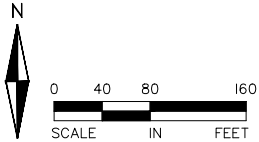
Mitigation Required	1,491
Class B	323
Class A	1,168 (2,335*.5)

NOTES:
SEE LANDSCAPE PLAN FOR LOCATION OF TREE REPLACEMENT

LEGEND

- 1776 EXISTING TREE TO REMAIN
- ✕ 1776 EXISTING TREE TO BE REMOVED
- TREE PROTECTION LIMITS

FOR REVIEW ONLY
PRELIMINARY
NOT FOR CONSTRUCTION



CANVAS AT INVER GROVE HEIGHTS
INVER GROVE HEIGHTS, MINNESOTA
PRELIMINARY PLAT AND PUD SUBMITTAL
TREE PRESERVATION PLAN

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed LANDSCAPE ARCHITECT under the laws of the State of MINNESOTA

MARK KRONBECK, PLA, ALSA

Date License No.

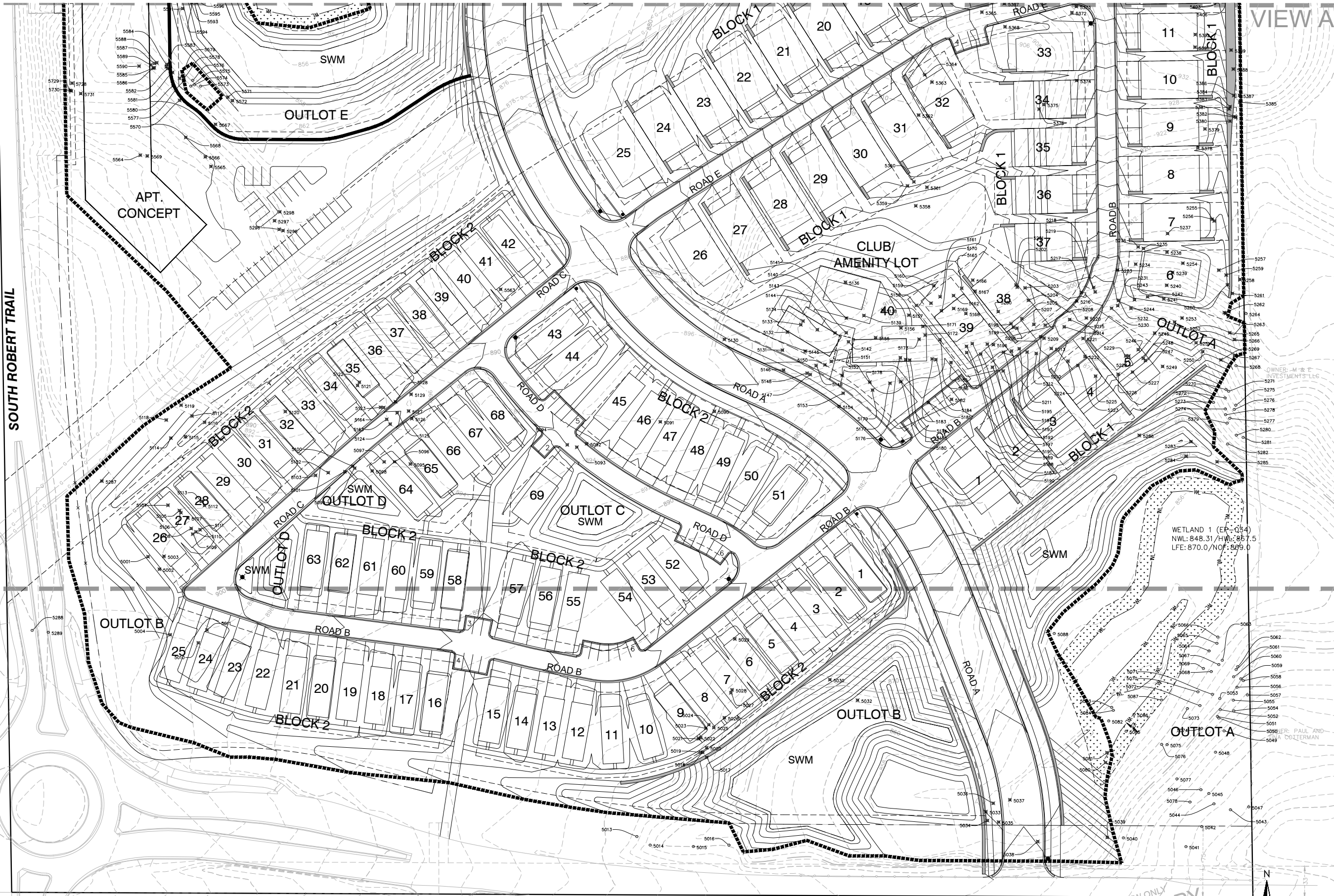
QUALITY ASSURANCE/CONTROL

BY	DATE
DATE	ISSUE
8-17-2020	CITY SUBMITTAL
9-3-2020	CITY COMMENTS UPDATES

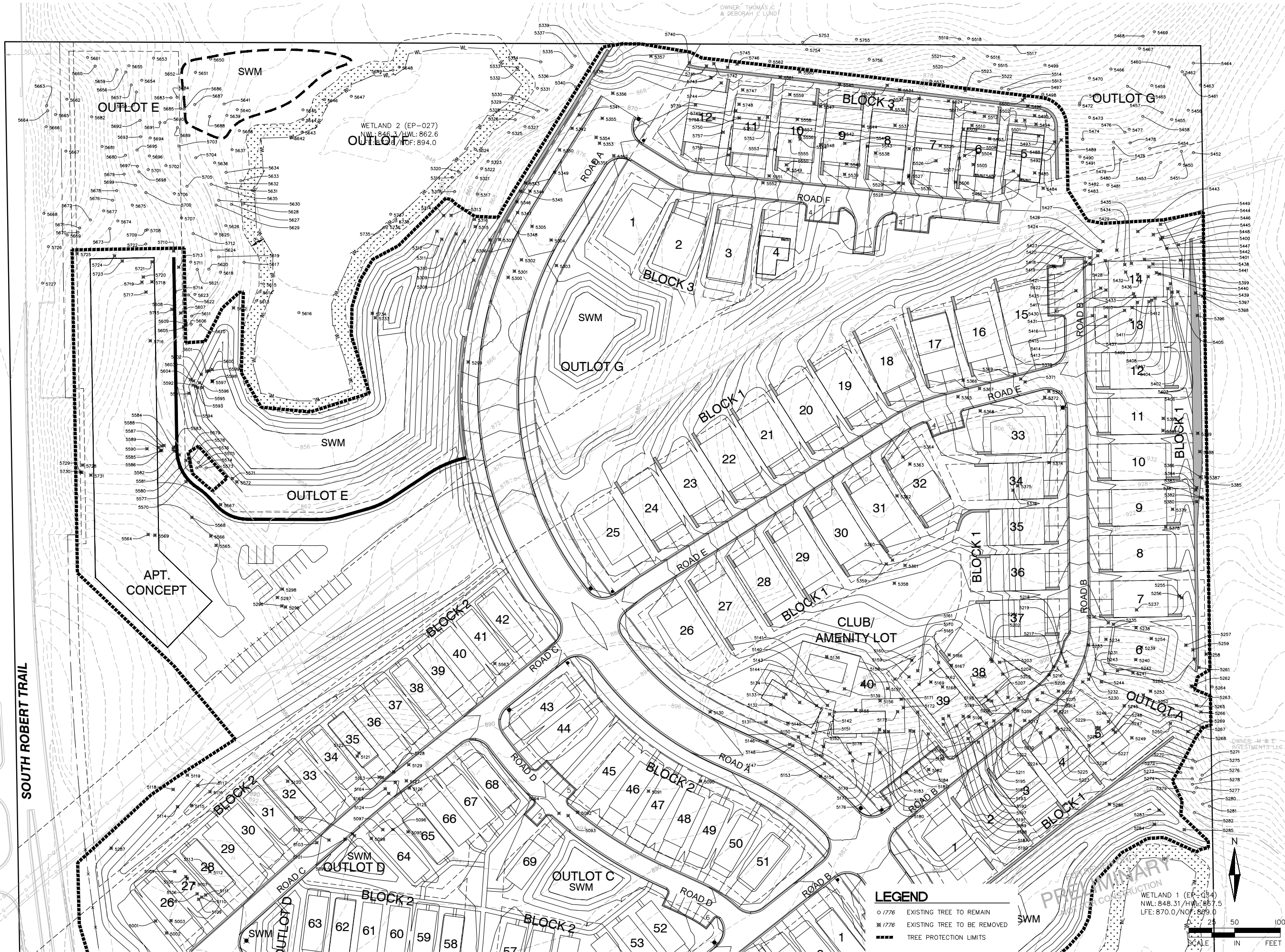
PROJECT TEAM DATA	
DESIGNED:	MK
DRAWN:	JG
PROJECT NO:	220-0092

Drawing name: C:\new_working\project\working\mregion\dmso7844\2000092tree.dwg Sep 03, 2020 -- 11:25am

SOUTH ROBERT TRAIL



Drawing name: C:\new_working\projectwise\mregion\dm\07844\2000092\tree.dwg Sep 03, 2020 -- 11:25am



ALLIANT

733 Marquette Avenue
Suite 700
Minneapolis, MN 55402
612.758.3080
www.alliant-inc.com

CANVAS AT INVER GROVE HEIGHTS

INVER GROVE HEIGHTS, MINNESOTA

PRELIMINARY PLAT AND PUD SUBMITTAL

TREE PRESERVATION PLAN - VIEW B

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed LANDSCAPE ARCHITECT under the laws of the State of MINNESOTA

MARK KRONBECK, PLA, ALSA

Date License No.

QUALITY ASSURANCE/CONTROL

BY DATE

DATE ISSUE

8-17-2020 CITY SUBMITTAL

9-3-2020 CITY COMMENTS UPDATES

PROJECT TEAM DATA

DESIGNED: MK

DRAWN: JG

PROJECT NO: 220-0092

28

SHEET 28 OF 34

Drawing name: C:\new_working\projectwise\mvr\resonid\dmso7844\200092\treedwg Sep 03, 2020 -- 11:25am

TAG	CAL. IN.	SPECIES	MULTI STEM	STATUS	CLASS
5001	16	Eastern Red Cedar		REMOVE	CLASS B
5002	14	Siberian Elm		REMOVE	CLASS A
5003	16	Siberian Elm		REMOVE	CLASS A
5004	19	Aspen		REMOVE	CLASS A
5010	14	Colorado Spruce		REMOVE	CLASS B
5011	19	Colorado Spruce		REMOVE	CLASS B
5013	13	American Elm			OFFSITE
5014	16	Black Cherry			OFFSITE
5015	10	Aspen			OFFSITE
5016	8	American Elm			OFFSITE
5017	9	Aspen		REMOVE	CLASS A
5018	16	Aspen		REMOVE	CLASS A
5019	11	Aspen		REMOVE	CLASS A
5020	8	Aspen		REMOVE	CLASS A
5021	10	Aspen		REMOVE	CLASS A
5022	12	Aspen		REMOVE	CLASS A
5023	9	Aspen		REMOVE	CLASS A
5024	12	Aspen		REMOVE	CLASS A
5025	9	Aspen		REMOVE	CLASS A
5026	9	Aspen		REMOVE	CLASS A
5027	12	Aspen	X	REMOVE	CLASS A
5028	14	Aspen		REMOVE	CLASS A
5029	22	Aspen		REMOVE	CLASS A
5030	11	Black Cherry	X	REMOVE	CLASS B
5032	18	Aspen		REMOVE	CLASS A
5033	10	Aspen		REMOVE	CLASS A
5034	9	Aspen		REMOVE	CLASS A
5035	16	Aspen		REMOVE	CLASS A
5036	14	Aspen		REMOVE	CLASS A
5037	9	Aspen		REMOVE	CLASS A
5038	8	Siberian Elm		REMOVE	CLASS A
5039	10	Red Oak		REMOVE	CLASS B
5040	9	Aspen			OFFSITE
5041	8	American Elm			OFFSITE
5042	14	Red Oak			OFFSITE
5043	10	American Elm		SAVE	CLASS A
5044	10	American Elm		SAVE	CLASS A
5045	18	Black Cherry		SAVE	CLASS B
5046	16	White Oak		SAVE	CLASS B
5047	15	Green and White Ash		SAVE	CLASS B
5048	26	Black Cherry		SAVE	CLASS B
5049	24	Aspen		SAVE	CLASS A
5050	9	Aspen		SAVE	CLASS A
5051	9	Black Cherry		SAVE	CLASS B
5052	8	Aspen		SAVE	CLASS A
5053	14	Aspen pd			DEAD/DYING
5054	9	Aspen		SAVE	CLASS A
5055	11	Red Oak		SAVE	CLASS B
5056	9	Aspen		SAVE	CLASS A
5057	9	Aspen		SAVE	CLASS A
5058	8	Aspen		SAVE	CLASS A
5059	15	American Elm		SAVE	CLASS A
5060	8	Aspen		SAVE	CLASS A
5061	9	Aspen		SAVE	CLASS A
5062	10	Aspen		SAVE	CLASS A
5063	9	Aspen		SAVE	CLASS A
5064	8	Bur Oak		SAVE	CLASS B
5065	8	Bur Oak		SAVE	CLASS B
5066	8	American Elm		SAVE	CLASS A
5067	8	Aspen		SAVE	CLASS A
5068	9	Aspen		SAVE	CLASS A
5069	8	Aspen		SAVE	CLASS A
5070	8	Aspen		SAVE	CLASS A
5071	8	Aspen		SAVE	CLASS A
5072	24	Aspen		SAVE	CLASS A
5073	12	Black Cherry		SAVE	CLASS B
5074	13	American Elm		SAVE	CLASS A
5075	8	Bur Oak		SAVE	CLASS B
5076	8	Bur Oak		SAVE	CLASS B
5077	16	Red Oak		SAVE	CLASS B
5078	14	Red Oak		SAVE	CLASS B
5080	8	American Elm		REMOVE	CLASS A
5081	8	Aspen		REMOVE	CLASS A
5082	13	Aspen		SAVE	CLASS A
5083	12	Aspen		SAVE	CLASS A
5084	9	American Elm		SAVE	CLASS A
5085	9	Aspen		SAVE	CLASS A
5086	8	Aspen		SAVE	CLASS A
5087	14	Bur Oak		SAVE	CLASS B
5088	22	Black Cherry		SAVE	CLASS B
5090	16	Aspen		REMOVE	CLASS A
5091	17	Siberian Elm		REMOVE	CLASS A
5092	21	Aspen		REMOVE	CLASS A
5093	15	Aspen		REMOVE	CLASS A
5094	12	Aspen		REMOVE	CLASS A
5095	17	Aspen		REMOVE	CLASS A
5096	9	Aspen		REMOVE	CLASS A
5097	12	Aspen		REMOVE	CLASS A
5098	11	American Elm		REMOVE	CLASS A
5099	16	Aspen		REMOVE	CLASS A
5100	14	Aspen		REMOVE	CLASS A
5101	14	Aspen		REMOVE	CLASS A
5102	15	Aspen		REMOVE	CLASS A
5103	18	Aspen		REMOVE	CLASS A
5104	9	Black Locust		REMOVE	CLASS B

TAG	CAL. IN.	SPECIES	MULTI STEM	STATUS	CLASS
5105	9	Black Locust		REMOVE	CLASS B
5106	8	Black Locust		REMOVE	CLASS B
5107	8	Black Locust		REMOVE	CLASS B
5108	9	Black Locust		REMOVE	CLASS B
5109	9	Black Locust		REMOVE	CLASS B
5110	11	Black Locust	X	REMOVE	CLASS B
5111	11	Black Locust		REMOVE	CLASS B
5112	11	Black Locust		REMOVE	CLASS B
5113	13	Black Locust		REMOVE	CLASS B
5114	12	Aspen		REMOVE	CLASS A
5115	12	Aspen		REMOVE	CLASS A
5116	18	Aspen		REMOVE	CLASS A
5117	10	Aspen		REMOVE	CLASS A
5118	15	American Elm		REMOVE	CLASS A
5119	15	Aspen		REMOVE	CLASS A
5120	16	Green and White Ash		REMOVE	CLASS B
5121	18	Aspen		REMOVE	CLASS A
5122	10	Bur Oak	X	REMOVE	CLASS B
5123	8	Aspen		REMOVE	CLASS A
5124	8	Aspen		REMOVE	CLASS A
5125	8	Aspen		REMOVE	CLASS A
5126	8	Aspen		REMOVE	CLASS A
5127	9	Aspen		REMOVE	CLASS A
5128	9	Aspen		REMOVE	CLASS A
5129	8	Aspen		REMOVE	CLASS A
5130	19	Aspen		REMOVE	CLASS A
5131	11	Red Oak		REMOVE	CLASS B
5132	10	Red Oak		REMOVE	CLASS B
5133	9	Red Oak		REMOVE	CLASS B
5134	34	Red Oak		REMOVE	CLASS C
5136	14	Red Oak		REMOVE	CLASS B
5137	8	Red Oak	X	REMOVE	CLASS B
5138	22	White Oak		REMOVE	CLASS B
5139	9	Red Oak		REMOVE	CLASS B
5140	13	Red Oak		REMOVE	CLASS B
5141	22	White Oak		REMOVE	CLASS B
5142	18	Red Oak		REMOVE	CLASS B
5143	25	Red Oak		REMOVE	CLASS B
5144	8	Red Oak		REMOVE	CLASS B
5145	11	Red Oak		REMOVE	CLASS B
5146	10	Red Oak		REMOVE	CLASS B
5147	15	Red Oak		REMOVE	CLASS B
5148	10	White Oak		REMOVE	CLASS B
5149	8	Red Oak		REMOVE	CLASS B
5150	10	Red Oak		REMOVE	CLASS B
5151	18	White Oak		REMOVE	CLASS B
5152	11	White Oak		REMOVE	CLASS B
5153	15	Red Oak		REMOVE	CLASS B
5154	19	Red Oak		REMOVE	CLASS B
5155	26	Red Oak		REMOVE	CLASS B
5156	14	White Oak bd		REMOVE	DEAD/DYING
5157	16	White Oak pd		REMOVE	DEAD/DYING
5158	33	White Oak		REMOVE	CLASS C
5159	17	White Oak		REMOVE	CLASS B
5160	21	Red Oak		REMOVE	CLASS B
5161	12	Red Oak		REMOVE	CLASS B
5162	19	Red Oak	X	REMOVE	CLASS B
5163	8	Aspen		REMOVE	CLASS A
5164	8	Aspen		REMOVE	CLASS A
5165	19	Red Oak		REMOVE	CLASS B
5166	26	White Oak		REMOVE	CLASS B
5167	12	White Oak	X	REMOVE	CLASS B
5168	15	Red Oak		REMOVE	CLASS B
5169	11	White Oak pd		REMOVE	DEAD/DYING
5170	13	White Oak		REMOVE	CLASS B
5171	12	White Oak		REMOVE	CLASS B
5172	16	Red Oak		REMOVE	CLASS B
5173	20	Red Oak		REMOVE	CLASS B
5174	9	White Oak	X	REMOVE	CLASS B
5175	16	White Oak		REMOVE	CLASS B
5176	9	Red Oak		REMOVE	CLASS B
5177	13	Red Oak		REMOVE	CLASS B
5178	10	White Oak		REMOVE	CLASS B
5179	10	Red Oak		REMOVE	CLASS B
5180	10	Red Oak		REMOVE	CLASS B
5181	11	Red Oak		REMOVE	CLASS B
5182	14	American Elm		REMOVE	CLASS A
5183	18	White Oak		REMOVE	CLASS B
5184	12	White Oak		REMOVE	CLASS B
5185	24	Red Oak	X	REMOVE	CLASS B
5186	11	Red Oak		REMOVE	CLASS B
5187	8	White Oak		REMOVE	CLASS B
5188	18	Red Oak		REMOVE	CLASS B
5189	13	White Oak		REMOVE	CLASS B
5190	12	White Oak		REMOVE	CLASS B
5191	9	Red Oak	X	REMOVE	CLASS B
5192	18	Red Oak		REMOVE	CLASS B
5193	20	Red Oak		REMOVE	CLASS B
5194	32	Red Oak		REMOVE	CLASS C
5195	11	White Oak		REMOVE	CLASS B
5196	8	White Oak bd		REMOVE	DEAD/DYING
5197	9	White Oak		REMOVE	CLASS B
5198	12	Red Oak		REMOVE	CLASS B
5199	15	Red Oak		REMOVE	CLASS B
5200	17	Red Oak	X	REMOVE	CLASS B

TAG	CAL. IN.	SPECIES	MULTI STEM	STATUS	CLASS
5201	16	Red Oak		REMOVE	CLASS B
5202	15	Red Oak		REMOVE	CLASS B
5203	14	Red Oak		REMOVE	CLASS B
5204	13	Red Oak		REMOVE	CLASS B
5205	9	American Elm		REMOVE	CLASS A
5206	22	Red Oak		REMOVE	CLASS B
5207	13	Red Oak		REMOVE	CLASS B
5208	16	White Oak		REMOVE	CLASS B
5209	8	American Elm		REMOVE	CLASS A
5210	17	White Oak		REMOVE	CLASS B
5211	8	Black Cherry		REMOVE	CLASS B
5212	11	Red Oak		REMOVE	CLASS B
5213	15	Red Oak		REMOVE	CLASS B
5214	15	White Oak		REMOVE	CLASS B
5215	16	White Oak		REMOVE	CLASS B
5216	16	White Oak		REMOVE	CLASS B
5217	12	American Elm		REMOVE	CLASS A
5218	32	Red Oak	X	REMOVE	CLASS C
5219	9	American Elm		REMOVE	CLASS A
5220	22	White Oak		REMOVE	CLASS B
5221	9	Black Cherry		REMOVE	CLASS B
5222	9	Red Oak		REMOVE	CLASS B
5223	11	Aspen		REMOVE	CLASS A
5224	12	Aspen		REMOVE	CLASS A
5225	9	Aspen		REMOVE	CLASS A
5226	10	Aspen		REMOVE	CLASS A
5227	8	Aspen		REMOVE	CLASS A
5228	12	Aspen		REMOVE	CLASS A
5229	9	Aspen		REMOVE	CLASS A
5230	20	White Oak		REMOVE	CLASS B
5231	8	White Oak	X	REMOVE	CLASS B
5232	15	Red Oak		REMOVE	CLASS B
5233	24	Red Oak		REMOVE	CLASS B
5234	13	American Elm		REMOVE	CLASS A
5235	14	American Elm		REMOVE	CLASS A
5236	11	American Elm		REMOVE	CLASS A
5237	13	American Elm pd		REMOVE	DEAD/DYING
5238	13	American Elm		REMOVE	CLASS A
5239	9	American Elm		REMOVE	CLASS A
5240	18	American Elm		REMOVE	CLASS A
5241	11	White Oak		REMOVE	CLASS B
5242	9	American Elm		REMOVE	CLASS A
5243	12	White Oak		REMOVE	CLASS B
5244	26	Red Oak		REMOVE	CLASS B
5245	9	Black Cherry		REMOVE	CLASS B
5246	11	Red Oak		REMOVE	CLASS B
5247	9	Aspen		REMOVE	CLASS A
5248	9	Aspen		REMOVE	CLASS A
5249	9	Red Oak		REMOVE	CLASS B
5250	20	Red Oak		REMOVE	CLASS B
5251	14	White Oak		REMOVE	CLASS B
5252	11	American Elm		REMOVE	CLASS A
5253	33	White Oak		REMOVE	CLASS C
5254	28	Red Oak		REMOVE	CLASS C
5255	10	American Elm		REMOVE	CLASS A
5256	14	American Elm		REMOVE	CLASS A
5257	24	American Elm pd		REMOVE	DEAD/DYING
5258	18	Red Oak		REMOVE	CLASS B
5259	16	Red Oak pd		REMOVE	DEAD/DYING
5260	10	White Oak		REMOVE	CLASS B
5261	22	White Oak		REMOVE	CLASS B
5262	12	White Oak		REMOVE	CLASS B
5263	12	White Oak		REMOVE	CLASS B
5264	19	Red Oak			OFFSITE
5265	22	White Oak		REMOVE	CLASS B
5266	13	Red Oak		REMOVE	CLASS B
5267	16	Red Oak		REMOVE	CLASS B
5268	18	White Oak		SAVE	CLASS B
5269	19	White Oak		REMOVE	CLASS B
5270	13	White Oak		SAVE	CLASS B
5271	19	White Oak		SAVE	CLASS B
5272	10	White Oak		SAVE	CLASS B
5273	14	White Oak		SAVE	CLASS B
5274	15	White Oak		SAVE	CLASS B
5275	15	White Oak		SAVE	CLASS B
5276	16	White Oak		SAVE	CLASS B
5277	9	White Oak		SAVE	CLASS B
5278	14	White Oak		SAVE	CLASS B
5279	14	White Oak		SAVE	CLASS B
5280	8	American Elm		SAVE	CLASS A
5281	28	White Oak		SAVE	CLASS C
5282	9	White Oak		SAVE	CLASS B
5283	10	Green and White Ash		REMOVE	CLASS B
5284	17	Red Oak		REMOVE	CLASS B
5285	10	White Oak		REMOVE	CLASS B
5286	10	Aspen		REMOVE	CLASS A
5287	14	Siberian Elm		REMOVE	CLASS A
5288	15	Aspen			OFFSITE
5289	13	Aspen			OFFSITE
5295	18	Green and White Ash		REMOVE	CLASS B
5296	9	Green and White Ash		REMOVE	CLASS B
5297	10	Green and White Ash		REMOVE	CLASS B
5298	15	Green and White Ash		REMOVE	CLASS B
5299	13	Green and White Ash		REMOVE	CLASS B
5300	23	White Oak		REMOVE	CLASS B

Drawing name: C:\new_working\projectwise\mireionid\ms07844\200092tree.dwg Sep 03, 2020 -- 11:25am

TAG	CAL. IN.	SPECIES	MULTI STEM	STATUS	CLASS
5497	10	Basswood		REMOVE	CLASS B
5498	10	Basswood		SAVE	CLASS B
5499	24	American Elm		SAVE	CLASS A
5500	10	Basswood		REMOVE	CLASS B
5501	24	Red Oak		REMOVE	CLASS B
5502	12	Red Oak		REMOVE	CLASS B
5503	11	Red Oak		REMOVE	CLASS B
5504	14	Red Oak		REMOVE	CLASS B
5505	14	Red Oak		REMOVE	CLASS B
5506	17	Red Oak		REMOVE	CLASS B
5507	8	Red Oak		REMOVE	CLASS B
5508	9	Red Oak		REMOVE	CLASS B
5509	23	Red Oak		REMOVE	CLASS B
5510	8	American Elm		REMOVE	CLASS A
5511	10	Basswood		REMOVE	CLASS B
5512	38	Red Oak		REMOVE	CLASS C
5513	25	Red Oak		SAVE	CLASS B
5514	20	White Oak		SAVE	CLASS B
5515	8	Basswood		SAVE	CLASS B
5516	24	White Oak		SAVE	CLASS B
5517	11	Aspen		SAVE	CLASS A
5518	20	White Oak			OFFSITE
5519	32	White Oak			OFFSITE
5520	28	White Oak		SAVE	CLASS C
5521	8	Basswood	X	SAVE	CLASS B
5522	10	Red Oak		SAVE	CLASS B
5523	9	Red Oak		REMOVE	CLASS B
5524	24	Red Oak		REMOVE	CLASS B
5525	20	Red Oak		REMOVE	CLASS C
5526	28	Red Oak	X	REMOVE	CLASS C
5527	18	Red Oak		REMOVE	CLASS B
5528	13	Red Oak		REMOVE	CLASS B
5529	9	Red Oak		REMOVE	CLASS B
5530	8	Red Oak		REMOVE	CLASS B
5531	28	Red Oak		REMOVE	CLASS C
5532	17	Red Oak	X	REMOVE	CLASS B
5533	8	American Elm		SAVE	CLASS A
5534	24	Red Oak		REMOVE	CLASS B
5535	18	Red Oak		REMOVE	CLASS B
5536	20	Red Oak		REMOVE	CLASS B
5537	9	Green and White Ash		REMOVE	CLASS B
5538	11	Red Oak		REMOVE	CLASS B
5539	9	Red Oak		REMOVE	CLASS B
5540	12	Red Oak		REMOVE	CLASS B
5541	25	Red Oak	X	REMOVE	CLASS B
5542	16	Red Oak		REMOVE	CLASS B
5543	16	Red Oak		REMOVE	CLASS B
5544	23	Red Oak		REMOVE	CLASS B
5545	20	White Oak bd		REMOVE	DEAD/DYING
5546	32	Red Oak		REMOVE	CLASS C
5547	22	Red Oak		REMOVE	CLASS B
5548	39	Red Oak pd		REMOVE	DEAD/DYING
5549	12	Red Oak		REMOVE	CLASS B
5550	12	Red Oak		REMOVE	CLASS B
5551	14	Red Oak		REMOVE	CLASS B
5552	23	Red Oak		REMOVE	CLASS B
5553	12	Red Oak		REMOVE	CLASS B
5554	11	Red Oak		REMOVE	CLASS B
5555	12	Red Oak		REMOVE	CLASS B
5556	8	Red Oak		REMOVE	CLASS B
5557	10	Red Oak		REMOVE	CLASS B
5558	8	Red Oak		REMOVE	CLASS B
5559	8	Red Oak		REMOVE	CLASS B
5560	10	Paper		REMOVE	CLASS B
5561	20	White Oak		REMOVE	CLASS B
5562	12	Paper		SAVE	CLASS B
5563	38	White Oak		REMOVE	CLASS C
5564	24	American Elm		REMOVE	CLASS A
5565	13	Red Oak		REMOVE	CLASS B
5566	11	Green and White Ash		REMOVE	CLASS B
5567	11	Green and White Ash		REMOVE	CLASS B
5568	11	American Elm bd		REMOVE	DEAD/DYING
5569	23	Aspen		REMOVE	CLASS A
5570	13	American Elm		REMOVE	CLASS A
5571	20	Aspen		REMOVE	CLASS A
5572	39	Aspen		REMOVE	CLASS A
5573	25	Aspen		REMOVE	CLASS A
5574	20	Aspen		REMOVE	CLASS A
5575	16	Aspen		REMOVE	CLASS A
5576	13	Aspen		REMOVE	CLASS A
5577	13	Aspen		REMOVE	CLASS A
5578	13	Aspen		REMOVE	CLASS A
5579	11	Aspen		REMOVE	CLASS A
5580	13	Aspen	X	REMOVE	CLASS A
5581	11	Aspen		REMOVE	CLASS A
5582	9	Aspen		REMOVE	CLASS A
5583	8	Aspen		REMOVE	CLASS A
5584	9	Aspen		REMOVE	CLASS A
5585	12	Aspen		REMOVE	CLASS A
5586	11	Aspen		REMOVE	CLASS A
5587	11	Aspen		REMOVE	CLASS A
5588	9	Aspen		REMOVE	CLASS A
5589	17	Aspen	X	REMOVE	CLASS A
5590	21	Aspen	X	REMOVE	CLASS A
5591	13	Aspen		REMOVE	CLASS A

5592	11	Aspen		REMOVE	CLASS A
5593	9	Aspen		REMOVE	CLASS A
5594	23	Aspen	X	REMOVE	CLASS A
5595	9	American Elm		REMOVE	CLASS A
5596	20	Aspen	X	REMOVE	CLASS A
5597	17	Aspen		REMOVE	CLASS A
5598	12	Aspen		REMOVE	CLASS A
5599	15	Aspen		REMOVE	CLASS A
5600	9	Aspen		REMOVE	CLASS A
5601	10	Aspen		REMOVE	CLASS A
5602	11	Aspen		REMOVE	CLASS A
5603	8	Aspen		REMOVE	CLASS A
5604	19	Aspen		REMOVE	CLASS A
5605	8	Red Oak		REMOVE	CLASS B
5606	11	Red Oak		SAVE	CLASS B
5607	11	Red Oak		REMOVE	CLASS B
5608	8	Red Oak		REMOVE	CLASS B
5609	19	Aspen		REMOVE	CLASS A
5610	10	Red Oak		SAVE	CLASS B
5611	14	Aspen		SAVE	CLASS A
5612	18	Red Oak		REMOVE	CLASS B
5613	10	Aspen		SAVE	CLASS A
5614	9	Aspen		SAVE	CLASS A
5615	10	Aspen		SAVE	CLASS A
5616	43	Black Willow		SAVE	CLASS A
5617	10	Black Cherry		SAVE	CLASS B
5618	24	White Oak		SAVE	CLASS B
5619	11	White Oak		SAVE	CLASS B
5620	18	White Oak		SAVE	CLASS B
5621	19	White Oak		SAVE	CLASS B
5622	12	Red Oak		SAVE	CLASS B
5623	10	Red Oak		SAVE	CLASS B
5624	14	White Oak		SAVE	CLASS B
5625	18	White Oak		SAVE	CLASS B
5626	19	White Oak		SAVE	CLASS B
5627	26	White Oak		SAVE	CLASS B
5628	10	American Elm		SAVE	CLASS A
5629	9	American Elm		SAVE	CLASS A
5630	18	White Oak		SAVE	CLASS B
5631	16	White Oak		SAVE	CLASS B
5632	22	White Oak		SAVE	CLASS B
5633	19	White Oak		SAVE	CLASS B
5634	32	White Oak		SAVE	CLASS C
5635	14	White Oak		SAVE	CLASS B
5636	17	White Oak		SAVE	CLASS B
5637	10	American Elm		SAVE	CLASS A
5638	14	Red Oak		SAVE	CLASS B
5639	16	Green and White Ash		SAVE	CLASS B
5640	11	American Elm		SAVE	CLASS A
5641	12	Green and White Ash		SAVE	CLASS B
5642	23	Black Willow	X	SAVE	CLASS A
5643	14	Black Willow		SAVE	CLASS A
5644	10	Green and White Ash		SAVE	CLASS B
5645	13	Green and White Ash		SAVE	CLASS B
5646	18	Black Willow	X	SAVE	CLASS A
5647	16	Black Willow		SAVE	CLASS A
5648	18	Black Willow	X	SAVE	CLASS A
5649	13	Black Willow	X	SAVE	CLASS A
5650	18	Red Oak		SAVE	CLASS B
5651	13	Green and White Ash		SAVE	CLASS B
5652	19	Bitternut Hickory		SAVE	CLASS B
5653	8	Red Oak		SAVE	CLASS B
5654	9	Black Cherry		SAVE	CLASS B
5655	22	Red Oak		SAVE	CLASS B
5656	10	Green and White Ash		SAVE	CLASS B
5657	12	Green and White Ash		SAVE	CLASS B
5658	9	Green and White Ash		SAVE	CLASS B
5659	8	Green and White Ash		SAVE	CLASS B
5660	9	Red Oak		SAVE	CLASS B
5661	8	Red Oak		SAVE	CLASS B
5662	8	Red Oak		SAVE	CLASS B
5663	13	Aspen	X		OFFSITE
5664	19	Aspen			OFFSITE
5665	10	Red Oak			OFFSITE
5666	9	Bur Oak			OFFSITE
5667	8	Aspen		SAVE	CLASS A
5668	14	Red Oak			OFFSITE
5669	14	Siberian Elm bd			DEAD/DYING
5670	11	Red Oak		SAVE	CLASS B
5671	10	Aspen		SAVE	CLASS A
5672	11	Aspen		SAVE	CLASS A
5673	11	Aspen		SAVE	CLASS A
5674	15	White Oak		SAVE	CLASS B
5675	12	Aspen		SAVE	CLASS A
5676	11	Aspen		SAVE	CLASS A
5677	12	Aspen		SAVE	CLASS A
5678	10	Aspen		SAVE	CLASS A
5679	12	Aspen		SAVE	CLASS A
5680	10	Black Cherry		SAVE	CLASS B
5681	20	Red Oak		SAVE	CLASS B
5682	8	Aspen		SAVE	CLASS A
5683	9	Aspen		SAVE	CLASS A
5684	9	Aspen		SAVE	CLASS A
5685	9	Aspen		SAVE	CLASS A
5686	10	Aspen		SAVE	CLASS A

AG	CAL. IN.	SPECIES	MULTISTEM	STATUS	CLASS
5592	11	Aspen		REMOVE	CLASS A
5593	9	Aspen		REMOVE	CLASS A
5594	23	Aspen	X	REMOVE	CLASS A
5595	9	American Elm		REMOVE	CLASS A
5596	20	Aspen	X	REMOVE	CLASS A
5597	17	Aspen		REMOVE	CLASS A
5598	12	Aspen		REMOVE	CLASS A
5599	15	Aspen		REMOVE	CLASS A
5600	9	Aspen		REMOVE	CLASS A
5601	10	Aspen		REMOVE	CLASS A
5602	11	Aspen		REMOVE	CLASS A
5603	8	Aspen		REMOVE	CLASS A
5604	19	Aspen		REMOVE	CLASS A
5605	8	Red Oak		REMOVE	CLASS B
5606	11	Red Oak		SAVE	CLASS B
5607	11	Red Oak		REMOVE	CLASS B
5608	8	Red Oak		REMOVE	CLASS B
5609	19	Aspen		REMOVE	CLASS A
5610	10	Red Oak		SAVE	CLASS B
5611	14	Aspen		SAVE	CLASS A
5612	18	Red Oak		REMOVE	CLASS B
5613	10	Aspen		SAVE	CLASS A
5614	9	Aspen		SAVE	CLASS A
5615	10	Aspen		SAVE	CLASS A
5616	43	Black Willow		SAVE	CLASS A
5617	10	Black Cherry		SAVE	CLASS B
5618	24	White Oak		SAVE	CLASS B
5619	11	White Oak		SAVE	CLASS B
5620	18	White Oak		SAVE	CLASS B
5621	19	White Oak		SAVE	CLASS B
5622	12	Red Oak		SAVE	CLASS B
5623	10	Red Oak		SAVE	CLASS B
5624	14	White Oak		SAVE	CLASS B
5625	18	White Oak		SAVE	CLASS B
5626	19	White Oak		SAVE	CLASS B
5627	26	White Oak		SAVE	CLASS B
5628	10	American Elm		SAVE	CLASS A
5629	9	American Elm		SAVE	CLASS A
5630	18	White Oak		SAVE	CLASS B
5631	16	White Oak		SAVE	CLASS B
5632	22	White Oak		SAVE	CLASS B
5633	19	White Oak		SAVE	CLASS B
5634	32	White Oak		SAVE	CLASS C
5635	14	White Oak		SAVE	CLASS B
5636	17	White Oak		SAVE	CLASS B
5637	10	American Elm		SAVE	CLASS A
5638	14	Red Oak		SAVE	CLASS B
5639	16	Green and White Ash		SAVE	CLASS B
5640	11	American Elm		SAVE	CLASS A
5641	12	Green and White Ash		SAVE	CLASS B
5642	23	Black Willow	X	SAVE	CLASS A
5643	14	Black Willow		SAVE	CLASS A
5644	10	Green and White Ash		SAVE	CLASS B
5645	13	Green and White Ash		SAVE	CLASS B
5646	18	Black Willow	X	SAVE	CLASS A
5647	16	Black Willow		SAVE	CLASS A
5648	18	Black Willow	X	SAVE	CLASS A
5649	13	Black Willow	X	SAVE	CLASS A
5650	18	Red Oak		SAVE	CLASS B
5651	13	Green and White Ash		SAVE	CLASS B
5652	19	Bitternut Hickory		SAVE	CLASS B
5653	8	Red Oak		SAVE	CLASS B
5654	9	Black Cherry		SAVE	CLASS B
5655	22	Red Oak		SAVE	CLASS B
5656	10	Green and White Ash		SAVE	CLASS B
5657	12	Green and White Ash		SAVE	CLASS B
5658	9	Green and White Ash		SAVE	CLASS B
5659	8	Green and White Ash		SAVE	CLASS B
5660	9	Red Oak		SAVE	CLASS B
5661	8	Red Oak		SAVE	CLASS B
5662	8	Red Oak		SAVE	CLASS B
5663	13	Aspen	X		OFFSITE
5664	19	Aspen			OFFSITE
5665	10	Red Oak			OFFSITE
5666	9	Bur Oak			OFFSITE
5667	8	Aspen		SAVE	CLASS A
5668	14	Red Oak			OFFSITE
5669	14	Siberian Elm bd			DEAD/DYING
5670	11	Red Oak		SAVE	CLASS B
5671	10	Aspen		SAVE	CLASS A
5672	11	Aspen		SAVE	CLASS A
5673	11	Aspen		SAVE	CLASS A
5674	15	White Oak		SAVE	CLASS B
5675	12	Aspen		SAVE	CLASS A
5676	11	Aspen		SAVE	CLASS A
5677	12	Aspen		SAVE	CLASS A
5678	10	Aspen		SAVE	CLASS A
5679	12	Aspen		SAVE	CLASS A
5680	10	Black Cherry		SAVE	CLASS B
5681	20	Red Oak		SAVE	CLASS B
5682	8	Aspen		SAVE	CLASS A
5683	9	Aspen		SAVE	CLASS A
5684	9	Aspen		SAVE	CLASS A
5685	9	Aspen		SAVE	CLASS A
5686	10	Aspen		SAVE	CLASS A

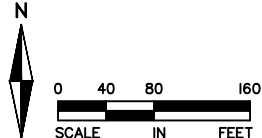
Drawing name: C:\new_working\projectwise\mvr\region1\dms07844\200092land.dwg Sep 03, 2020 -- 12:54pm

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LEGEND:

- PROPOSED DECIDUOUS OVERSTORY TREE
- PROPOSED COMPACT TREE
- PROPOSED CONIFEROUS TREE
- INFILTRATION MIX (SEE SEEDING NOTES)
- NATIVE/SIDE SLOPE MIX (SEE SEEDING NOTES)



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CANVAS AT INVER GROVE HEIGHTS

INVER GROVE HEIGHTS, MINNESOTA

PRELIMINARY PLAT AND PUD SUBMITTAL

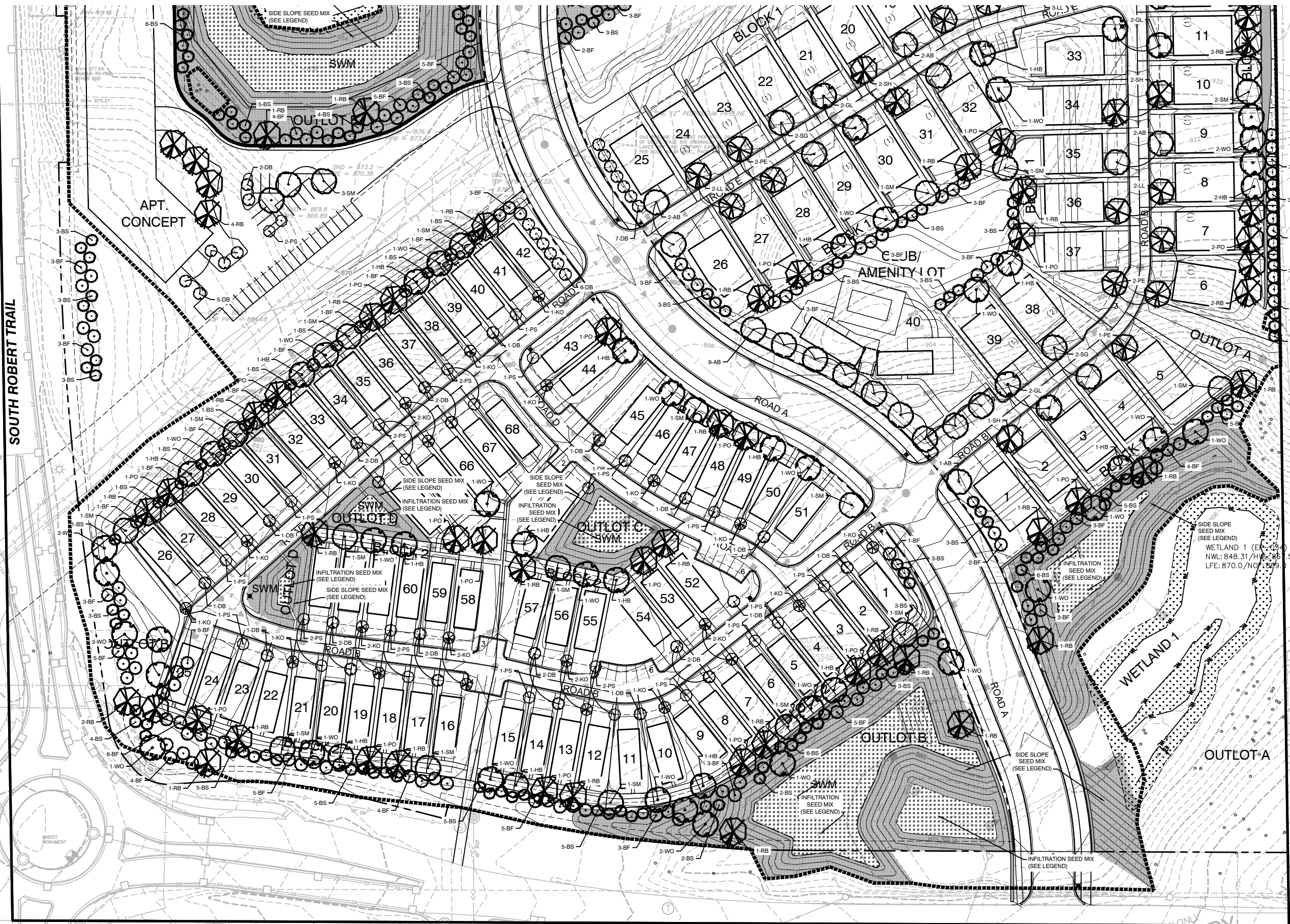
LANDSCAPE PLAN

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed LANDSCAPE ARCHITECT under the laws of the State of MINNESOTA

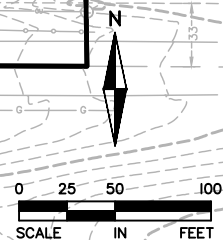
MARK RAUSCH, PE	
Date	License No.
QUALITY ASSURANCE/CONTROL	
BY	DATE
DATE	ISSUE
8-17-2020	CITY SUBMITTAL
9-3-2020	CITY COMMENTS UPDATES
PROJECT TEAM DATA	
DESIGNED:	JG
DRAWN:	CS
PROJECT NO:	220-0092

Drawing name: C:\new_working\projectwise\mregion\dmso7844\2009092land.dwg Sep 03, 2020 - 12:56pm

SOUTH ROBERT TRAIL



CSAH 26 (70TH STREET EAST)



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CANVAS AT INVER GROVE HEIGHTS

INVER GROVE HEIGHTS, MINNESOTA

PRELIMINARY PLAT AND PUD SUBMITTAL

LANDSCAPE PLAN - VIEW A

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MARK KRONBECK, PLA, ASLA

Date License No.

QUALITY ASSURANCE/CONTROL

BY DATE

DATE ISSUE

8-17-2020 CITY SUBMITTAL

9-3-2020 CITY COMMENTS UPDATES

PROJECT TEAM DATA

DESIGNED: JG

DRAWN: CS

PROJECT NO: 220-0092

32

SHEET 32 OF 34

Drawing name: C:\new_working\projectwise\mregionid\ms07844\200092land.dwg Sep 03, 2020 12:55pm



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CANVAS AT INVER GROVE HEIGHTS
INVER GROVE HEIGHTS, MINNESOTA
PRELIMINARY PLAT AND PUD SUBMITTAL
LANDSCAPE PLAN - VIEW B

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MARK KRONBECK, PLA, ASLA

Date License No.

QUALITY ASSURANCE/CONTROL

BY DATE

DATE ISSUE

8-17-2020 CITY SUBMITTAL
9-3-2020 CITY COMMENTS UPDATES

PROJECT TEAM DATA

DESIGNED: JG

DRAWN: CS

PROJECT NO: 220-0092

Drawing name: C:\new_working\projectwise\mwrregionid\dms07844\200092\land.dwg Sep 03, 2020 -- 11:32am

LANDSCAPE SCHEDULE

QTY	KEY	COMMON NAME / SCIENTIFIC NAME	SIZE	NOTES
OVERSTORY TREES				
17	AB	Autumn Blaze Red Maple / Acer x freemanii 'Jeffersred'	2.5" Cal. B&B	Straight Trunk, No V-Crotch.
43	DB	Dakota Pinnade Birch/ Betula platyphylla 'Fargo'	2.5" Cal. B&B	Straight Trunk, No V-Crotch.
9	GL	Greenspire Linden / Tiliacordata 'Greenspire'	2.5" Cal. B&B	Straight Trunk, No V-Crotch.
22	HB	Common Hackberry / Celtis occidentalis	2.5" Cal. B&B	Straight Trunk, No V-Crotch.
22	KO	Kindred Spirit Oak / Quercus x warei 'Nadler'	2.5" Cal. B&B	Straight Trunk, No V-Crotch.
8	LL	Littleleaf Linden / Tiliacordata	2.5" Cal. B&B	Straight Trunk, No V-Crotch.
10	PE	Patriot Elm / Ulmus patriot	2.5" Cal. B&B	Straight Trunk, No V-Crotch.
24	PO	Pin Oak / Quercus alba	2.5" Cal. B&B	Straight Trunk, No V-Crotch.
24	PS	Prairie Sentinel Hackberry / Celtis JFS-KSU1	2.5" Cal. B&B	Straight Trunk, No V-Crotch.
47	RB	River Birch / Betula nigra	2.5" Cal. B&B	Straight Trunk, No V-Crotch.
8	SG	Sienna Glen Maple / Acer x freemanii 'Sienna'	2.5" Cal. B&B	Straight Trunk, No V-Crotch.
8	SH	Skyline Honeylocust / Gleditsia tricanthos var. inermis 'Skycole'	2.5" Cal. B&B	Straight Trunk, No V-Crotch.
24	SM	Northwood Red maple / Acer rubrum 'Northwood'	2.5" Cal. B&B	Straight Trunk, No V-Crotch.
36	WO	Swamp White Oak / Quercus alba	2.5" Cal. B&B	Straight Trunk, No V-Crotch.
CONIFERS				
140	BF	Balsam Fir / Abies balsamea	6' ht. B&B	Full Form
155	BS	Blackhills Spruce / Picea glauca densata	6' ht. B&B	Full Form
597				

LANDSCAPE NOTES

1. CONTRACTOR IS RESPONSIBLE FOR CALLING GOPHER STATE ONE CALL AT 811 OR 651-454-0002 FOR LOCATING ALL UNDERGROUND UTILITIES AND AVOID DAMAGE TO UTILITIES DURING THE COURSE OF THE WORK.
2. INSTALL 4" MIN. TOP SOIL TO ALL SOD, SEED AND SHRUB AREAS. FINE GRADE ALL SOD AND SEED AREAS. INSTALL 12" PLANTING SOIL TO ALL PERENNIAL & ANNUAL AREAS.
3. STAKE OR MARK ALL PLANT MATERIAL LOCATIONS PRIOR TO INSTALLATION. HAVE OWNERS REPRESENTATIVE APPROVE ALL STAKING PRIOR TO INSTALLATION.
4. WHERE SHREDDED HARDWOOD MULCH IS SPECIFIED, BED MULCH WITH 4" DEPTH OF DARK BROWN SHREDDED HARDWOOD MULCH OVER FILTER FABRIC.
5. POLY-EDGER TO BE VALLEY VIEW BLACK DIAMOND OR APPROVED EQUAL.
6. INSTALL 4-6" DEPTH DARK BROWN SHREDDED HARDWOOD MULCH AROUND ROOT SAUCER OF ALL TREES ISOLATED FROM PLANT BEDS.
7. PLANTING SOIL SHALL BE 1:1:1 CONSISTING OF 33% SELECT LOAMY TOPSOIL, 33% PEAT MOSS, 33% PIT RUN SAND.
8. COMPLETELY GUARANTEE ALL WORK FOR A PERIOD OF ONE YEAR BEGINNING AT THE DATE OF ACCEPTANCE. MAKE ALL REPLACEMENTS PROMPTLY (AS PER DIRECTION OF OWNER).
9. ALL MATERIAL SHALL COMPLY WITH THE LATEST EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK, AMERICAN ASSOCIATION OF NURSERYMEN.
10. ALL TREE TRUNKS SHALL BE WRAPPED WITH BROWN CREPE TREE WRAP. APPLY WRAP IN NOVEMBER AND REMOVE IN APRIL.
11. MAINTAIN ALL PLANT MATERIALS, INCLUDING WATERING, UNTIL THE TIME OF ACCEPTANCE.
12. COORDINATE INSTALLATION WITH GENERAL CONTRACTOR.
13. STAKING AND GUYING OF TREES OPTIONAL: MAINTAIN PLUMBNESS OF TREES FOR DURATION OF WARRANTY PERIOD.
14. SWEEP AND WASH ALL PAVED SURFACES AND REMOVE ALL DEBRIS RESULTING FROM LANDSCAPE OPERATIONS.
15. SUPPLY DESIGN AND INSTALLATION OF AN IRRIGATION SYSTEM TO PROVIDE COVERAGE OF SOD AND PLANTING AREAS. SOD AND SHRUB AREAS TO BE ON SEPARATE ZONES. PROVIDE RAIN SENSOR. USE RAINBIRD OR APPROVED EQUAL COORDINATE WITH G.C.
16. GENERAL & LANDSCAPE CONTRACTOR SHALL FOLLOW THE COUNTY/STATE SOIL & EROSION CONTROL SPECIFICATIONS FOR DISTURBED AREA STABILIZATION.
17. FIRE HYDRANTS MUST HAVE 5' MINIMUM CLEARANCE. INSTALL PLANT MATERIAL SUCH THAT IT WILL PROVIDE A 5' CLEARANCE AROUND THE FIRE HYDRANT AT MATURITY.

LANDSCAPE REQUIREMENTS

1,491 CALIPER INCHES REQUIRED | 597 OVERSTORY TREES (1,491/2.5)

OVERALL LANDSCAPING REQUIRED: 597
OVERALL LANDSCAPING PROVIDED: 597

OVERSTORY TREES: 302
CONIFEROUS TREES: 295

SEEDING NOTES:

INFILTRATION AREA SEED MIX: MN STATE SEED MIX 33-262. SEEDING RATE TO BE 44 LBS/ACRE (PURE LIVE SEED).

NATIVE/SIDE SLOPE SEED MIX: MN STATE SEED MIX 35-221 (DRY PRAIRIE GENERAL) SEEDING RATE TO BE 36.5 LBS/ACRE (PURE LIVE SEED).

APPLY SEED PER THE FOLLOWING: MULCH SEEDED AREAS WITH Mn/DOT TYPE 3 (MCIA CERTIFIED WEED FREE) MULCH AT A RATE OF 1 TON PER ACRE WITHIN 48 HOURS OF SEEDING. MULCH SHOULD THEN BE DISC ANCHORED TO KEEP IT FROM BLOWING AWAY.

SEEDING SHALL BE APPLIED FROM APRIL 15 - JULY 20 OR SEPTEMBER 20 - FREEZE UP.
IF HYDROSEEDING UTILIZE APPROXIMATELY 500 GALLONS OF WATER PER ACRE. REFER TO MN/DOT SPEC 3884 FOR PROPER INSTALLATION OF HYDRO-SEED. ALL NATIVE SEEDS USED ON THIS PROJECT SHALL BE CERTIFIED TO BE OF MINNESOTA ORIGIN BY THE MINNESOTA CROP IMPROVEMENT ASSOCIATION (MCIA). SITE TO BE PREPARED BY LOOSENING TOPSOIL TO A MINIMUM DEPTH OF 3 INCHES. THE SITE TO BE HARROWED OR RAKED FOLLOWING SEEDING, AND THEN PACKED USING A CULTI-PACKER OR EQUIVALENT. SEE MNDOT SEEDING MANUAL FOR REFERENCE.

MAINTAIN SEEDED AREAS BY WATERING, REMULCHING AND REPLANTING AS NECESSARY TO ESTABLISH A UNIFORMLY DENSE STAND OF THE SPECIFIED GRASSES UNTIL ACCEPTED. ANY AREAS FAILING TO ESTABLISH A STAND SHALL BE RESEEDED, REFERTILIZED AND REMULCHED WHENEVER 70% VEGETATIVE COVER IS NOT ACHIEVED. RESEEDING SHALL CONFORM IN ALL RESPECTS TO THESE SPECIFICATIONS. THE CONTRACTOR SHALL REPAIR ANY DAMAGE TO THE WORK AREAS RESULTING FROM EROSION AND/OR EQUIPMENT. THE CONTRACTOR SHALL REPAIR DAMAGE, INCLUDING REGRADING, RESEEDING, ETC. AS NECESSARY, BEFORE SIGNIFICANT DAMAGE OCCURS.

LOW FLOW INLET TO INFILTRATION BASIN SHALL BE PLUGGED DURING CONSTRUCTION AND DURING FIRST FULL GROWING SEASON TO ESTABLISH VEGETATION.

REFER TO MN STATE SEED MIX MANUAL.



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CANVAS AT INVER GROVE HEIGHTS

INVER GROVE HEIGHTS, MINNESOTA

PRELIMINARY PLAT AND PUD SUBMITTAL

LANDSCAPE SCHEDULE AND NOTES

I hereby certify that this plan, specification, or 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

MARK KRONBECK, PLA, ASLA

Date License No.

QUALITY ASSURANCE/CONTROL

BY DATE

DATE ISSUE

8-17-2020 CITY SUBMITTAL

9-3-2020 CITY COMMENTS UPDATES

PROJECT TEAM DATA

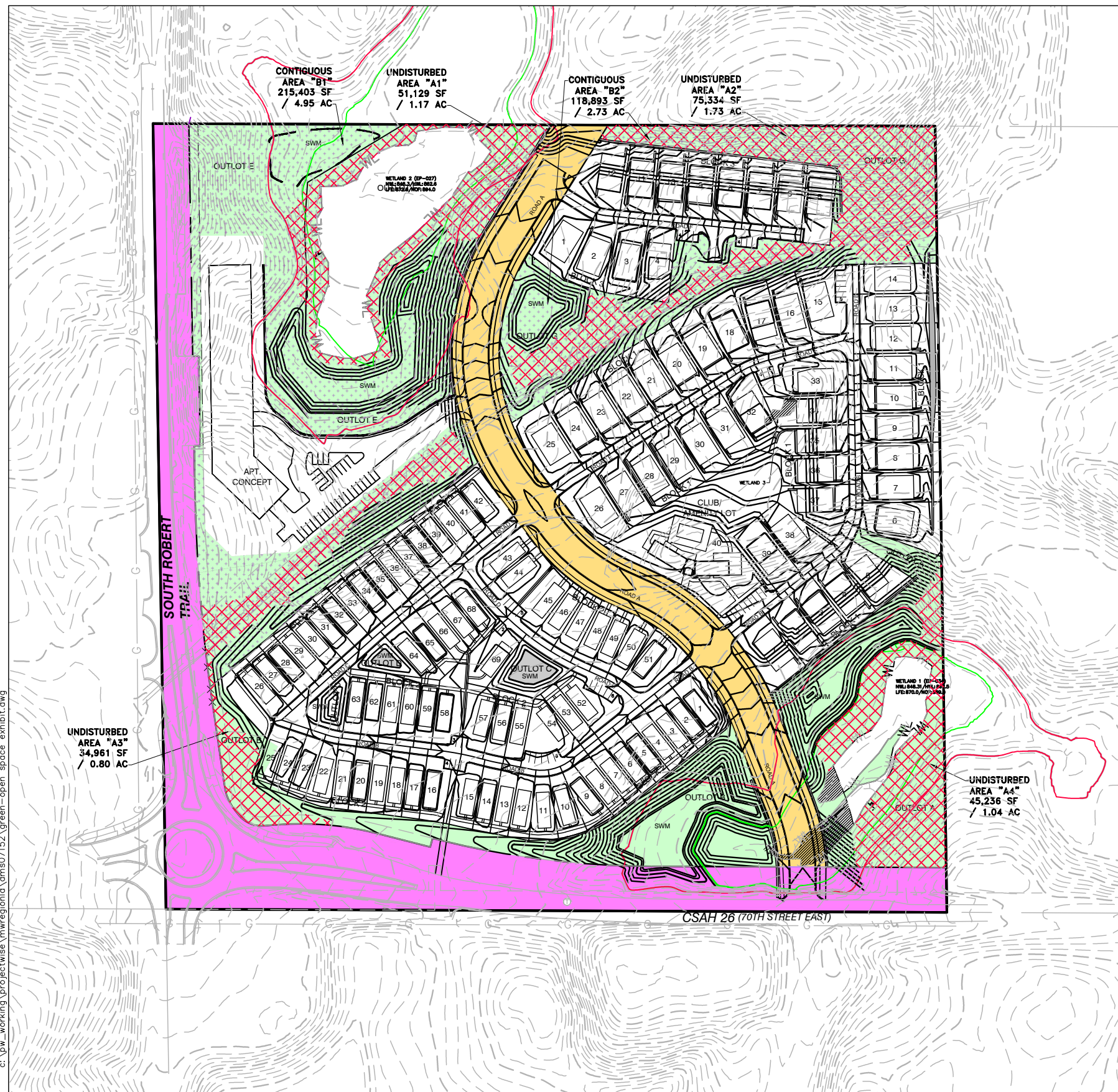
DESIGNED: MPR

DRAWN: TAS

PROJECT NO: 220-0092

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SITE PLAN DATA:

	GROSS SITE AREA
	ARTERIAL ROW AREA (ROBERT TRAIL S, & EAST 70TH ST)
	COLLECTOR ROW AREA
	WETLAND AREA
	OPEN AREA
	CONTIGUOUS OPEN AREA
	NON-DISTURBED OPEN AREA

GROSS SITE AREA	39.54 AC
ARTERIAL ROW AREA (ROBERT TRAIL S, & EAST 70TH ST)	4.91 AC
WETLAND AREA	1.70 AC
<u>NET DEVELOPABLE AREA</u>	32.93 AC
<u>REQUIRED</u>	
OPEN AREA (20%)	6.586 AC
NON-DISTURBED OPEN AREA (10%)	3.293 AC
CONTIGUOUS AREA (75%)	4.940 AC
<u>PROVIDED</u>	
OPEN AREA	11.594 AC
NON-DISTURBED OPEN AREA (A1-A4)	4.774 AC
CONTIGUOUS AREA (B1)	4.945 AC +
CONTIGUOUS AREA (B2)	2.729 AC

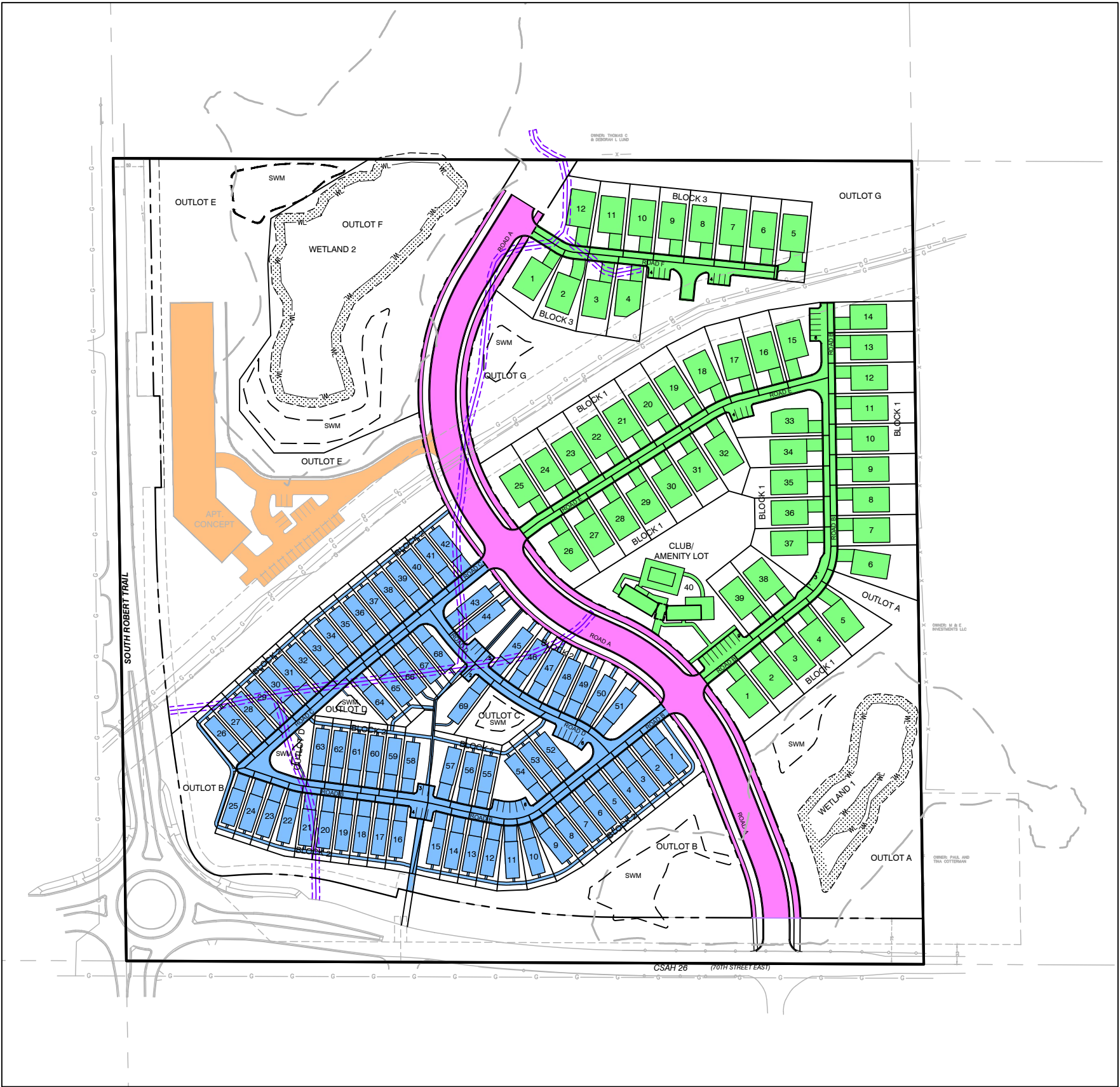
NATURAL AREA/OPEN SPACE CANVAS AT INVER GROVE HEIGHTS



DATE: 9/3/2020 - v2
DRAWN BY: TAS,MPR
SCALE: 200



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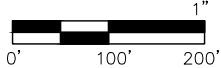
LEGEND:

- EAST OF CORRIDOR AREA
- WEST OF CORRIDOR AREA
- COLLECTOR CORRIDOR AREA
- APARTMENT AREA

HARD SURFACE SUMMARY:

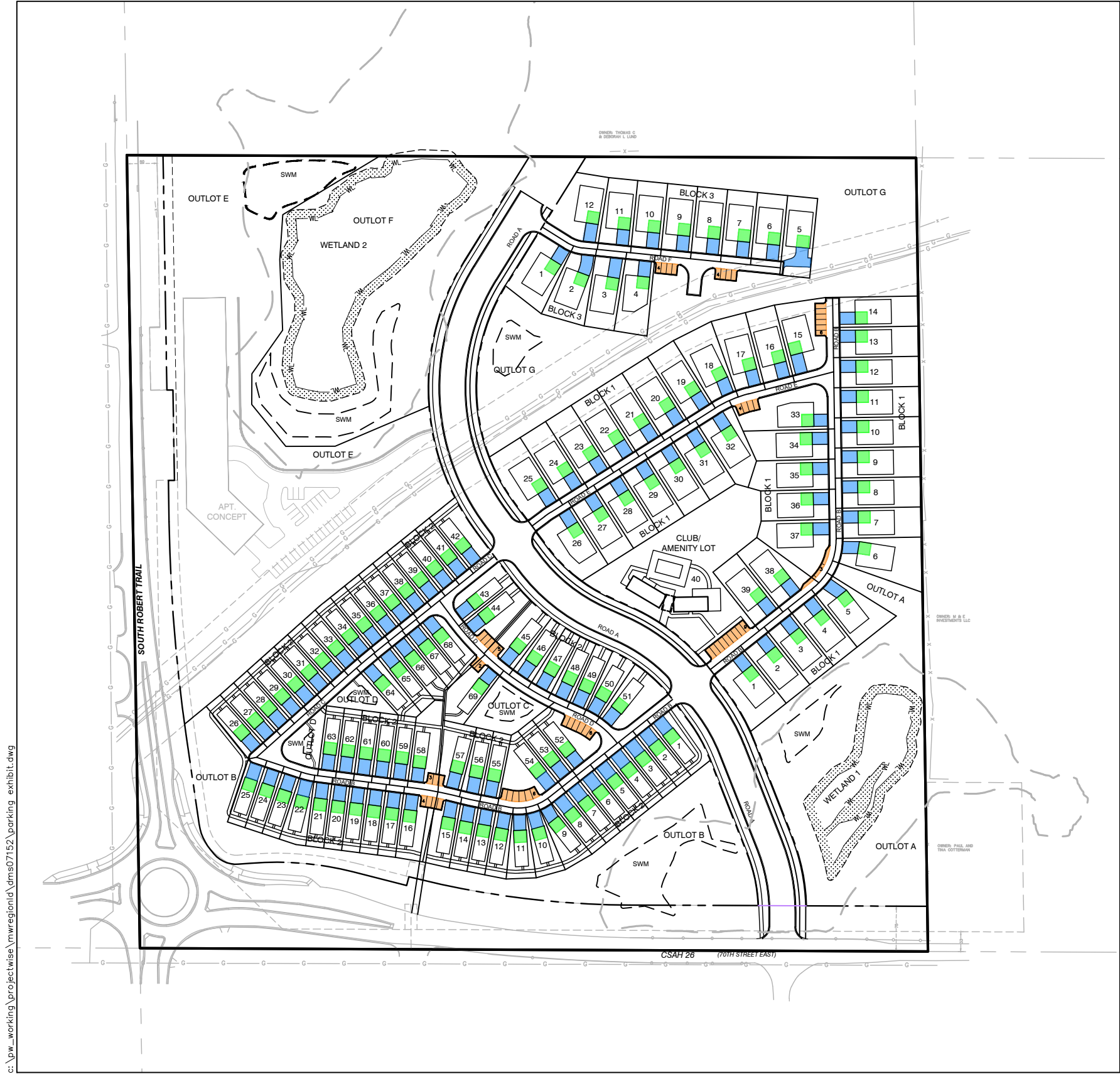
AREA	HARD SURFACE	%	TOTAL
EAST OF CORRIDOR AREA	205,749 SF	32.30%	637,052 SF
WEST OF CORRIDOR AREA	185,626 SF	47.50%	390,780 SF
COLLECTOR CORRIDOR AREA	88,431 SF	73.96%	119,569 SF
APARTMENT AREA	53,580 SF	14.83%	361,211 SF
TOTAL AREA	533,386 SF	35.36%	1,508,611 SF

CANVAS AT INVER GROVE HEIGHTS - HARD SURFACE EXHIBIT
INVER GROVE HEIGHTS, MINNESOTA



DATE: 9-3-2020
DRAWN BY: ELL, MPR





LEGEND:

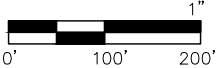
- PRIVATE GARAGE PARKING
- PRIVATE DRIVEWAY PARKING
- PRIVATE OFF-STREET PARKING

PARKING SUMMARY:

PRIVATE GARAGE PARKING (2 stalls per unit)	2 * 120 = 240
PRIVATE DRIVEWAY PARKING (2 stalls per unit)	2 * 120 = 240
PRIVATE OFF-STREET PARKING	= 56
TOTAL AVAILABLE PARKING	= 536 (4.5/Unit)

CANVAS AT INVER GROVE HEIGHTS - PARKING EXHIBIT

INVER GROVE HEIGHTS, MINNESOTA



DATE: 9-3-2020
 DRAWN BY: ELL,MPR



P L A N N I N G R E P O R T
CITY OF INVER GROVE HEIGHTS

CASE NO: 20-12CA

APPLICANT: Bituminous Roadways

PROPERTY OWNER: Bituminous Roadways

REQUEST: Conditional Use Permit Amendment and Variance

LOCATION: 112th Street and Rich Valley Boulevard

HEARING DATE: 9/15/20

COMPREHENSIVE PLAN: RDR, Rural Density Residential

ZONING: A, Agricultural, S&G, Sand and Gravel Overlay District

REVIEWING DIVISIONS: Planning
Engineering
Fire Marshall

PREPARED BY: Allan Hunting
City Planner

BACKGROUND

Bituminous Roadways, Inc. has submitted an application to amend their existing conditional use permit to allow the construction of three bulk storage tanks of asphalt cement for their facility in Inver Grove Heights and to serve their other three asphalt plants in Minnesota. The total project would consist of three storage tanks, each 1.8 million gallons for a total capacity of 5.4 million gallons of asphalt cement. Phase 1 would include construction of 2 of the tanks, a 1,700 square foot building addition and adding truck loading/unloading facilities. Phase 2 would consist of constructing the third tank. The three tanks are constructed of carbon steel and would be 80 feet in diameter and 48 feet tall.

The new tanks would be located on the floor of the existing mine adjacent to the existing asphalt plant. This area had been previously mined so the construction site would require only a limited amount of grading and earthwork. An earthen berm would be constructed as a secondary containment area.

The applicant indicates the tanks would normally be filled during the winter months in tanker trucks and pumped from the tanker trucks into the storage tanks. The asphalt cement used in site would be pumped from the storage tanks directly to the asphalt plant. The material used off site would be pumped into tanker trucks and hauled to the other Bituminous facilities. Over half of the truck traffic generated from the storage facility would be generated in the winter months when the

tanks are filled. During the construction season, only a portion of the asphalt cement would be transported off site.

The site currently contains two 15,000 gallon blending tanks and ten 30,000 gallon finished product asphalt tanks. The existing tanks require re-filling during the construction season.

The site operates under a Sand and Gravel Overlay District for the sand and gravel mining operation and a conditional use permit for the asphalt plant. The sand and gravel operation received the first approval in 1974 and the asphalt plant was approved in 1979. The latest approvals were granted in 2017.

EVALUATION OF THE REQUEST

The site is surrounded by the following uses:

North – Vacant land; zoned A; guided RDR

East - Open space, west 100 acres/agricultural; zoned A and I-1; guided Limited Industrial

West – Open space/agricultural; zoned A; guided RDR

South – Residential, Open space/agricultural; zoned A; guided RDR

CONDITIONAL USE PERMIT ANALYSIS

The applicant was required to submit an Environmental Assessment Worksheet (EAW) to the MPCA because their proposed tank capacity met the need for this environmental review step. An EAW is mandatory for facilities capable of storing 1 million gallons or more of hazardous materials. The EAW worksheet was submitted to the MPCA for their review. The worksheet was process and published in the EQB Monitor for a 30-day comment period. The City hired Barr Engineering to conduct a review of the document. The 30-day comment period ended August 19, 2020 and MPCA is expected to provide their recommendation whether no further analysis is needed or an EIS is required.

Barr prepared a technical memorandum for the city dated August 5, 2020 which reviews the information provided in the worksheet and makes a summary and conclusion which was submitted to the MPCA as the city's formal comments on the application. Barr's memo reviews seven categories. Barr believes the appropriate methods, models or calculations were used to assess the impacts to the surface water, ground water, air quality, odor, noise, visibility and traffic and Barr had no further comments on the EAW.

Below is a summary of each category:

Surface Water Impacts to surface water are projected to be minimal. There are no changes to existing drainage. Water discharge to the surfaced would be limited to a one time hydrostatic test of the new tanks. The water would be taken from an existing well on site and the test water would be discharged into the wash-water ponds that are used for water re-use on the wash plant. There

is sufficient capacity in the existing ponds to cover this one time test discharge. No significant change to surface waters is projected since the project areas drains internally, with not outside discharge.

Groundwater There are two site wells associated wit the mine, one for sand and gravel wash and one at the asphalt plant. The site is not within a well-head protection zone. The EAW notes groundwater is 70-80 feet below the mine floor. Any asphalt would cool and solidify well before any spill could reach groundwater and would be readily cleaned up.

Air Quality The site currently operates under a permit through the MPCA. The current emissions inventory plus the maximum projected potential project impacts are expected to remain under the threshold of the current permit. For air quality effects, the project is not a significant contributor to modeled exceedances of air quality standards and model results are below regulator thresholds for human health risk.

Odor Odor impacts are not expected from specified distances from residences based on MPCA standards.

Noise Based on the limited additional activity associated with the construction of the tanks, limited to daytime, noise impacts are not projected to be significant. Barr studied noise impacts to residences of the operation in 2018 and found it does significantly impact noise levels to the west of the site.

Visibility The existing pit is approximately 30 feet below the street elevation of Rich Valley Boulevard. There are some existing berms on the site along Rich Valley which are about 10 feet higher that the street. The tanks are 48 feet high. The tanks would be located approximately 800 feet from the street. Based on the distance from road and berming on site, the tanks would not be visible from the street.

The maximum height of a structure in the Agricultural District is 35 feet. A variance is therefore required for the height and is discussed later in this report.

Traffic Construction of the tanks would result in small increases in traffic up to 4 additional truckloads per week. Loading the tanks could amount to 40 loads per day for up to 25 days. During construction season, asphalt hauling from the project is expected to add peak of 12 truck/loads per day but averaging 3 loads per day. Combining all aspects, peak traffic could be up to 50 trips/hour. 2018 traffic counts for Rich Valley Boulevard is 5,300 vehicles/day. Dakota County indicates the road operates under capacity and is expected to do so through 2030. No significant traffic impacts are expected from the project.

Conditional Use Permit. The site operates under a conditional use permit for the asphalt plant and contractors yard. No changes to the CUP are proposed. The majority of the conditions are part of the Sand and Gravel Overlay Ordinance and have been covered above.

Fire Marshal Review. The Fire Marshal has reviewed the plans and notes that a sufficient fire suppression system will need to be installed before the tanks could be filled. He also noted that the current City Fire Code would need to be amended to allow for large above ground storage tanks on property not zoned I-2. The Fire Marshal is in favor of amending the code so it has a narrow provision to allow the tanks on existing asphalt plant operations. The Fire Marshal will be working with the City Attorney on language for the Council to adopt. The Fire Code would have to be amended and approved by Council either before or with this application.

Long Term Use of Property. The sand and gravel operation requires a renewal every five years. As part of any sand and gravel operation, a final land use or remediation plan is required. The final land use plan on file for this operation is to create large lot residential based on the base zoning of agricultural. There is also condition #12 from the conditional use permit that requires all buildings to be removed within three months of closure of the facility. With an investment of this size in the three storage tanks, there may need to be some discussion on the use of the property once the sand and gravel is mined out since the existing building condition would also include these tanks be removed also.

VARIANCE ANALYSIS

City Code Title 10, Chapter 3. Variances, states that the City Council may grant variances when they are in harmony with the general purposes and intent of the zoning ordinance and consistent with the comprehensive plan and establishes that there are practical difficulties in complying with the official control. In order to grant the requested variances, City Code identifies criteria which are to be considered practical difficulties. The applicant's request is reviewed below against those criteria.

1. *The variance request is in harmony with the general purpose and intent of the city code and consistent with the comprehensive plan.*

The intent of the height provision is to minimize height and bulk of buildings. In this case the tanks are in a hole below street grade and would not be visible or very limited visibility from the street due to structure location and berms that exist on the property.

2. *The property owner proposes to use the property in a reasonable manner not permitted by the zoning ordinance.*

The tanks would be consistent with the use of the property as an asphalt plant.

3. *The plight of the landowner is due to circumstances unique to the property not created by the landowner.*

The property is unique in that the floor elevation is approximately 30 feet below street grade. The height of the tanks would not be above any buildings at graded with Rich Valley Boulevard.

4. *The variance will not alter the essential character of the locality.*
The site has operated as a sand and gravel pit and asphalt plant for approximately 40 years. The variance would not change the character of the property or adjacent properties. An investment of this size would most likely make this the long term use of the property.
5. *Economic considerations alone do not constitute an undue hardship.*
Economic considerations do not appear to be a basis or a sole basis for this request.

ALTERNATIVES

The Planning Commission has the following actions available on the proposed project:

- A. **Approval:** If the proposed request is found to be acceptable, approval of the applicable following actions should be taken:
 - o Approval of the Conditional Use Permit Amendment to allow for bulk storage of asphalt cement with total capacity in three tanks of 5.4 million gallons subject to the following conditions:
 1. Resolutions No. 17-XXX and the conditions therein shall become null and void.
 2. The tanks shall be located on the site as shown on the site plan dated 4/30/20.
 3. Approval of the Conditional Use Permit Amendment for the storage tanks shall be conditioned upon the MPCA making a final determination on the EAW.
 4. The storage tanks shall not be filled or utilized until a fire suppression system has been approved by the City Fire Marshal.
 5. Prior to issuing any permits, the comments listed in the City Engineer's memo dated 5/13/2020 shall be addressed to the satisfaction of the City Engineer.
 6. All terms and conditions of the approval of the temporary Sand and Gravel Zoning District for the property shall apply to all the operations on the site specifically stated herein, except where said terms and conditions may be modified by the conditions below, then the conditions of this permit shall prevail.
 7. Approval of this conditional use permit shall be valid for the duration of the Temporary Sand and Gravel Zoning or until such time that the sand and gravel operation on site shall

cease to continue if such time frame is shorter. The sand and gravel operation and the approval granted herein shall terminate concurrently.

8. Where violations of the conditions of this permit are noted, the City is authorized to immediately terminate all operations on the site and resumption of operation will not be permitted until such violation is rectified.
9. The processing of the sand and gravel shall include, but not limited to; mining, crushing, screening, washing, sorting and blending into and stockpiling a variety of aggregates, and the recycling and stockpiling of concrete and rock products.
10. The contractor's yard shall be used in substantial conformance with the plan entitled "Existing Conditions" dated 1/8/07, on file with the Planning Division.
11. The location of the asphalt plant shall remain in its existing position and shall not be relocated.
12. All buildings shall be removed from the site within three (3) months of the closure of the facility.
13. Storage of equipment and vehicles for Rainbow Painting shall be limited to the building designated "garage" on the approved site plan and the adjacent area located south of the metal building.
14. All plans submitted by the applicant shall be subject to the review and recommendations made by the City Engineer and Director of Public Works.
15. Monitoring shall be conducted every other year at the single ground water well on site known as the "Rainbow well" and on the Todd Wicker and Robert Plan property, that consists of arsenic, barium, cadmium, chromium, copper, lead, mercury, nickel, selenium, silver, zinc, DRO, GRO, phenol, pH, electric conductivity and alkalinity. The monitoring shall occur at half the wells one year and the other half the next year. Parameters and protocols shall be as agreed to by Dakota County, the City and Bituminous Roadways.
16. The owner shall provide the City Engineering Division full access to the property for an annual storm water maintenance, erosion control, and sediment control inspections.
17. The operator is responsible for obtaining all required permits for the wash water well from the appropriate state and or county agencies and must meet all DNR requirements, obligations and protocols for a well appropriations permit, including responsibilities and protocols for any remedial actions and those responsibilities and protocols for any compensation or damages from the loss of well use affected neighboring properties. Any

change or any application for an appropriation permit for an aquifer different than the one that has been identified would require and amendment to the conditional use permit.

18. Bituminous Roadways shall provide a voluntary well interference protocol agreement for neighboring properties within ½ mile of the well requesting to be a party thereto. The agreement shall be prepared by Bituminous Roadways and shall stipulate procedures to follow should well problems occur. The agreement between the parties is strictly voluntary and not required for the well to be operational.

- Approval of a Variance to allow the storage tanks 48 feet high subject to the conditions listed below.

1. The site shall be developed in substantial conformance with the site plan on file with the Planning Department.

Practical Difficulty: The property is unique in that the floor elevation is approximately 30 feet below street grade. The height of the tanks would not be above any buildings at graded with Rich Valley Boulevard.

B. Denial: Should the proposed request, or portions thereof, not be found to be acceptable, the appropriate requests described above should be denied. The basis for denial must be stated in any such motion.

RECOMMENDATION

Based on Barr Engineering's review of the application, staff would recommend approval of the 2 requests with the conditions listed.

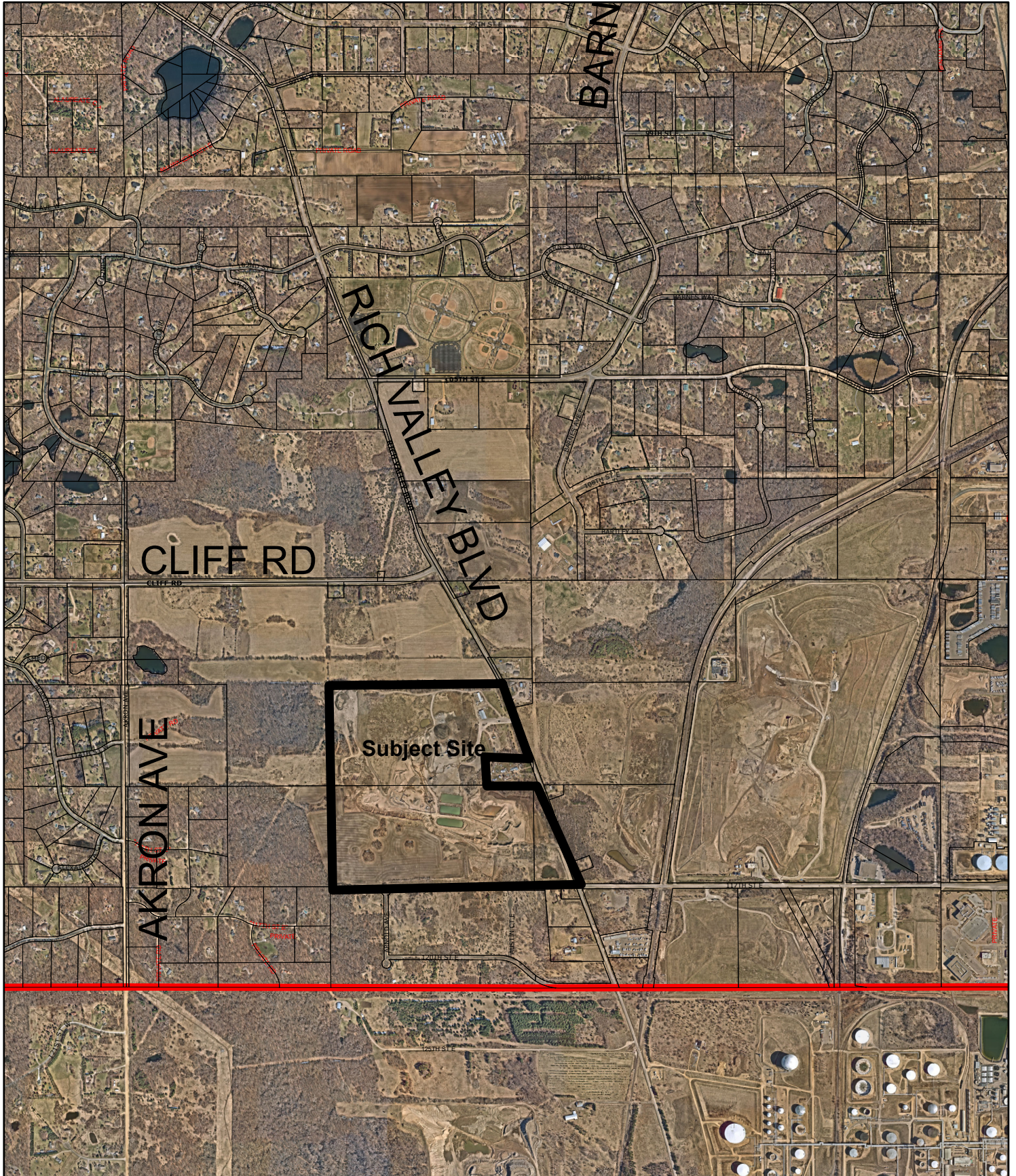
If approved, there should be some discussion about the long term use of the property since these tanks would be a sizable investment in the property.

Attachments: Site Location
Application Packet including Plans
Barr Engineering Technical Memorandum dated 8/5/20
Current Conditional Use Permit



Location Map

Case No. 20-12CA



April 30, 2020

REPORT TO:

BITUMINOUS ROADWAYS, INC.

**APPLICATION FOR
THE AMENDMENT OF CONDITIONAL USE PERMIT 12-17CZA
FOR THE MINING AND PROCESSING OF SAND AND
GRAVEL, AN ASPHALT PLANT AND CONTRACTOR'S YARD
WITH OPEN STORAGE AND FIVE YEAR SAND AND GRAVEL
OVERLAY DISTRICT**

INVER GROVE HEIGHTS, MINNESOTA



Consulting Civil Engineers

Sunde Engineering, PLLC.

10830 Nesbitt Avenue South • Bloomington, Minnesota 55437-3100

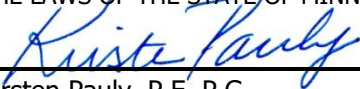
Phone: (952) 881-3344 • Fax: (952) 881-1913 • E-Mail: info@sundecivil.com

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WITH OPEN STORAGE AND FIVE YEAR SAND AND GRAVEL
OVERLAY DISTRICT**

INVER GROVE HEIGHTS, MINNESOTA

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


Kirsten Pauly, P.E. P.G.

DATE 4/30/2020 REG. NO. 21842

SUBMITTED BY:
SUNDE ENGINEERING, PLLC
10830 Nesbitt Avenue South
Bloomington, MN 55437

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Figure 1: General Location Map

Figure 2: USGS Quad Map Excerpt

Figure 3: Site Plan

Figure 4: 2019 Aerial Image

Figure 5: Site and Surrounding Area Land Use Map

Figure 6: Residences within a Half Mile of Project Site

Figure 7: National Wetlands Inventory Map

Figure 8: Wells within 1 Mile of Project Site (Well Index Table)

Attachment 1: Property Owners Within 1000 Feet

Attachment 2: Material Safety Data Sheet

Attachment 3: Air Emissions Analysis Technical Memorandum by Wenck Associates, Inc.

Attachment 4: MPCA Air Permit Determination

Attachment 5: Noise Assessment Technical Memorandum by Barr Engineering

Attachment 6: Well Logs

LIST OF PLANS:

C1 Grading Plan

ECF Preliminary AST Design Plans

I. INTRODUCTION

Bituminous Roadways, Inc. (BRI) operates a sand and gravel mining and processing facility and asphalt plant located in the southern portion of Inver Grove Heights (Site). The Site operates in accordance with City of Inver Grove Heights Ordinance 1343 which establishes operating conditions and a five year Sand and Gravel Zoning over the property. The Site also operates under a five year Conditional Use Permit (CUP) to allow for the asphalt plant, processing of sand and gravel and a contractor's yard. The current CUP and Ordinance 1343 was issued in October of 2017. BRI is requesting an amendment to the CUP and Ordinance 1343 to add a bulk storage facility, which includes three 1.8 million gallon aboveground storage tanks (ASTs) and associated equipment, to load, store, and unload asphalt cement at the Site (Project). This application provides information on the proposed Project.

The purpose of the Project is to construct a bulk storage facility to load, store, and unload asphalt cement. Asphalt cement is produced year round at local refineries as a by-product of refining crude oil. Asphalt cement is used to produce asphalt mixes for both public and private paving projects and is in demand during the road construction season. By establishing a bulk storage facility, BRI can more effectively manage supply and demand of this essential component of their business. The asphalt cement will be utilized at BRI's existing asphalt plants located in Minnesota, including plants located in Inver Grove Heights, Columbus, Shakopee, and Minneapolis. Approximately half of the stored asphalt cement will be utilized at the on-site Inver Grove Heights asphalt plant. This application proposes to continue operations as currently approved, with the exception of adding a bulk storage facility to the current asphalt plant operations.

The Project is considered an accessory use to BRI's permitted sand and gravel mine and asphalt plant. BRI began operation of the mine in 1978 and the asphalt plant in 1980 prior to the adoption of environmental review requirements. In 2002, the City Council approved a 130 acre expansion of the sand and gravel operation which required that an Environmental Assessment Worksheet (EAW) be prepared for the Site. Environmental Review was completed and approved by the City Council for this Site on April 8, 2002 in accordance with the Minnesota Environmental Quality Board (EQB) Rules with the City of Inver Grove Heights as the Responsible Government Unit (RGU). Mining activity is currently occurring within the expansion area in the southern portion of the Site.

The bulk storage facility will include three 1.8 million gallon ASTs and associated equipment to load, store, and unload asphalt cement at the Site. In accordance with Minn. Rule 4410.4300, subp. 10, Storage Facilities, Item B, a mandatory EAW is required for construction of a facility on a single site designed for or capable of storing 1,000,000 gallons or more of hazardous materials, where the Pollution Control Agency (PCA) shall be the RGU. An EAW has been prepared with an estimated date of May 18, 2020 to be published in the EQB Monitor which will begin the 30-day public comment

period. After the 30-day comment period closes, the MCPA will prepare a response to any comments made and will then make a decision on the need for an Environment Impact Statement (EIS) based on their Findings of Fact including the EAW, comments received, response to the comments.

This report and accompanying Figures and Attachments provides information regarding the proposed Project and permit amendment.

II. SITE INFORMATION

1. General Site Information:

The Project will encompass approximately 6.5 acres (Project Site) within the existing mining operation (Existing Mine). The Existing Mine is located in Section 32, Township 27 North, Range 22 W, in the City of Inver Grove Heights in Dakota County, just west of County Road 71 (Rich Valley Boulevard). Figure 1, General Location Map, illustrates the location of the Project Site with respect to Dakota County and the City of Inver Grove Heights. Figure 2, USGS Quad Map Excerpt, illustrates the location of the Project Site relative to the surrounding area. Figure 3, Site Plan, illustrates the proposed site improvements. Figure 4, 2019 Aerial Image, illustrates an aerial view of the Project Site.

The Existing Mine includes both the original mining operation and asphalt production plant, which has been permitted since 1963, and a southerly expansion area which was permitted in 2002. During the 2002 permitting process, both areas were combined into one permit to facilitate the five-year permit review and renewal process.

The Existing Mine encompasses a total of approximately 201 acres. Over the life of the facility, mining is proposed to occur on approximately 141 acres and the remaining 60 acres is setback and buffer area. The Project Site is located entirely within the existing mining limits.

Land use surrounding the Project Site is illustrated on Figure 5, *Site and Surrounding Area Land Use Map* (an excerpt from the City of Inver Grove Heights Zoning Map). Land use to the north is agricultural production, rural residential/agricultural to the south and west, and industrial to the east and southeast of the Site. The southern end of the property is bound by the 117th Street East right-of-way. An easement and gas main pipeline cross through the south and west portions of the property. The pipeline will not be disturbed as part of the mining operation or asphalt cement storage facility construction or operation. The Mississippi River is approximately 2.25 miles to the east of the Project Site. Pine Bend Landfill and Flint Hills Resources are two major industrial facilities located to the east of the Site and west of the River.

A map showing all the residences within one-half mile of the Project Site is provided in Figure 6. The storage tanks will be located in the recessed portion of the mine where they will be screened from view from surrounding properties. Wooded buffer area and vegetated berms are located around the Site that provide additional Project screening.

2. Site Ownership:

The northern parcel is owned by:
Kent Peterson, LLC
1520 Commerce Drive
Mendota Heights, MN 55120
(651) 686-7001

The southern parcel is owned by:
Bituminous Roadways, Inc.
1520 Commerce Drive
Mendota Heights, MN 55120
(651) 686-7001

3. Site Operator:

The Site is operated by:
Bituminous Roadways, Inc.
1520 Commerce Drive
Mendota Heights, MN 55120

4. Legal Description:

The legal description of the Site is as follows:

That part of the S $\frac{1}{2}$ of the NE $\frac{1}{4}$ of Section 32, Township 27, Range 22, W, lying Westerly of Rich Valley Boulevard; except that part described as follows: Commencing at the SE corner of said S $\frac{1}{2}$ of the NE $\frac{1}{4}$; thence West along the South line thereof, a distance of 592.43 feet; thence North 344.9 feet; thence East 570 feet to the centerline of Rich Valley Boulevard; thence Southeasterly along said centerline, a distance of 67 feet to the East line of said S $\frac{1}{2}$ of the NE $\frac{1}{4}$; thence South 281.85 feet to the point of beginning.

And

The Northeast Quarter (NE $\frac{1}{4}$) of the Southwest Quarter (SW $\frac{1}{4}$) and the North One-Half (N $\frac{1}{2}$) of the Southeast Quarter (SE $\frac{1}{4}$), Section thirty-two (32), Township twenty-seven (27), Range twenty-two (22) AND All of that tract of land lying West of Highway Number Five (5) in the Northwest Quarter (NW $\frac{1}{4}$) of the Southwest Quarter (SW $\frac{1}{4}$), Section thirty-three (33),

Township twenty-seven (27), Range twenty-two (22); subject to an easement to Minnesota Northern Natural Gas Company, as described in Deed recorded in Book 193 of Deeds, page 374.

5. Neighboring Properties:

A property owner's list within 1000 feet of the Site is included in Attachment 1.

III. PROJECT DESCRIPTION AND OPERATIONS

1. Project Construction:

The Project will include the construction of three (3) asphalt cement storage tanks, each with 1.8 MGAL of capacity. The three tanks will be field erected carbon steel tanks, 80 feet in diameter and 48 feet in height. The total capacity of the three tanks will be 5.4 MGAL with the safe-fill storage volume of about 5.3 MGAL.

The asphalt cement storage facility will be centrally located on the floor of the existing mine adjacent to the existing asphalt plant. The area has been previously mined and the Project construction will require a limited amount of grading and earthwork. The Project Site is located on the mine floor and drains internally.

The Project will be developed in two construction phases. Phase 1 of the Project includes the construction of a haul road, scale, foundations, two 1.8 MGAL asphalt cement storage tanks, associated piping, loading racks, a hot oil heater, other appurtenances associated with the loading and unloading equipment, a passive venting system (vented to the atmosphere through a carbon fiber piping system), an earthen berm for secondary containment, and a small building addition near the asphalt plant. Phase 2 of the project will include the construction of one 1.8 MGAL asphalt cement storage tank, foundation, and associated piping. Preliminary design plans of the ASTs have been prepared by Engineers, Contractors, Fabricators Inc. (ECF) and are provided in the attached Plan Set.

Secondary Containment: Asphalt cement is a hazardous material in liquid form. MPCA regulations require that secondary containment of ASTs is provided for 110% of the volume of the largest tank. The secondary containment area is designed to contain 110% of the largest tank, taking into account displacement from all the tanks within the proposed containment area plus sufficient freeboard for precipitation. This is equivalent to a minimum volume of 1.99 MGAL (6.1 acre-feet) for the largest 1.8 MGAL tank. The secondary containment area will be constructed of an earthen berm with a clay core along the perimeter of the tank storage and the floor of the secondary containment area will be constructed with a 12 inches of compacted

clay that has a unified soil classification of either CL or CH (meeting a maximum permeability of 1×10^{-7} centimeters/second and other design specifications). The earthen berm and the floor will be overlain with a cover material of either aggregate base or topsoil and seed to prevent drying and erosion. Material and compaction testing will be provided during construction to ensure that the materials used and installed for the secondary containment area meet the proposed Project specifications. The majority of the racks and above ground piping system will be located within either the existing concrete secondary containment area #2 or the new secondary containment area #1, as shown on Figure 3. Emergency shut off switches are located on both the upper rack and down on the ground. Any leaks/spills outside of the containment areas will not cause harm to the environment. Since asphalt cement is solid at ambient temperature, any leaks from the piping system can be easily shut down and cleaned up. The proposed AST's secondary containment area will conform to the standards in Minn. R. 7151.5400, subp. 5.

AST Testing: A one-time hydrostatic testing of each of the tanks and piping components, as part of normal construction requirements, will produce industrial wastewater. This test will require approximately 2.0 MGAL of water. Clean potable water from the existing high capacity wash plant well will be used for this testing procedure. The discharge from the testing will be directed to the Site wash water ponds located to the south of the asphalt plant. Available storage in the wash ponds is approximately 3.4 MGAL. There will be no other sanitary or municipal wastewater produced or treated at the Project Site. Existing operations include recycled and reused water from the existing washplant, which operates full-time, seasonally on the Site. Washwater from the washplant is directed through a series of sedimentation basins and recycled back to the washplant for reuse and does not contain chemical additives.

Construction of ASTs: All new ASTs will be constructed in accordance with the Facility's new Major Aboveground Storage Tank Facility Permit. The new ASTs will be constructed to meet API Standard 650, Welded Tanks for Oil Storage, which is incorporated by reference in Minn. R. 7151.2100, aboveground storage of liquid substances. The tanks will be field erected carbon steel in accordance with API Standard 650. The design of the ASTs floor will be a concrete ring wall without liner, no liner is required for asphalt cement storage. Asphalt cement is a "Type C Substance" that is solid at ambient temperatures and in accordance with Minn. R. 7151.5100 subp. 4 the following are not required for tanks storing asphalt cement:

- An under tank leak detection system;
- Substance transfer area safeguards;
- Corrosion protection;
- Overfill protection

Labeling: All new ASTs will be labeled with the substance stored, capacity, and a unique identification number, in accordance with the Major Aboveground Storage Tank Facility Permit and Minn. R. 7001.4205.4250. Material Safety Data Sheets for the asphalt cement products that will be stored on-site are provided as Attachment 2.

Overfill Protection: All new ASTs will be designed with overfill protection in accordance with the Facility's Major Aboveground Storage Tank Permit and API Standard 2350. The overfill prevention system will detect when the substance reaches a pre-determined level, set at no greater than 95 percent of the tank capacity at overflow. The system will trigger a visible or audible alarm to the person controlling the transfer with sufficient time to stop the transfer.

Timing and Duration of Construction Activities: Construction of the Project is estimated to begin in the Spring/Summer of 2020. The duration of construction activity is expected to be 6-12 months.

Demolition, Removal or Remodeling of Existing Structures: The Project will not require the demolition or removal of existing structures. There may be some piping modifications required on the existing asphalt plant to accommodate transfer of asphalt cement to the plant from the new storage tanks. There will be a 1,700 square foot addition to the existing building located to the north of the asphalt plant.

Construction activity will generate a limited amount of construction waste. Construction waste will be hauled by a licensed hauler to a permitted solid waste facility.

2. Project Operations:

Typically, the storage tanks will be filled with asphalt cement during the winter months, when market conditions are favorable. Asphalt cement will be transported to the Site in tanker trucks and pumped from the tanker trucks into the storage tanks. Transfer of asphalt cement from the tanker trucks to the storage tanks will be performed in the truck off-loading area.

During the construction season, asphalt cement will either be pumped from the storage tanks and transferred directly to the adjacent asphalt plant or pumped into tanker trucks for distribution to BRI's other asphalt production facilities. Transfer of the asphalt cement from the storage tanks will occur throughout the construction season. It is anticipated that the tanks will be filled once during the winter months. However, it is possible that due to market conditions, an additional filling or partial filling could occur during the construction season.

The Project will generate a minimal amount of additional truck traffic. Traffic from the Site is seasonal with the majority of traffic generated during the construction season. Over half of the truck traffic generated from the storage facility will be generated during the winter months when

the tanks are filled. During the construction season, only a portion of the asphalt cement will be transported off-site to other facilities. The rest will be utilized directly on-site replacing the truck trips that would normally be generated from serving the on-site asphalt plant with asphalt cement from outside sources.

Asphalt cement is solid at ambient temperature; therefore, all of the storage tanks will be equipped with heating coils to heat the product to approximately 300° Fahrenheit during any type of transfer process. The tanks will typically be heated from April to November. They will not be heated during the winter months. Tank heating will be accomplished with one 10.5 MM BTU/hr (one-million British Thermal Unit) heater.

Maintenance: The Site will operate under an MPCA Major Facility Permit which requires a weekly visual monitoring of all tanks and secondary containment areas to check for any evidence of a release. A monthly maintenance inspection is also required that includes a visual examination of the tanks and piping equipment focusing on conditions that could lead to a release, and a review of maintenance and operating practices. Generally, inspections and maintenance will be in accordance with inspector recommendations and MPCA Major Facility Permit requirements.

Spills: The Proposer will respond to any spills as required in their Crisis Management Plan, SPCC Plan (which includes requirements of Minnesota's Spill Bill), and Pollution Prevention Plan. The Proposer will update their current SPCC Plan and will establish procedures for the prevention of a release during all transfer operations into and out of the facility as well as action to be taken in the event of a spill or release. These procedures will include proper connections and shut-off of transfer piping, location of emergency and spill containment equipment, emergency shut-off equipment and visual observations during transfer operations. In accordance with state law, the Minnesota Duty Officer will be notified immediately of any spills from the tank or piping system in excess of 5 gallons, even if the spill occurs within the secondary containment area. The release must be immediately investigated and cleaned up and the secondary containment area must be assessed for damage and any necessary repairs made.

3. Existing Operations:

Existing, permitted activities include mining and processing (crushing, screening, and washing), stockpiling, loading and hauling, reclamation, and operation of an asphalt plant and a contractor's yard.

The Site operates under a General Non-Metallic Mineral Mining and Associated Activities National Pollutant Discharge Elimination System (General NPDES) permit and an Air

Emissions Permit, both issued by the MPCA, a Minnesota Department of Natural Resources (DNR) Water Appropriations Permit, a Dakota County Solid Waste Facility License, and a Dakota County Hazardous Waste Generators License and Processing License.

The asphalt plant at the Inver Grove Heights facility currently contains two 15,000 gallon polymer blending asphalt tanks and ten 30,000 gallon finished product asphalt tanks. Polymer is added to the asphalt cement to modify the performance of the asphalt cement. Depending upon the polymer it can modify the acceptable placement temperatures, enhance the performance of the binder for specialty use area such as high traffic areas, etc. Asphalt cement is transferred from one of ten 30,000 gallon tanks to one of two 15,000 gallon mixing tank. In the 15,000 gallon mixing tank, the temperature is elevated and 2-4% of polymer beads are added. Mixing transpires for 24 hours. After 24 hours, the blended product is transferred to a finished product storage tank. The blending takes place in the two 15,000 gallon mixing tanks.

The polymer blending tanks and finished product tanks are located within a concrete secondary containment area, sized to accommodate 110% of the volume of the largest tank including displacement of all tanks within the secondary containment area.

4. Mineral Extraction:

Mineral extraction activities and operations will continue as currently permitted.

5. Mineral Processing:

Processing activities (including crushing, washing, screening, recycling, sorting and blending a variety of aggregate products) will continue at the Site as currently permitted.

6. Fencing:

Fencing will continue to be provided as currently permitted.

7. Hours of Operation:

The Site currently operates between the hours of 7 a.m. and 7 p.m. Monday through Saturday for all activities, except crushing concrete and asphalt recycle materials, which includes mining, grading, crushing and screening of aggregate, washing, movement of vehicles into and out of the Site, and operation of the asphalt plant. BRI also operates from 6 a.m. to 7 a.m. for internal operations only, including start-up of the asphalt plant and allowing BRI owned vehicles that were parked overnight to exit the Site. Concrete and asphalt recycle crushing activity only occurs between the hours of 7 a.m. – 7 p.m., Monday – Friday, and 9 a.m. – 6

p.m., Saturday. Concrete and asphalt recycle crushing will be limited to no more than 12 weeks during the calendar year and there will be no crushing on Sunday.

The asphalt plant is permitted to operate a maximum of 30 night shifts from the hours of 7 p.m. – 7 a.m., during the construction season each year. Night shifts are required with certain jobs, especially State Highway work. BRI provides the City with written notice prior to each event so a record can be kept to monitor the total number of nights work.

BRI also notifies their closest neighbor, Todd Wicker, prior to night shift work. Mr. Wicker's house is approximately 600 feet from the plant's driveway and approximately 800 feet from the asphalt plant itself. The next nearest occupied residence is approximately 2,000 feet from the plant. BRI has never received any noise or disruption complaints from neighbors regarding night shift operations.

8. Setbacks:

All setbacks will be provided as currently permitted.

9. Site Access and Transportation:

The Site is bound on the east by Rich Valley Boulevard, which currently provides access to the Site. A secondary access to the mining operation is located on the south end of the Site, also off of Rich Valley Boulevard.

The Project will generate traffic on a seasonal basis. The majority of traffic generated from the Project will be generated during the construction off-season during the winter months when the storage tanks are filled. Estimated average daily traffic will be 40 loads (80 trips) per day and 4 loads (8 trips) per hour for up to 25 days during the winter months. Peak hourly traffic generated during the winter months is 8 trips per hour as the filling process can't occur at a faster rate to accommodate more loads. Filling two tanks will require an estimated 16 ten hour days of hauling. At full build out, filling all three tanks will require approximately 25 ten hour days of hauling. Traffic generation is based on the capacity of the pump used to unload the trucks which results in about 15 minutes needed to unload each truck. Typically, the tanks will be filled one time per year.

The other portion of traffic will be generated during the construction season when the asphalt cement will be loaded into tanker trucks and hauled off-site. It is estimated that half of the asphalt cement stored at the Project Site will be hauled from the Project Site to BRI's other asphalt plants located in throughout the metropolitan area and the other half will be pumped directly to the asphalt plant located in the Site.

An average of 2-3 truckloads (4-6 trips) per day will leave the Project Site during the construction season and a peak of 12 truckloads (24 truck trips)/day. Peak hourly traffic generated from the Project, based on 12 percent of the peak daily traffic, is 3 trucks per hour. The truck trips hauling asphalt cement off-site during the construction season is offset by the Project not needing to haul asphalt cement to the asphalt plant located at the Site during the construction season.

A minimal amount of truck load deliveries will occur during the construction of the tanks. The estimated truck delivery trips during construction are as follows:

- Four trips (2 loads) per week for the first 4-6 weeks during site prep and foundation construction;
- Two trips (1 load) per week for approximately 12-14 weeks during tank construction;
- Two trips (1 load) per week for approximately 6-8 weeks during mechanical/piping/insulation/misc. construction.

The combination of the mining facility, the asphalt plant and the proposed tank storage facility will generate a peak hourly traffic estimated at 50 trips per hour. The peak traffic generally occurs in the morning hours.

The Project will utilize the existing access to Rich Valley Boulevard (CSAH 71). The functional classification of CSAH 71 is an A Minor Arterial. The minor arterial system helps to support and provide connections to the principal arterial system. The official AADT on Rich Valley Boulevard (CSAH 71) is 5,300 based on traffic counts collected by the Minnesota Department of Transportation in 2018. This is a bi-directional estimate of total vehicles on the road segment on any given day of the year.

During the winter months, during the filling of the tanks, the increase in average trips per day (ADT) from the Project on CSAH 71 is 1.5 percent of the AADT. This increase will occur for a total of 16-25 days during the time period between November 15 and April 15.

During the summer months, when seasonal truck traffic along CSAH 71 is expected to be higher due to the seasonal nature of natural resource hauling, the increase in ADT from the Project on CSAH 71 is expected to be negligible (0.04 percent or less) for the time period between April 15 and November 15.

The functional class of CSAH 71 is an A Minor Arterial. The Dakota County's 2030 Transportation Plan (2040 Plan is currently being updated) indicates that CSAH 71 was operating under capacity in 2007 and forecasted to be operating under capacity in 2030. The

Project is anticipated to cause only a small increase in traffic, almost exclusively during the off-season. No significant traffic related impacts are anticipated as a result of the Project and no traffic improvements are necessary.

10. Weed Control:

Weeds or other unsightly or noxious vegetation shall be controlled as necessary to maintain a neat appearance of the Site.

11. Wetlands:

The National Wetland Inventory (NWI) map shows two small isolated wetland basins in the southeastern portion of the Site, outside of the mining limits, as seen in Figure 7, National Wetlands Inventory Map. A field investigation of these basins was performed in 2002 as part of the mine expansion permit. The results of the field investigation determined that neither area meets the technical criteria of a wetland.

12. Stormwater Management:

All of the stormwater generated from the Project will drain internally within the Site. Approximately 2.4 acres of the 6.5 acre Project Site will drain to the secondary containment area. Stormwater runoff from the secondary containment area will be discharged after visual inspection for a sheen. The discharge will be through a valved pipe from the secondary containment area to the on-site stormwater ponds. The valve will normally be in the closed position. If a minimal sheen is present prior to discharge, oil absorbent booms or pads will be used to clean the water before discharge. The absorbents will be placed into an appropriate container and disposed in accordance with current regulations. If there is a large spill, action will be taken per the SPCC and Crisis Management plans, including pumping and transporting the impacted water to a treatment facility. The remainder of the Project Site will be graded to direct stormwater to the existing on-site stormwater ponds or the mine pit floor.

The Site operates under a General NPDES permit for nonmetallic mineral mining and associated activities which covers construction related activities at the Mine Site. The Stormwater Pollution Prevention Plan for the Site will be amended to incorporate the construction and operation of the Project. Stormwater runoff from the Project will not impact any surrounding surface waters.

13. Tree Preservation:

Tree preservation will be provided as outlined in the current permit. No trees will be removed as part of the Project.

14. Stationary Source Air Emissions, Dust and Odor Control:

BRI currently operates under a General Non-Metallic Mineral Mining and an Option D Registration Permit, both issued by the MPCA. A Technical Memorandum on the Effects of Potential Air Emissions is provided by Wenck Associates, Inc. (Wenck) provides results confirming that the proposed asphalt cement storage facility does not require any additional air permitting. An Air Applicability Determination was submitted to the MPCA to request concurrence that the facility can continue to operate under the existing Option D Registration Permit. The MPCA's determination concurs that the facility does not require additional air permitting. Wenck's Technical Memorandum on the Effects of Potential Air Emissions is included as Attachment 3 and the Air Quality Permit Applicability Determination findings by the MPCA is included as Attachment 4.

Fugitive dust will be generated by the trucks traveling to and from the facility. Dust is controlled at the Site by utilizing and sweeping the existing paved Site entrance. Interior haul roads are watered as needed in order to minimize dust from vehicular travel within the Site. Screening berms are vegetated.

The screening analysis¹ for H₂S indicates that the Proposed Project will not cause odors. There are no sensitive receptors near the project and no projected negative impact on quality of life for the closest residences.

15. Noise Control:

The Project is not expected to have any substantial impact on sound levels associated with the existing operations. Noise monitoring conducted in 2018 by Barr Engineering verified compliance from the Site with state noise standards at nearby residential receptors². The Technical Memorandum completed by Barr Engineering is provided in Attachment 5. Mufflers and other standard noise reduction features are employed by vehicles and equipment. Perimeter berms and operating equipment in the recessed portion of the site further reduce

¹ Technical Memorandum to Bituminous Roadways, Inc. on the Effects of Potential Air Emissions by Wenck Associates, Inc., dated April 22, 2020

² Bituminous Roadways Noise Assessment Technical Memorandum to the City of Inver Grove Heights, by Barr Engineering and Environmental Consultants, dated November 29, 2018

noise emissions. Construction will occur at a maximum six days per week, the same schedule the Site currently operates. There will be no construction on Sundays or Holidays.

For residential receptors, Noise Area Classification 1 (NAC1), the Minnesota Pollution Control Agency (MPCA) restricts daytime noise levels to 60 decibels (dBA) for 30 minutes in any given hour (L_{50}) above 65 dBA for more than 6 minutes in a given hour (L_{10})(NAC-1 classification). The MPCA also restricts nighttime noise levels to 50 dBA for no more than 30 minutes in one hour and 55 dBA for six minutes in one hour (MN Rule 7030.0040). The levels observed during the study averaged 47.6 dBA for L_{10} and 42.0 dBA for L_{50} during the daytime and 45.4 dBA for L_{10} and 43.2 dBA for L_{50} during the nighttime.

16. Lighting:

There is no lighting within the active mining area. There are a total of six exterior lights associated with security for the asphalt plant and contractors yard. Approximately 4 or 5 additional lights will be located on the top of the new asphalt cement ASTs. The additional lights will be at approximately the same height as the existing lights on the top of the silos and oil tanks. Exterior lights are located as follows:

- 1 - Rainbow shop
- 1 - Old scale house
- 1- Top of oil tanks at plant
- 3- Top of silos at plant.
- 5- Top of new asphalt cement ASTs

17. Groundwater Monitoring and Protection:

In accordance with the current permit, groundwater monitoring is conducted every other year at the on-site well (known as the "Rainbow well") and at the Todd Wicker and Robert Plan properties. Monitoring of the on-site surface water ponds is also conducted every other year. Ground water (well) and surface water pond samples are analyzed for both diesel range organics (DRO) and gasoline range organics (GRO) and for arsenic, barium, cadmium, chromium, copper, lead, mercury, nickel, selenium, silver, zinc, phenol, pH, electric conductivity and alkalinity. Results are submitted to the City. No changes to the groundwater monitoring is proposed with this application.

The depth to groundwater at the Site is approximately 80 feet. The Site is not located in or within 1 mile of a MDH wellhead protection area. There are two wells located on the Site that are associated with the mining activity and the asphalt plant. A high capacity well, with unique well number 780331, was constructed in 2013 and is used at the Site for washing sand and gravel. The other well is used for operations at the asphalt plant. This well is noted as Plant Well on Figure 3 and has a unique well number of 174673. Both well logs are included in Attachment 6, Well Logs. There is one well located on the Site that is associated with the Rainbow Painting building, noted as "Rainbow Well" on Figure 3.

There is one sealed well on the Site, which was associated with the existing farmstead before it was demolished. The well was sealed according to the Minnesota Department of Health Well Code prior to excavation of the area.

Figure 8, Wells Within 1 Mile of Project Site, which illustrates a map of groundwater wells within 1 mile of the Site and corresponding Table 1, Well Index Table, with well depths and distances is provided.

Mining activity has removed many of the original soils located on the Site and all of the original site soils located within the Project area. The floor of the mine where the tanks will be constructed is composed primarily of compacted sand and gravel. The on-site soils have moderate permeability and as such, contaminants can rapidly pass through these soils. However, asphalt cement material is only a liquid at very high temperatures and any spill will result in the rapid cooling of the material which will prevent it from migrating into the soils or groundwater. A spill or leak of asphalt cement can be easily recovered and will be recycled and processed on-site into class 5 aggregate base for use in construction projects. Additional protections, including secondary containment will prevent a release in the event of a spill.

The Site operates under a Spill Prevention, Control, and Countermeasure Plan (SPCC Plan) which includes requirements of Minnesota's Spill Bill. The SPCC Plan will be updated as part of the Project. The SPCC Plan lays out actions to be taken to prevent spills as well as actions to be taken in the event of a spill, including evaluation of a worst case discharge. In accordance with the SPCC Plan, the proposer will be prepared at all times to rapidly and thoroughly recover discharges and maintain a level of preparedness to ensure an effective reliable response to any discharge. The SPCC Plan incorporates best management practices relating to storage, loading and unloading, inspections, monitoring and site maintenance which are designed to minimize any potential for surface water contamination and provide protection to groundwater.

18. Permits:

In addition to the local permits required by the City of Inver Grove Heights, the Site must operate in compliance with other state and federal regulations. The Site currently operates under a NPDES Stormwater Permit and Air Emissions Permits issued by the MPCA, a Minnesota DNR Water Appropriations Permit, a Dakota County Solid Waste Facility License, and a Dakota County Hazardous Waste Generators License and Processing License.

The Project will require a new MPCA Major Aboveground Storage Tank Facility Permit for the aboveground storage of asphalt cement where the total storage of all tanks is greater than one million gallons. This permit application has been submitted to the MPCA.

A Temporary Water Appropriation General Permit 1997-0005 from the DNR will be required to obtain water for the hydrostatic testing of the tank and piping systems. This general permit authorizes temporary water appropriations for various uses up to 50 million gallons for a single project for a variety of uses including hydrostatic testing. Approximately 2.0 million gallons of water will be required to test one tank and associated piping. If possible, the tanks will be tested individually and water from one test reused for the second test. Discharge from the tank testing will be directed to the on-site wash ponds for reuse in the aggregate wash plant. Available storage in the wash ponds is approximately 3.4 MGAL. The Site currently operates under a DNR permit issued in 2013, and amended in 2016, for the operation of the washplant and dust control at the Site.

All reports which are required to be submitted to the MN DNR for the Water Appropriations Permit including annual water usage report, Dakota County for the Hazardous Waste Generators License and the Processing License, and the MPCA, including annual emissions inventory report, semi-annual deviations report, annual compliance certification report, and annual report will also be submitted to the City.

<i>Unit of government</i>	<i>Type of application</i>	<i>Status</i>
City of Inver Grove Heights:	• Conditional Use Permit Amendment • Building Permit/Land Use Permit	Application to be submitted Application to be submitted
MPCA:	• Major Aboveground Storage Tank Facility Permit (AST > 1MG) • National Pollutant Discharge Elimination System/State Disposal System (NPDES/SDS) General Permit MNG490000 for Nonmetallic Mining Operations and Associated Activities • General Non-Metallic Mineral Mining Air Permit • Option D Registration Permit	Application submitted Active, SWPPP to be updated Active Active
DNR:	• Water Appropriations Permit • Temporary Water Appropriations General Permit for hydrostatic testing	Active To be applied for
Dakota County:	• Solid Waste Facility License • Hazardous Waste Generators License and Processing License	Active Active

IV. RECLAMATION

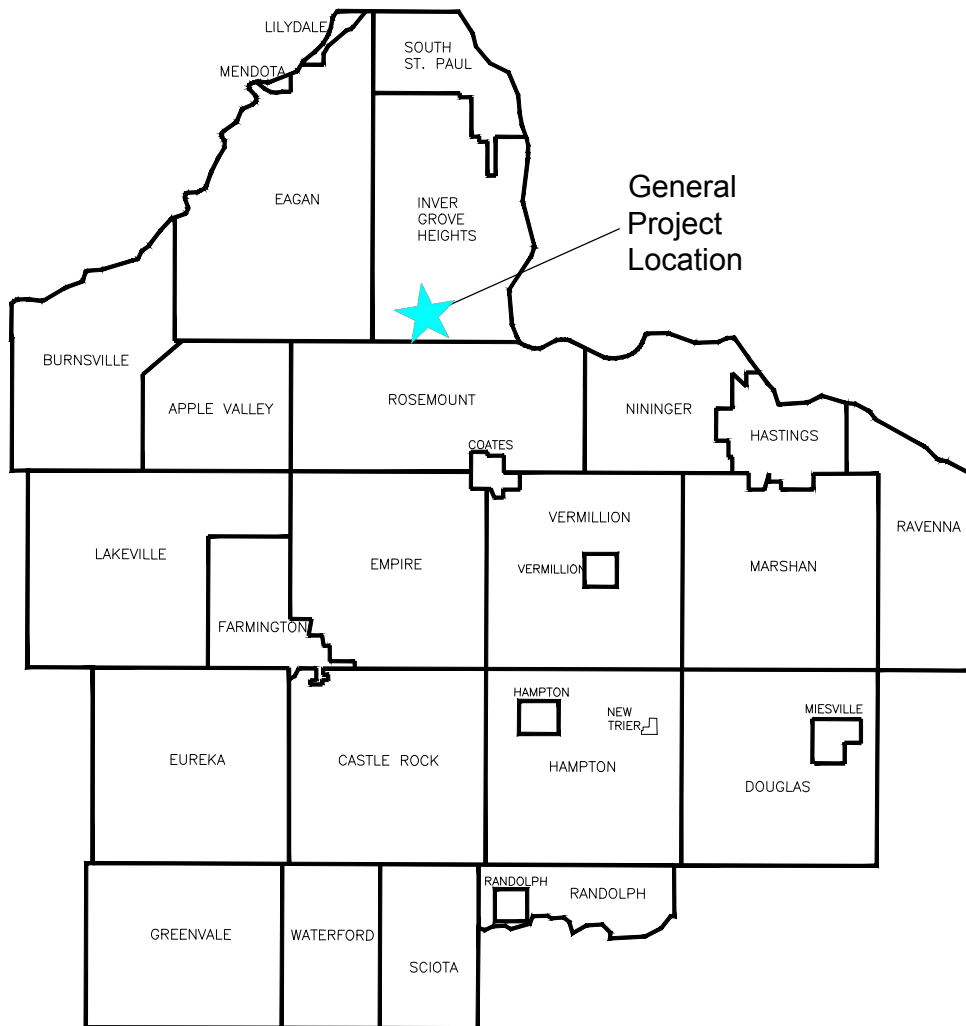
Reclamation activities will continue to operate as currently permitted.

V. PLAN SET

Operations are described in detail within this report. The following plans have been prepared which help to illustrate the Proposed Project operations.

1. Grading Plan: C1
2. ECF Preliminary AST Design Plans

FIGURES



Not to Scale

Figure 1
General Location Map

2020 PERMIT AMENDMENT
Bituminous Roadways, Inc.
Inver Grove Heights, Dakota County, MN



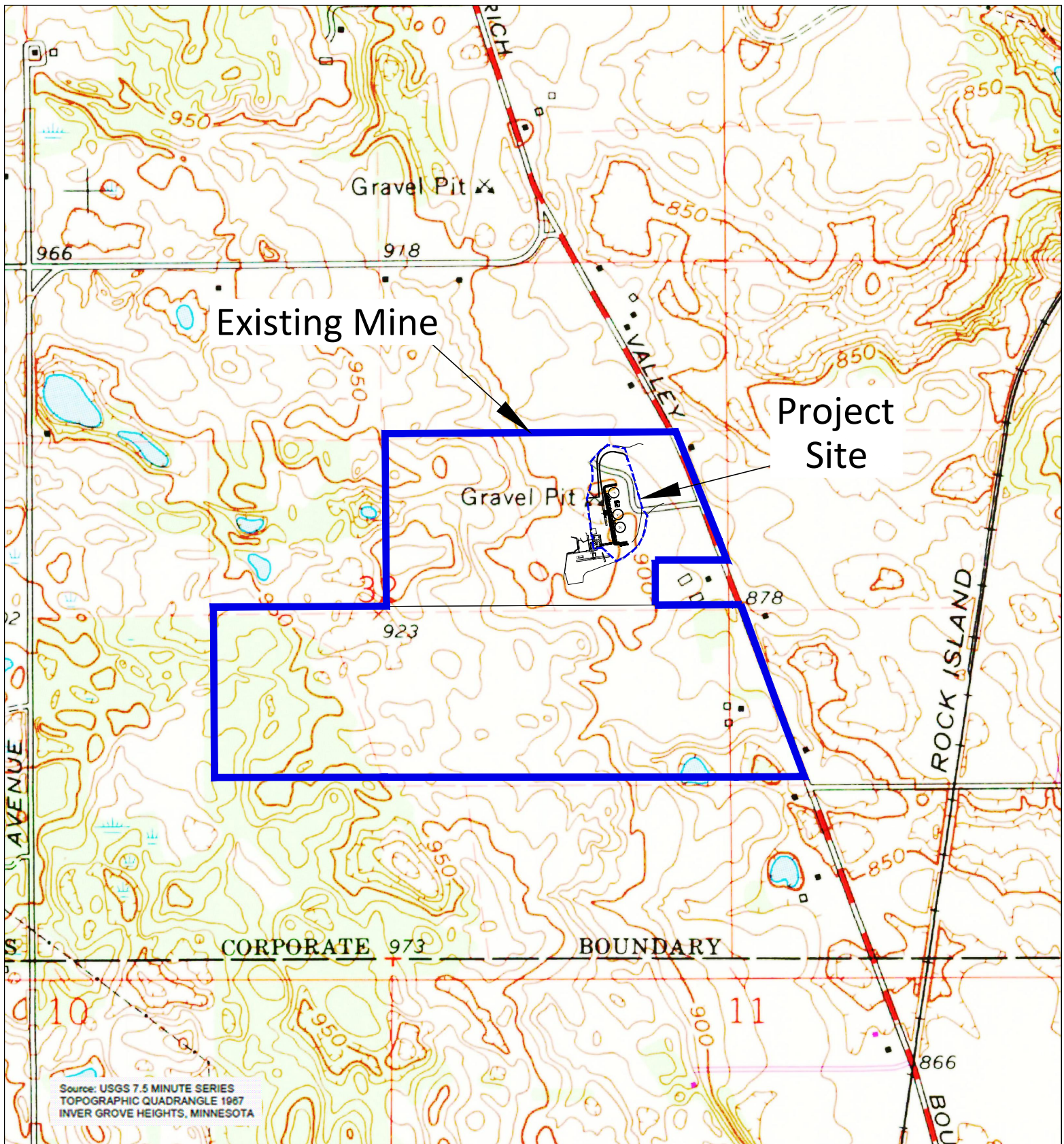
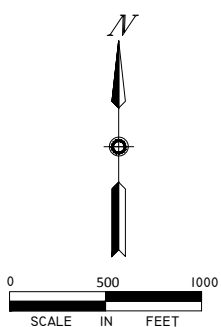
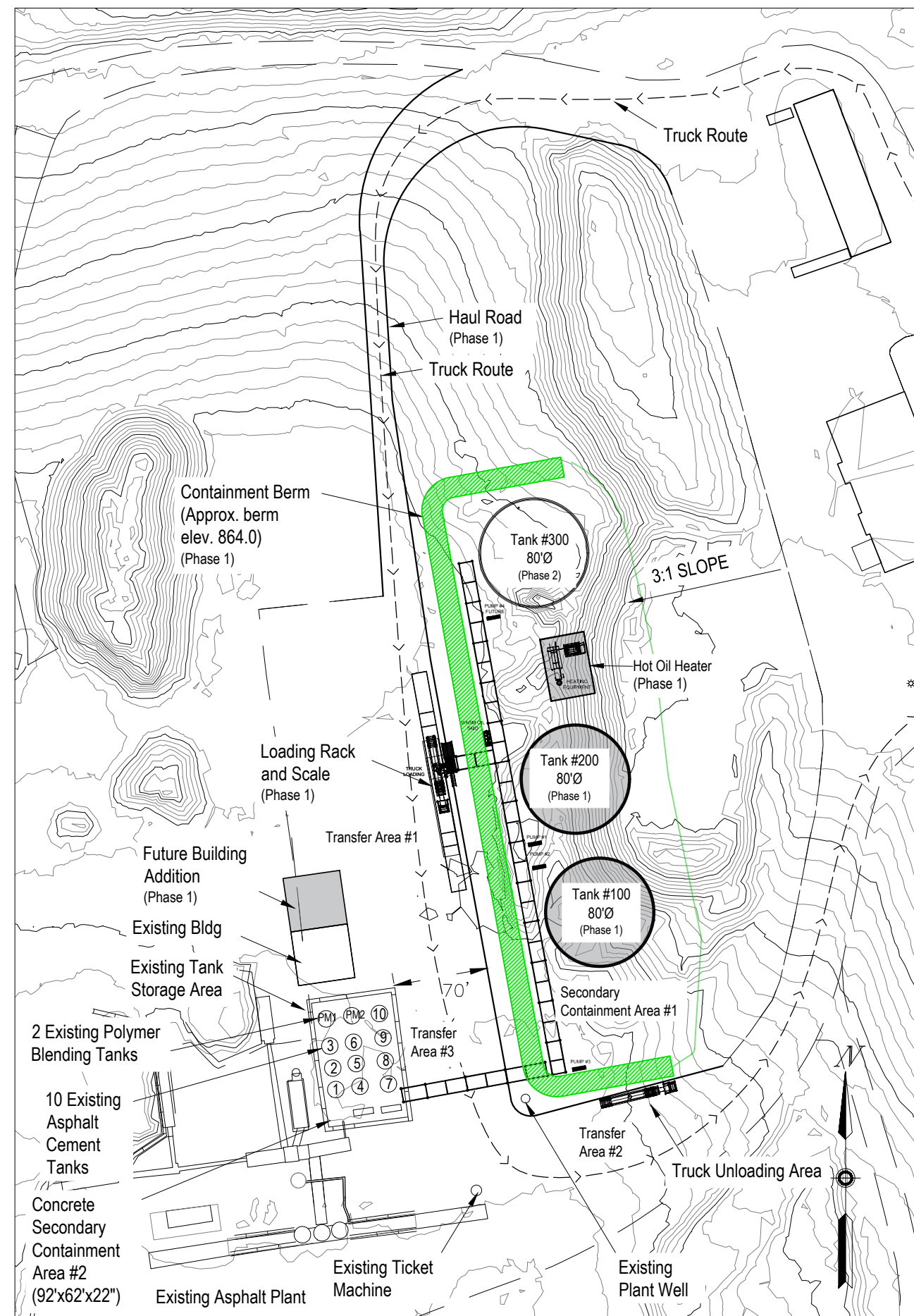
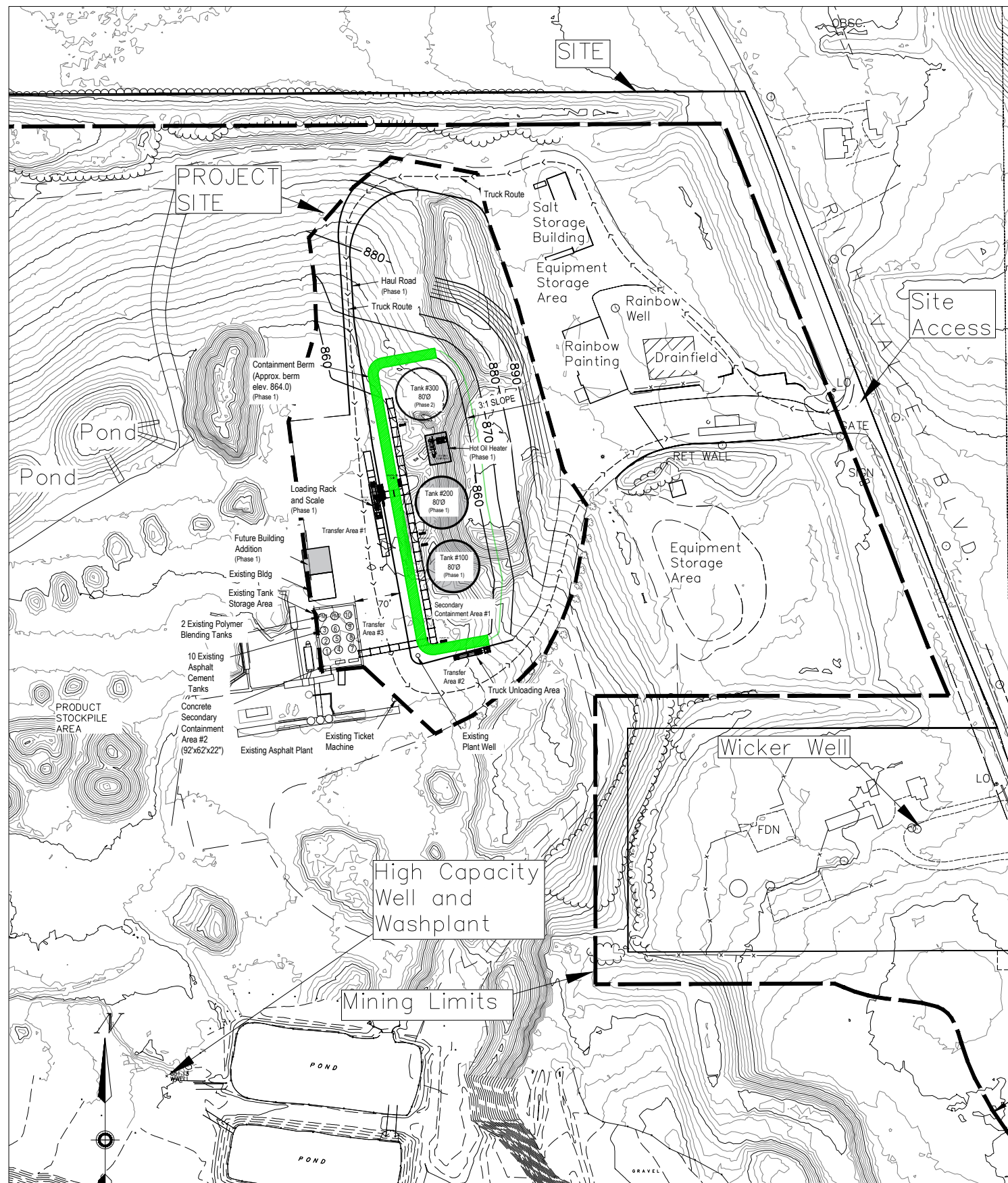


Figure 2
United States Geological Survey
Quad Map Excerpt

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Inver Grove Heights, Dakota County, MN





Facility Layout Detail



CIVIL AND ENVIRONMENTAL
ENGINEERING SERVICES
10830 NESBITT AVENUE SOUTH
BLOOMINGTON, MINNESOTA 55437
(952) 881-3344 TELEPHONE
(952) 881-1913 FAX
www.sundecivil.com

Figure 3
Site Plan
Asphalt Cement
Storage Facility

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Dakota County, Minnesota

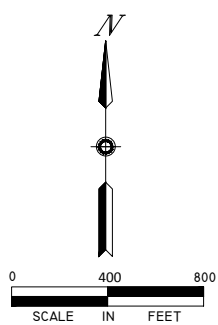
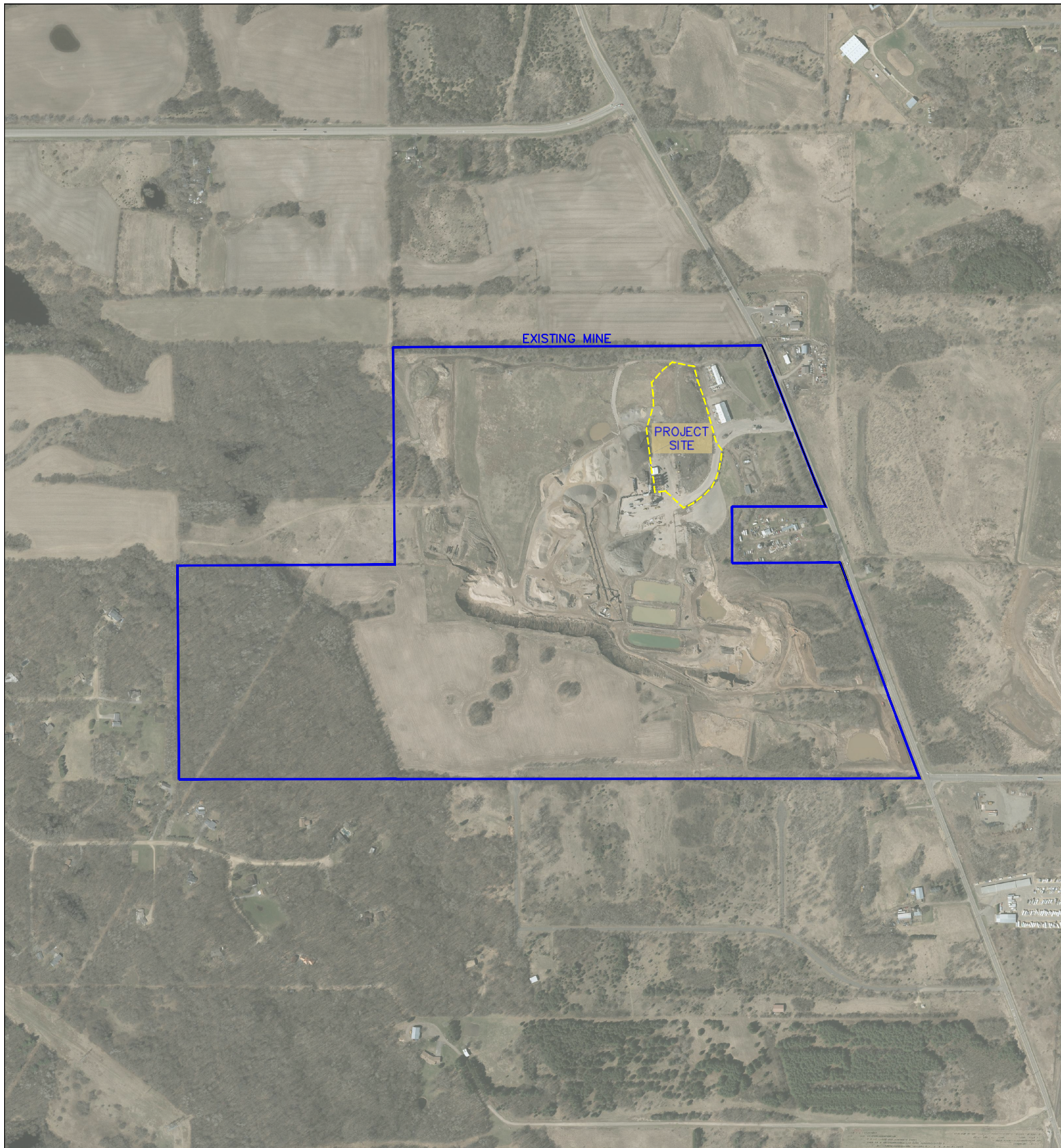
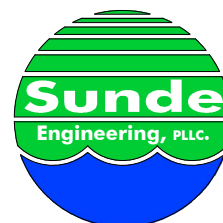


Figure 4
2019 Aerial Image

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Overlays

- North West Area
- ShoreLand Districts Lakes
- Sand and Gravel
- Critical Area
- IRM
- Industrial

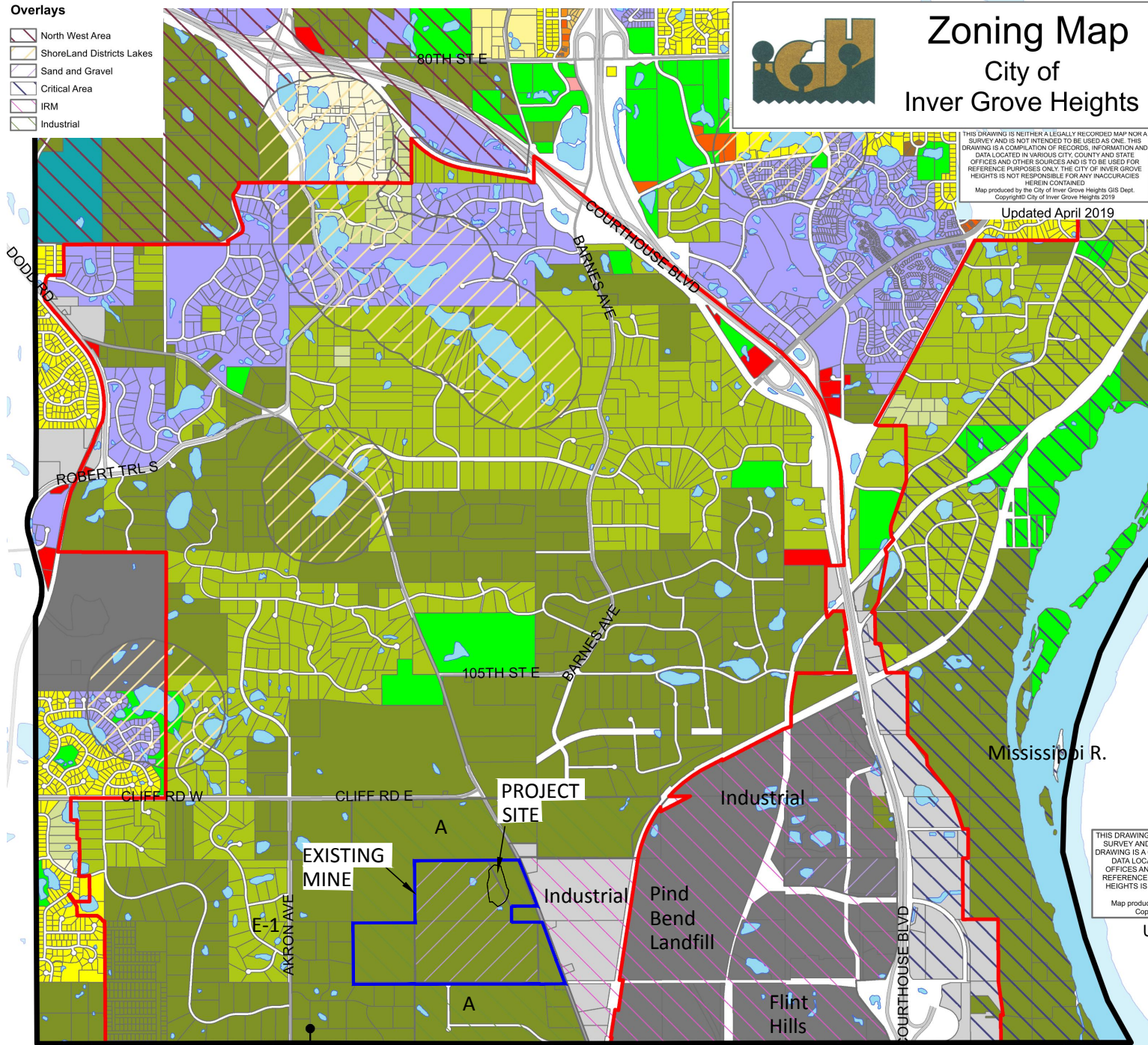


Zoning Map City of Inver Grove Heights

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Map produced by the City of Inver Grove Heights GIS Dept.
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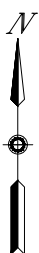
Updated April 2019



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Zoning

- | | | | | | |
|-------------------------|------------------------------------|-----------------------------|-------------------------------|-----------------------------|------------------|
| PUD | E-2, Estate (1.75 acres) | R-3A, 3-4 units an acre | B-2, Neighborhood Business | OFFICE PUD | P, Institutional |
| ROW, Right-of-way | R-1A, Single-family (40,000 sq ft) | R-3B, up to 7 units an acre | B-3, General Business | Comm PUD, Commercial PUD | |
| MUSA 2030 | R-1B, Single-family (20,000 sq ft) | R-3C, > 7 units an acre | B-4, Shopping Center | MF PUD, Multiple-family PUD | |
| A, Agricultural | R-1C, Single-family (12,000 sq ft) | R-4, Manufactured Home Park | OP, Office Park | I-1, Limited Industry | |
| E-1, Estate (2.5 acres) | R-2, Two-family | B-1, Limited Business | PUD, Planned Unit Development | I-2, General Industry | |

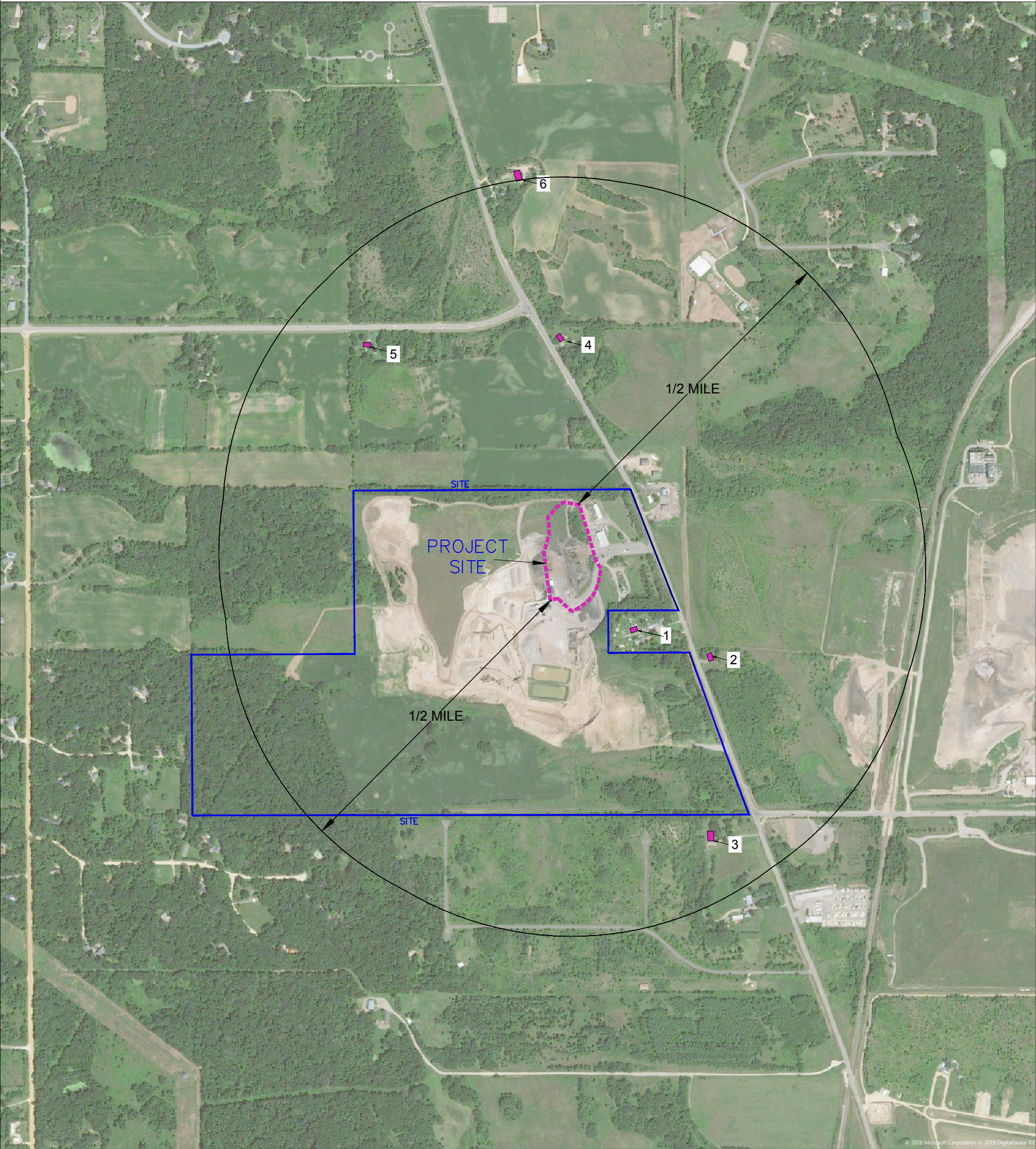


No Scale

Figure 5
Site and Surrounding Land Use Map

2020 PERMIT AMENDMENT
Bituminous Roadways, Inc.
Inver Grove Heights, Dakota County, MN





MAP ID NUMBER	RESIDENTIAL PROPERTY OWNER	PROPERTY ADDRESS	DISTANCE FROM PROJECT (FT)
1	Todd K and Linda D Wicker	11479 Rich Valley Blvd	564
2	Browning-Ferris Ind. Inc. c/o Republic Services	11516 Rich Valley Blvd	1039
3	Flint Hills Resources Pine Bend LLC	11805 Rich Valley Blvd	2099
4	Harriet S Cliff	11018 Rich Valley Blvd	1234
5	Peter G SG and Ruth A Silva	1518 Cliff Rd E	2008
6	TSA Holdings LLC	10805 Rich Valley Blvd	2632

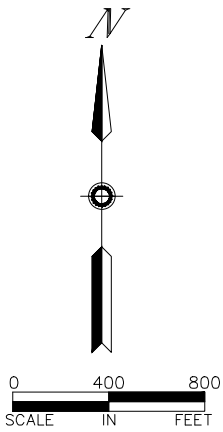


Figure 6
Residences Within $\frac{1}{2}$ Mile
of Project Site

2020 PERMIT AMENDMENT
Bituminous Roadways, Inc.



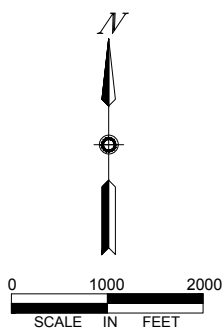
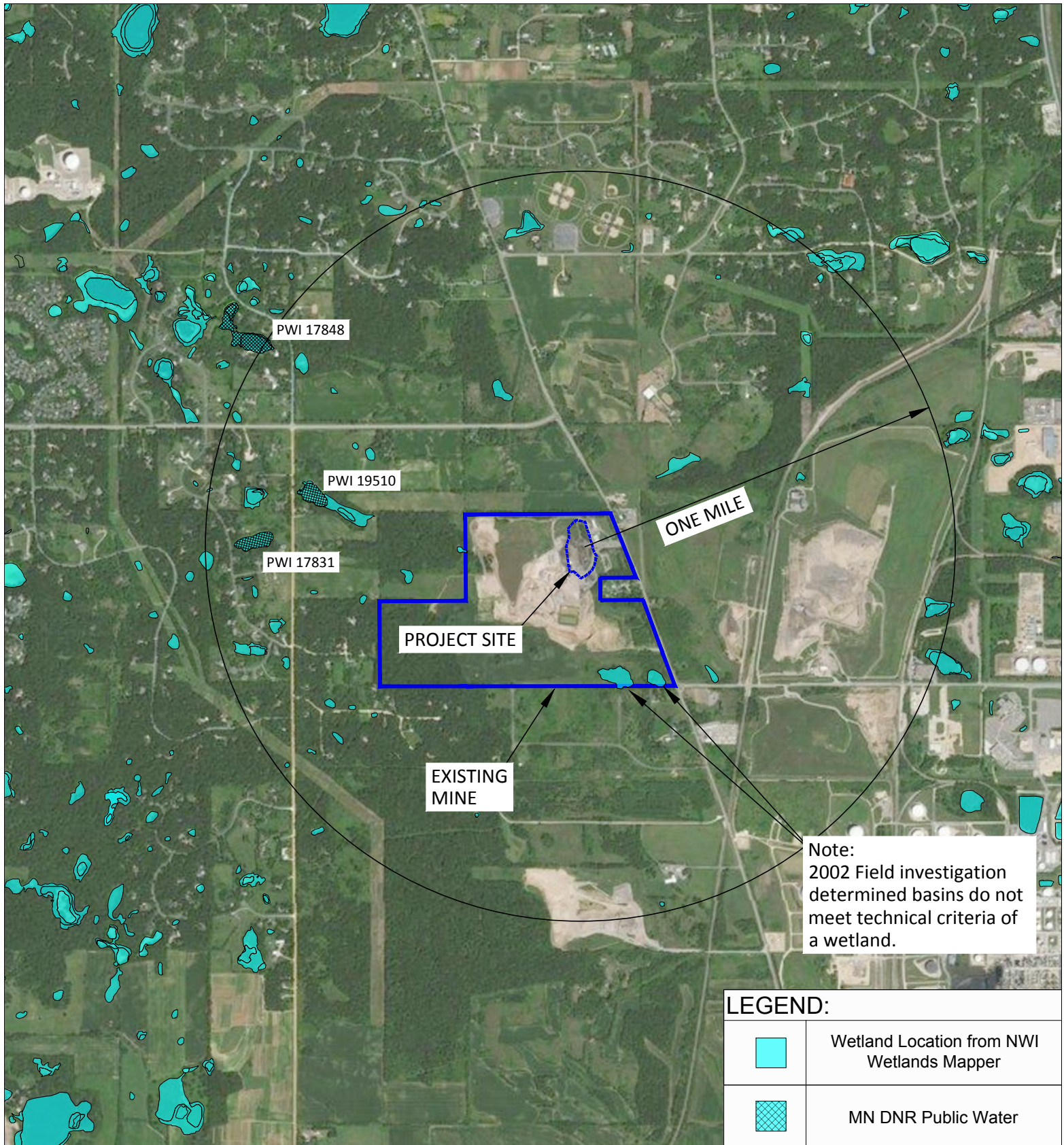
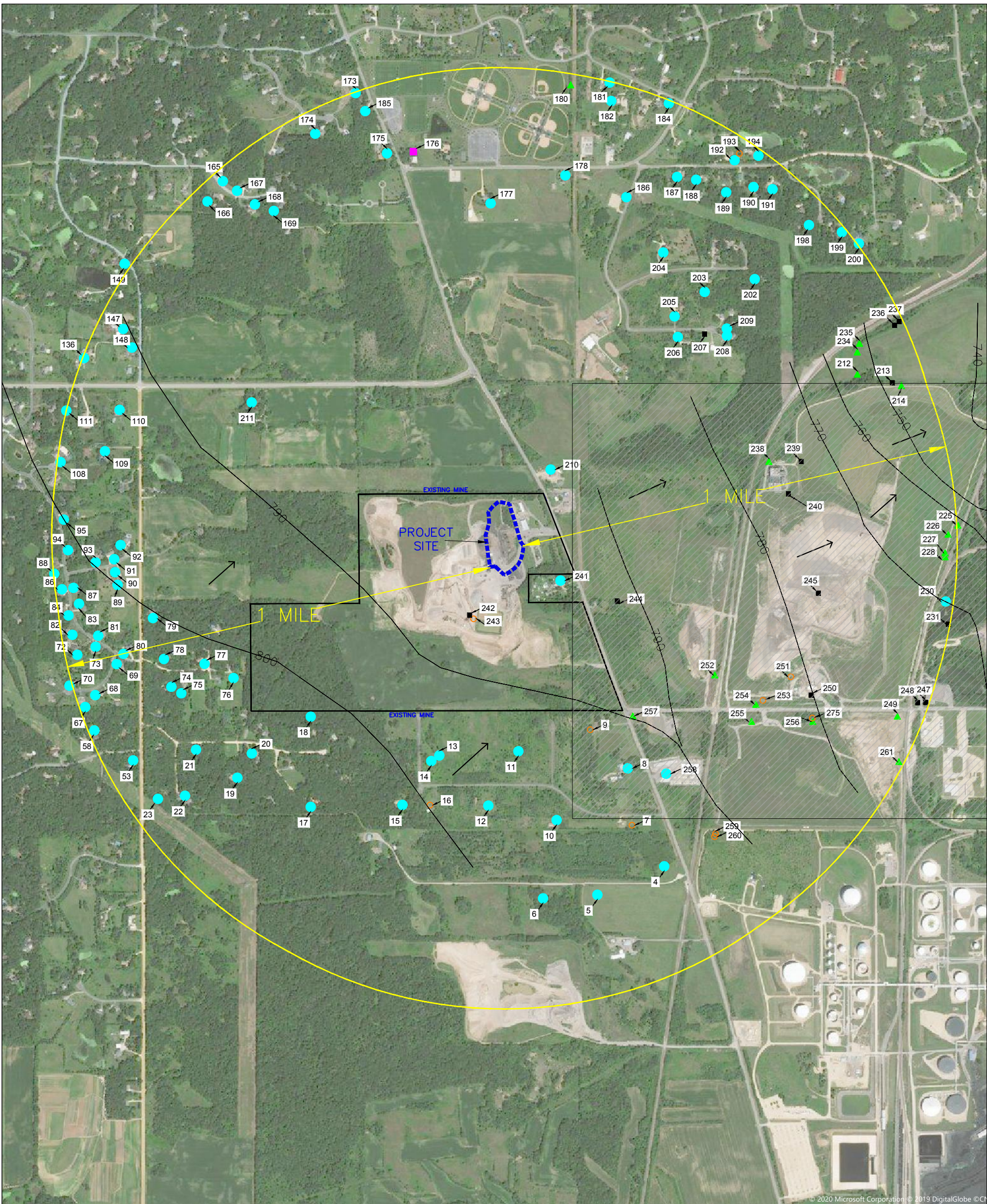


Figure 7
National Wetlands Inventory Map

2020 PERMIT AMENDMENT
Bituminous Roadways, Inc.
Inver Grove Heights, Dakota County, MN





KEY:

- Domestic Well
- Sealed Well
- Monitoring Well

- Irrigation Well
- Other Well

Special Well Construction Area
Persuant to Minnesota Rule
4725.3650

- Note:
- 1. No Wellhead Protection Areas are located within 1 Mile of the Site.
 - 2. Well locations from Minnesota Well Index.
 - 3. Groundwater contours from U.S. EPA's third five year review report for Pine Bend Sanitary Landfill dated February, 2010. Groundwater flows from east to west across the site.

Groundwater Flow Direction

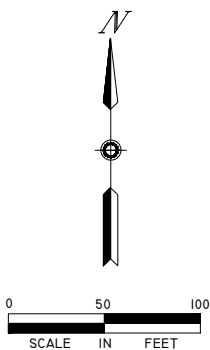


Figure 8
Wells Within 1 Mile of Project Site

2020 PERMIT AMENDMENT
Bituminous Roadways, Inc.
Inver Grove Heights, Dakota County, MN



Table 1: Well Index Table

*use table in conjunction with Figure 8

Key:		Other Well
		Irrigation Well
		Monitoring Well
		Sealed Well
		Domestic Well

MAP ID #	UNIQUE WELL NUMBER	DISTANCE TO PROJECT SITE (ft)	Well Elevation (msl in feet)
4	208395	4045	863
5	185296	4053	870
6	216474	3963	925
7	341833	3420	853
8	207296	2794	851
9	426388	2156	878
10	418677	3051	891
11	1000002642	2154	908
12	408264	2814	932
13	1000002106	2336	941
14	441870	2433	945
15	194255	3062	965
16	460151	2942	971
17	485593	3642	986
18	1000002331	2840	944
19	426968	4000	1000
20	540361	3678	983
21	194266	4210	965
22	463718	4638	961
23	451141	4927	970
53	437915	4937	1011
58	171744	5208	1023
67	608176	5211	1020
68	595100	5049	1014
69	608237	4692	991
70	595096	5315	1007
72	618538	5133	1005
73	658996	4895	1004
74	429858	4140	990
75	129284	4057	994
76	178503	3399	987
77	104127	3666	997
78	198256	4120	990
79	188001	4147	1004
80	596081	4582	994
81	591079	4839	1378
82	609807	5147	1007
83	626644	5019	1023
84	597213	5161	1023
86	561788	5214	1021
87	561634	5073	1020
88	552933	5301	1011
89	544946	4536	1007
90	546332	4560	1004
91	559253	4572	1012
92	593242	4501	1007
93	595089	4798	1007
94	587556	5137	1004
95	559252	5216	1004
108	765362	5249	1007
109	474330	4745	986
110	725082	4709	988
111	207301	5324	1000
136	608252	5263	974
147	136464	5028	975
148	668376	4840	971
149	412469	5393	971
165	783374	5144	1007
166	755293	5088	1030
167	793576	4943	997
168	768790	4676	1011
169	745826	4470	965
173	806045	5265	889
174	712710	5001	869

MAP ID #	UNIQUE WELL NUMBER	DISTANCE TO PROJECT SITE (ft)	Well Elevation (msl in feet)
175	101185	4450	885
176	686269	4383	882.5
177	460104	3631	886
178	425714	4051	883
180	804956	5135	878.3
181	481453	5269	879
182	427041	5057	900
184	437946	5255	892
185	751647	5055	896
186	186039	3991	865
187	408247	4467	850
188	451529	4547	852
189	451947	4615	852
190	190479	4863	886
191	464098	4987	877
192	768774	4996	882
193	441949	5094	883
194	402559	5205	882
198	100961	4977	863
199	159538	5223	870
200	435174	5298	880
202	420005	4046	856
203	410938	3503	866
204	494825	3583	885
205	429890	3038	886
206	437944	2881	876
207	511936	3145	873
208	634223	3343	863
209	441916	3396	876
210	821155	651	883
211	159480	3204	955
212	416161	4513	861
213	415942	4274	910
214	426270	4977	911
225	529489	5464	901
226	426264	5351	897
227	447845	5335	905
228	426261	5341	904
230	194079	5440	896
231	240189	5538	915
232	415941	6219	930
234	426265	4613	862.92
235	426266	4680	863
236	250019	5164	840
237	511905	5240	840
238	207293	3196	868
239	149795	3587	875
240	235962	3396	893
241	435227	543	889
242	780331	647	825
243	272766	651	825
244	415937	1287	878
245	207294	3671	970
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248	194078	5145	902
249	457203	4975	901
250	100014	3903	875
251	426248	3589	887
252	623390	2750	856
253	235965	3406	865
254	207295	3363	860
255	591624	3428	863
256	506612	4067	881
257	457201	2319	857
258	190488	3115	853
259	415939	4059	847
260	415938	4081	848
261	457204	5222	896
275	457202	4044	881

PLAN SHEETS



Asphalt Cement Storage Facility

Over Grove Heights
Minnesota

[illegible]

HEREBY CERTIFY THAT THIS PLAN,
SPECIFICATION, OR 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.

DATE: 04/29/2020 REG. NO.: 2184

FORMATION:

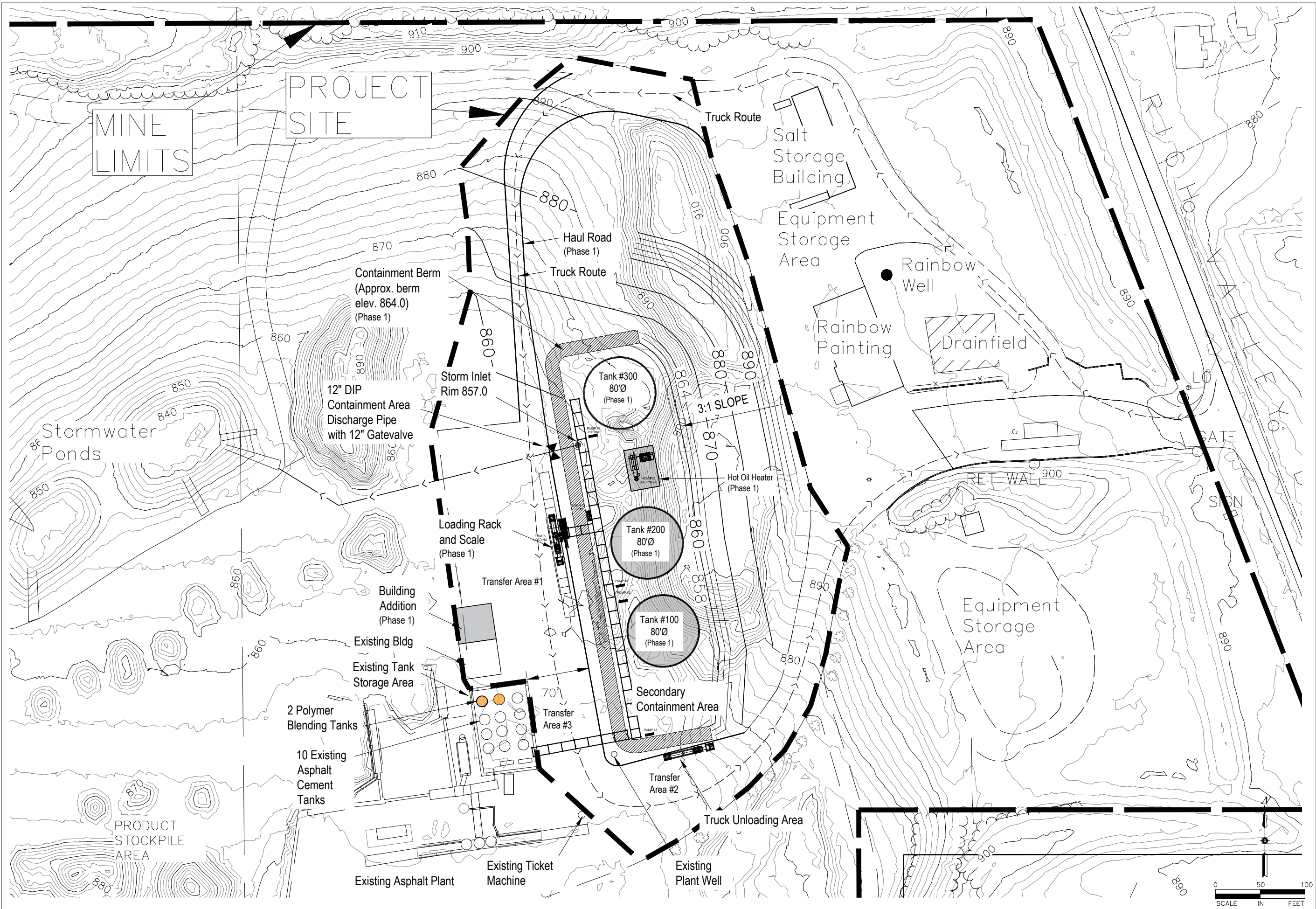
PROJECT NO.:	87-185
DRAWN BY:	MW
CHECKED BY:	BHM
APPROVED BY:	KP
SCALE:	graphic
DATE:	04/29/2020

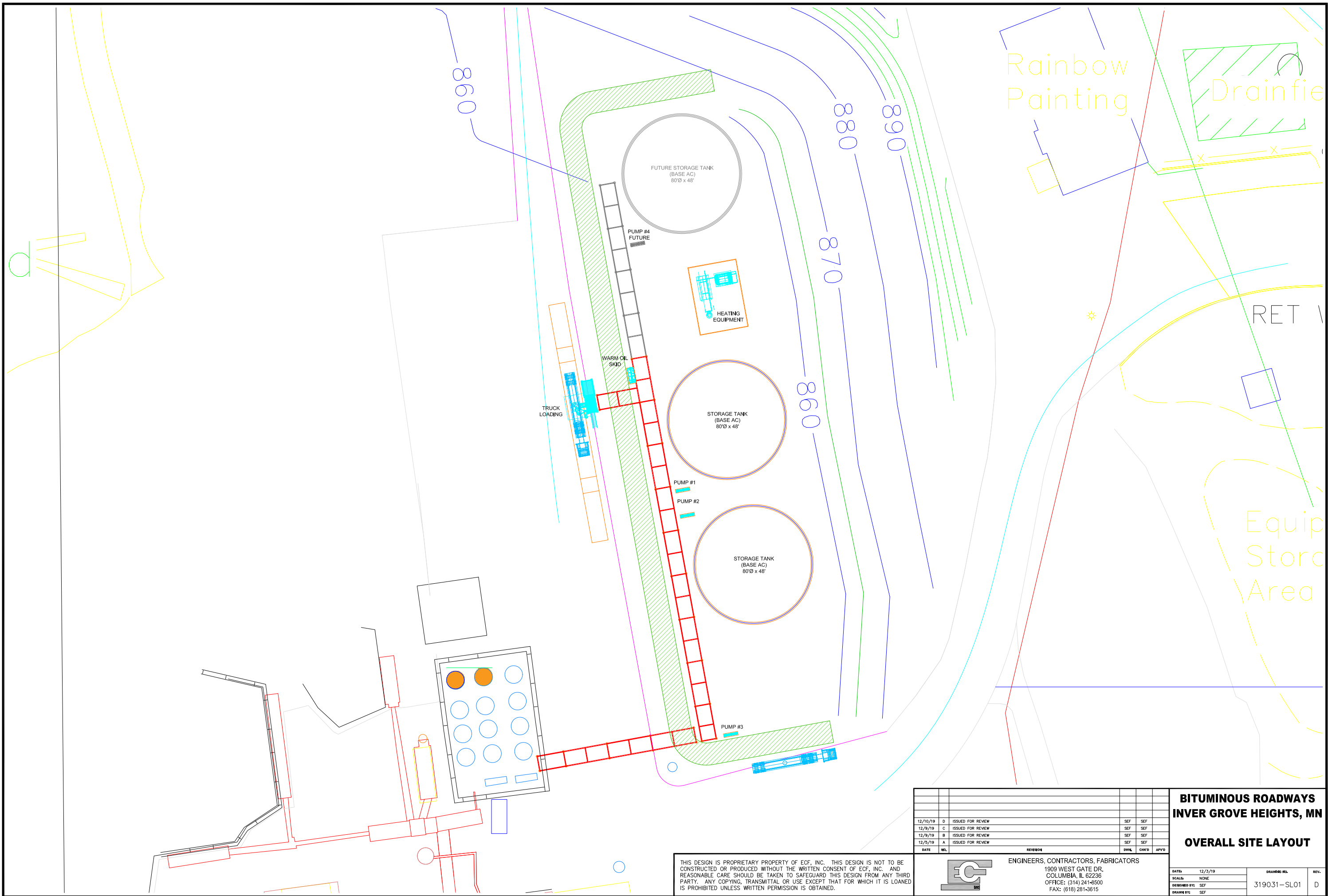
DESCRIPTION:

GRADING PLAN

SHEET NO: _____

C1





DATE	NO.	REVISION	DRAWN	CHKD	APVD
12/10/19	D	ISSUED FOR REVIEW	SEF	SEF	
12/9/19	C	ISSUED FOR REVIEW	SEF	SEF	
12/9/19	B	ISSUED FOR REVIEW	SEF	SEF	
12/5/19	A	ISSUED FOR REVIEW	SEF	SEF	

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ENGINEERS, CONTRACTORS, FABRICATORS
1909 WEST GATE DR.
COLUMBIA, IL 62236
OFFICE: (314) 241-8500
FAX: (618) 281-3815

**BITUMINOUS ROADWAYS
INVER GROVE HEIGHTS, MN**

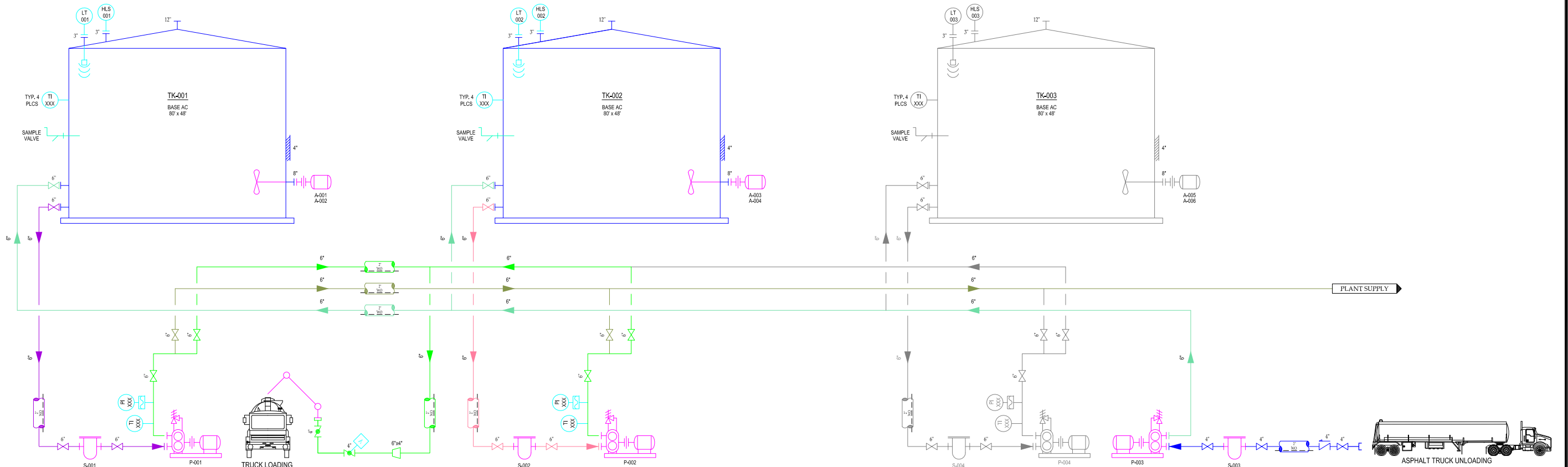
OVERALL SITE LAYOUT

DATE	12/3/19	DRAWING NO.	REV.
SCALE	NONE	319031-SL01	D
DESIGNED BY:	SEF		
DRAWN BY:	SEF		

TK-001
BASE AC TANK
SERVICE: BASE AC
SIZE: 80'0" x 48' TALL
CAPACITY: 1,800,000 GALLONS
ROOF TYPE: CONE
TANK MATERIAL: CARBON STEEL

TK-002
BASE AC TANK
SERVICE: BASE AC
SIZE: 80'0" x 48' TALL
CAPACITY: 1,800,000 GALLONS
ROOF TYPE: CONE
TANK MATERIAL: CARBON STEEL

TK-003
BASE AC TANK
SERVICE: BASE AC
SIZE: 80'0" x 48' TALL
CAPACITY: 1,800,000 GALLONS
ROOF TYPE: CONE
TANK MATERIAL: CARBON STEEL



S-001
BASKET STRAINER
CONNECTION: 6" 150# FF
BASKET: 304SS - 1/4" PERF.

P-001
PRODUCT PUMP
TYPE: POSITIVE DISPLACEMENT
SIZE: 6"
CAPACITY: 560 GPM @ 60 PSI
NPSH A/R: XX FT / XX FT
MOTOR: 60 HP @ 1,800 RPM
480V / 60Hz / 3 PHASE

S-002
BASKET STRAINER
CONNECTION: 6" 150# FF
BASKET: 304SS - 1/4" PERF.

P-002
PRODUCT PUMP
TYPE: POSITIVE DISPLACEMENT
SIZE: 6"
CAPACITY: 560 GPM @ 60 PSI
NPSH A/R: XX FT / XX FT
MOTOR: 60 HP @ 1,800 RPM
480V / 60Hz / 3 PHASE

S-003
BASKET STRAINER
CONNECTION: 6" 150# FF
BASKET: 304SS - 1/4" PERF.

P-003
PRODUCT PUMP
TYPE: POSITIVE DISPLACEMENT
SIZE: 6"
CAPACITY: 560 GPM @ 60 PSI
NPSH A/R: XX FT / XX FT
MOTOR: 60 HP @ 1,800 RPM
480V / 60Hz / 3 PHASE

S-004
BASKET STRAINER
CONNECTION: 6" 150# FF
BASKET: 304SS - 1/4" PERF.

P-004
PRODUCT PUMP
TYPE: POSITIVE DISPLACEMENT
SIZE: 6"
CAPACITY: 560 GPM @ 60 PSI
NPSH A/R: XX FT / XX FT
MOTOR: 60 HP @ 1,800 RPM
480V / 60Hz / 3 PHASE

A-001
SIDE ENTRY TANK MIXER
CONNECTION: 8"
SERVICE: 25 HP, 230/460
AC, THREE PHASE, 60Hz

A-002
SIDE ENTRY TANK MIXER
CONNECTION: 8"
SERVICE: 25 HP, 230/460
AC, THREE PHASE, 60Hz

A-003
SIDE ENTRY TANK MIXER
CONNECTION: 8"
SERVICE: 25 HP, 230/460
AC, THREE PHASE, 60Hz

A-004
SIDE ENTRY TANK MIXER
CONNECTION: 8"
SERVICE: 25 HP, 230/460
AC, THREE PHASE, 60Hz

A-005
SIDE ENTRY TANK MIXER
CONNECTION: 8"
SERVICE: 25 HP, 230/460
AC, THREE PHASE, 60Hz

A-006
SIDE ENTRY TANK MIXER
CONNECTION: 8"
SERVICE: 25 HP, 230/460
AC, THREE PHASE, 60Hz

A-007
SIDE ENTRY TANK MIXER
CONNECTION: 8"
SERVICE: 25 HP, 230/460
AC, THREE PHASE, 60Hz

A-008
SIDE ENTRY TANK MIXER
CONNECTION: 8"
SERVICE: 25 HP, 230/460
AC, THREE PHASE, 60Hz

**BITUMINOUS ROADWAYS
INVER GROVE HEIGHTS, MN**

**P&ID
PRODUCT**

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ENGINEERS, CONTRACTORS, FABRICATORS
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COLUMBIA, IL 62236
OFFICE: (314) 241-6500
FAX: (618) 281-3615

DATE	12/5/19	DRAWING NO.	319031-PID01	REV.	A
SCALE	NONE				
DESIGNED BY:	SEF				
DRAWN BY:	SEF				

TK-003
BASE AC TANK
SERVICE: BASE AC
SIZE: 80'Ø x 48' TALL
CAPACITY: 1,800,000 GALLONS
ROOF TYPE: CONE
TANK MATERIAL: CARBON STEEL



		P&ID
		HOT OIL AND WARM OIL

DATE:	12/5/19	DRAWING NO. 319031-PID02	REV. A
SCALE:	NONE		
DESIGNED BY:	SEF		
DRAWN BY:	SEF		

Technical Memorandum

To: Ally Sutherland, City of Inver Grove Heights
From: Andrew Skoglund
Subject: Bituminous Roadways, Inc. Environmental Assessment Worksheet Review
Date: 8/05/2020
Project: 23190218
c: Jeff Ubl; Barr Engineering Co.

The City of Inver Grove Heights (City) retained Barr Engineering Co. (Barr) assist in review of the Environmental Assessment Worksheet (EAW) for Bituminous Roadways, Inc.'s (BRI) proposed asphalt cement storage facility project. This memorandum summarizes our review of:

- The draft EAW published in the Environmental Quality Board Monitor on July 20, 2020,
- The MPCA's EAW deficiency email dated January 28, 2020 and BRI's (Sunde's) two response emails and attachments dated March 27, 2020, and
- Air quality modeling files from the MPCA received by Barr on July 22, 2020.

Introduction

BRI has applied for the addition of an asphalt cement storage facility to their existing operation on Rich Valley Boulevard and has prepared an EAW as part of that process. Therefore, the City of Inver Grove Heights has retained Barr to assist with the City's review of the EAW and associated information described above.

A facility of this type could have potential impacts involving surface water, groundwater, air quality, odor, noise, visibility, and traffic. Therefore, the scope of our EAW review focuses on these potential impacts to determine if they are addressed in the EAW and, if so, whether appropriate methods or models were used to evaluate the potential impacts.

Surface Water

Impacts to surface water are projected to be minimal. There are no changes to existing drainage to surface waters/wetlands associated with the project. The EAW notes BRI is currently revegetating disturbed areas as part of stormwater best management practices. There are no expected changes to the surface water management associated with the proposed project.

Wastewater discharged to surface water is limited to the one-time hydrostatic testing of the new tanks. Tests are planned to source water from an existing well on site, with test water discharged to wash water ponds onsite for re-use in the wash plant. The EAW notes that BRI has current capacity to accommodate this additional water in the ponds.

Stormwater is proposed to continue being managed under the site SWPPP, to be updated to include the project elements. The EAW notes secondary containment around the tanks will be valved and inspected prior to discharge. Minor sheen will be absorbed and/or skimmed as needed, with response to larger spills handled according to SPCC and crisis management plans. Most of the project area will be graded to route stormwater to existing stormwater ponds in the pit.

No significant change to surface waters is projected since the project area drains internally, with no outside discharge planned.

Groundwater

The project site overlays the Prairie du Chien-Jordan and Franconia Iron-ton-Galesville aquifers, but is not in a wellhead protection area. There are two site wells associated with the mine, one for sand and gravel wash and one at the asphalt plant. There is another active well associated with the Rainbow Painting building, as well as a sealed well from the prior farmstead on the site. BRI conducts surface and groundwater monitoring associated with the current Conditional Use Permit issued by the City, with results submitted to the City annually.

The EAW notes that groundwater is 70-80 feet below the mine floor and asphalt is expected to cool and solidify well before any spill could reach groundwater and would be readily cleaned up. The secondary containment area is planned to have a clay-lined base and have a capacity for 110% of the largest tank capacity (consistent with SPCC requirements). The floor of the mine itself is compacted sand and gravel and through which contaminants can generally rapidly pass through. However, the EAW notes that spilled asphalt is expected to solidify quickly near the surface and not migrate deeper, and spills would be readily cleaned up and disposed of via available processes on site.

Groundwater use impacts from the project would be limited to a temporary additional appropriation for the hydrostatic test of the tanks. The EAW projects approximately 2.0 MGal to be needed, under a special temporary permit. Based on pumping capacity noted under the existing wash plant appropriations permit, this additional water would be equivalent to approximately 3 days of pumping at the currently permitted pump rate. No significant impact is expected from this additional use.

Air Quality

The facility is currently operated under an option D registration air permit. The EAW notes that the combined 2018 emissions inventory rates, plus the maximum projected potential project emissions, remain below 50 tons per year, so the facility expects to remain under option D, with no additional air permitting required.

The EAW includes modeling assessment of criteria pollutants emissions versus National/Minnesota Ambient Air Quality Standards (NAAQS/MAAQS). Modeling was also used for input to the health risk assessment analysis.

The analysis used MPCA's lookup tool to assess H₂S for impacts at 0.1 km from project to property boundary. The conversion of lookup tool results (which are in intervals as short as one hour) to 30 minute concentrations is unclear, but results do not appear unreasonable. The MPCA lookup tool is intended to provide a conservative screening estimate of concentrations, and seems a reasonable choice here.

The American Meteorological Society/Environmental Protection Agency Regulatory Model (AERMOD) was run for assessment of criteria pollutants as well as for input to the risk assessment. Most pollutants modeled below the Significant Impact Level (SIL), below which no further analysis is required. Impacts modeling below the SIL are regulatorily considered not to cause or contribute to potential air quality issues. The modeling indicated the project impacts exceeded the NO₂ 1-hour SIL which in turn required a cumulative analysis of 1-hour NO₂ impacts compared to the NAAQS. The refined NO₂ modeling indicated potential exceedance of the 1-hour NO₂ NAAQS. However, a culpability assessment indicated BRI contributed 5.94 µg/m³ of the modeled impact. This is below the 7.52 µg/m³ SIL which indicates that BRI is not significantly causing or contributing to the modeled NAAQS exceedance for NO₂.

Modeled concentrations were also used in the EAW for input to MPCA's risk assessment spreadsheet (RASS). The calculated risks were reported to be less than 10% of both chronic and acute health risk thresholds.

The air quality modeling emission inputs were based on a 24-hour, year-round operation (8,760 hours per year), though BRI generally operates seasonally, 7am to 7pm. This provides conservatism to the air assessment, as actual operations are expected to be markedly lower than those modeled (average operating hours noted in the EAW are 2,304 hours per year).

Vehicle emissions are not part of the regulated stationary source however the project reflected only a minor increase in truck trips of 2.6% annually. Vehicle emissions minimization practices are proposed, including use of properly maintained equipment, not idling when not in use, not tampering with emissions equipment, and using newer equipment when practical.

Dust management is not proposed to change onsite, with best management practices continued for traffic emissions, utilizing watering and sweeping as needed.

For air quality effects, the project is not a significant contributor to modeled exceedances of air quality standards and model results are below regulatory thresholds for human health risk.

Odor

H₂S screening from tank vents using the MPCA lookup tool resulted in expected H₂S concentrations below odor thresholds at 0.1 km. This would indicate that odor impacts from the project are not expected at 0.1 km from the project. The nearest residence noted in the EAW is 750 feet (0.23 km) from the project, which is outside the 0.1 km distance used for the lookup spreadsheet screening.

Noise

Noise impacts of the project are not projected to be significant. There will be limited additional activity associated with construction of the tanks, which will be daytime only, 6 days per week. The project is located within the existing mine pit. Barr's 2018 study of potential BRI impacts to residences west of the facility indicated that activity within the mine pit does not significantly affect noise levels to the west. The EAW assessment that the project would also not affect levels is consistent with these observations. The EAW notes consultation with the City and County indicated no complaints, though the 2018 monitoring was performed in response to community concerns. However, these may not have been registered as a formal complaint.

Visibility

Visual impacts noted in the EAW are limited to the project lighting for security. The project and tanks won't be visible from outside the mine site. The added security lighting associated with the project would not be expected to impact off site viewers. Visual effects will continue to be mitigated by existing berms and vegetation surrounding the site.

Traffic

Construction of the tanks will result in very small increases in truck traffic, up to 4 additional truckloads/week. Construction is projected to last between six months to one year. Once in operation, there will be additional non-construction season traffic associated with loading the tanks. At its maximum, this could amount to 40 loads per day (80 trips), for up to 25 days. This is associated with 8 trips per hour which is limited by the filling process. The tank filling process is noted to occur once per year. During the construction season, asphalt hauling from the project is projected to add a peak of 12 truckloads/day, but averaging 2-3 loads per day. The EAW notes that some of these loads will be offset by no longer hauling in asphalt loads to the asphalt plant. Combined asphalt plant and project trucking is projected to result in peak traffic of 50 trips/hour.

The EAW notes that traffic on CSAH 71 (Rich Valley Boulevard) is 5,300 vehicles/day (MNDOT 2018 traffic counts). Winter filling activity would reflect an increase in traffic of 1.5%, and construction season trucking a very slight increase (0.04%). The EAW cites Dakota County traffic modeling indicating the road is operating under capacity and will continue to do so for 2030 projected traffic levels. No significant traffic-related impacts are expected from the project.

Summary and Conclusions

The project adds new function to the site, but overall activities will remain largely the same. No changes to cover type, land use, or noise are expected as all activity associated with the project is within the mine pit. No groundwater or surface water effects are expected. The project is not a significant contributor to modeled NAAQS exceedances, and was modeled below health risk thresholds. Traffic impacts are limited to minor increases during the construction off-season when loading the tanks, and negligible increase in-season. County forecasts are for the road to have available capacity well into the future. The EAW

To: Ally Sutherland, City of Inver Grove Heights
From: Andrew Skoglund
Subject: Bituminous Roadways, Inc. Environmental Assessment Worksheet Review
Date: 8/05/2020
Page: 5

addresses the comments received from MPCA and uses models appropriately (and conservatively) where needed. We believe appropriate methods, models, or calculations were used to assess the impacts to surface water, groundwater, air quality, odor, noise, visibility, and traffic. Therefore, Barr has no comments on the draft EAW.

**CITY OF INVER GROVE HEIGHTS
DAKOTA COUNTY, MINNESOTA**

RESOLUTION NO. 12-175

RESOLUTION APPROVING A CONDITIONAL USE PERMIT AMENDMENT FOR THE PROCESSING OF SAND AND GRAVEL, AN ASPHALT PLANT AND CONTRACTOR'S YARD

CASE NO. 12-17CZA
(Bituminous Roadways)

WHEREAS, an application for Conditional Use Permit Amendment has been submitted for property legally described as the following;

That part of the S ½ of the NE ¼ of Section 32, Township 27, Range 22, lying westerly of Rich Valley Boulevard; except that part described as follows: Commencing at the SE corner of said S ½ NE ¼; thence west along the south line thereof, a distance of 592.43 feet; thence north 344.9 feet; thence east 570 feet to the centerline of Rich Valley Boulevard; thence southeasterly along said centerline, a distance of 67 feet to the east line of said S ½ NE ¼; thence south 281.85 feet to the point of beginning. Part of PID # 20-03200-011-05, and

The Northeast Quarter of the Southwest Quarter and the North One-Half of the Southeast Quarter, Section 32, Township 27, Range 22, and all of that tract of land lying West of Highway 5 in the Northwest Quarter of the Southwest Quarter, Section 33, Township 27, Range 22; subject to an easement to Minnesota Northern Natural Gas Company, as described in Deed recorded in Book 193 of Deeds, page 374. PID No. 20-03200-010-75, 20-03200-020-50.

WHEREAS, the aforescribed property is currently zoned A, Agricultural and S&G, Sand and Gravel Overlay;

WHEREAS, all conditional use permits are subject to the criteria listed in City Code Title 10, Chapter 3, Article A, Section 10-3A-5, regarding consistency with the Comprehensive Plan, conformity with the Zoning Ordinance and compatibility with adjacent properties, among other criteria;

WHEREAS, a public hearing concerning the Conditional Use Permit was held before the Inver Grove Heights Planning Commission in accordance with Minnesota Statutes, Section 462.357, Subdivision 3 on August 9, 2012;

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF INVER GROVE HEIGHTS, that a Conditional Use Permit Amendment for the processing of sand and gravel, an asphalt plant and a contractor's yard with open storage is hereby granted for the aforescribed property, subject to the following conditions:

1. Resolutions No. 07-122 and the conditions therein shall become null and void.
2. All terms and conditions of the approval of the temporary Sand and Gravel Zoning District for the property shall apply to all the operations on the site specifically stated herein, except where said terms and conditions may be modified by the conditions below, then the conditions of this permit shall prevail.
3. Approval of this conditional use permit shall be valid for the duration of the Temporary Sand and Gravel Zoning or until such time that the sand and gravel operation on site shall cease to continue if such time frame is shorter. The sand and gravel operation and the approval granted herein shall terminate concurrently.
4. Where violations of the conditions of this permit are noted, the City is authorized to immediately terminate all operations on the site and resumption of operation will not be permitted until such violation is rectified.
5. The processing of the sand and gravel shall include, but not limited to; mining, crushing, screening, washing, sorting and blending into and stockpiling a variety of aggregates, and the recycling and stockpiling of concrete and rock products.
6. The contractor's yard shall be used in substantial conformance with the plan entitled "Existing Conditions" dated 1/8/07, on file with the Planning Division.
7. The location of the asphalt plant shall remain in its existing position and shall not be relocated.
8. All buildings shall be removed from the site within three (3) months of the closure of the facility.
9. Storage of equipment and vehicles for Rainbow Painting shall be limited to the building designated "garage" on the approved site plan and the adjacent area located south of the metal building.
10. All plans submitted by the applicant shall be subject to the review and recommendations made by the City Engineer and Director of Public Works.

11. Monitoring shall be conducted every other year at the single ground water well on site known as the "Rainbow well" and on the Todd Wicker and Robert Plan property, that consists of arsenic, barium, cadmium, chromium, copper, lead, mercury, nickel, selenium, silver, zinc, DRO, GRO, phenol, pH, electric conductivity and alkalinity. The monitoring shall occur at half the wells one year and the other half the next year. Parameters and protocols shall be as agreed to by Dakota County, the City and Bituminous Roadways.
12. The owner shall provide the City Engineering Division full access to the property for an annual storm water maintenance, erosion control, and sediment control inspections.
13. The operator is responsible for obtaining all required permits for the wash water well from the appropriate state and or county agencies and must meet all DNR requirements, obligations and protocols for a well appropriations permit, including responsibilities and protocols for any remedial actions and those responsibilities and protocols for any compensation or damages from the loss of well use affected neighboring properties. Any change or any application for an appropriation permit for an aquifer different than the one that has been identified would require and amendment to the conditional use permit.
14. Bituminous Roadways shall provide a voluntary well interference protocol agreement for neighboring properties within ½ mile of the well requesting to be a party thereto. The agreement shall be prepared by Bituminous Roadways and shall stipulate procedures to follow should well problems occur. The agreement between the parties is strictly voluntary and not required for the well to be operational.

BE IT FURTHER RESOLVED that the Deputy Clerk is hereby authorized and directed to record a certified copy of this Resolution at the Dakota County Recorder's Office.

Adopted by the City Council of Inver Grove Heights this 9th day of October, 2017.

George Tourville, Mayor

Ayes: 5
Nays: 0

ATTEST:

Michelle Tesser, City Clerk

From: [john.wendt](#)
To: [Allan Hunting](#)
Cc: [Linda Dehrer-Wendt](#); [George Tourville](#); [Rosemary Piekarski-Krech](#); [Tom Bartholomew](#); [Brenda Dietrich](#); [Kara Perry](#)
Subject: The request for Bituminous Roadways Case No 20-12CA
Date: Friday, September 11, 2020 12:01:22 PM

Dear Mr. Hunting,

I will be brief and to the point.

If I understand it correctly, Bituminous Roadways is asking for a conditional use permit amendment and an amendment to the sand and gravel overlay district to add a bulk storage facility to load, store, and unload asphalt cement on the property.

This is not just one facility. This would be for three 1.8 million gallon above ground storage tanks. I presume BR is asking for this CUP for efficiency sake. BR is currently working under a five year Conditional Use Permit that was issued in October of 2017 and will be up for renewal in 2022.

I know how important BR is to the community. But, I also know that the sand and gravel that they are removing will end some time. And when that ends BR will move out.

Before granting this particular CUP amendment perhaps we should be proactive and ask BR what the very specific plans are for remediation and tank removal when their operations end.

Again, we are talking about three 1.8 million gallon above ground storage tanks. Let me repeat three 1.8 million gallon storage tanks.

We would like to have the answers before this CUP is granted.

Thank you.

John Wendt
1111 105th Street West
Inver Grove Heights, MN 55077
Professor Emeritus
Former Director, MBA in Environmental Management
University of St. Thomas

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